



Board of Studies (Academic)

**The Institute of Chartered  
Accountants of India**

(Set up by an Act of Parliament)

# INTEGRATED COURSE ON INFORMATION TECHNOLOGY AND SOFT SKILLS (ICITSS)

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## **PART-A** **INFORMATION TECHNOLOGY** MODULE 1



# **INTEGRATED COURSE ON INFORMATION TECHNOLOGY AND SOFT SKILLS (ICITSS)**

## **COURSE MATERIAL MODULE – I**



**Board of Studies (Academic)**  
**The Institute of Chartered Accountants of India, New Delhi**

## **Integrated Course on Information Technology and Soft Skills (ICITSS) Part-A (Information Technology)**

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# PREFACE

The revolutionary developments of various IT tools and techniques have a far-reaching impact on the organizations. The survival and growth of a dynamic profession such as Chartered Accountancy depends largely on adoption of new techniques/methods and equipping the students to face the emerging challenges in this globalized competitive business environment. The Institute of Chartered Accountants of India has been incessantly making earnest efforts to develop a contemporary curriculum for honing knowledge and skill sets of CA students.

Keeping in view the changes in the various IT tools and techniques, the Institute has revised its syllabus of Information Technology Training under its New Scheme of Education and Training. While formulating the syllabus, the focus has been laid primarily on the application software relevant for Accounting and Auditing so as to enable CA articles with requisite IT skills beneficial to them during their Articleship.

- Success in today's office-based environment is assessed based on the computer literacy of an individual. **MS Office Tools** is considered as a necessary computing skills for being employable in the market.
- The knowledge of **CAAT Tools** enable budding professionals to better analyze the data, detect fraud/mistakes, recommend steps to ensure better control and efficient functioning of business, apart from offering compliance services.
- The **Overview of Statutory & Tax Compliances** is critical for budding accountants to understand compliances under various laws.
- The practical hands-on **Accounting Software** during the Articleship helps them in recording and managing day-to-day financial transactions of clients in the CA firms.

The Board of Studies (Academic) has thoroughly revised its course material prepared in accordance with the especially designed curriculum to disseminate quality education to its students. We hope that this course material would help the students in building their IT skills which is a must for all, in the current scenario.

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# The Institute of Chartered Accountants of India

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UNIT

**1**

E-learning  
Basics of  
MS Word



# CHAPTER 1

## FORMAT TEXT AND PARAGRAPHS



### LEARNING OBJECTIVES

- ✓ Understand the importance of proper text and paragraph formatting in Microsoft Word for creating professional and visually appealing documents.
- ✓ Learn how to change font styles, sizes, and apply special effects to text to enhance document appearance.
- ✓ Familiarize with text alignment options and how to adjust text alignment to left, center, or right as needed.
- ✓ Gain proficiency in adjusting line spacing to improve document readability, including options for double-spacing.
- ✓ Master the technique of indenting text for academic documents, enhancing visual structure and readability.
- ✓ Learn how to set 1-inch margins on all sides of a document to meet standard academic formatting requirements.
- ✓ Acquire the skill of inserting headers and footers to include information at the top and bottom margin of the document and ensure proper sequencing when combining with page numbers.
- ✓ Learn about different types of breaks in Microsoft Word, including page breaks and section breaks, and their respective applications.

### 1.1. BASIC FORMATTING

In this module, we will explore the essential techniques and tools to format text and paragraphs in Microsoft Word. Proper formatting is crucial for creating professional and visually appealing documents. Whether you are working on academic papers, reports, or any other document type, understanding text and paragraph formatting will help you present your content effectively. We will cover various aspects of formatting, including font styles, alignment, line spacing, indentation, margins, headers, footers, and page breaks. By the end of this module, you will have the skills to enhance the appearance and structure of your documents, making them more organized and reader friendly.

For any type of measurements, we can use different scales in our word document. For changing the scales following the procedure.

**Step 1:** Click the File menu tab and select the feature “Options”.



Figure 1- Scale Change

**Step 2:** Click the side tab “Advanced” and scroll down to the display category. Now here in this section you can change the scale.

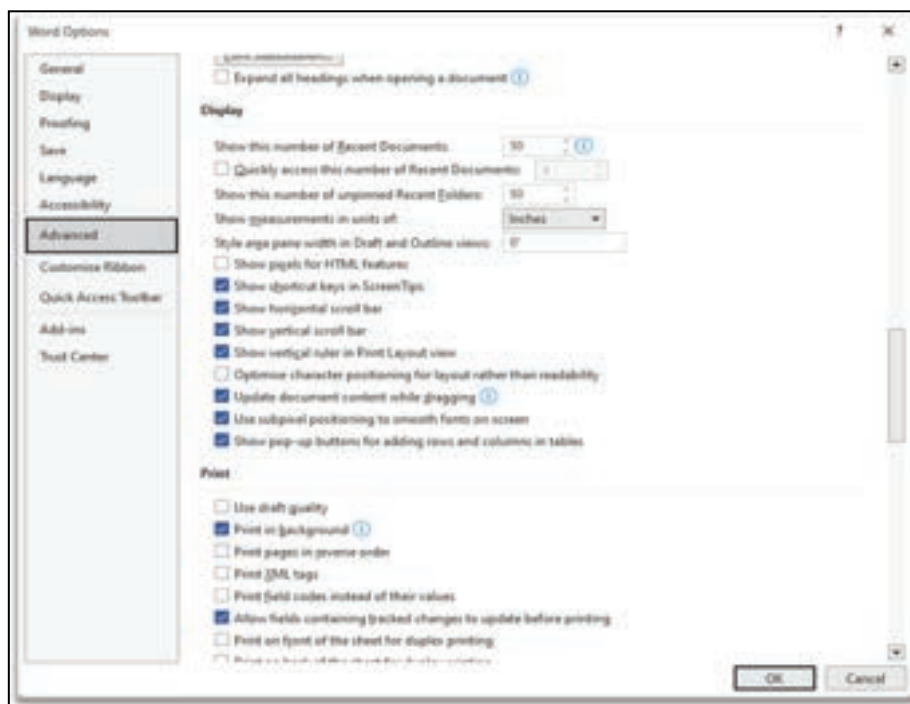


Figure 2-Change the Unit



### 1.1.1. TEXT FORMATTING

By default, the font of each new document is set to “Calibri”. We can edit the text font and size at the beginning of a new document or by selecting the text you want to modify. Use the Font features to make necessary changes in the document. Like font family, font size or any other type of special effects in the text.

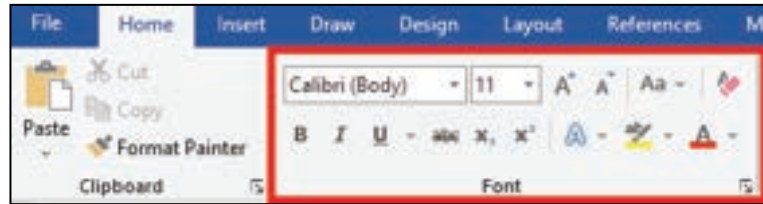


Figure 3-Font settings

### 1.1.2. TEXT ALIGNMENT

By default, Word aligns text to the left margin in the new documents. However, there may be times when we want to adjust the text alignments to the center or right. For this type of setting please go to the “Paragraph” group and click the features to make appropriate settings.



Figure 3-Text Alignments

### 1.1.3. LINE SPACING

In the same “Paragraph” group, we can adjust the line spacing. To change to the double-spacing option, select 2 from the drop-down menu. Or select the “Line Spacing Options”. In the “Spacing” section under the “Line Spacing” select “double”, click “OK”.

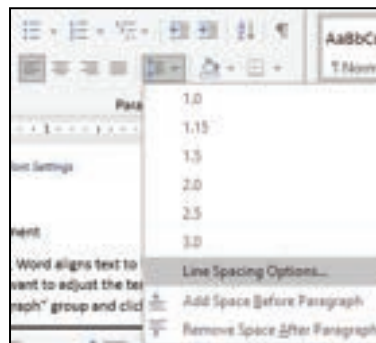


Figure 4-Line spacing

## 1.1.4. INDENTING TEXT

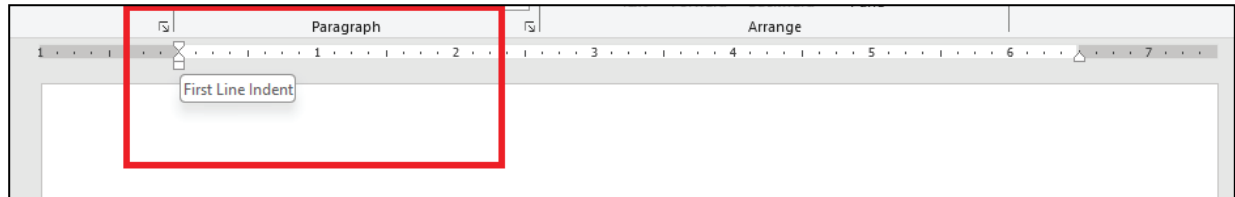


Figure 5- First Line Indent

In many academic documents, we may need to indent the first line of each paragraph. Place the insertion point at the very beginning of the paragraph you want to indent. Press the “Tab” key on your keyboard. On the ruler you should see the first line indent marker.

## 1.1.5. MARGIN



Figure 6- Margins

Most academic documents require a 1-inch margin on all sides of the paper. To do this click the “Layout” tab. Select the “Margins” drop-down arrow. The default setting is “Normal” and should read one inch for the top, bottom, left and right margins.

## 1.1.6. INSERTING A HEADER

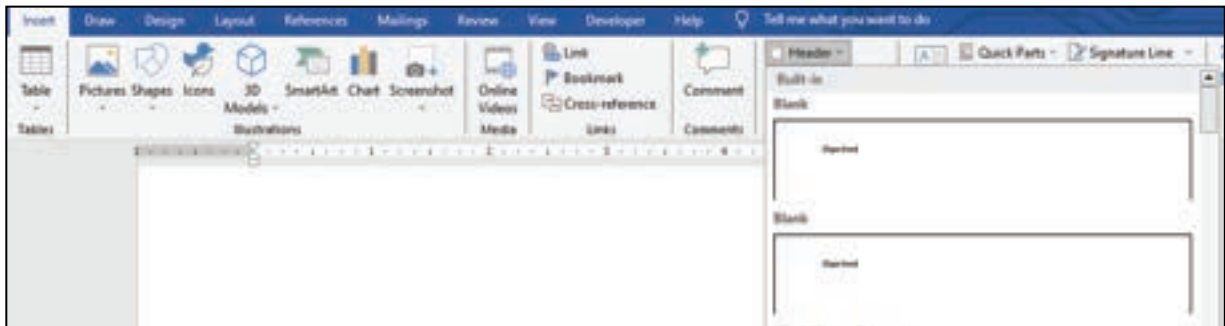


Figure 7- Headers

The header is a section in a document that appears in the top margin. To insert a header, click “Insert” tab. Then click the “Header” drop-down arrow and select what kind of header you want to use. Type the information. When finished, close the “Header and Footer” for changes to take effect.

**Note:** If you want to insert text in the header as well as a page number, always insert the page number first. Click the “Insert” tab then click the “Page Number” drop-down arrow. Choose the location that you want the page number. To add additional information in the header, place the cursor in front of the page number, type the information in front of the page number and add a space. Close the “Header and Footer” for changes to take effect.

### 1.1.7. INSERTING A FOOTER

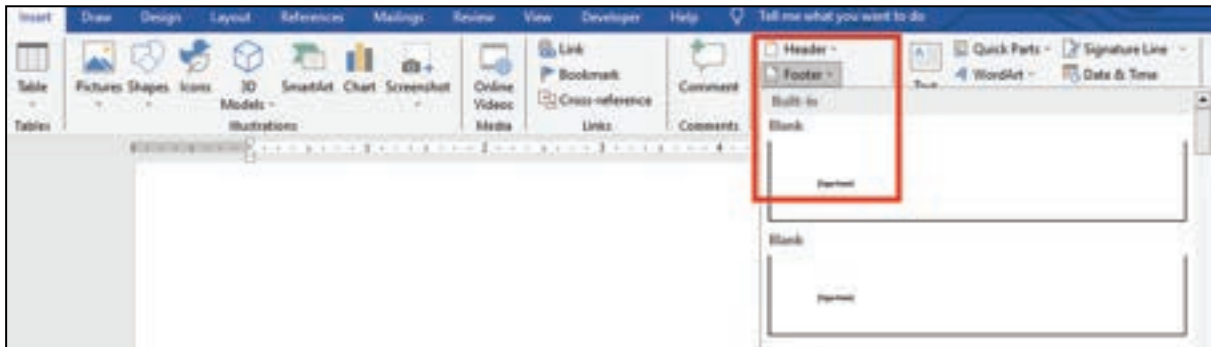


Figure 8- First Line Indent

The footer is a section of the document that appears in the bottom margin. To insert a footer, click the “Insert” tab, then click the “Footer” drop-down arrow and select the type of footer you want to use in the document. Type the information, and click close the “Header and Footer” when finished.

### 1.1.8. BREAKS

Breaks in the word will help us to split up the document into independent chunks. There are two types of breaks that we can add in our word document.

- i. Page Break
- ii. Section Break

#### **Page Break**

By default, when you are working away in word, word automatically adds a page break when you get into the end of the page. However, you can insert a manual page break anytime you

want and start a new page in your document. In the document where ever you want a new page to be inserted, make sure you have cursor clicked at that position. Click the "Layout" tab and go for the "Break" option in the "Page-Set up" group. From that drop-down click "Page", in the "Page Break" section.

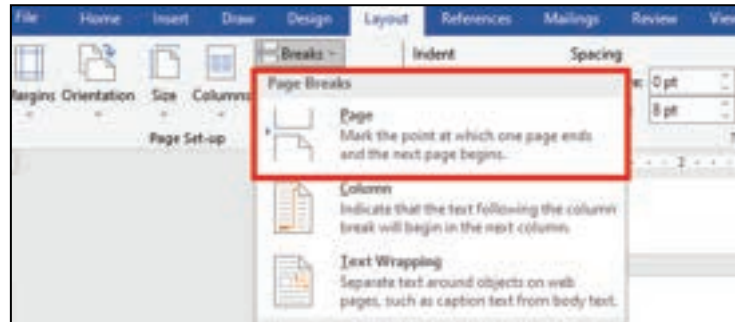


Figure 9- Page Break

Once you complete this process, you will notice that the text where you placed the cursor, has been shifted to a new page. The shortcut method to add a new page to the document is CTRL + ENTER.

In order to view where the page breaks have been applied in the document, go to the "Home" tab, click the "Show Hide Button, placed in the paragraph group.

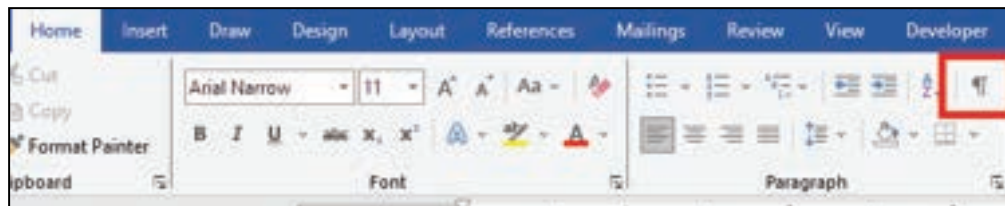


Figure 10- Show-Hide Button

change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, then click the plus sign. Reading is easier, too, in the new Reading view. You can collapse parts of the document and focus on the text you want. If you need to stop reading before you reach the end, Word remembers where you finished—even on another device.

.....Page Break.....

Figure 11- Page Break

### Column Break

This feature is used mainly when you are utilizing columns in your document and you want to place the cursor on the other portion of the column in the document. Once the column break is inserted in the document, the cursor can be placed and you can add contents or image according to your requirement.

prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document. To make your document look professionally produced, Word provides header, footer, cover page and text box designs that complement each other. For example, you can add a matching cover page, header and sidebar. Click Insert, then choose the elements you want from the different galleries. Themes and styles also help to keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme. Save time in Word with new buttons that show up where you need them. .... Column Break.....

Figure 12- Column Break

## Section Break

If you want to apply different features in different page, "Section Break" will help you to do the settings. For example, if you want to change the orientation of any page in a document, from Landscape or Portrait or vice versa, you can apply "Continuous" section break at that specific point in the document.

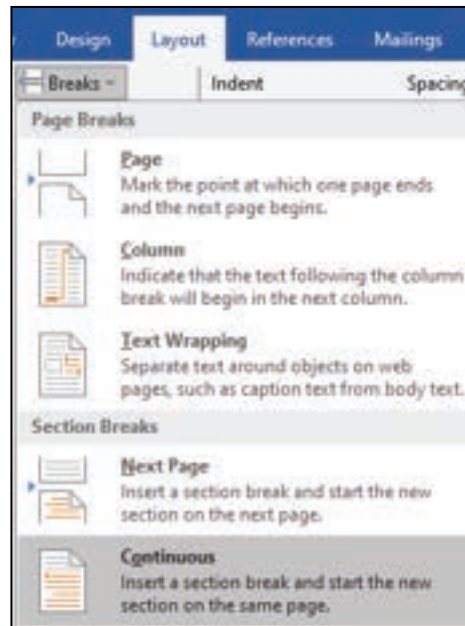
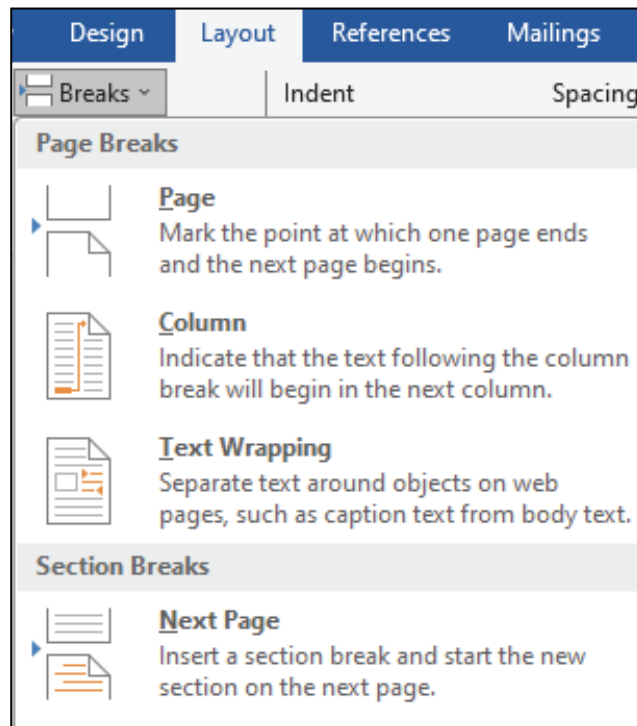


Figure 13- Continuous Break

If you want to create a new section break, and it should be defined as a new page, in that scenario click the “Next Page” in the section breaks group.



*Figure 14- Section Break- Next Page*

In this module, we have learned how to format text and paragraphs in Microsoft Word effectively. Proper formatting is essential for creating documents that are not only visually appealing but also easy to read and understand. We explored various formatting options, including changing font styles, aligning text, adjusting line spacing, indenting text, setting margins, and inserting headers and footers. We also discussed the use of page breaks and section breaks to control the layout and structure of our documents.

By mastering these formatting techniques, you can create professional-looking documents that meet academic, business, or personal requirements. Remember that consistent and well-organized formatting enhances the overall quality of your work and helps convey your message more effectively. We encourage you to practice and apply these formatting skills in your future documents to achieve polished and professional results.



## SUMMARY

### FORMAT TEXT AND PARAGRAPHS:

- Understanding text and paragraph formatting is essential for creating visually appealing and well-organized documents in Microsoft Word.
- Proper formatting enhances the readability and professionalism of your documents, making them more effective in conveying your message.

### BASIC FORMATTING:

#### 1. Changing Measurement Scales:

- Access by clicking on “File” > “Options” > “Advanced” > Display Category.
- Adjust the scale to your preference.

#### 2. Text Formatting:

- Modify font family, size, and special effects using the Font features.
- Edit text appearance at the start or by selecting specific text.

#### 3. Text Alignment:

- Adjust text alignment (left, center, or right) using options in the “Paragraph” group.

#### 4. Line Spacing:

- Modify line spacing by selecting options from the drop-down menu or accessing “Line Spacing Options” under “Paragraph.”

#### 5. Indenting Text:

- Indent the first line of a paragraph using the “Tab” key, and adjust as needed.

#### 6. Margins:

- Set margins by clicking the “Layout” tab and selecting from the “Margins” drop-down menu.

#### 7. Inserting a Header:

- Access the “Insert” tab, click “Header,” and choose a header type. Add information and close for changes to take effect.

#### 8. Inserting a Footer:

- Similar to inserting a header, select “Footer” from the “Insert” tab to add information in the bottom margin.

#### 9. Inserting Breaks:

- Page breaks and section breaks help organize the document into independent sections.

#### 10. Page Breaks:

- Automatically added at the end of a page, or manually inserted with “Layout” > “Break” > “Page Break.”

- View page breaks with the “Show Hide Button” in the “Home” tab.

**11. Column Breaks:**

- Useful in documents with multiple columns. Insert to move cursor to the next portion of the column.

**12. Section Breaks:**

- Useful for applying different settings to specific pages. Apply “Continuous” section break for varied orientations.
- Create new section breaks, including new pages, by selecting “Next Page” in the section breaks group.

**13. Conclusion:**

- Mastering text and paragraph formatting in Microsoft Word empowers you to create professional and well-structured documents.
- Consistent and organized formatting enhances the quality and effectiveness of your work, making it more impactful for your audience.

---

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the purpose of proper text and paragraph formatting in Microsoft Word?**

- a) To enhance document security
- b) To create visually appealing and professional documents
- c) To improve document searchability
- d) To reduce file size

**2. Which tab in Microsoft Word is used to change the scale of measurements?**

- a) Home
- b) File
- c) Layout
- d) Insert

**3. Which option is used to adjust line spacing in a document?**

- a) Font Style
- b) Paragraph Settings
- c) Line Spacing
- d) Page Breaks

**4. How can you indent the first line of a paragraph in Microsoft Word?**

- a) Press the spacebar key



- b) Click the "Indent" button
- c) Press the Tab key
- d) Use the Enter key

**5. What is the default margin setting for most academic documents?**

- a) 0.5 inches on all sides
- b) 1 inch on all sides
- c) 1.5 inches on all sides
- d) 2 inches on all sides

**6. Where can you find the option to insert a header in Microsoft Word?**

- a) Home tab
- b) Insert tab
- c) Layout tab
- d) Header tab

**7. Which type of break is used to start a new page in a document?**

- a) Section Break
- b) Column Break
- c) Page Break
- d) Line Break

**8. What is the shortcut method to add a new page to a document?**

- a) CTRL + N
- b) CTRL + P
- c) CTRL + S
- d) CTRL + ENTER

**9. Which break is used when you want to change the orientation of a specific page in a document?**

- a) Page Break
- b) Column Break
- c) Continuous Section Break
- d) Next Page Section Break

**10. What is the purpose of a footer in a document?**

- a) To add information at the top margin
- b) To add information at the bottom margin
- c) To change font styles
- d) To adjust line spacing

**Answers**

1. b) To create visually appealing and professional documents
2. b) File
3. c) Line Spacing
4. c) Press the Tab key
5. b) 1 inch on all sides
6. b) Insert tab
7. c) Page Break
8. d) CTRL + ENTER
9. c) Continuous Section Break
10. b) To add information at the bottom margin

These questions can be used for practice and self-assessment. Students can check their answers against the provided answers to gauge their understanding of the chapter.

**SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

Remember to attempt these questions without referring to the module content initially. Use it only for reference if you get stuck on a particular question. This practice will help reinforce your understanding of text and paragraph formatting in Microsoft Word.

1. How can you change the measurement scales in a Word document? Explain the steps.
2. What are the Font features used for in text formatting? Provide examples of Font features.
3. How can you align text in a Word document? Describe the steps to change text alignment.
4. Explain how to adjust line spacing in a document. What are the options available?
5. How do you indent the first line of a paragraph? Provide a step-by-step process.
6. Describe how to set margins in a Word document. What is the default margin setting?
7. What is the purpose of inserting a header in a document? Explain the steps to insert a header.
8. How do you insert a footer in a Word document? Provide a step-by-step process.
9. Differentiate between a page break and a section break. When would you use each type?
10. How do you view page breaks in a document? Explain the process using the "Show Hide Button."
11. What is a column break, and when would you use it in a document?
12. How can you apply different settings to specific pages in a document? Explain the use of section breaks.

# CHAPTER 2

## INTRODUCTION TO MACROS



### LEARNING OBJECTIVES

- ✓ Understand the concept of macros in Microsoft Word and their role in automating repetitive tasks for Chartered Accountants.
- ✓ Recognize the benefits of using macros, including time-saving, increased accuracy, improved productivity, and maintaining consistency in documents and reports.
- ✓ Learn how to record and name macros and describe their functions for future reference.
- ✓ Acquire the skill of executing macros through keyboard shortcuts for efficient task automation.
- ✓ Familiarize with the process of executing macros from the Macros Dialog Box, providing an alternative method for task automation.
- ✓ Apply the knowledge gained to a practical scenario like formatting financial reports using macros.
- ✓ Gain proficiency in accessing the Visual Basic for Applications (VBA) Editor to edit and debug macros.
- ✓ Understand the structure of VBA code and make necessary changes to recorded macros as per specific requirements.

### 2.1. UNDERSTANDING MACROS

A macro in Microsoft Word is a set of instructions that automate repetitive tasks. It allows users to record a series of actions and play them back with a single command. For Chartered Accountants, this means that tasks like formatting, data entry, and report generation can be automated, saving significant time and reducing the risk of errors.

#### Purpose and Benefits of Macros:

- **Time-saving:** Macros can complete tasks in a fraction of the time it would take a human, especially for tasks that involve multiple steps or large datasets.
- **Accuracy:** Humans are prone to making mistakes, especially when performing repetitive tasks. Macros execute commands consistently and without error.
- **Increased Productivity:** By automating routine tasks, Chartered Accountants can free up

time to focus on more critical, value-added activities such as analysis, strategy, and client interactions.

- **Consistency:** Macros ensure that documents and reports follow a standardized format. This is crucial in maintaining a professional image and adhering to industry standards.

## 2.2. RECORDING AND RUNNING MACROS

### RECORDING A MACRO:

#### 1. Opening the Macros Dialog Box:

- Navigate to the “View” tab in the ribbon.
- Select “Macros” from the dropdown menu.
- Click “Record Macro.”

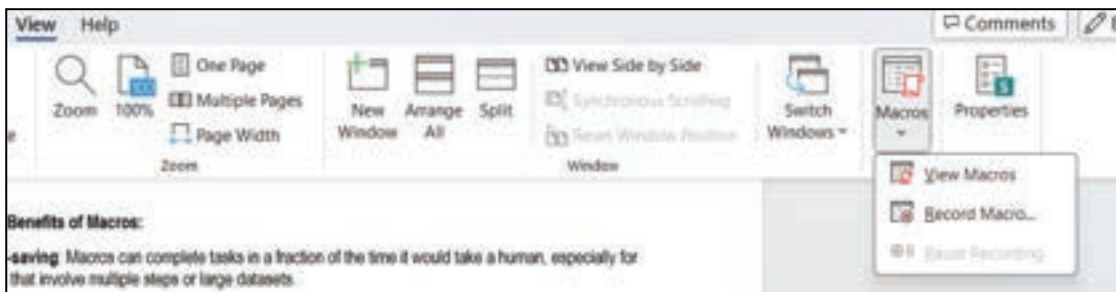


Figure: Macros menu in View tab

#### 2. Naming and Describing the Macro:

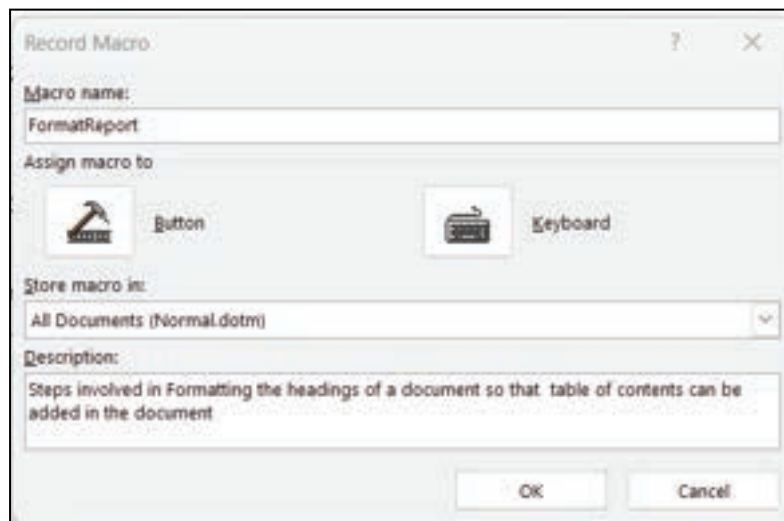


Figure: Naming and Describing the Macro

- Provide a descriptive name for the macro.
- Optionally, add a description for future reference.

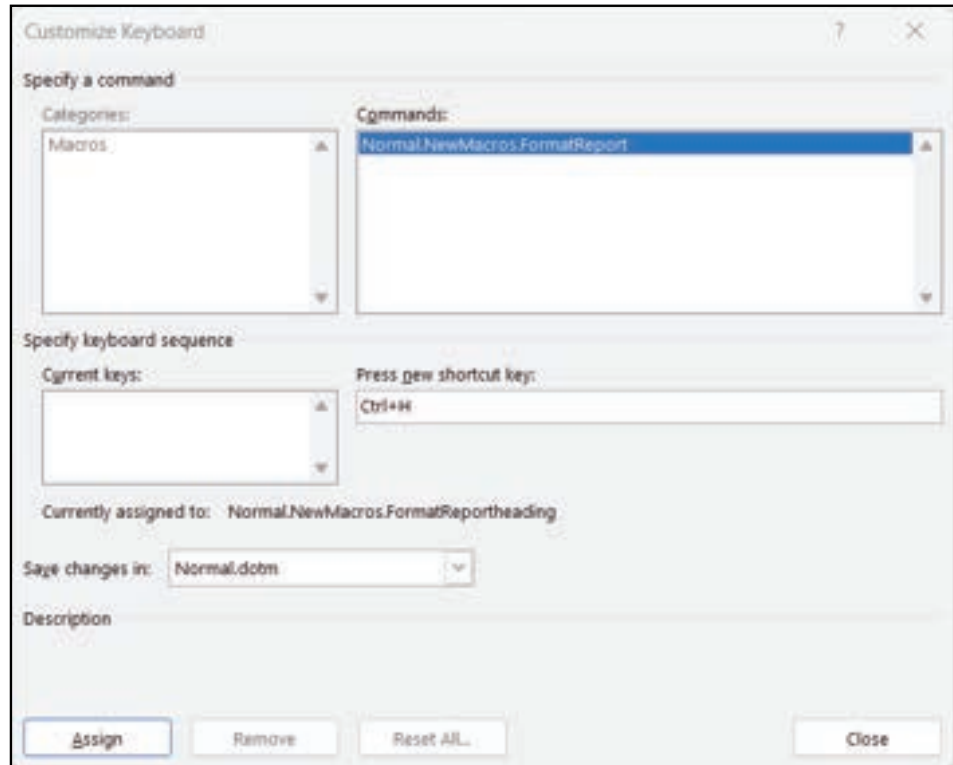
### 3. Performing Actions to Record:

- Carry out the series of tasks you want to automate. Every action will be recorded.

### **RUNNING A MACRO:**

#### 1. Executing a Macro with a Keyboard Shortcut:

- Assign a keyboard shortcut during the recording process.
- Press the assigned keys to execute the macro.



*Figure: Assignment of Keyboard shortcut to Macro*

Ctrl+H is assigned to “FormatReport” macro. So, Ctrl+H can be used to perform the formatting of headings instead of pressing →Macros View Macros→ Choose the appropriate Macro each time.

#### 2. Executing a Macro from the Macros Dialog Box:

- Navigate to the “View” tab and select “Macros.”
- Choose the desired macro from the list and click “Run.”

**Scenario:** Imagine a Chartered Accountant frequently needs to format financial reports by applying specific styles, fonts, and alignments. This process can be time-consuming and repetitive. A macro can automate this task.

**RECORDING THE MACRO:****1. Open Microsoft Word:**

- Launch Microsoft Word and open the document you want to format.

**2. Start Recording:**

- Navigate to the “View” tab on the ribbon.
- Select “Macros” from the dropdown menu.
- In the “Macro name” box, type a name like “FormatReport” and click “Create.”

**3. Perform Formatting Actions:**

- Format the document as desired. For example, change font, adjust font size, set alignment, add borders, etc. These actions will be recorded.

**4. Stop Recording:**

- Once you’ve applied the desired formatting, go back to the “Macros” dialog box.
- Click “Stop Recording.”

**Note:** The name assigned to Macro should not contain space.

**RUNNING THE MACRO:****1. Executing the Macro with a Keyboard Shortcut:**

- During the recording process, you can assign a keyboard shortcut. Let’s say you assigned Ctrl + Shift + F to this macro.
- Open a new document or any other report that needs formatting.
- Press Ctrl + Shift + F. The macro will automatically apply the formatting.

**2. Executing the Macro from the Macros Dialog Box:**

- Navigate to the “View” tab and select “Macros.”
- Choose “Format Report” from the list of macros and click “Run.”

The macro will now apply the same formatting actions to the active document.

**Benefits:** By using this macro, CA professionals can save time and ensure consistency in report formatting. Instead of manually applying the formatting each time, they can do it with a simple keyboard shortcut or by selecting the macro from the Macros dialog box.

**Note:** Remember to save your macros in a trusted location and be cautious when running macros from unknown sources to prevent security risks. Always review the code if you’re unsure about its origin.

### 2.3. EDITING AND DEBUGGING MACROS

#### Accessing the Visual Basic for Applications (VBA) Editor:

1. Press Alt + F11 to open the VBA Editor.

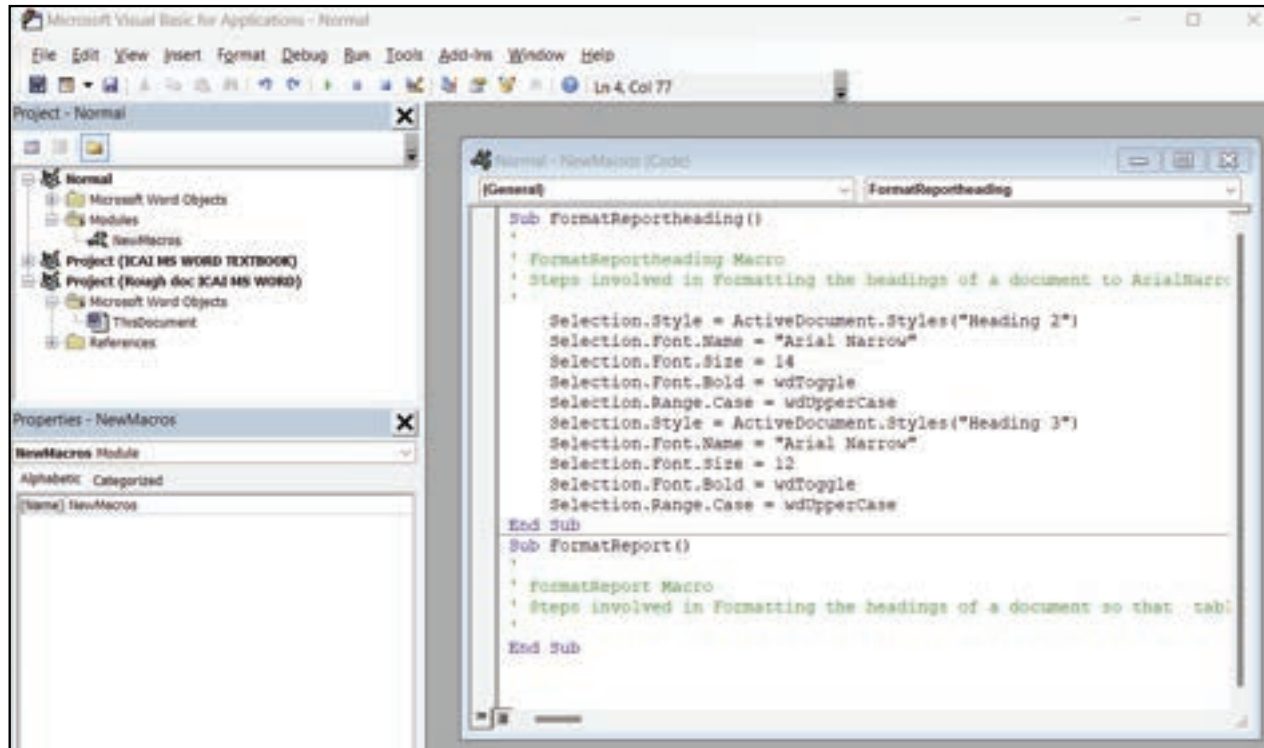


Figure: VBA Editor window

#### Understanding VBA Code:

- The VBA Editor displays the recorded macro as a series of commands in the VBA programming language.

#### Making Changes to Recorded Macros:

- In the VBA Editor, locate the macro and make necessary changes to the code.

#### Debugging Macros for Errors:

- Identify and correct errors in the VBA code to ensure the macro functions correctly.

This chapter provides a comprehensive introduction to macros, covering its definition, purpose, and benefits. Additionally, it outlines the process of recording, running, editing, and debugging macros, which are essential skills for automation for a CA.



## SUMMARY

### INTRODUCTION TO MACROS

#### UNDERSTANDING MACROS:

- Macros automate repetitive tasks in Microsoft Word, allowing for the recording and playback of a series of instructions.
- For Chartered Accountants, macros streamline tasks like formatting, data entry, and report generation, saving time and reducing errors.

#### PURPOSE AND BENEFITS OF MACROS:

- **Time-saving:** Macros complete tasks quickly, especially those involving multiple steps or large datasets.
- **Accuracy:** Macros execute commands consistently, minimizing human error.
- **Increased Productivity:** Automating routine tasks frees up time for more critical activities.
- **Consistency:** Macros ensure standardized document formatting, maintaining a professional image.

#### RECORDING AND RUNNING MACROS:

##### Recording a Macro:

1. Open Macros Dialog Box from "View" tab.
2. Provide a name and optional description for the macro.
3. Perform actions to record.

##### Running a Macro:

1. Execute with a keyboard shortcut or from the Macros Dialog Box.
2. Keyboard shortcuts can be assigned during recording for quick execution.

##### Scenario Example:

- A Chartered Accountant can use a macro named "FormatReport" to automate the formatting of financial reports, saving time and ensuring consistency.

#### EDITING AND DEBUGGING MACROS:

- Access the Visual Basic for Applications (VBA) Editor with Alt + F11.
- VBA Editor displays the recorded macro as a series of commands in VBA language.
- Make changes to recorded macros in the VBA Editor.
- Debug macros for errors to ensure correct functionality.

#### Conclusion:

- Macros are powerful tools for automating tasks in Microsoft Word, providing Chartered



Accountants with the ability to save time, enhance accuracy, increase productivity, and maintain consistency in their work. By understanding how to record, run, edit, and debug macros, CA professionals can leverage this functionality to streamline their workflow and improve overall efficiency.

### **MULTIPLE CHOICE QUESTIONS (MCQS)**

#### **1. What is a macro in Microsoft Word?**

- a) A type of font style
- b) A set of instructions that automate repetitive tasks
- c) A type of page break
- d) A formatting tool

#### **2. What is one of the benefits of using macros for Chartered Accountants?**

- a) Reducing font size in documents
- b) Automating repetitive tasks and saving time
- c) Inserting unnecessary page breaks
- d) Changing the color of text

#### **3. How does a macro contribute to increased productivity for Chartered Accountants?**

- a) By slowing down document processing
- b) By automating routine tasks, freeing up time for critical activities
- c) By creating visual appeal in documents
- d) By converting files into PDF format

#### **4. Which of the following is not a purpose of macros?**

- a) Time-saving
- b) Accuracy in executing commands
- c) Enhancing document security
- d) Maintaining consistent formatting

#### **5. What is the shortcut key to open the Visual Basic for Applications (VBA) Editor?**

- a) Ctrl + V
- b) Alt + F11
- c) Ctrl + B
- d) Alt + VBA

**6. What is the function of assigning a keyboard shortcut to a macro during recording?**

- a) It allows the macro to be executed using voice commands.
- b) It provides an alternative method to run the macro.
- c) It changes the font style in the document.
- d) It adjusts line spacing in the document.

**7. In the context of macros, what does VBA stand for?**

- a) Visual Basic Application
- b) Visual Business Automation
- c) Visual Basic for Applications
- d) Visual Basic Algorithm

**8. What is the purpose of editing a recorded macro in the VBA Editor?**

- a) To correct spelling mistakes in the macro name
- b) To make necessary changes to the code for specific requirements
- c) To change the font size of the document
- d) To add more steps to the recorded actions

**9. How can a macro be executed using a keyboard shortcut?**

- a) By pressing Ctrl + Shift + M
- b) By pressing Alt + F11
- c) By pressing the assigned keys during recording
- d) By pressing Alt + F12

**10. What precaution should be taken when running macros from unknown sources?**

- a) Always run macros without reviewing the code.
- b) Save the macros in a trusted location.
- c) Disable macros completely.
- d) Share macros with colleagues without verification.

**Answers**

- 1. b) A set of instructions that automate repetitive tasks
- 2. b) Automating repetitive tasks and saving time
- 3. b) By automating routine tasks, freeing up time for critical activities
- 4. c) Enhancing document security
- 5. b) Alt + F11
- 6. b) It provides an alternative method to run the macro.
- 7. c) Visual Basic for Applications
- 8. b) To make necessary changes to the code for specific requirements
- 9. c) By pressing the assigned keys during recording
- 10. b) Save the macros in a trusted location.

**SELF-EXAMINATION QUESTIONS FOR PRACTICE**

Remember to attempt these questions without referring to the module content initially. Use it only for reference if you get stuck on a particular question. This practice will help reinforce your understanding of macros in Microsoft Word.

1. What is a macro in Microsoft Word, and how does it benefit Chartered Accountants in their work?
2. Name three key benefits of using macros for Chartered Accountants.
3. Explain the process of recording a macro in Microsoft Word.
4. How can you run a recorded macro using a keyboard shortcut?
5. Describe the steps to run a macro from the Macros Dialog Box.
6. Provide an example scenario of how a Chartered Accountant could use a macro to automate a task.
7. How can you access the Visual Basic for Applications (VBA) Editor in Microsoft Word?
8. What does the VBA Editor display, and why is it important for working with macros?
9. How can you make changes to a recorded macro in the VBA Editor?
10. What is the purpose of debugging macros, and how can you identify and correct errors in VBA code?

# CHAPTER 3

## MAIL MERGE FUNDAMENTALS



### LEARNING OBJECTIVES

- ✓ Understand the concept of Mail Merge and its significance for Chartered Accountants in generating personalized documents efficiently.
- ✓ Recognize the benefits of using Mail Merge, including personalization, efficiency, and consistency in document creation.
- ✓ Learn the step-by-step process of setting up a Mail Merge in Microsoft Word, including selecting the document type and initiating the Mail Merge Wizard.
- ✓ Acquire the skill of selecting recipients for the Mail Merge by choosing an existing data source, typing a new list.
- ✓ Familiarize with the process of inserting merge fields as placeholders for personalized information from the data source.
- ✓ Learn how to preview the merged documents to ensure accuracy before finalizing the Mail Merge process.
- ✓ Understand the final steps of completing the Mail Merge, including options for printing or saving the merged documents.

By mastering the concepts and techniques outlined in this chapter, Chartered Accountants will be equipped to efficiently utilize Mail Merge for generating personalized documents, saving time, and ensuring consistency in their professional communications.

### 3.1. WHAT IS MAIL MERGE?

Mail Merge is a feature in Microsoft Word that enables the creation of personalized documents, such as letters, envelopes, or labels, using a template and a data source. It allows for the automatic insertion of information from a dataset into placeholders in the document, streamlining the process of generating mass communications.

#### Key Benefits of Mail Merge

- **Personalization:** Each document can be customized with individualized information from the dataset, such as names, addresses, or account numbers.
- **Efficiency:** Saves time and effort compared to manually entering information for each document.

- **Consistency:** Ensures uniformity in formatting and content across all generated documents.

### 3.2. SETTING UP A MAIL MERGE

Setting up a Mail Merge involves several steps to define the document type, select a data source, and insert merge fields.

#### STEPS TO SET UP A MAIL MERGE:

**1. Open Microsoft Word:**

- Launch Microsoft Word and open a new or existing document.

**2. Navigate to the “Mailings” Tab:**

- Click on the “Mailings” tab in the ribbon at the top of the Word window.

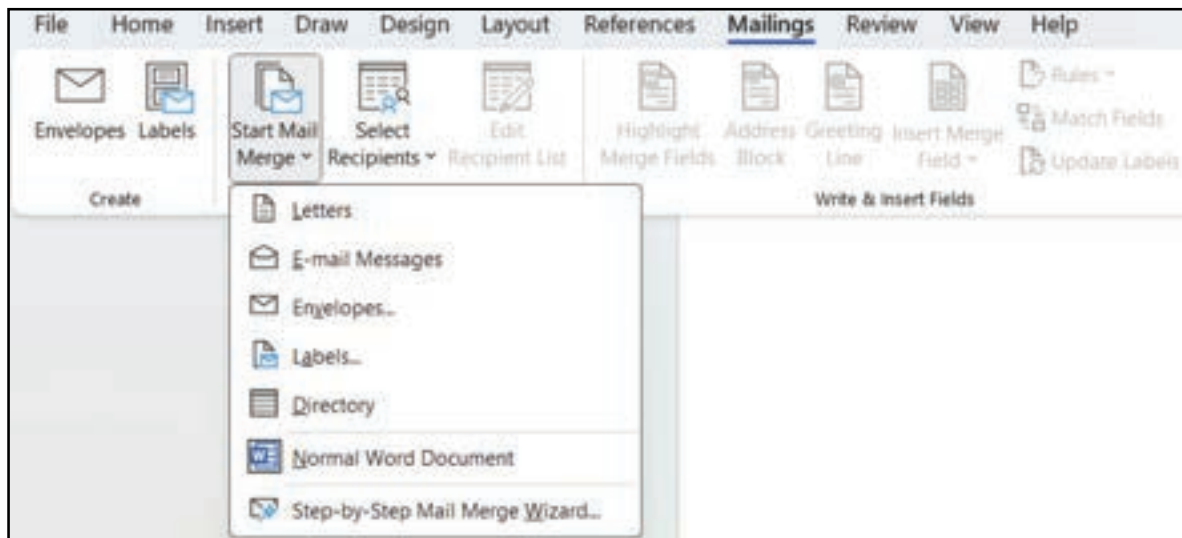
**3. Select the Document Type:**

- Choose the type of document you want to create (e.g., letters, envelopes, labels).

**4. Start Mail Merge Wizard:**

- Click “Start Mail Merge” to initiate the Mail Merge process.

Choose the type of document that you want to create and you may click on “Step-by-step Mail Merge Wizard” to get step by step instructions of Mail Merge. Or else you may follow the steps given in the following sub-headings below: selecting recipients, inserting merge fields, previewing and completing mail merge.



*Figure: Start Mail Merge Wizard in Mailings Tab*



Figure: Step-by-step Mail Merge Wizard

### 3.3. SELECTING RECIPIENTS

Selecting a data source of recipients is a critical step in Mail Merge as it provides the information that will be inserted into the document.

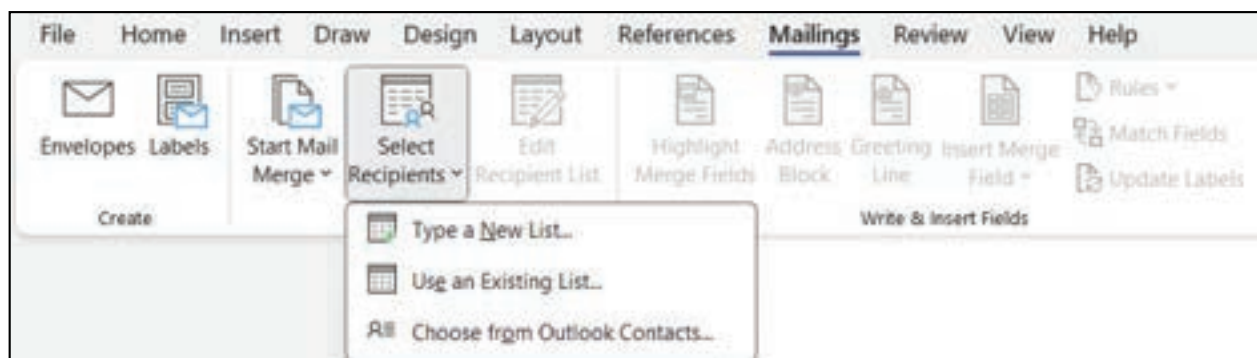


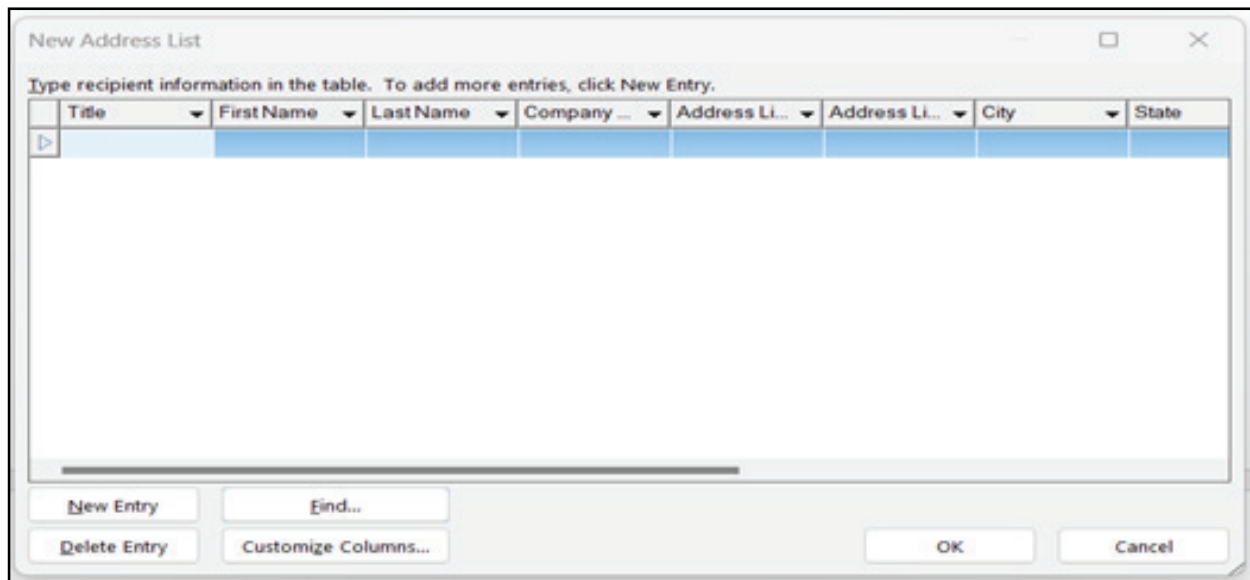
Figure: Options available to choose recipients of Mail merge

**OPTIONS FOR DATA SOURCE:****1. Use an Existing List:**

- Utilize an existing Excel spreadsheet, Access database, or other data file.

**2. Type a New List:**

- Manually enter the data directly into Word, useful for small datasets.



*Figure: Window to add a list of recipients*

**3. Choose from Outlook Contacts:**

- Access contact information from your Outlook address book.

**4. Select Recipients:**

- Once the data source is chosen, you can refine the selection to include specific entries from the dataset.

**3.4. INSERTING MERGE FIELDS**

Merge fields are placeholders in the document where personalized information from the data source will be inserted.

**STEPS TO INSERT MERGE FIELDS:****1. Position the Cursor:**

- Place the cursor where you want to insert the merge field.

**2. Click “Insert Merge Field”:**

- In the “Mailings” tab, click “Insert Merge Field” and select the field from the dropdown list.

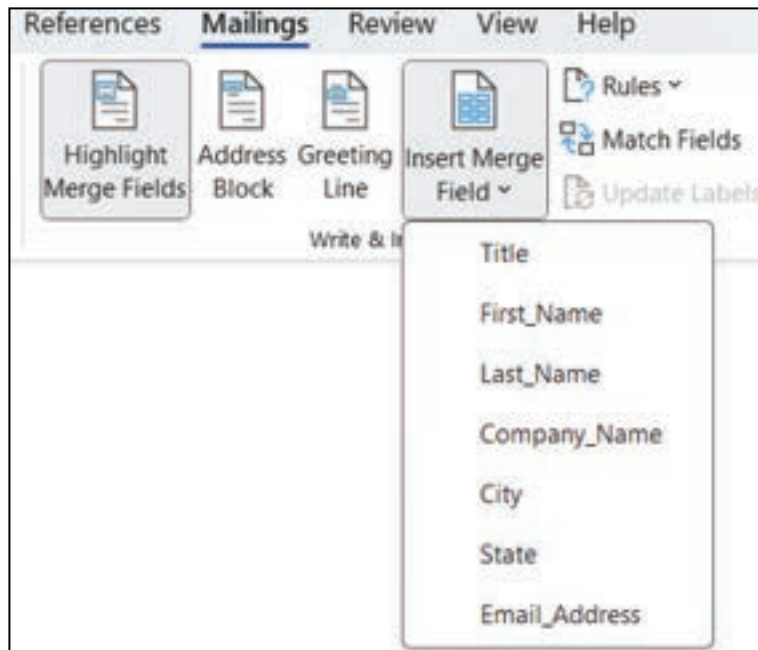


Figure: Insert Merge Field menu and the fields available to insert

### 3. Repeat for Additional Fields:

- Insert all the necessary merge fields for the information you want to include.

### 3.5. PREVIEWING AND COMPLETING MAIL MERGE

After inserting merge fields, it's crucial to preview the merged documents to ensure accuracy before finalizing the process.

#### PREVIEWING THE MAIL MERGE:

##### 1. Navigate to "Finish & Merge":

- In the "Mailings" tab, click "Finish & Merge."

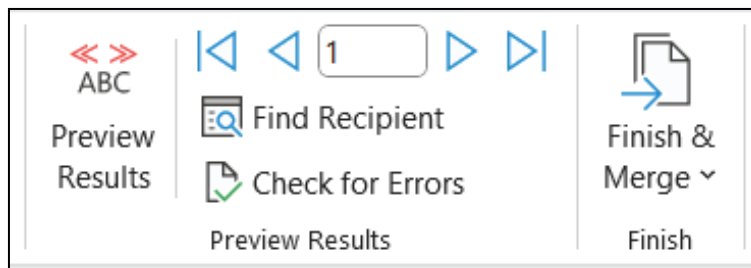


Figure: Finish & merge menu

##### 2. Select "Edit Individual Documents":

- This option allows you to preview the merged documents before printing or saving.



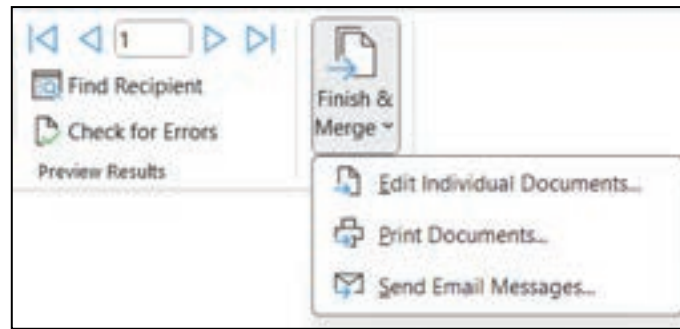


Figure: Edit Individual documents option

### 3. Review the Merged Documents:

- Scroll through the documents to verify that the information is correctly inserted.

### COMPLETING THE MAIL MERGE:

#### 1. Finalize and Print:

- Once you're satisfied with the preview, you can choose to print the documents or save them as separate files.

This chapter provides a comprehensive overview of Mail Merge fundamentals, including its definition, setup process, data source selection, merge field insertion, and the final steps of previewing and completing the Mail Merge.

## SUMMARY



### MAIL MERGE FUNDAMENTALS

- Mail Merge is a powerful tool in Microsoft Word for generating personalized documents efficiently. Chartered Accountants can use it to automate the creation of multiple documents with individualized information.

#### What is Mail Merge:

- Mail Merge is a feature in Microsoft Word that automates the creation of personalized documents like letters, envelopes, or labels using a template and a data source.
- It allows for the automatic insertion of information from a dataset into placeholders in the document.

#### Key Benefits of Mail Merge:

- **Personalization:** Each document can be customized with individualized information from the dataset.
- **Efficiency:** Saves time and effort compared to manual data entry for each document.

- **Consistency:** Ensures uniformity in formatting and content across all generated documents.

**Setting Up a Mail Merge:**

- Open Microsoft Word and navigate to the “Mailings” Tab.
- Choose the document type and start the Mail Merge Wizard.

**Selecting Recipients:**

- Selecting a data source is crucial. Options include using an existing list, typing a new list, choosing from Outlook Contacts, or refining the selection.

**Inserting Merge Fields:**

- Merge fields are placeholders where personalized information will be inserted. They are added using the “Insert Merge Field” option.

**Previewing and Completing Mail Merge:**

- After inserting merge fields, it’s important to preview the merged documents for accuracy.
- Navigate to “Finish & Merge” and select “Edit Individual Documents” to review the merged documents.
- Finalize the Mail Merge by choosing to print the documents or save them as separate files.

This chapter provides a comprehensive overview of Mail Merge fundamentals, covering its definition, setup process, data source selection, merge field insertion, and the final steps of previewing and completing the Mail Merge.

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**MULTIPLE CHOICE QUESTIONS (MCQS)****1.What is the purpose of Mail Merge in Microsoft Word?**

- a) Formatting text and paragraphs
- b) Creating personalized documents with a template and data source
- c) Inserting headers and footers
- d) Sorting and filtering data

**2.What is one of the key benefits of using Mail Merge for Chartered Accountants?**

- a) Adjusting line spacing in documents
- b) Saving time and effort in generating personalized documents
- c) Changing font styles for emphasis
- d) Applying page breaks for document organization

**3.Which step initiates the Mail Merge process in Microsoft Word?**

- a) Selecting Recipients
- b) Inserting Merge Fields
- c) Starting the Mail Merge Wizard
- d) Previewing Merged Documents

**4.What does selecting a data source of recipients involve in Mail Merge?**

- a) Choosing the font style for the document
- b) Providing the information that will be inserted into the document
- c) Selecting the type of document to create
- d) Determining the document's page orientation

**5.What is a merge field in Mail Merge?**

- a) A placeholder for personalized information from the data source
- b) A feature to change font colors in the document
- c) A tool for inserting page numbers
- d) A function to apply line spacing in the document

**6.What does the "Edit Individual Documents" option allow you to do in Mail Merge?**

- a) Customize font styles for individual documents
- b) Preview the merged documents before finalizing the process
- c) Add new recipients to the data source
- d) Insert additional merge fields

**7.Which option in the Mailings tab initiates the Mail Merge process in Microsoft Word?**

- a) Select Recipients
- b) Insert Merge Field
- c) Start Mail Merge
- d) Finish & Merge

**8.What is the final step in completing the Mail Merge process after previewing the merged documents?**

- a) Inserting additional merge fields
- b) Printing the documents or saving them as separate files
- c) Editing individual documents
- d) Applying page breaks

**9.What is the primary purpose of personalization in Mail Merge?**

- a) Changing font styles for emphasis
- b) Inserting page numbers in the document
- c) Customizing documents with individualized information

d) Adjusting line spacing for readability

**10. Which option allows you to utilize an existing Excel spreadsheet or data file as a data source in Mail Merge?**

- a) Use an Existing List
- b) Type a New List
- c) Choose from Outlook Contacts
- d) Select Recipients

**Answers**

- 1. b) Creating personalized documents with a template and data source
- 2. b) Saving time and effort in generating personalized documents
- 3. c) Starting the Mail Merge Wizard
- 4. b) Providing the information that will be inserted into the document
- 5. a) A placeholder for personalized information from the data source
- 6. b) Preview the merged documents before finalizing the process
- 7. c) Start Mail Merge
- 8. b) Printing the documents or saving them as separate files
- 9. c) Customizing documents with individualized information
- 10. a) Use an Existing List

**SELF-EXAMINATION QUESTIONS FOR PRACTICE**



Remember to attempt these questions without referring to the module content initially. Use it only for reference if you get stuck on a particular question. This practice will help reinforce your understanding of Mail Merge fundamentals.

- 1. What is Mail Merge, and how does it benefit Chartered Accountants in their work?
- 2. List three key benefits of using Mail Merge for generating documents.
- 3. Describe the steps involved in setting up a Mail Merge in Microsoft Word.
- 4. What are the options available for selecting recipients in Mail Merge, and when would you

use each option?

5. How do you insert merge fields into a document during the Mail Merge process?
6. Why is it important to preview the merged documents before finalizing a Mail Merge?
7. Explain the process of previewing merged documents in Mail Merge.
8. What are the final steps to complete a Mail Merge after previewing the merged documents?
9. Can you briefly outline the process of using an existing list as a data source for Mail Merge?
10. When might a Chartered Accountant choose to manually type a new list as a data source for Mail Merge?

# CHAPTER 4

## PROJECTS WITH MAIL MERGE

As discussed in the previous chapter, Mail Merge is a feature in Microsoft Word that enables the creation of personalized documents, such as letters, envelopes, or labels, using a template and a data source. It allows for the automatic insertion of information from a dataset into placeholders in the document, streamlining the process of generating mass communications.



### LEARNING OBJECTIVES

- ✓ Understand the practical applications of Mail Merge in Chartered Accountancy.
- ✓ Learn to create Standard Confirmation Letters using Mail Merge.
- ✓ Gain proficiency in generating Audit Engagement Letters through Mail Merge automation.
- ✓ Master the process of creating Management Representation Letters (MRLs) using Mail Merge.
- ✓ Acquire the skills to automate the generation of Board Minutes with Mail Merge.
- ✓ Learn to efficiently create Audit Reports using Mail Merge for consistency and time-saving.

These objectives cover the key skills and knowledge that Chartered Accountants need to effectively utilize Mail Merge for various professional tasks. This chapter delves into practical projects that Chartered Accountants commonly encounter in their day-to-day work, utilizing Mail Merge to automate the generation of documents.

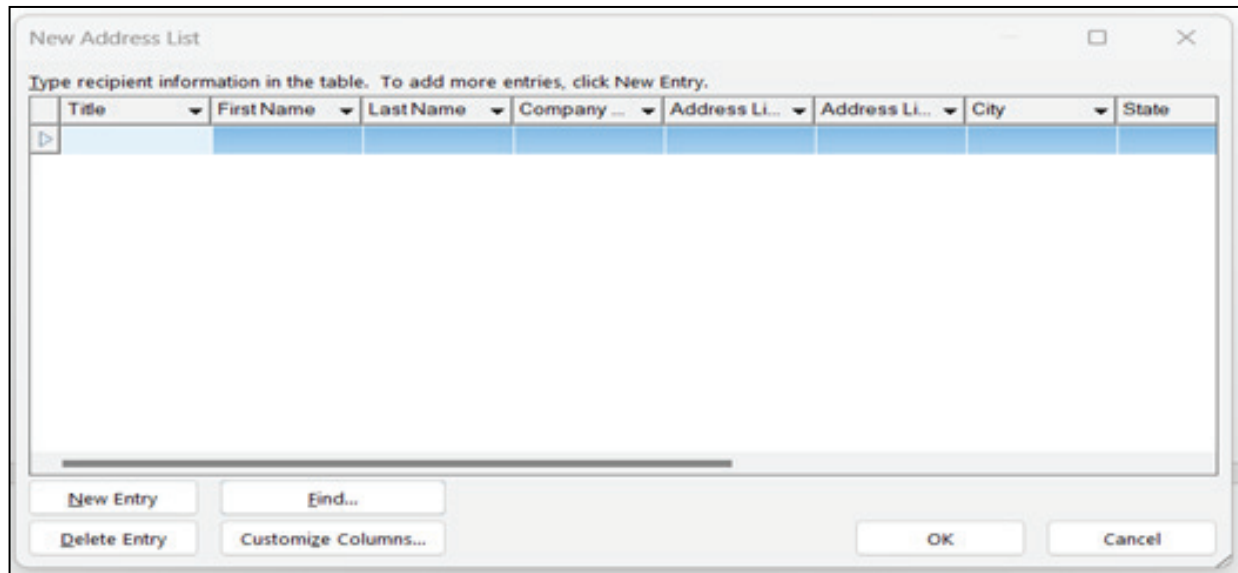
### 4.1. STANDARD CONFIRMATION LETTERS

**Project Overview:** Standard Confirmation Letters are essential documents in the auditing process. They are sent to third parties to confirm specific details, such as account balances or agreements. Utilizing Mail Merge streamlines the process of generating and sending these letters.

#### Steps to Create Standard Confirmation Letters:

##### 1. Set Up Data Source:

- Prepare a dataset with the necessary information, including recipient names, addresses, and confirmation details.



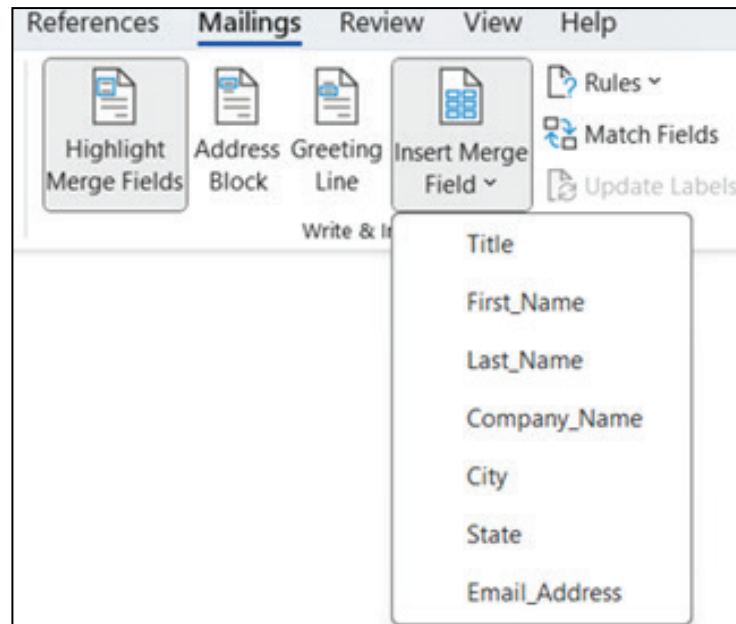
*Figure: Window to add a list of recipients*

## **2. Design the Confirmation Letter Template:**

- Create a Word document with placeholders for recipient details and confirmation information.

## **3. Insert Merge Fields:**

- Place merge fields in the template to dynamically insert recipient-specific data.



*Figure: Insert Merge Field menu and the fields available to insert*

#### 4. Initiate Mail Merge:

- Use the Mail Merge Wizard to link the template with the data source.

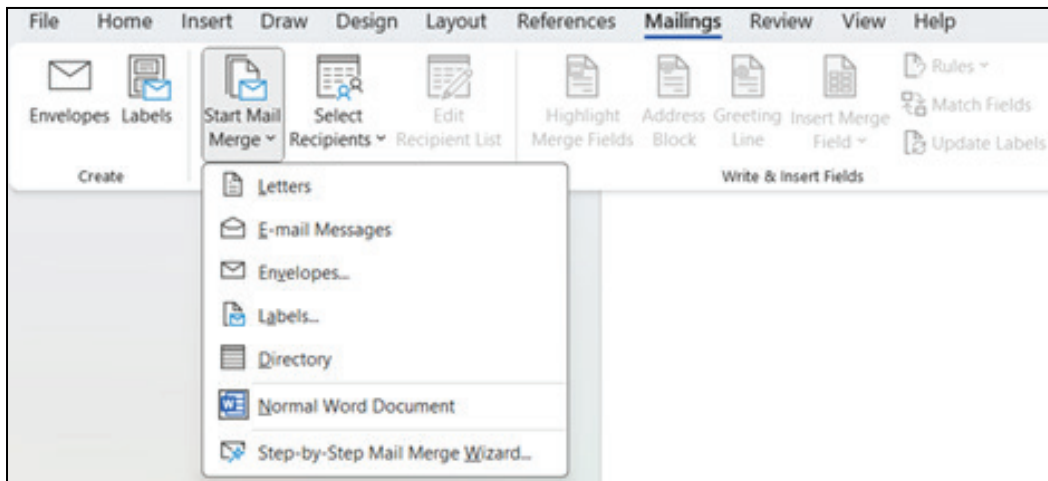


Figure: Start Mail Merge Wizard in Mailings Tab



Figure: Step bystep Mail Merge Wizard



**5. Preview and Verify:**

- Review merged letters to ensure accuracy.

**6. Complete the Mail Merge:**

- Print or save the confirmation letters for distribution.

Below is a template for a Standard Confirmation Letter with placeholders for recipient details and confirmation information:

[Your Name]  
[Your Title]  
[Your Company Name]  
[Address Line 1]  
[Address Line 2]  
[City, State, ZIP Code]  
[Date]

[Recipient Name]  
[Recipient Title]  
[Recipient Company Name]  
[Recipient Address Line 1]  
[Recipient Address Line 2]  
[Recipient City, State, ZIP Code]  
Dear [Recipient Name],

**Subject:** Confirmation of [Details to be Confirmed]

I hope this letter finds you well. We are writing to formally confirm [details to be confirmed, e.g., account balances, agreements, etc.] in accordance with our ongoing [nature of relationship or engagement].

**The specifics of the confirmation are as follows:**

[Provide detailed information that needs confirmation. You may include specific figures, terms, or any other relevant details.]

Please review the provided information and confirm its accuracy at your earliest convenience. If there are any discrepancies or if you require further clarification, please do not hesitate to contact us.

Your prompt attention to this matter is greatly appreciated. We value our continued partnership and look forward to your confirmation.

Thank you for your cooperation.

Sincerely,

[Your Name]

[Your Title]

[Your Company Name]

[Contact Information]

**Note:** Replace the placeholders enclosed in square brackets with actual details before sending the letter. This template provides a structure for a Standard Confirmation Letter, and you should customize it according to the specific details of your confirmation.

## **4.2. AUDIT ENGAGEMENT LETTERS**

**Project Overview:** Audit Engagement Letters are crucial for establishing the terms and scope of an audit engagement. Automating the creation of these letters with Mail Merge enhances efficiency and ensures consistency.

### **Steps to Create Audit Engagement Letters:**

#### **1. Define Engagement Terms:**

- Clearly outline the scope, objectives, and responsibilities of the audit engagement.

#### **2. Design the Engagement Letter Template:**

- Create a template with placeholders for client and engagement-specific information.

#### **3. Insert Merge Fields:**

- Incorporate merge fields for client name, engagement dates, and other relevant details.

#### **4. Link Template with Data Source:**

- Use Mail Merge to connect the template with the dataset.

#### **5. Preview and Verify:**

- Review merged letters to confirm accuracy of information.

#### **6. Finalize and Distribute:**

- Print or save the engagement letters for client review and signature.

Below is a template for an Audit Engagement Letter with placeholders for client and engagement-specific information:

[Your Name]

[Your Title]

[Your Company Name]

[Address Line 1]  
[Address Line 2]  
[City, State, ZIP Code]  
[Date]  
[Client Name]  
[Client Title]  
[Client Company Name]  
[Client Address Line 1]  
[Client Address Line 2]  
[Client City, State, ZIP Code]

**Subject:** Engagement Letter for Audit Services

Dear [Client Name],

We are pleased to confirm our engagement with [Client Company Name] ("Client") to perform an audit of the financial statements for the year ending [Year].

**Scope of Services:**

Our audit will be conducted in accordance with [Applicable Audit Standards, e.g., Generally Accepted Auditing Standards (GAAS)]. The objective of the audit is to express an opinion on the fairness of the financial statements.

**Responsibilities:**

- The management of the Client is responsible for the preparation and fair presentation of the financial statements.
- Our responsibility is to express an opinion on the financial statements based on our audit.

**Timing and Reporting:**

We will commence the audit on [Start Date] and plan to complete it by [End Date]. Upon completion, we will issue our audit report.

**Fee Arrangements:**

Our fees for these services will be [Specify Fee Structure, e.g., hourly rates or fixed fee]. An estimate of the total fee is [Amount]. Invoices will be issued [Specify Billing Frequency, e.g., monthly].

**Engagement Contact:**

For the purpose of this engagement, [Your Name] will be your primary contact. You can reach [him/her] at [Contact Information].

Please sign and return a copy of this letter to indicate your agreement with the terms and scope of our engagement. If you have any questions or require further clarification, please do not hesitate to contact us.

Thank you for entrusting us with this important engagement. We look forward to working together.

Sincerely,

[Your Name]

[Your Title]

[Your Company Name]

[Contact Information]

**Note:** Replace the placeholders enclosed in square brackets with actual details before sending the letter. This template provides a structure for an Audit Engagement Letter, and you should customize it according to the specific details of your engagement.

#### **4.3. MANAGEMENT REPRESENTATION LETTERS (MRLS)**

**Project Overview:** Management Representation Letters are essential documents that request confirmation from management regarding the accuracy and completeness of information provided during an audit. Automating the generation of MRLs using Mail Merge enhances efficiency.

##### **Steps to Create Management Representation Letters:**

###### **1. Prepare Requested Information:**

- Identify the specific details and assertions that need to be confirmed by management.

###### **2. Design the MRL Template:**

- Create a template with placeholders for management and engagement details.

###### **3. Insert Merge Fields:**

- Add merge fields to dynamically insert recipient-specific data.

###### **4. Connect Template with Data Source:**

- Use Mail Merge to link the template with the dataset.

###### **5. Preview and Confirm:**

- Review merged letters to ensure accuracy of information.

###### **6. Complete the Mail Merge:**

- Print or save the MRLs for distribution and collection of management signatures.

Below is a template for a Management Representation Letter (MRL) with placeholders for management and engagement details:

[Your Name]

[Your Title]  
[Your Company Name]  
[Address Line 1]  
[Address Line 2]  
[City, State, ZIP Code]  
[Date]

[Client Name]  
[Client Title]  
[Client Company Name]  
[Client Address Line 1]  
[Client Address Line 2]  
[Client City, State, ZIP Code]

**Subject:** Management Representation Letter

Dear [Client Name],

We are in the process of conducting our audit of the financial statements of [Client Company Name] ("Client") for the year ending [Year]. As part of our audit, we request management to provide certain representations.

**Management Representations:**

1. The financial statements have been prepared in accordance with [Applicable Financial Reporting Framework, e.g., GAAP].
2. Management is responsible for the accuracy and completeness of the financial records, including the disclosure of all relevant information.
3. All transactions have been recorded and are reflected in the financial statements.
4. Management has disclosed all information regarding fraud, actual or suspected, affecting the entity.
5. Management has provided us with all information relevant to the audit.
6. There are no circumstances that could have a material effect on the financial statements and have not been disclosed to us.

Please confirm your agreement with the above representations by signing and returning a copy of this letter at your earliest convenience. If there are any matters you believe should be brought to our attention, please let us know.

We appreciate your cooperation and assistance in facilitating the audit process. If you have any questions or require further clarification, please do not hesitate to contact us.

Thank you for your attention to this matter.

Sincerely,

[Your Name]

[Your Title]

[Your Company Name]

[Contact Information]

**Note:** Replace the placeholders enclosed in square brackets with actual details before sending the letter. This template provides a structure for a Management Representation Letter, and you should customize it according to the specific details of your engagement.

#### **4.4. BOARD MINUTES**

Project Overview: Generating Board Minutes is a crucial task for Chartered Accountants involved in corporate governance and compliance. Automating this process with Mail Merge ensures consistent and accurate documentation.

##### **STEPS TO CREATE BOARD MINUTES:**

###### **1. Compile Meeting Information:**

- Gather details of the board meeting, including attendees, discussions, decisions, and resolutions.

###### **2. Design the Board Minutes Template:**

- Create a template with placeholders for meeting specifics.

###### **3. Insert Merge Fields:**

- Add merge fields to dynamically insert meeting details.

###### **4. Link Template with Data Source:**

- Utilize Mail Merge to connect the template with the dataset.

###### **5. Preview and Confirm:**

- Review merged minutes to ensure accuracy of information.

###### **6. Finalize and Distribute:**

- Print or save the minutes for distribution to board members.

**Below is a template for Board Minutes with placeholders for meeting specifics:**

[Your Name]  
[Your Title]  
[Your Company Name]  
[Address Line 1]  
[Address Line 2]  
[City, State, ZIP Code]  
[Date]

[Board of Directors' Name]  
[Board of Directors' Title]  
[Company Name]  
[Company Address Line 1]  
[Company Address Line 2]  
[City, State, ZIP Code]

Minutes of the [Meeting Type] Meeting  
Date: [Meeting Date]  
Time: [Meeting Time]

Location: [Meeting Location]

**Present:**

1. [Name of Attendee 1] - [Title]
  2. [Name of Attendee 2] - [Title]
  - ...
- [Add more attendees as necessary]

**Agenda:**

1. [Agenda Item 1]
  2. [Agenda Item 2]
  - ...
- [Add more agenda items as necessary]

**Minutes:**

**1. Approval of Previous Meeting Minutes:**

- The minutes of the previous meeting were reviewed and approved unanimously.

**2. Discussion of Agenda Items:**

- a. [Agenda Item 1]
  - [Details of discussion]
- b. [Agenda Item 2]
  - [Details of discussion]
- ...
- [Add details for each agenda item]

**3. Decisions and Resolutions:**

- a. [Decision/Resolution 1]
  - [Details of the decision/resolution]
- b. [Decision/Resolution 2]
  - [Details of the decision/resolution]
- ...
- [Add details for each decision/resolution]

**4. Next Meeting:**

- The next meeting is scheduled for [Date], at [Time], in [Location].

Adjournment:

The meeting was adjourned at [Time].

Respectfully Submitted,

Your Name]

[Your Title]

[Your Company Name]

[Contact Information]

**Note:** Replace the placeholders enclosed in square brackets with actual details before sending the minutes. This template provides a structure for Board Minutes, and you should customize it according to the specific details of your board meeting.

**4.5. AUDIT REPORTS**

**Project Overview:** Audit Reports are critical documents summarizing the findings of an audit engagement. Automating the creation of these reports using Mail Merge ensures consistency and saves valuable time.

**STEPS TO CREATE AUDIT REPORTS:****1. Compile Audit Findings:**

- Gather all relevant information, including audit scope, procedures, findings, and recommendations.



**2. Design the Audit Report Template:**

- Create a template with placeholders for audit specifics.

**3. Insert Merge Fields:**

- Incorporate merge fields to dynamically insert audit details.

**4. Connect Template with Data Source:**

- Use Mail Merge to link the template with the dataset.

**5. Preview and Review:**

- Carefully review the merged report to ensure accuracy and completeness.

**6. Finalize and Distribute:**

- Print or save the audit reports for distribution to stakeholders.

**Below is a template for an Audit Report with placeholders for audit specifics:**

[Your Name]

[Your Title]

[Your Company Name]

[Address Line 1]

[Address Line 2]

[City, State, ZIP Code]

[Date]

[Client Name]

[Client Title]

[Client Company Name]

[Client Address Line 1]

[Client Address Line 2]

[Client City, State, ZIP Code]

Independent Auditor's Report

[Report Date]

**To the Board of Directors of [Client Company Name]:**

We have audited the accompanying financial statements of [Client Company Name], which comprise the balance sheet as of [Date], and the related statements of income, changes in equity, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

**Management's Responsibility for the Financial Statements:**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with [Applicable Financial Reporting Framework, e.g., GAAP]. This includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

**Auditor's Responsibility:**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with [Applicable Audit Standards, e.g., Generally Accepted Auditing Standards (GAAS)]. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

**Opinion:**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of [Client Company Name] as of [Date], and the results of its operations and its cash flows for the year then ended in accordance with [Applicable Financial Reporting Framework, e.g., GAAP].

**Report Signature:**

[Your Name]

[Your Title]

[Your Company Name]

[Contact Information]

[Signature]

[Date]

**Note:** Replace the placeholders enclosed in square brackets with actual details before finalizing and sending the audit report. This template provides a structure for an Audit Report, and you should customize it according to the specific details of your audit engagement.

This chapter provides detailed guidance on utilizing Mail Merge for various CA office assignments, including confirmation letters, engagement letters, representation letters, board minutes, and audit reports. These projects demonstrate the practical applications of Mail Merge in the field of Chartered Accountancy.



## SUMMARY

### PROJECTS WITH MAIL MERGE

#### 4.1. STANDARD CONFIRMATION LETTERS

**Project Overview:** Standard Confirmation Letters are crucial in auditing. They confirm specific details, like account balances or agreements, with third parties. Mail Merge streamlines their creation and distribution.

##### Steps to Create Standard Confirmation Letters:

1. **Set Up Data Source:** Prepare a dataset with recipient names, addresses, and confirmation details.
2. **Design Confirmation Letter Template:** Create a Word document with placeholders for recipient details and confirmation information.
3. **Insert Merge Fields:** Place merge fields in the template to dynamically insert recipient-specific data.
4. **Initiate Mail Merge:** Link the template with the data source using the Mail Merge Wizard.
5. **Preview and Verify:** Review merged letters to ensure accuracy.
6. **Complete the Mail Merge:** Print or save confirmation letters for distribution.

#### 4.2. AUDIT ENGAGEMENT LETTERS

**Project Overview:** Audit Engagement Letters are crucial in setting terms and scope for an audit. Automating their creation with Mail Merge ensures efficiency and consistency.

##### Steps to Create Audit Engagement Letters:

1. **Define Engagement Terms:** Clearly outline the scope, objectives, and responsibilities of the audit engagement.
2. **Design Engagement Letter Template:** Create a template with placeholders for client and engagement-specific information.
3. **Insert Merge Fields:** Incorporate merge fields for client name, engagement dates, and other relevant details.
4. **Link Template with Data Source:** Use Mail Merge to connect the template with the dataset.
5. **Preview and Verify:** Review merged letters to confirm accuracy of information.

- 6. Finalize and Distribute:** Print or save the engagement letters for client review and signature.

#### **4.3. MANAGEMENT REPRESENTATION LETTERS (MRLS)**

**Project Overview:** Management Representation Letters seek confirmation from management regarding the accuracy and completeness of information provided during an audit. Automating MRLs with Mail Merge enhances efficiency.

##### **Steps to Create Management Representation Letters:**

- 1. Prepare Requested Information:** Identify specific details and assertions requiring confirmation by management.
- 2. Design MRL Template:** Create a template with placeholders for management and engagement details.
- 3. Insert Merge Fields:** Add merge fields to dynamically insert recipient-specific data.
- 4. Connect Template with Data Source:** Use Mail Merge to link the template with the dataset.
- 5. Preview and Confirm:** Review merged letters to ensure accuracy of information.
- 6. Complete the Mail Merge:** Print or save the MRLs for distribution and collection of management signatures.

#### **4.4. BOARD MINUTES**

**Project Overview:** Generating Board Minutes is crucial for Chartered Accountants involved in corporate governance and compliance. Automating this process with Mail Merge ensures consistent and accurate documentation.

##### **Steps to Create Board Minutes:**

- 1. Compile Meeting Information:** Gather details of the board meeting, including attendees, discussions, decisions, and resolutions.
- 2. Design Board Minutes Template:** Create a template with placeholders for meeting specifics.
- 3. Insert Merge Fields:** Add merge fields to dynamically insert meeting details.
- 4. Link Template with Data Source:** Utilize Mail Merge to connect the template with the dataset.
- 5. Preview and Confirm:** Review merged minutes to ensure accuracy of information.
- 6. Finalize and Distribute:** Print or save the minutes for distribution to board members.

#### 4.5. AUDIT REPORTS

**Project Overview:** Audit Reports are critical documents summarizing the findings of an audit engagement. Automating the creation of these reports using Mail Merge ensures consistency and saves valuable time.

##### Steps to Create Audit Reports:

- 1. Compile Audit Findings:** Gather all relevant information, including audit scope, procedures, findings, and recommendations.
- 2. Design Audit Report Template:** Create a template with placeholders for audit specifics.
- 3. Insert Merge Fields:** Incorporate merge fields to dynamically insert audit details.
- 4. Connect Template with Data Source:** Use Mail Merge to link the template with the dataset.
- 5. Preview and Review:** Carefully review the merged report to ensure accuracy and completeness.
- 6. Finalize and Distribute:** Print or save the audit reports for distribution to stakeholders.

These projects demonstrate how Mail Merge can significantly streamline document creation and distribution for Chartered Accountants in various scenarios.

#### MULTIPLE CHOICE QUESTIONS (MCQS)

##### 1. What is the purpose of using Mail Merge in Chartered Accountancy?

- A) Automating data entry
- B) Generating personalized documents
- C) Conducting financial analysis
- D) Creating presentations

##### 2. Which of the following is a key benefit of using Mail Merge?

- A) Personalization
- B) Data encryption
- C) File compression
- D) Network security

##### 3. Which step comes after designing the template in setting up a Mail Merge?

- A) Inserting merge fields
- B) Selecting recipients
- C) Starting the Mail Merge Wizard

D) Opening Microsoft Word

**4. What is the purpose of selecting recipients in Mail Merge?**

- A) Designing the template
- B) Defining the document type
- C) Providing dataset information
- D) Inserting merge fields

**5. Which option allows manual entry of data for small datasets in Mail Merge?**

- A) Use an Existing List
- B) Type a New List
- C) Choose from Outlook Contacts
- D) Select Recipients

**6. In Mail Merge, where do you insert merge fields in the document?**

- A) In the "View" tab
- B) In the "Mailings" tab
- C) In the "Insert" tab
- D) In the "Home" tab

**7. In Mail Merge, where can you find the option to preview and verify the merged documents?**

- A) "Review" tab
- B) "Insert" tab
- C) "Mailings" tab
- D) View" tab

**8. Which project involves sending documents to third parties to confirm specific details?**

- A) Standard Confirmation Letters
- B) Audit Engagement Letters
- C) Management Representation Letters
- D) Board Minutes

**9. What is the purpose of an Audit Engagement Letter?**

- A) To request confirmation from management
- B) To establish terms and scope of an audit
- C) To request information for an audit report
- D) To automate the audit process

**10. Which project involves confirming the accuracy and completeness of information provided during an audit?**

- A) Standard Confirmation Letters

- B) Audit Engagement Letters
- C) Management Representation Letters
- D) Board Minutes

**11. What type of information is typically included in a Management Representation Letter (MRL)?**

- A) Details of audit procedures
- B) Request for payment
- C) Confirmation of information accuracy
- D) Terms and scope of engagement

**12. Which project involves documenting discussions, decisions, and resolutions of a board meeting?**

- A) Standard Confirmation Letters
- B) Audit Engagement Letters
- C) Management Representation Letters
- D) Board Minutes

**13. What is the purpose of an Audit Report?**

- A) To request confirmation from management
- B) To establish terms and scope of an audit
- C) To summarize audit findings and opinions
- D) To document board meeting minutes

**Answers**

1. B) Generating personalized documents
2. A) Personalization
3. A) Inserting merge fields
4. C) Providing dataset information
5. B) Type a New List
6. B) In the "Mailings" tab
7. C) "Mailings" tab
8. A) Standard Confirmation Letters
9. B) To establish terms and scope of an audit
10. C) Management Representation Letters
11. C) Confirmation of information accuracy
12. D) Board Minutes
13. C) To summarize audit findings and opinions
14. A) Financial statements

**SELF-EXAMINATION QUESTIONS FOR PRACTICE****STANDARD CONFIRMATION LETTERS:**

1. What is the purpose of Standard Confirmation Letters in the auditing process?
2. List the steps involved in creating Standard Confirmation Letters using Mail Merge.
3. How do you set up a data source for Standard Confirmation Letters?
4. Why is it important to preview and verify the merged letters before finalizing the Mail Merge process?
5. Can you provide an example of a situation where automating Standard Confirmation Letters with Mail Merge would be beneficial for a Chartered Accountant?

**AUDIT ENGAGEMENT LETTERS:**

1. Explain the significance of Audit Engagement Letters in the auditing process.
2. Enumerate the steps for creating Audit Engagement Letters using Mail Merge.
3. What information should be included in the Audit Engagement Letter template?
4. How does Mail Merge assist in streamlining the process of creating Audit Engagement Letters?
5. Provide an example of a scenario where automating Audit Engagement Letters with Mail Merge would be advantageous for a Chartered Accountant.

**MANAGEMENT REPRESENTATION LETTERS (MRLS):**

1. Why are Management Representation Letters important in the audit process?
2. Outline the steps involved in creating Management Representation Letters using Mail Merge.
3. What information should be included in a Management Representation Letter template?
4. How does Mail Merge enhance the efficiency of generating Management Representation Letters?
5. Give an example of a situation where automating Management Representation Letters with Mail Merge would be valuable for a Chartered Accountant.



**BOARD MINUTES:**

1. What is the purpose of generating Board Minutes for a Chartered Accountant?
2. List the steps for creating Board Minutes using Mail Merge.
3. What information should be included in a Board Minutes template?
4. How does Mail Merge contribute to consistency in documenting Board Minutes?
5. Provide an example of a scenario where automating Board Minutes with Mail Merge would be beneficial for a Chartered Accountant.

**AUDIT REPORTS:**

1. Why are Audit Reports crucial in the auditing process?
2. Enumerate the steps for creating Audit Reports using Mail Merge.
3. What information should be included in an Audit Report template?
4. How does Mail Merge improve efficiency in generating Audit Reports?
5. Give an example of a situation where automating Audit Reports with Mail Merge would be advantageous for a Chartered Accountant.

<b>TASK STATEMENT</b>	<b>KNOWLEDGE STATEMENT</b>
Create a document showcasing various text formatting, techniques, include font size, size and color settings, alignment and paragraph	Students must understand the basics of documentation and presentation
Create a macro all type of formatting including page border and color	
Summarize the concept of macros in pointwise	
generate the flowchart about the mail merge fundamentals	



UNIT

**1**

E-learning  
Basics of  
MS Excel



# CHAPTER 1

## INTRODUCTION TO MICROSOFT EXCEL

Microsoft Excel is a powerful spreadsheet application that has become an indispensable tool for professionals across various industries. Developed by Microsoft, Excel offers a versatile platform for organizing, analysing, and presenting data in a structured and efficient manner.

Excel's intuitive interface allows users to create electronic spreadsheets, commonly referred to as worksheets, where data can be entered, manipulated, and displayed. These worksheets are organized within workbooks, providing a convenient way to manage related data and calculations.

### 1. MANAGING WORKSHEETS



#### LEARNING OBJECTIVES

- ✓ Understand the fundamental features of Microsoft Excel, including workbook structure and worksheet components.
- ✓ Develop proficiency in organizing data through tasks such as creating, deleting, and renaming worksheets.
- ✓ Learn advanced techniques for managing and navigating large datasets efficiently, including using grouping, freezing panes, and utilizing hyperlinks.
- ✓ Master data manipulation skills by practicing tasks like copying, moving, and protecting worksheets.
- ✓ Explore collaboration and data sharing capabilities within Excel, including sharing workbooks and protecting data with password security.

Managing worksheets in Excel is a crucial aspect of efficient data organization and analysis. Worksheets serve as individual spreadsheets within an Excel workbook, while workbooks are files containing one or more worksheets. They collectively help you compartmentalize and evaluate your data. An illustrative instance of the Excel interface displays various sheets within the default workbook, often named "Book1," providing a basic layout that aids in the management of data across different sections.

#### 1.1. WORKSHEET BASICS

In the realm of Excel, worksheets serve as the foundation for organizing data, computations,

and visual representations. Each worksheet operates within a workbook—a repository of related worksheets. This section delves into the essentials of worksheet management, from creating new ones to navigating between them, facilitating a comprehensive grasp of Excel's organizational structure.

### 1.1.1 INTRODUCTION TO WORKSHEETS AND WORKBOOKS:

Worksheets are individual spreadsheets within an Excel workbook. Workbooks are files that contain one or more worksheets. They are used to organize and analyse data.

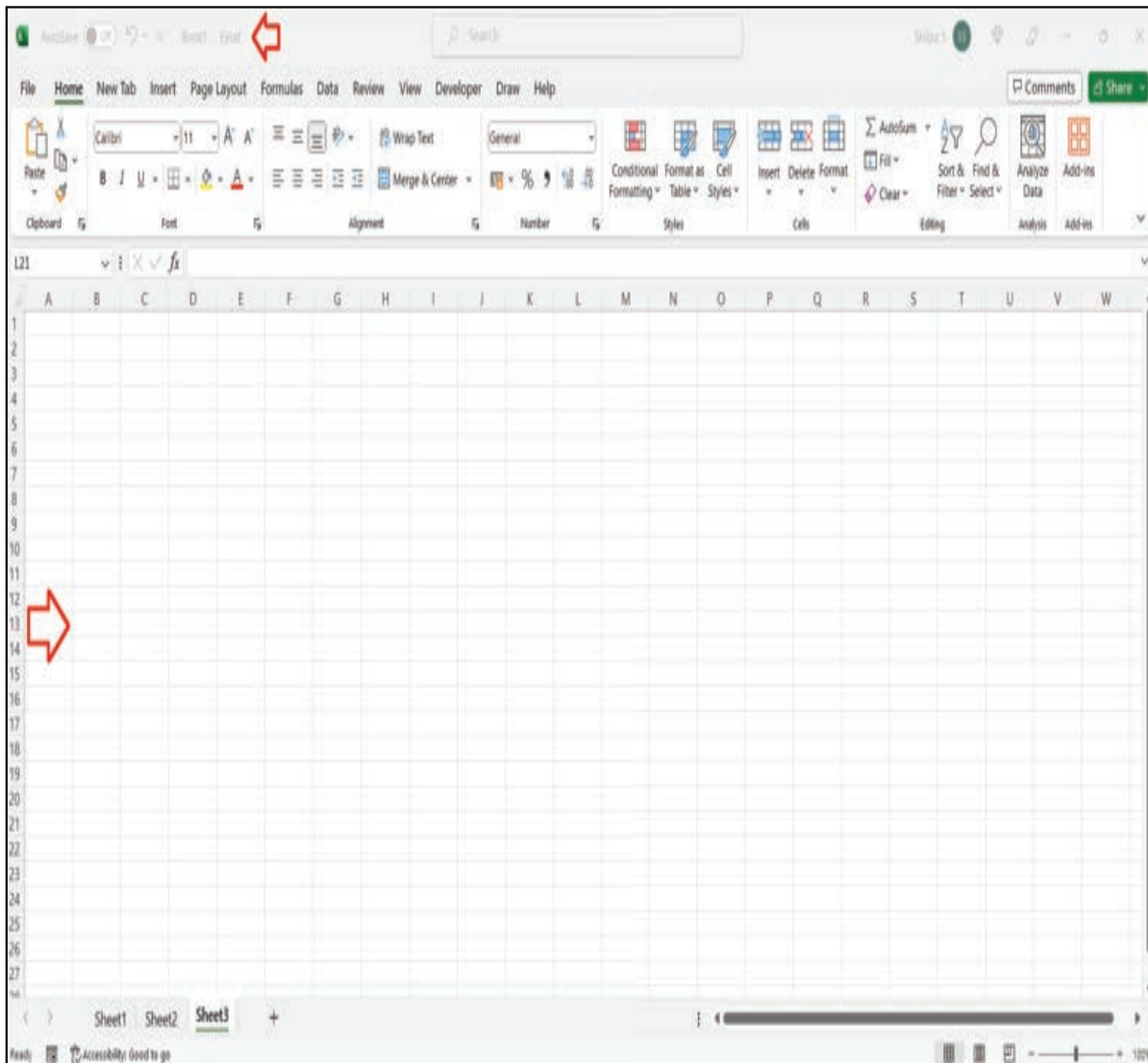


Figure: Basic layout of MS Excel

Above is the example of home screen of Excel with multiple sheets added to the default workbook named "Book1".

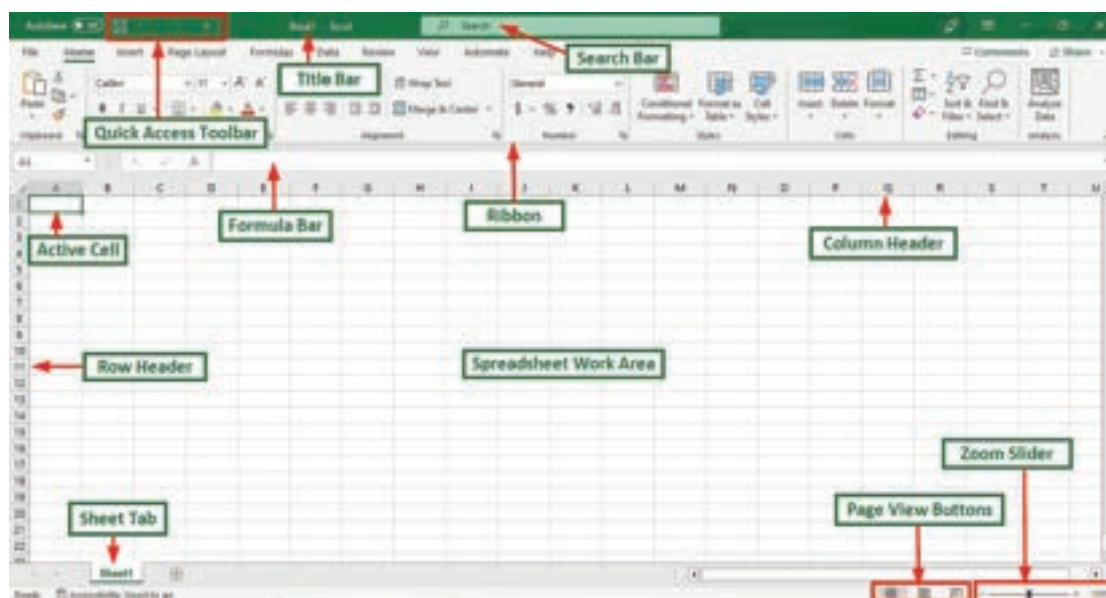


Figure: Basic layout of MS Excel

## 1.1.2.CREATING NEW WORKSHEETS AND WORKBOOKS:

To create a new workbook, go to “File” > “New” and choose “Blank Workbook”. To add a new worksheet, right-click on an existing worksheet tab and select “Insert” and choose “Worksheet”. You may also add worksheets by clicking on the “Plus” button next to the worksheet name.

## 1.1.3.NAVIGATING WITHIN A WORKSHEET AND WORKBOOK:

Use the arrow keys, mouse scroll, or navigation buttons to move within a worksheet. The tabs at the bottom of the Excel window allow you to switch between worksheets in the same workbook.

## 1.1.4.SELECTING CELLS, ROWS, AND COLUMNS:

Click on a cell to select it. Hold Shift and click to select a range of cells. Click on column/row headers to select entire columns or rows.

## 1.2. ENTERING AND EDITING DATA

Excel’s prowess isn’t just in calculations—it’s also an adept data entry and editing tool. This section delves into the art of populating cells with data, guiding you through input methods and facilitating content adjustments, contributing to a thorough understanding of data manipulation in Excel.

### 1.2.1 Inputting Data into Cells:

Click on a cell and start typing to input data. Press Enter to move to the next cell.

### 1.2.2 EDITING AND DELETING CELL CONTENTS:

Double-click on a cell to edit its contents. Press Delete or Backspace to clear cell contents.

## 1.3 FORMATTING WORKSHEETS

Presenting data in a visually coherent and appealing manner is pivotal. This segment delves into formatting techniques that elevate your worksheet's aesthetics and clarity, demonstrating how to imbue your content with visual impact through font adjustments, cell borders, shading, and numeric formatting.

### 1.3.1 CHANGING FONT STYLES AND SIZES:

Select cells and use the font options in the “Font” group of “Home” tab to change font styles, sizes, and colors.



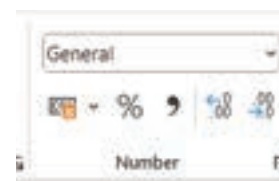
*Figure: Font group*

### 1.3.2 APPLYING CELL BORDERS AND SHADING:

Use the “Borders” button in the ribbon to add borders around cells. Use the “Fill Color” option to shade cells with colors.

### 1.3.3 FORMATTING NUMBERS AS CURRENCY, PERCENTAGES, ETC.:

Select cells and use the “Number Format” dropdown to format numbers as currency, percentages, dates, etc.



*Figure: Number group*

**Note:** Formatting worksheets is covered in detail in the sub-topic “Handling Data Formats”.

## 1.4 MANAGING ROWS AND COLUMNS

Managing the layout of your worksheet involves more than data input. This section offers insights into structuring rows and columns effectively, along with advanced techniques like freezing panes. By harnessing these tools, your data stays organized, easily accessible, and aesthetically pleasing.

### 1.4.1. INSERTING AND DELETING ROWS AND COLUMNS:

Right-click on a row/column header and choose “Insert” or “Delete” to add or remove rows/columns.

### 1.4.2. HIDING AND UNHIDING ROWS AND COLUMNS:

Select rows/columns, right-click, and choose “Hide” or “Unhide” to make data temporarily visible or invisible.

### 1.4.3. ADJUSTING COLUMN WIDTHS AND ROW HEIGHTS:

Drag the column/row boundary to adjust width or height. Double-click the boundary to automatically fit the content.



#### 1.4.4. FREEZING PANES FOR IMPROVED VISIBILITY:

Use “Freeze Panes” under the “View” tab to keep certain rows/columns visible while scrolling through large datasets.

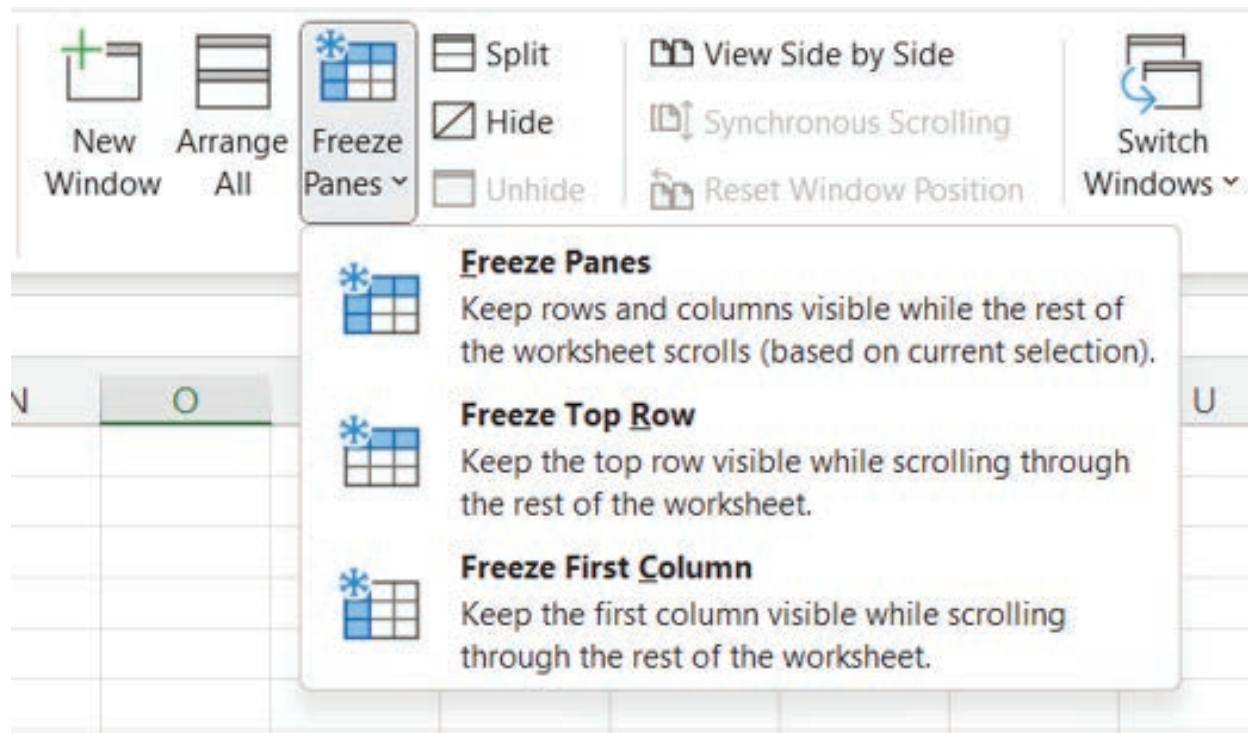


Figure: Freeze panes

**Note:** Apply Freeze panes on row 10 if you want to freeze till row 9. If you want to freeze only row 9, apply freeze panes on row 9 alone.

### 1.5 WORKING WITH MULTIPLE WORKSHEETS

Working with multiple worksheets expands Excel’s capacity for multifaceted data management. This segment delves into techniques like renaming, copying, moving, and linking sheets. By mastering these skills, you harness the potential to orchestrate intricate data relationships across your workbook, fostering a deeper understanding of interconnected data manipulation.

#### 1.5.1 Renaming and Reordering Worksheets:

Right-click on a worksheet tab to rename or change the tab colour. Drag tabs to reorder worksheets.

#### 1.5.2 COPYING AND MOVING WORKSHEETS WITHIN WORKBOOKS:

Right-click on a tab and choose “Move or Copy” to duplicate or move a worksheet to another location within the same or different workbook.

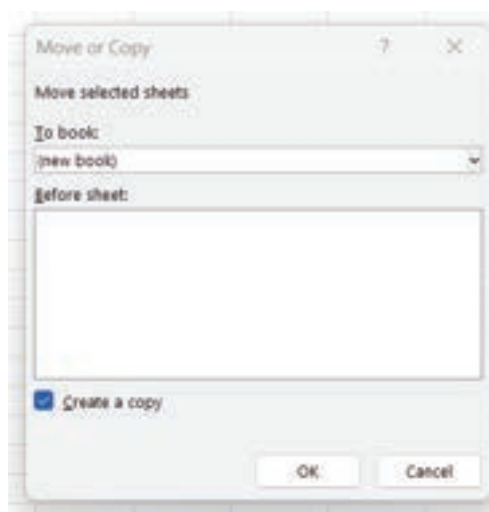


Figure: Move or Copy Sheet

**Note:** Tick the check box “Create a copy” to make a copy of the sheet. Otherwise, the sheet will be permanently moved to the selected workbook.

### 1.5.3. LINKING DATA BETWEEN WORKSHEETS:

Use formulas to link data between worksheets. For instance, use “=Sheet2!A1” to reference cell A1 on Sheet2.

**Note:** After typing “=” on the cell you may directly go to sheet 2 and select the respective cell to reference it.



## SUMMARY

- Worksheets are individual spreadsheets within an Excel workbook.
- Create a new workbook through “File” > “New” > “Blank Workbook.”
- Tabs at the bottom allow switching between worksheets within the same workbook.
- Click a cell to select it; hold Shift and click for cell range selection.
- Select entire columns or rows by clicking column/row headers.
- Start typing in a cell to input data; press Enter to move to the next cell.
- Double-click a cell to edit its contents; use Delete or Backspace to clear content.
- Format numbers as currency, percentages, etc., using the “NumberFormat” dropdown.
- Freeze Panes under “View” tab keeps specific rows/columns visible during scrolling.
- Check “Create a copy” to duplicate sheet across same/different workbooks.

**MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. What is a workbook in Microsoft Excel?**

- a. A single spreadsheet
- b. A collection of related worksheets
- c. A file format used to save data
- d. A formatting option for cells

**2. How do you create a new worksheet in Excel?**

- a. Right-click on an existing worksheet tab and select "Insert"
- b. Go to "File" > "New" and choose "Blank Worksheet"
- c. Press Ctrl + N
- d. Click on the "Plus" button next to the worksheet name

**3. Which option allows you to add borders around cells in Excel?**

- a. Format Cells
- b. Borders Button
- c. Cell Options
- d. Cell Formatting

**4. What does freezing panes in Excel mean?**

- a. Locking a cell so it cannot be edited
- b. Keeping certain rows/columns visible while scrolling
- c. Removing all formatting from a cell
- d. Deleting a row or column

**5. How do you adjust the width of a column in Excel?**

- a. Drag the column boundary
- b. Right-click and select "Adjust Width"
- c. Go to "Format" > "Column Width"
- d. Press Ctrl + A

**6. Which formula would you use to reference cell A1 on Sheet2?**

- a. =Sheet2!A1
- b. =Sheet1!A1
- c. =A1(Sheet2)
- d. =Sheet2(A1)

**7. How do you select an entire column in Excel?**

- a. Click on the column header
- b. Double-click on a cell in the column

- c. Right-click and select "Select Column"
- d. Press Ctrl + Shift + C

**8. What is the purpose of the "Fill Color" option in Excel?**

- a. Change the font color
- b. Add borders to cells
- c. Shade cells with colors
- d. Change the cell size

**9. How do you delete a worksheet in Excel?**

- a. Right-click on the worksheet tab and select "Delete"
- b. Press Ctrl + D
- c. Go to "Edit" > "Delete Worksheet"
- d. Worksheets cannot be deleted in Excel

**10. What is the keyboard shortcut to move to the next cell in Excel?**

- a. Ctrl + Enter
- b. Tab
- c. Alt + Enter
- d. Shift + Enter

**11. Which menu option allows you to create a new workbook in Excel?**

- a. File > New
- b. Edit > New
- c. View > New
- d. Format > New

**12. What is the purpose of the "Freeze Panes" feature in Excel?**

- a. Lock certain cells so they cannot be edited
- b. Keep certain rows/columns visible while scrolling
- c. Hide selected rows/columns
- d. Apply a freezing effect to the worksheet

**13. How do you rename a worksheet in Excel?**

- a. Right-click on the worksheet tab and select "Rename"
- b. Go to "File" > "Rename Worksheet"
- c. Double-click on the worksheet tab
- d. Worksheets cannot be renamed in Excel

**14. What is the keyboard shortcut to undo the last action in Excel?**

- a. Ctrl + Z

- b. Ctrl + U
- c. Ctrl + Y
- d. Ctrl + A

**15. How do you select multiple non-adjacent cells in Excel?**

- a. Hold Ctrl and click on the cells
- b. Hold Shift and click on the cells
- c. Use the arrow keys while holding Ctrl
- d. It's not possible to select non-adjacent cells in Excel

**ANSWERS**

1. What is a workbook in Microsoft Excel?  
Option b. A collection of related worksheets
2. How do you create a new worksheet in Excel?  
Option a. Right-click on an existing worksheet tab and select "Insert"
3. Which option allows you to add borders around cells in Excel?  
Option b. Borders Button
4. What does freezing panes in Excel mean?  
Option b. Keeping certain rows/columns visible while scrolling
5. How do you adjust the width of a column in Excel?  
Option a. Drag the column boundary
6. Which formula would you use to reference cell A1 on Sheet2?  
Option a. =Sheet2!A1
7. How do you select an entire column in Excel?  
Option a. Click on the column header
8. What is the purpose of the "Fill Color" option in Excel?  
Option c. Shade cells with colors
9. How do you delete a worksheet in Excel?  
Option a. Right-click on the worksheet tab and select "Delete"
10. What is the keyboard shortcut to move to the next cell in Excel?  
Option b. Tab
11. Which menu option allows you to create a new workbook in Excel?  
Option a. File > New
12. What is the purpose of the "Freeze Panes" feature in Excel?  
Option b. Keep certain rows/columns visible while scrolling
13. How do you rename a worksheet in Excel?  
Option c. Double-click on the worksheet tab and then rename the worksheet
14. What is the keyboard shortcut to undo the last action in Excel?  
Option a. Ctrl + Z
15. How do you select multiple non-adjacent cells in Excel?  
Option a. Hold Ctrl and click on the cells

**SELF EXAMINATION QUESTIONS FOR PRACTICE**

1. What is the purpose of worksheets and workbooks in Excel? How do they help in organizing and managing data effectively?
2. Describe the steps to create a new workbook and add a new worksheet to an existing workbook.
3. How can you navigate between different worksheets within the same workbook? Explain the methods you can use.
4. Explain the process of selecting cells, rows, and columns in Excel. How would you select an entire column using the keyboard?
5. What are the steps to input data into a cell in Excel? How do you move to the next cell after entering data?
6. Describe the process of editing the contents of a cell in Excel. How would you clear the contents of a cell?
7. How can you change the font styles, sizes, and colors of cells in Excel? Provide a brief explanation of the “Number Format” dropdown.
8. Explain how to add cell borders and shading to enhance the appearance of your worksheet. What is the purpose of using shading?
9. How would you adjust the column width and row height of cells in Excel? Is there a shortcut to automatically fit the content within a cell?
10. What is the purpose of freezing panes in Excel? Describe how to use the “Freeze Panes” feature to keep specific rows or columns visible while scrolling.
11. Describe the steps to rename a worksheet and change its tab color. How can you reorder worksheets within a workbook?
12. Explain the process of copying and moving worksheets between workbooks. What does the “Create a copy” option do during this process?
13. How can you link data between different worksheets using formulas? Provide an example of a formula that references a cell in another sheet.

# CHAPTER 2

## HANDLE DATA FORMATS AND LAYOUTS



### LEARNING OBJECTIVES

- ✓ Understand the fundamental concepts of data formats and layouts in MS Excel, including cell formatting, number formats, and text alignment.
- ✓ Learn to efficiently organize and manipulate data by applying various Excel features, such as sorting, filtering, and grouping, to improve data layout and readability.
- ✓ Master the techniques of importing, exporting, and converting data between different file formats (e.g., CSV, XLSX) while maintaining data integrity.
- ✓ Gain proficiency in creating visually appealing and structured Excel spreadsheets through the effective use of tables, charts, and cell merging for improved data presentation.
- ✓ Develop the skills to troubleshoot and resolve common data formatting and layout issues in Excel to ensure accurate data analysis and reporting.

These learning objectives aim to provide CA students with a comprehensive understanding of handling data formats and layouts in Microsoft Excel, especially in the context of financial spreadsheets.

Effectively managing data formats and layouts is a cornerstone of Excel usage, particularly when dealing with financial information. Accurate representation and appealing presentation of data are crucial. This section delves into techniques that ensure your worksheets are well-structured and that data is formatted in accordance with the formal standards, thus facilitating easier comprehension and analysis.

### 2.1. NUMBER FORMATTING

Accurate portrayal of numerical data is paramount in financial spreadsheets. Number formatting allows you to represent currency values, percentages, and decimals as they should appear. Properly formatting numbers is crucial in financial spreadsheets to reflect currency, percentages, and decimals appropriately.

#### To format a cell:

- Select the cell or range.
- Go to the "Home" tab.
- Choose a format from the
- "Number " group.



Figure: Number formatting

- For currency, use the “Currency” option, and for percentages, select the “Percentage” option. For custom formats, click “More Number Formats” to define specific formats like displaying negatives in parentheses.

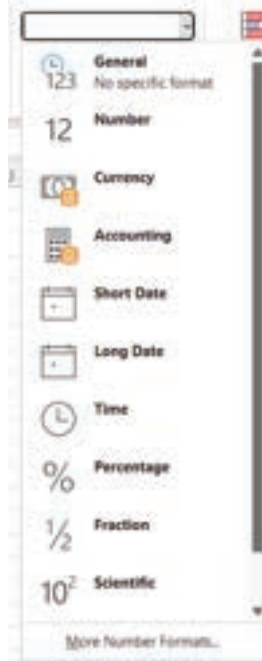


Figure: More Number formatting

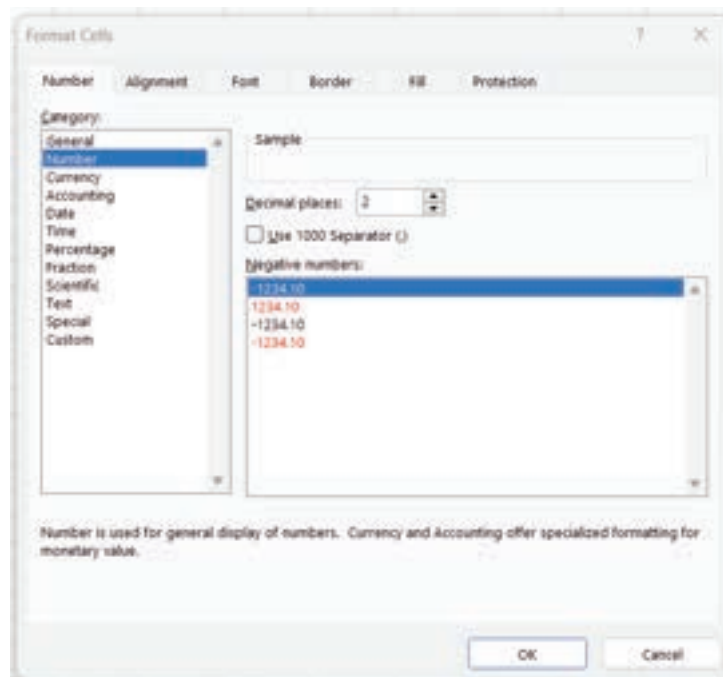


Figure: Format cell



## 2.2. DATE AND TIME FORMATTING

The precision demanded by accounting often extends to date and time representation. The formatting of dates and time ensures accurate communication of temporal data. Accounting often involves precise date and time representation.

### Format dates and times as follows:

- Select the cell or range.
- Go to the “Home” tab.
- Choose a format from the “Number Format” dropdown, such as “Short Date” or “Long Date.”

Use custom formatting for specific date layouts and calculations, like applying “yyyy-mm-dd” for uniform date entries.

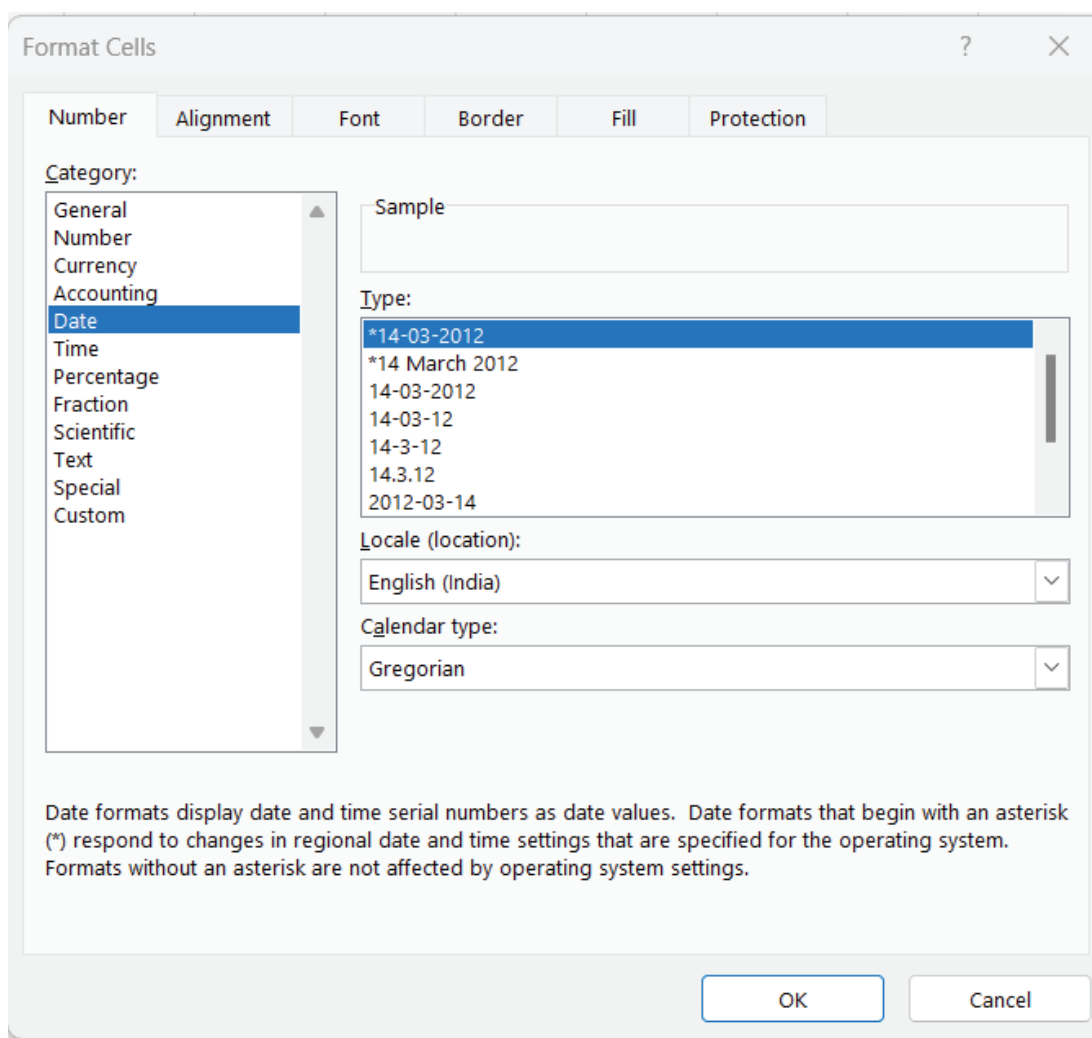


Figure: Date and time formatting

## 2.3. CONDITIONAL FORMATTING

Conditional formatting introduces an intelligent layer to data visualization. It enables you to automatically highlight cells that meet certain criteria, making key insights easily discernible.

### Highlight important data points using conditional formatting:

- Select the cell range.
- Go to the “Home” tab.
- Click “Conditional Formatting” and choose a rule type.

For instance, you can highlight cells with values above a threshold in a different color. Use color scales for value comparisons and data bars for visual data assessment.



*Figure: Conditional formatting*

## 2.4. CELL ALIGNMENT AND ORIENTATION

The layout of data within cells significantly influences readability. Alignment ensures a clean presentation that is easy on the eyes.

### Aligning text within cells enhances readability:

- Select the cell or range.
- Go to the “Home” tab
- Use the “Alignment” options to align text left, center, or right.
- To rotate text for better fit, use the “Orientation” dropdown and choose an angle.

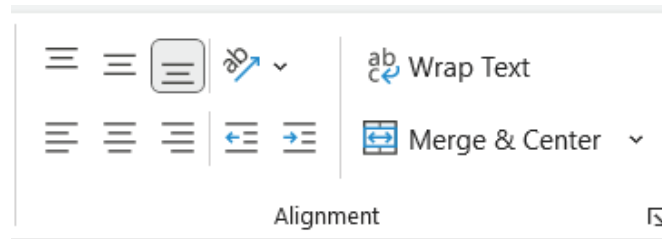


Figure: Cell alignment and Orientation

## 2.5. MERGING AND CENTERING CELLS

Creating distinct headers and enhancing the overall aesthetic of your spreadsheet is achieved through the merging and centering of cells.

**Merging cells can help create clear headers:**

- Select the cells to merge.
- Go to the “Home” tab.
- Click the “Merge & Center” dropdown and choose a merging option.

Ensure you center the merged cell’s content for a polished appearance.

## 2.6. CELL STYLES AND THEMES

Maintaining consistency in formatting is essential for professional-looking worksheets. Cell styles and themes provide a systematic approach to achieving uniformity.

**Consistency in formatting is crucial for professional worksheets:**

- Select the cell or range.
- Go to the “Home” tab.
- Apply a cell style from the “Cell Styles” gallery.

Use predefined styles to maintain uniformity, or customize styles to match your organization’s branding.



Figure: Cell styles

## 2.7. FORMATTING COLUMNS AND ROWS

Adjusting the dimensions of columns and rows plays a crucial role in enhancing the presentation of your spreadsheet. By dragging column borders, you can fine-tune the width of columns to accommodate content. Hovering over row boundaries and adjusting the row height allows you to optimize readability.

### Adjusting column widths and row heights improves presentation:

- Drag column borders to adjust widths.
- Hover over the row boundary to adjust row height.

Using the “Format” menu in the “Home” tab, you can autofit columns to match content length.

## 2.8. USING BORDERS AND GRIDLINES

Effectively using borders and gridlines helps draw attention to specific cells, guiding the viewer’s focus and enhancing readability.

Adding borders enhances focus on specific cells:

- Select the cells to format.
- Go to the “Home” tab.
- Click the “Borders” dropdown to choose border styles.

Enable or disable gridlines via the “View” tab to differentiate cells.

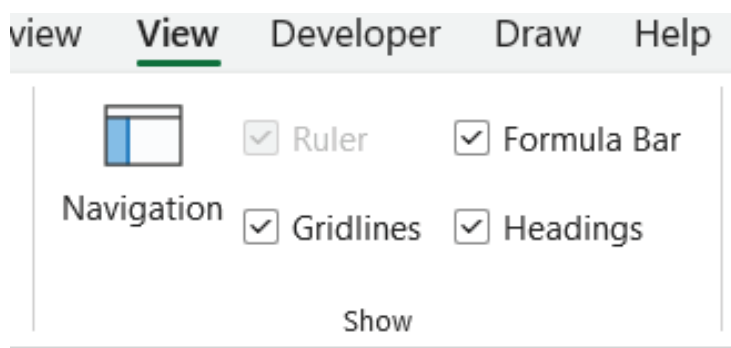


Fig : Show group in View tab



## SUMMARY

- Proper number formatting is essential for financial spreadsheets.
- Precision in accounting requires accurate date and time representation.
- Conditional formatting highlights data meeting specific criteria, enhancing data visualization.
- Alignment influences data readability significantly.
- Merging and centering cells create clear headers and improve aesthetics.
- Uniform formatting enhances professional appearance. Cell styles help with that.
- Adjusting column and row dimensions enhances spreadsheet presentation.  
Drag column borders to adjust widths. Hover over row boundary to adjust row height.
- Borders and gridlines focus attention on cells and enhance readability.  
Enable or disable gridlines via the “View” tab.

## MULTIPLE CHOICE QUESTIONS (MCQS)

### 1. What is the purpose of number formatting in Excel?

- a. To change the font size
- b. To accurately represent numerical data
- c. To apply colors to cells
- d. To merge cells

### 2. Which option in the “Home” tab allows you to format a cell with currency values?

- a. Font
- b. Alignment
- c. Number
- d. Format

### 3. How can you format a date to display as “dd/mm/yyyy” in Excel?

- a. Select the cell, go to “Home” tab, choose “Short Date” from the “Number Format” dropdown.
- b. Select the cell, go to “Home” tab, choose “Long Date” from the “Number Format” dropdown.
- c. Select the cell, go to “Home” tab, choose “More Number Formats” and enter the format manually.
- d. This cannot be done in Excel.

**4. What does conditional formatting allow you to do in Excel?**

- a. Automatically highlight cells based on certain criteria.
- b. Add conditional statements to cells.
- c. Adjust cell alignment based on content.
- d. Change the font style of selected cells.

**5. How do you align text to the right within a cell in Excel?**

- a. Use the "Alignment" options in the "Home" tab.
- b. Select the cell, right-click, and choose "Align Right".
- c. Press Ctrl + R.
- d. It cannot be done in Excel.

**6. Which option allows you to merge and center cells in Excel?**

- a. Format Cells
- b. Alignment Options
- c. Merge & Center Dropdown
- d. Cell Styles

**7. What is the purpose of adjusting column widths and row heights in Excel?**

- a. To change the font size in the cells.
- b. To optimize the presentation of the spreadsheet.
- c. To apply conditional formatting.
- d. To merge cells.

**8. How do you add borders to specific cells in Excel?**

- a. Go to the "Home" tab, click the "Borders" dropdown, and choose a border style.
- b. Right-click on the cell and choose "Add Border".
- c. Press Ctrl + B.
- d. This cannot be done in Excel.

**9. What is the purpose of gridlines in Excel?**

- a. To differentiate cells and enhance readability.
- b. To apply conditional formatting.
- c. To merge cells.
- d. To change the font color.

**10. How do you format a cell to display currency values in Excel?**

- a. Select the cell, go to "Home" tab, choose "Currency" from the "Number Format" dropdown.
- b. Select the cell, right-click, and choose "Format Currency".
- c. Press Ctrl + C.
- d. It cannot be done in Excel.

**11. Which option allows you to adjust the row height in Excel?**

- a. Use the "Format" menu in the "Home" tab.
- b. Drag the row boundary.
- c. Right-click on the row and choose "Adjust Height".
- d. Press Ctrl + H.

**12. How can you highlight cells with values above a specified threshold in Excel?**

- a. Use the "Conditional Formatting" option in the "Home" tab.
- b. Right-click on the cell and choose "Highlight Values".
- c. Press Ctrl + H.
- d. This cannot be done in Excel.

**13. Which formatting option is essential for accurate representation of numerical data in financial spreadsheets?**

- a. Number Formatting
- b. Conditional Formatting
- c. Date and Time Formatting
- d. Cell Alignment and Orientation

**14. How can you rotate text within a cell for better fit in Excel?**

- a. Use the "Alignment" options in the "Home" tab.
- b. Right-click on the cell and choose "Rotate Text".
- c. Select the cell, go to "Home" tab, choose an angle from the "Orientation" dropdown.
- d. Press Ctrl + R.

**Answers**

1. What is the purpose of number formatting in Excel?

Answer: b. To accurately represent numerical data

2. Which option in the "Home" tab allows you to format a cell with currency values?

Answer: c. Number

3. How can you format a date to display as "dd/mm/yyyy" in Excel?

Answer: c. Select the cell, go to "Home" tab, choose "More Number Formats" and enter the format manually.

4. What does conditional formatting allow you to do in Excel?

Answer: a. Automatically highlight cells based on certain criteria.

5. How do you align text to the right within a cell in Excel?

Answer: a. Use the "Alignment" options in the "Home" tab.

6. Which option allows you to merge and center cells in Excel?

Answer: c. Merge & Center Dropdown

7. What is the purpose of adjusting column widths and row heights in Excel?

Answer: b. To optimize the presentation of the spreadsheet.

8. How do you add borders to specific cells in Excel?

Answer: a. Go to the "Home" tab, click the "Borders" dropdown, and choose a border style.

9. What is the purpose of gridlines in Excel?

Answer: a. To differentiate cells and enhance readability.

10. How do you format a cell to display currency values in Excel?

Answer: a. Select the cell, go to "Home" tab, choose "Currency" from the "Number Format" dropdown.

11. Which option allows you to adjust the row height in Excel?

Answer: b. Drag the row boundary.

12. How can you highlight cells with values above a specified threshold in Excel?

Answer: a. Use the "Conditional Formatting" option in the "Home" tab.

13. Which formatting option is essential for accurate representation of numerical data in financial spreadsheets?

Answer: a. Number Formatting

14. How can you rotate text within a cell for better fit in Excel?

Answer: c. Select the cell, go to "Home" tab, choose an angle from the "Orientation" dropdown.

## **SELF-EXAMINATION QUESTIONS FOR PRACTICE**



### **1. Number Formatting:**

- How does proper number formatting benefit financial spreadsheets?
- Explain the steps to format a cell as currency.
- What does the "More Number Formats" option allow you to do?

### **2. Date and Time Formatting:**

- Why is accurate date and time formatting important in financial data?
- Describe the steps to format a cell as a short date.
- How can you apply custom formatting to dates for uniformity?

### **3. Conditional Formatting:**

- How does conditional formatting enhance data visualization?
- Give an example of a situation where you might use color scales for conditional formatting.



- c. Explain the process of highlighting cells with values above a certain threshold using conditional formatting.

**4. Cell Alignment and Orientation:**

- a. Why is proper cell alignment important in spreadsheets?
- b. How can you align text within a cell to the right?
- c. What is the purpose of using the "Orientation" dropdown in cell alignment?

**5. Merging and Centering Cells:**

- a. How does merging and centering cells contribute to spreadsheet aesthetics?
- b. Describe the steps to merge a group of cells and center their content.
- c. Why is it important to ensure that merged cell content is centered?

**6. Cell Styles and Themes:**

- a. Why is consistency in formatting important for professional-looking worksheets?
- b. How can you apply a cell style from the "Cell Styles" gallery?
- c. Can you customize cell styles to match your organization's branding? If yes, how?

**7. Formatting Columns and Rows:**

- a. Why is adjusting column widths and row heights important for presentation?
- b. Describe how you can autofit columns to match content length.
- c. How do you adjust the width of a column using drag borders?

**8. Using Borders and Gridlines:**

- a. How do borders and gridlines enhance the readability of a spreadsheet?
- b. Explain the steps to add borders around a group of cells.
- c. How can you enable or disable gridlines in Excel

# CHAPTER 3

## CREATE AND MANAGE TABLES



### LEARNING OBJECTIVES

- ✓ Understand the fundamental concepts of data organization and table structures in Microsoft Excel.
- ✓ Learn how to create tables efficiently to store and manage data in Excel, including defining headers and formatting options.
- ✓ Explore advanced table management techniques such as sorting, filtering, and using formulas within tables.
- ✓ Gain proficiency in modifying and customizing table designs to suit specific data needs.
- ✓ Develop the skills to troubleshoot and resolve common issues that may arise when working with tables in MS Excel.

By mastering these objectives, you will be proficient in creating, managing, and utilizing tables in Excel for efficient data organization and analysis in financial and accounting tasks.

Excel's feature to create and manage tables is invaluable in organizing, analyzing, and manipulating data efficiently. The ability to structure information with defined headers and intrinsic functionalities enhances your financial and accounting endeavours. This section will guide you through the process of creating and adeptly managing tables within your spreadsheet tasks.

### 3.1. CREATING A TABLE

Creating a table grants you the capability to categorize data with clear headings and integrated features, fostering a structured approach to data management. It allows you to organize data with distinct headers and built-in functionalities.

**Step 1:** Select the data range you want to convert into a table.

**Step 2:** Go to the "Insert" tab.

**Step 3:** Click the "Table" button in the Tables group.

**Step 4:** Confirm that Excel has selected the correct range and that the "Create Table" dialog box displays the correct range.

**Step 5:** Ensure "My table has headers" is checked if your data range includes headers.

**Step 6:** Click “OK” to create the table.



Figure: Creating a Table

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Date	Year	Month	Customer Age	Customer Gender	Country	State	Product Category	Sub Category	Quantity	Unit Cost	Unit Price	Cost	Revenue
2	2-19-18	2018	February	29	F	United States	Washington	Accessories	Tires and Tubes	3	80.00	109.00	80.00	327.00
3	2-20-18	2018	February	29	F	United States	Washington	Clothing	Gloves	2	24.50	28.50	49.00	57.00
4	2-27-18	2018	February	29	F	United States	Washington	Accessories	Tires and Tubes	3	3.87	5.00	11.00	15.00
5	3-12-18	2018	March	29	F	United States	Washington	Accessories	Tires and Tubes	2	87.50	156.50	175.00	233.00
6	3-12-18	2018	March	29	F	United States	Washington	Accessories	Tires and Tubes	3	35.00	41.87	105.00	125.00
7	4-8-18	2018	April	29	F	United States	Washington	Accessories	Tires and Tubes	3	46.00	38.00	66.00	78.00
8	4-17-18	2018	April	29	F	United States	Washington	Accessories	Tires and Tubes	2	52.00	60.00	104.00	120.00
9	4-17-18	2018	April	29	F	United States	Washington	Accessories	Tires and Tubes	3	40.00	68.00	60.00	68.00
10	6-22-18	2018	June	29	F	United States	Washington	Accessories	Tires and Tubes	2	8.00	10.00	16.00	20.00
11	6-22-18	2018	June	29	F	United States	Washington	Accessories	Tires and Tubes	2	2.50	3.00	5.00	6.00
12	6-24-18	2018	June	29	F	United States	Washington	Accessories	Helmets	2	17.50	21.00	35.00	42.00
13	7-3-18	2018	July	29	F	United States	Washington	Accessories	Tires and Tubes	3	40.00	48.87	120.00	146.00
14	7-22-18	2018	July	29	F	United States	Washington	Accessories	Tires and Tubes	2	46.00	60.00	92.00	120.00
15	7-22-18	2018	July	29	F	United States	Washington	Accessories	Tires and Tubes	3	9.00	10.00	9.00	10.00
16	8-18-15	2015	August	29	F	United States	Washington	Accessories	Helmets	3	151.67	181.33	455.00	544.00
17	8-30-15	2015	August	29	F	United States	Washington	Accessories	Tires and Tubes	3	70.00	72.67	210.00	218.00
18	9-17-15	2015	September	29	F	United States	Washington	Accessories	Tires and Tubes	3	385.00	439.00	385.00	439.00
19	9-17-15	2015	September	29	F	United States	Washington	Accessories	Tires and Tubes	2	72.50	86.50	145.00	173.00
20	9-17-15	2015	September	29	F	United States	Washington	Accessories	Helmets	3	210.00	252.67	630.00	638.00
21	9-24-15	2015	September	29	F	United States	Washington	Accessories	Tires and Tubes	3	64.00	74.00	64.00	74.00
22	9-24-15	2015	September	29	F	United States	Washington	Accessories	Helmets	3	326.67	359.87	980.00	1,079.00
23	10-3-15	2015	October	29	F	United States	Washington	Accessories	Tires and Tubes	3	125.00	136.00	125.00	136.00
24	10-3-15	2015	October	29	F	United States	Washington	Accessories	Helmets	2	17.50	18.00	35.00	36.00
25	10-3-15	2015	October	29	F	United States	Washington	Accessories	Tires and Tubes	2	215.00	226.00	430.00	452.00
26	10-3-15	2015	October	29	F	United States	Washington	Accessories	Tires and Tubes	3	21.00	23.00	66.00	69.00
27	10-13-15	2015	October	29	F	United States	Washington	Accessories	Tires and Tubes	3	750.00	820.00	750.00	820.00

Figure: Created table

### 3.2. ADDING DATA TO A TABLE

After creating a table, the seamless process of data addition becomes evident. Starting from the last row of the table, the simple action of typing initiates the expansion of the table to include the newly inserted row. This dynamic feature streamlines the incorporation of new information, ensuring the coherence of your data layout remains intact.

**Once a table is created, adding data is seamless:**

**Step 1:** Navigate to the last row of the table.

**Step 2:** Start typing data. Excel automatically expands the table to include the new row.

### 3.3. FILTERING AND SORTING IN TABLES

Tables provide indispensable tools for data analysis, particularly through filtering and sorting. Filtering, achieved by clicking the dropdown arrow on a column header, enables the display of specific data based on chosen filter criteria. Sorting, on the other hand, involves clicking the sort

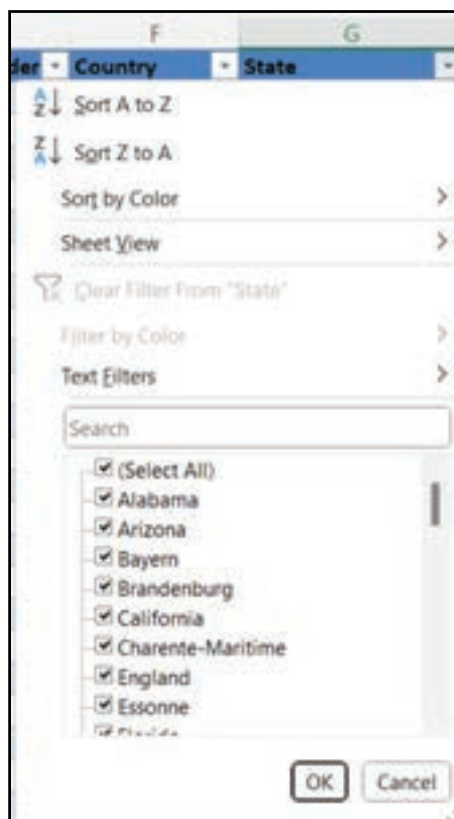
icon on a column header, effectively arranging data in either ascending or descending order. These capabilities empower you to extract meaningful insights from your data with ease.

**Step 1 (Filtering):**

Click the dropdown arrow on a column header. Choose a filter criterion to display specific data.

**Step 2 (Sorting):**

Click the sort icon on a column header to sort data in ascending or descending order.



*Figure: Sorting and Filtering*

### 3.4. TOTAL ROW IN TABLES

Integrating total rows within tables simplifies calculations by providing a designated row for aggregations.

**Total rows simplify calculation within a table:**

**Step 1:** Ensure the table is selected.

**Step 2:** Go to the "Table Design" tab.

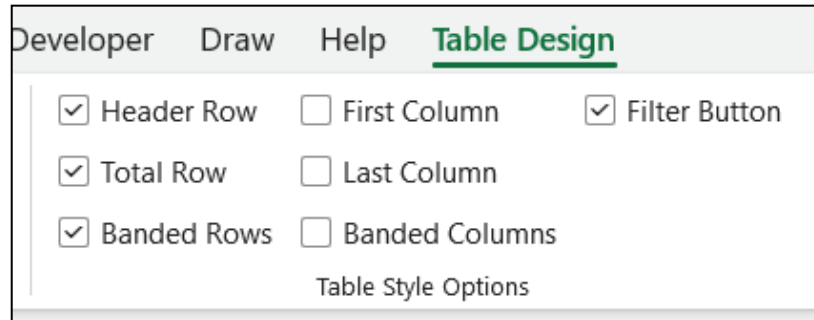


Figure: Table style options

**Step 3:** Check the “Total Row” checkbox. Excel adds a new row at the bottom of the table.

**Step 4:** Click on the cell in the Total Row where you want to display a calculation (e.g., sum, average).

**Step 5:** Choose the desired calculation from the dropdown arrow that appears.

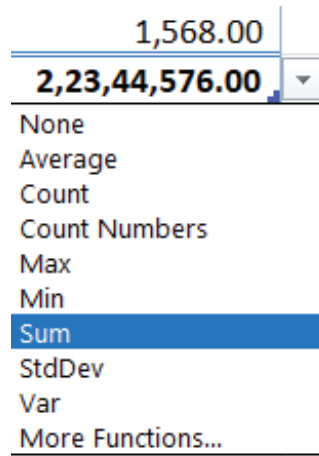


Figure: Total row aggregation

### 3.5. RESIZING AND FORMATTING TABLES

The process of adjusting the dimensions and formatting of tables contributes to their effectiveness in presenting data. Clicking on the table provides access to resize handles, facilitating easy adjustment of the table’s size to suit your needs. Additionally, the “Table Design” tab offers a range of table styles that can be applied to enhance the overall appearance and readability of your data.

**Adjusting table dimensions and formatting is straightforward:**

**Step 1:** Click on the table.

**Step 2:** Use the resize handles to adjust the table size.

**Step 3:** Go to the “Table Design” tab to apply table styles.



Figure: Table Styles

### 3.6. CONVERTING TABLES TO A RANGE

- The flexibility of Excel extends to the ability to convert table back to range if required.

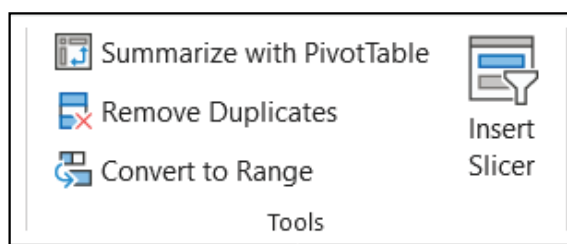


Figure: Tools group

If needed, you can convert a table back to a range:

**Step 1:** Click on the table.

**Step 2:** Go to the “Table Design” tab.

**Step 3:** Click the “Convert to Range” button.

**Step 4:** Confirm the action in the prompt.



Figure: Prompt window of Convert Table to Range

### 3.7. NAMED RANGES WITHIN TABLES

Named ranges simplify complex formulas within tables, contributing to efficient data analysis. Once named, this range can be seamlessly utilized in formulas, streamlining calculations and enhancing the clarity of your data analysis.

**Named ranges simplify formulas within tables:**

**Step 1:** Select the cell range you want to name.

**Step 2:** Go to the “Formulas” tab.

**Step 3:** Click the “Create from Selection” button.

**Step 4:** Choose “Top row” if your table has headers.

**Step 5:** Click “OK” to create the named range.

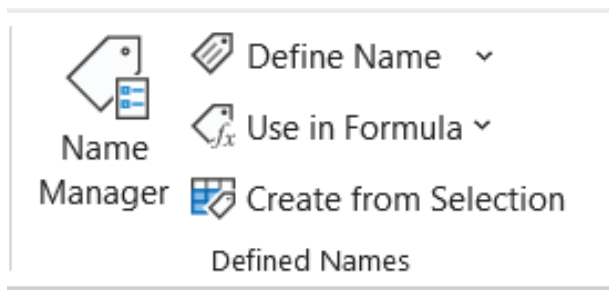


Figure: Defined names group

By comprehensively understanding and implementing these techniques, you can harness the power of Excel’s table functionalities to effectively manage, organize, and analyze financial and accounting data with precision and ease.



## SUMMARY

- Tables enhance data organization with clear headings and built-in functionalities.
- After table creation, adding data is simple by typing in the last row.
- Filtering involves dropdown menus on column headers to display specific data based on criteria.
- Sorting is achieved by clicking sort icons, arranging data in ascending or descending order.
- Total rows within tables simplify calculations by offering a designated row for aggregations.
- Adjusting table dimensions enhances data presentation and appearance. “Table Design” tab provides various table styles to improve readability.
- Named ranges simplify complex formulas within tables. Steps include selecting the range, accessing the “Formulas” tab, and creating the named range.

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the purpose of creating a table in Excel?**

- a. To add colors to the data
- b. To categorize data with clear headings and integrated features
- c. To merge cells for better organization
- d. To change the font size

**2. How do you create a table in Excel?**

- a. Go to the "Insert" tab and click the "Table" button
- b. Go to the "Format" tab and select "Create Table"
- c. Right-click on the data range and choose "Create Table"
- d. Press Ctrl + T

**3. What is the significance of the "My table has headers" option when creating a table?**

- a. It changes the font style of the headers
- b. It indicates that the data range includes headers for each column
- c. It merges the headers for better visibility
- d. It applies conditional formatting to the headers

**4. How do you add data to a table after it is created?**

- a. Go to the first row after the table and start typing
- b. Right-click on the table and choose "Add Data"
- c. Select the last row of the table and press Enter
- d. Use the "Add Data" button in the "Table Design" tab

**5. What is the purpose of filtering in tables?**

- a. To automatically add new data to the table
- b. To display specific data based on chosen filter criteria
- c. To sort data in ascending order
- d. To merge cells with similar values

**6. How do you sort data in a table in Excel?**

- a. Click the sort icon on a column header
- b. Right-click on a cell and choose "Sort"
- c. Go to the "Data" tab and select "Sort"
- d. Press Ctrl + S

**7. What does the Total Row in a table allow you to do?**

- a. It indicates the total number of rows in the table
- b. It provides a designated row for aggregations and calculations



- c. It merges all the cells in the last row
- d. It changes the font color of the last row

**8. How do you apply a table style to a table in Excel?**

- a. Use the "Format Table Style" option in the "Table Design" tab
- b. Right-click on the table and choose "Apply Table Style"
- c. Go to the "Home" tab and select a style from the "Table Styles" gallery
- d. Press Ctrl + Shift + S

**9. How can you convert a table back to a range in Excel?**

- a. Go to the "Table Design" tab and click "Convert to Range"
- b. Right-click on the table and choose "Convert to Range"
- c. Press Ctrl + R
- d. Use the "Convert Table" option in the "Data" tab

**10. What is the purpose of named ranges within tables?**

- a. To simplify complex formulas within tables
- b. To change the font style of the table
- c. To merge cells with specific names
- d. To apply conditional formatting to the table

**ANSWERS**

1. What is the purpose of creating a table in Excel?  
Answer: b. To categorize data with clear headings and integrated features
2. How do you create a table in Excel?  
Answer: a. Go to the "Insert" tab and click the "Table" button
3. What is the significance of the "My table has headers" option when creating a table?  
Answer: b. It indicates that the data range includes headers for each column
4. How do you add data to a table after it is created?  
Answer: a. Go to the first row after the table and start typing
5. What is the purpose of filtering in tables?  
Answer: b. To display specific data based on chosen filter criteria
6. How do you sort data in a table in Excel?  
Answer: a. Click the sort icon on a column header
7. What does the Total Row in a table allow you to do?  
Answer: b. It provides a designated row for aggregations and calculations
8. How do you apply a table style to a table in Excel?

Answer: c. Go to the “Home” tab and select a style from the “Table Styles” gallery

9. How can you convert a table back to a range in Excel?

Answer: a. Go to the “Table Design” tab and click “Convert to Range”

10. What is the purpose of named ranges within tables?

Answer: a. To simplify complex formulas within tables



### SELF-EXAMINATION QUESTIONS FOR PRACTICE

1. How does creating a table in Excel enhance the management of data? What are the key advantages of using tables for data organization?
2. Outline the steps involved in creating a table in Excel. Explain the purpose of confirming the correct range and selecting the “My table has headers” option.
3. Once a table is created, how does Excel facilitate the process of adding data? Describe the dynamic feature that ensures the coherence of the data layout.
4. How can filtering and sorting capabilities in tables enhance data analysis? Explain the steps for filtering data based on specific criteria and sorting data in ascending or descending order.
5. What is the significance of the “Total Row” feature in tables? Describe the steps to activate the “Total Row” and perform calculations within it.
6. In what ways does resizing and formatting contribute to the effectiveness of tables in data presentation? How can you adjust the dimensions of a table using the resize handles?
7. How can you convert a table back to a range in Excel? Outline the steps involved in converting a table to a range and explain the purpose of this action.
8. What is the role of named ranges within tables? How do named ranges simplify complex formulas and contribute to efficient data analysis?
9. Imagine you have a table in Excel with sales data for different products. How would you use the filtering feature to display only the rows where sales are above a certain threshold?
10. Explain the difference between sorting data in ascending and descending order within a table. Provide an example scenario where you might need to perform each type of sorting.

# CHAPTER 4

## PERFORM OPERATIONS WITH FORMULAS & FUNCTIONS



### LEARNING OBJECTIVES

- ✓ Understand the fundamental concepts of formulas and functions in MS Excel, including cell references and mathematical operators.
- ✓ Learn to create and manipulate basic mathematical formulas to perform calculations such as addition, subtraction, multiplication, and division.
- ✓ Gain proficiency in using a variety of Excel functions, including SUM, AVERAGE, MAX, MIN, and COUNT, to analyze and summarize data effectively.
- ✓ Explore advanced functions like IF, VLOOKUP, and CONCATENATE to solve complex data analysis problems and enhance spreadsheet functionality.
- ✓ Develop the skills to troubleshoot errors and optimize formula efficiency for more efficient data processing in Microsoft Excel.

Mastering formulas and functions is a cornerstone of Excel proficiency, especially in accounting and finance. Let's explore the key operations you can perform using formulas and functions to streamline your data processing tasks effectively.

### 4.1. BASIC ARITHMETIC OPERATIONS

Basic arithmetic operations are the building blocks of Excel calculations. By using these operators within formulas, you can perform fundamental mathematical computations with ease. Enter a formula in a cell, starting with the equals sign (=), followed by the mathematical expression.

**Performing straightforward arithmetic calculations is fundamental to Excel's utility:**

- **Addition (+):** Use the plus symbol (+) to sum up values, for example, =A1 + B1.
- **Subtraction (-):** Minus symbol (-) subtracts values, like =A1 - B1.
- **Multiplication (\*):** Asterisk (\*) multiplies values, as in =A1 \* B1.
- **Division (/):** Forward slash (/) divides values, such as =A1 / B1.

### 4.2. USING BUILT-IN FUNCTIONS

Excel offers a vast library of built-in functions that simplify complex calculations. These functions cater to various calculations, from simple addition to complex statistical analysis. Using functions

streamlines calculations and ensures accuracy.

**Leveraging Excel's extensive library of functions simplifies complex calculations:**

- **Syntax:** Start a formula with "=" followed by the function name and parentheses.
- **Arguments:** Enclose arguments (data ranges or values) within the parentheses.
- **Example:** =SUM (A1:A10) adds up values from A1 to A10.
- Press Enter to compute the result.

### 4.3. CELL REFERENCES IN FORMULAS

Cell references enable you to perform consistent calculations across multiple cells, with the ability to adjust or lock references as needed. Use cell references like A1, B2 to refer to specific cells. Relative references adjust automatically when copied to other cells. Absolute references (\$A\$1, \$B\$2) stay fixed when copied.

**Referencing cells in formulas allows dynamic calculations:**

- **Relative References:** Reference cells relatively, like =A1 + B1.
- **Absolute References:** Fix cell references with dollar signs, e.g., =\$A\$1.
- **Mixed References:** Combine relative and absolute references, such as =\$A1.

### 4.4. MATH AND STATISTICAL FUNCTIONS

Math and statistical functions enable you to quickly perform calculations that are integral to financial analysis and reporting. Excel's functions cater to a wide range of mathematical and statistical needs. SUM calculates the sum of values in a range. AVERAGE computes the average of values in a range. MIN and MAX find the minimum and maximum values, respectively.

- **SUM:** Adds up a range of values, like =SUM (A1:A10).
- **AVERAGE:** Calculates the average of values, as in =AVERAGE (B1:B10).
- **MIN and MAX:** Find the smallest and largest values, e.g., =MIN (C1:C5).

### 4.5. LOGICAL FUNCTIONS

Logic functions help to make decisions based on specific conditions. They are invaluable for accounting tasks that involve condition-based calculations. They allow you to automate decisions based on specific criteria.

IF function evaluates a condition and returns one value if true and another if false. AND and OR functions combine multiple conditions. NOT function negates a condition.

**Logic functions aid in decision-making by evaluating conditions:**

**IF Function:** Evaluates a condition and returns one value if true and another if false. Syntax: =IF(condition, value\_if\_true, value\_if\_false).

- **Example:** =IF(B2>100, "Above Target", "Below Target")
- **Explanation:** In this example, if the value in cell B2 is greater than 100, the

formula returns "Above Target"; otherwise, it returns "Below Target."

**AND Function:** Checks if all conditions are true. Syntax: =AND(condition1, condition2, ...).

**OR Function:** Checks if at least one condition is true. Syntax: =OR(condition1, condition2, ...).

- **Example:** =AND(B2>100, C2<50)
- **Explanation:** This formula checks if both conditions (B2>100 and C2<50) are true. If both are true, the formula returns TRUE; otherwise, it returns FALSE.

**NOT Function:** Negates a condition.

- **Syntax:** =NOT(condition)
- **Example:** =NOT(D2="Pending")
- **Explanation:** The NOT function evaluates whether the value in cell D2 is not equal to "Pending." If it's not "Pending," the formula returns TRUE; otherwise, it returns FALSE.

## 4.6. TEXT FUNCTIONS

In financial tasks, dealing with textual data is common. Text functions help you manipulate, extract, and analyze text data. CONCATENATE combines text from different cells. LEFT and RIGHT extract characters from the beginning or end of a text. LEN calculates the length of a text string.

**CONCATENATE Function:** Combines text from different cells.

- **Syntax:** =CONCATENATE(text1, text2, ...)
- **Example:** =CONCATENATE("Invoice #", A2)
- **Explanation:** This formula combines the text "Invoice #" with the value in cell A2.

**LEFT and RIGHT Functions:** Extract characters from the beginning or end of a text.

- **Syntax (LEFT):** =LEFT(text, num\_chars)
- **Syntax (RIGHT):** =RIGHT(text, num\_chars)
- **Example (LEFT):** =LEFT(A2, 5)
- **Explanation:** The LEFT function extracts the leftmost 5 characters from the value in cell A2.

**LEN Function:** Calculates the length of a text string.

- **Syntax:** =LEN(text)
- **Example:** =LEN(C2)
- **Explanation:** The LEN function returns the number of characters in the value of cell C2.

## 4.7. DATE AND TIME FUNCTIONS

Accounting often involves precise date-based calculations. Date and time functions ensure accurate handling of time-sensitive data. They are integral in financial calculations, particularly for managing payment schedules, interest accruals, and more. Excel's date and time functions are vital for financial calculations:

**TODAY and NOW Functions:** Provide current date and time, respectively.

- **Syntax (TODAY):** =TODAY()
- **Syntax (NOW):** =NOW()
- **Example (NOW):** =NOW()
- **Explanation:** The NOW function returns the current date and time.

**EOMONTH Function:** Calculates the end of the month based on a given date.

- **Syntax:** =EOMONTH(start\_date, months)
- **Example:** =EOMONTH(A2, 3)
- **Explanation:** This formula calculates the date that is 3 months after the value in cell A2.

**DATEDIF Function:** Computes the difference between two dates.

- **Syntax:** =DATEDIF(start\_date, end\_date, unit)
- **Example:** =DATEDIF(B2, C2, "d")
- **Explanation:** The DATEDIF function calculates the number of days between the dates in cells B2 and C2.

## 4.8. FINANCIAL FUNCTIONS

Excel includes specialized financial functions for accounting tasks. They are pivotal for calculating loan payments, investment returns, and assessing the present value of future cash flows. PMT calculates periodic loan payments. FV calculates future value of an investment. NPV computes the net present value of cash flows.

**PMT Function:** Calculates periodic loan payments.

- **Syntax:** =PMT(rate, nper, pv)
- **Example:** =PMT(0.05/12, 36, -10000)
- **Explanation:** In this example, the formula calculates the monthly payment for a loan of \$10,000 with a 5% annual interest rate for 3 years (36 months).

**FV Function:** Computes future value of an investment.

- **Syntax:** =FV(rate, nper, pmt, pv)
- **Example:** =FV(0.06/12, 24, -250, 0)
- **Explanation:** The formula calculates the future value of an investment where \$250 is invested monthly for 2 years at a monthly interest rate of 0.5% (6% annually).

**NPV Function:** Calculates the net present value of cash flows.

- **Syntax:** =NPV(rate, value1, value2, ...)
- **Example:** =NPV(0.1, -10000, 3000, 4000, 5000)
- **Explanation:** This formula calculates the net present value of cash flows with a discount rate of 10%. The initial investment is -\$10,000, and subsequent cash flows are \$3,000, \$4,000, and \$5,000.

## 4.9. LOOKUP AND REFERENCE FUNCTIONS

Lookup functions assist in retrieving specific data from tables. They are invaluable when dealing with large datasets. They assist in retrieving precise information quickly and accurately.

VLOOKUP searches for a value in a table and returns a related value. HLOOKUP performs a similar operation horizontally. INDEX and MATCH together provide flexible lookup capabilities.

**VLOOKUP (Vertical Lookup) Function:** VLOOKUP stands for “Vertical Lookup,” and it is used to search for a value (lookup value) in the leftmost column of a table or range and retrieve a corresponding value from a specified column to the right of the lookup column. VLOOKUP is typically used when you have data organized in vertical column.

- **Syntax:** =VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])

### Explanation:

- **lookup\_value:** The value you want to find in the leftmost column of the table\_array.
- **table\_array:** The range of cells that contains the data you want to search. The leftmost column should contain the lookup value.
- **col\_index\_num:** The column number (counting from the left) from which you want to return a value.
- **range\_lookup (optional):** A logical value (TRUE/FALSE) that specifies whether to find an exact or approximate match. TRUE (or omitted) means approximate match, and FALSE means exact match.

**Example:** Suppose you have a table of product prices and you want to find the price of a product with the product code “A123.” You can use VLOOKUP as follows:

=VLOOKUP (“A123”, A2:B6, 2, FALSE)

- **lookup\_value:** “A123”
- **table\_array:** A2:B6 (Assuming your data is in cells A2:B6)

- **col\_index\_num:** 2 (We want to retrieve the price from the second column)
- **range\_lookup:** FALSE (Exact match)

**This formula would return the price associated with product code “A123.”**

**HLOOKUP Function:** (Horizontal Lookup):HLOOKUP stands for “Horizontal Lookup,” and it is used to search for a value (lookup value) in the top row of a table or range and retrieve a corresponding value from a specified row below the lookup row. HLOOKUP is typically used when you have data organized in horizontal rows.

- **Syntax:** =HLOOKUP(lookup\_value, table\_array, row\_index\_num, [range\_lookup])

**Explanation:**

- **lookup\_value:** The value you want to find in the topmost row of the table\_array.
- **table\_array:** The range of cells that contains the data you want to search. The topmost row should contain the lookup value.
- **row\_index\_num:** The row number (counting from the top) from which to return a value.
- **range\_lookup (optional):** A logical value (TRUE/FALSE) that specifies whether to find an exact or approximate match. TRUE (or omitted) means approximate match, and FALSE means exact match.

**Example:**

Suppose you have a table of employee information, and you want to find the department of an employee with employee ID “101.” You can use HLOOKUP as follows:

=HLOOKUP(“101”, A1:E3, 2, FALSE)

- **lookup\_value:** “101”
- **table\_array:** A1:E3 (Assuming your data is in cells A1:E3)
- **row\_index\_num:** 2 (We want to retrieve the department from the second row)
- **range\_lookup:** FALSE (Exact match)

This formula would return the department associated with employee ID “101.”

**INDEX function:** The INDEX function in Excel is a versatile tool that allows you to fetch a specific value from a table or range of data. It operates by specifying an array or range of data and then designating the row and, optionally, the column within that array from which you want to retrieve information. If you omit the column number, INDEX will return the entire row. This function is particularly useful when you need to extract data based on certain criteria or positions within a dataset.

- **Syntax:** =INDEX(array, row\_num, [column\_num])



- **array:** The range or array from which you want to retrieve a value.
- **row\_num:** The row number that specifies which row within the array you want to retrieve data from.
- **column\_num (optional):** The column number that specifies which column within the array you want to retrieve data from. If omitted, INDEX will return the entire row specified by row\_num.

**MATCH function:** The MATCH function in Excel is designed to locate a specified value within a given range or array. It scans through the data in the lookup\_array and returns the relative position (either row or column number) of the lookup\_value. By using the optional match\_type argument, you can control whether you want to find an exact match, the closest smaller value, or the closest larger value. MATCH is commonly used to identify the position of a specific item in a list or dataset.

- **Syntax:** =MATCH(lookup\_value, lookup\_array, [match\_type])
- **lookup\_value:** The value you want to find within the lookup\_array.
- **lookup\_array:** The range or array where you want to search for the lookup\_value.
- **match\_type (optional):** A numerical value that specifies the type of match you want. 1 (or omitted) means find the largest value less than or equal to the lookup\_value, -1 means find the smallest value greater than or equal to the lookup\_value, and 0 means find an exact match.
- **Example:** Suppose you are managing financial data for a company, and you have a table that contains employee names in column A and their corresponding salaries in column B. You want to find the salary of a specific employee, "John," using the INDEX and MATCH functions.

**Explanation:**

- In cell C1, enter the name you want to search for, which is "John."
- In cell D1, you can use the MATCH function to find the position of "John" in the list of employee names: =MATCH(C1, A1:A10, 0)
- C1 contains the lookup value "John."
- **A1:A10** is the range where Excel will search for the lookup value.
- 0 specifies an exact match.
- In cell E1, you can use the INDEX function to retrieve John's salary based on the position found by the MATCH function: =INDEX(B1:B10, D1)
- **B1:B10** is the range where Excel will retrieve the data (salaries).
- **D1** contains the position found by the MATCH function.

- The combined INDEX and MATCH formula in cell E1 will return John's salary, and the result will be displayed there. This approach allows you to dynamically look up and retrieve data based on a specific criterion, which is a valuable skill for financial and accounting tasks.

**INDEX and MATCH Functions:** Combined, they provide flexible lookup capabilities.

- **Syntax (INDEX):** =INDEX(array, row\_num, col\_num)
- **Syntax (MATCH):** =MATCH(lookup\_value, lookup\_array, match\_type)
- **Example:** =INDEX(C2:E10, MATCH("Product B", B2:B10, 0), 3)
- **Explanation:** The INDEX function uses the row number returned by the MATCH function to retrieve the value in the third column of the matched row.

#### 4.10. ERROR HANDLING FUNCTIONS

Dealing with errors is essential in financial calculations. Handling errors effectively ensures that your financial calculations remain accurate and reliable. Accurate calculations are paramount in accounting. Error handling functions help you identify and address errors effectively.

ISERROR and ISNA functions check for errors in formulas. IFERROR function replaces errors with a specified value. NA function returns the #N/A error value.

- **ISERROR and ISNA Functions:** Check for errors in formulas.
  - **Syntax (ISERROR):** =ISERROR(value)
  - **Syntax (ISNA):** =ISNA(value)
  - **Example:** =IF(ISERROR(B2/C2), 0, B2/C2)
  - **Explanation:** The formula checks if division results in an error. If an error occurs, it returns 0; otherwise, it calculates the division.
- **IFERROR Function:** Replaces errors with a specified value.
  - **Syntax:** =IFERROR(value, value\_if\_error)
  - **Example:** =IFERROR(AVERAGE(B2:B10), 0)
  - **Explanation:** The formula calculates the average of values in the range B2:B10. If an error occurs, it returns 0.
- **NA Function:** Returns the #N/A error value.
  - **Syntax:** =#N/A
  - **Example:** =VLOOKUP("Product X", B2:E10, 3, FALSE)
  - **Explanation:** If the value "Product X" is not found, the formula returns the #N/A error.



## SUMMARY

- Use operators (+, -, \*, /) within formulas for addition, subtraction, multiplication, and division. Start a formula with the equals sign (=) followed by the mathematical expression.
- Excel offers a wide range of built-in functions for various calculations.
- Cell references allow for consistent calculations across cells. Relative references adjust automatically when copied to other cells. Absolute references stay fixed when copied. Mixed references combine relative and absolute references.
- Functions like SUM, AVERAGE, MIN, and MAX are used to find totals, averages, minimums, and maximums in ranges.
- Logic functions aid in decision-making based on conditions. IF function evaluates conditions and returns values based on the results. AND and OR functions combine conditions, while NOT function negates conditions.
- Text functions help manipulate and analyze textual data. CONCATENATE combines text from different cells. LEFT and RIGHT extract characters from the beginning or end of text. LEN calculates the length of a text string.
- Date and time functions are crucial for accurate time-sensitive calculations. TODAY and NOW functions provide current date and time. EOMONTH calculates the end of the month based on a date. DATEDIF computes the difference between two dates.
- Financial functions are specialized for accounting tasks. Functions like PMT, FV, and NPV are essential for loan calculations, investment returns, and present value calculations.
- Lookup functions retrieve specific data from tables. VLOOKUP searches for values in tables and returns related values. HLOOKUP performs similar operations horizontally. INDEX and MATCH together provide flexible lookup capabilities.
- Error handling functions are crucial for accurate financial calculations. ISERROR and ISNA functions check for errors in formulas. IFERROR function replaces errors with specified values. NA function returns the #N/A error value.

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the purpose of using basic arithmetic operations in Excel?**

- a. To format cells
- b. To perform mathematical computations
- c. To add colors to cells
- d. To insert images

**2. What does the formula “=SUM(A1:A10)” do in Excel?**

- a. Adds the values in cells A1 to A10
- b. Subtracts the values in cells A1 to A10
- c. Multiplies the values in cells A1 to A10
- d. Divides the values in cells A1 to A10

**3. What is the purpose of using cell references in formulas?**

- a. To perform consistent calculations across multiple cells
- b. To change the font size of cells
- c. To add colors to cells
- d. To insert images

**4. Which function is used to calculate the average of a range of values in Excel?**

- a. AVERAGE
- b. SUM
- c. MAX
- d. MIN

**5. What is the purpose of the IF function in Excel?**

- a. To perform logical operations
- b. To calculate averages
- c. To concatenate text
- d. To find the maximum value in a range

**6. Which function is used to combine text from different cells in Excel?**

- a. CONCATENATE
- b. LEFT
- c. RIGHT
- d. LEN

**7. What does the function =TODAY() return in Excel?**

- a. Current time

- b. Current date
- c. Current date and time
- d. Current year

**8. Which function is used to calculate the future value of an investment in Excel?**

- a. PMT
- b. FV
- c. NPV
- d. AVERAGE

**9. What is the purpose of the VLOOKUP function in Excel?**

- a. To search for a value in the leftmost column of a table
- b. To search for a value in the top row of a table
- c. To calculate the sum of a range of values
- d. To concatenate text

**10. What function is used to find the position of a specific item in a list or dataset in Excel?**

- a. VLOOKUP
- b. HLOOKUP
- c. INDEX
- d. MATCH

**11. Which function checks for errors in formulas and returns TRUE if an error is found?**

- a. ISERROR
- b. IFERROR
- c. ISNA
- d. NA

**12. What is the purpose of the EOMONTH function in Excel?**

- a. To calculate the end of the week
- b. To calculate the end of the month based on a given date
- c. To calculate the end of the year
- d. To calculate the end of the quarter

**13. Which function is used to calculate periodic loan payments in Excel?**

- a. PMT
- b. FV
- c. NPV
- d. SUM

**14. What does the function =DATEDIF(B2, C2, "d") calculate in Excel?**

- a. The number of days between the dates in cells B2 and C2
- b. The difference between two times
- c. The average of values in cells B2 and C2
- d. The product of values in cells B2 and C2

**Answers**

- 1. B. To perform mathematical computations
- 2. A. Adds the values in cells A1 to A10
- 3. A. To perform consistent calculations across multiple cells
- 4. A. AVERAGE
- 5. A. To perform logical operations
- 6. A. CONCATENATE
- 7. B. Current date
- 8. B. FV
- 9. A. To search for a value in the leftmost column of a table
- 10. D. MATCH
- 11. A. ISERROR
- 12. B. To calculate the end of the month based on a given date
- 13. A. PMT
- 14. A. The number of days between the dates in cells B2 and C2

**SELF-EXAMINATION QUESTIONS FOR PRACTICE**

- 1. Describe the importance of mastering formulas and functions in Excel, especially in the context of accounting and finance.
- 2. Explain the process of performing basic arithmetic operations in Excel formulas. Provide examples of each operation.
- 3. How do you start a formula in Excel? Why is the equals sign (=) important at the beginning of a formula?
- 4. Explain the concept of using built-in functions in Excel. How do these functions simplify complex calculations?
- 5. What is the syntax for using a function in Excel? How do you provide arguments to a function?

6. Provide an example of using the SUM function to calculate the sum of values in a specific range.
7. What are cell references, and why are they important in Excel formulas?
8. Differentiate between relative references, absolute references, and mixed references in Excel formulas. Give examples of when each type of reference is useful.
9. Explain the purpose of math and statistical functions in Excel. Give examples of functions used for summing, averaging, finding minimums, and finding maximums.
10. How do logical functions assist in decision-making in Excel? Describe the IF function and provide an example of its usage.
11. Explain the roles of the AND, OR, and NOT functions in Excel. Provide examples of scenarios where these functions are useful.
12. Why are text functions important in financial tasks? Provide examples of how CONCATENATE, LEFT, RIGHT, and LEN functions are used.
13. Describe the significance of date and time functions in financial calculations. Explain the TODAY, NOW, EOMONTH, and DATEDIF functions.
14. How are financial functions in Excel helpful for accounting tasks? Provide examples of when to use the PMT, FV, and NPV functions.
15. Explain the purpose of lookup and reference functions in Excel. Provide examples of when to use the VLOOKUP, HLOOKUP, and INDEX-MATCH functions.
16. Describe the importance of error handling functions in financial calculations. How do ISERROR, ISNA, IFERROR, and NA functions help in dealing with errors?
17. Provide an example of using the IFERROR function to handle errors in a calculation.
18. Explain the process of using INDEX and MATCH functions together to perform a flexible lookup in Excel.
19. How can Excel's functions be leveraged to streamline calculations and ensure accuracy in financial tasks?
20. In what scenarios might you need to use date and time functions in financial calculations? Give examples of specific calculations where these functions are useful.

# CHAPTER 5

## CREATING CHARTS



### LEARNING OBJECTIVES

- ✓ Understand the various types of charts available in Excel and their specific use cases in financial analysis and reporting.
- ✓ Learn the step-by-step process of creating charts, including selecting data, choosing the appropriate chart type, and inserting and customizing the chart.
- ✓ Familiarize yourself with design elements in charts, such as titles, legends, and data labels, and learn how to use them effectively for clear communication of data.
- ✓ Gain proficiency in formatting charts to ensure they are visually appealing, easy to read, and consistent with the overall document design.
- ✓ Learn how to add context and emphasis to charts using data labels and callouts, enhancing the understanding of specific data points or trends.

Creating charts in Excel is a dynamic process, allowing you to explore various visualizations and tailor them to your data's specifics. This section covers types of charts, steps involved in creating charts, chart design and formatting.

### 5.1. TYPES OF CHARTS

Charts are powerful tools for visualizing data, and there are various types of charts available in Excel, each suited for different data scenarios. Understanding these chart types and when to use them is crucial for effective data representation. Different types of charts serve varying purposes in financial analysis and reporting. Understanding when to use each type is essential for effectively conveying information.

**The key chart types are:**

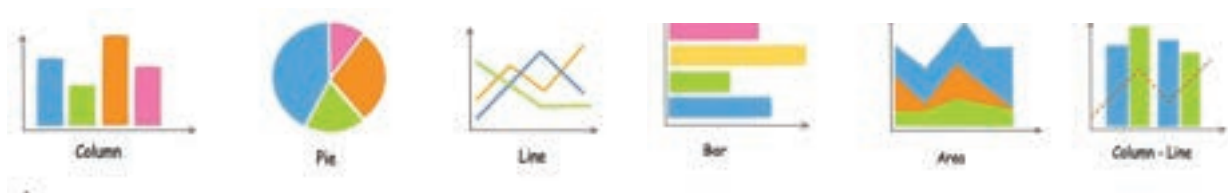


Figure: Chart types



1. **Bar Charts:** These are excellent for comparing data across different categories or groups. They can be either vertical or horizontal and can include stacked or clustered bars for added complexity.
2. **Line Charts:** Line charts are ideal for showing trends over time. They are often used to display data points connected by lines, making it easy to see how values change sequentially.
3. **Pie Charts:** Pie charts are useful when you want to display the parts of a whole. Each “slice” of the pie represents a portion of the total, with the size of each slice proportional to its value.
4. **Scatter Plots:** Scatter plots are used to visualize relationships or correlations between two sets of data. Points on the chart represent data pairs, making it easy to spot trends or clusters.
5. **Area Charts:** These are similar to line charts but with the area beneath the lines filled in, which can help emphasize proportions and trends over time.
6. **Other Specialized Charts:** Excel offers various specialized charts for specific needs. Waterfall charts are great for showing cumulative effects of sequential data changes. Radar charts are effective for multivariate comparisons, while bubble charts add a third dimension to your data visualization.



Figure: Chart types

### Examples

- Bar charts can be used for comparing revenue across different product categories.
- Line charts for tracking stock prices over several months.
- Pie charts for representing the distribution of expenses in a budget.

## 5.2. CREATING CHARTS

Excel makes it easy to create charts from your data. The Chart Wizard guides you through the process step by step, allowing you to customize your chart to meet your specific needs.

### Steps to Create Charts

- 1. Select Data:** Start by highlighting the data you want to include in the chart. Ensure you select both the labels and the corresponding values.
- 2. Insert Chart:** After selecting your data, go to the "Insert" tab in Excel and choose the chart type that suits your data.

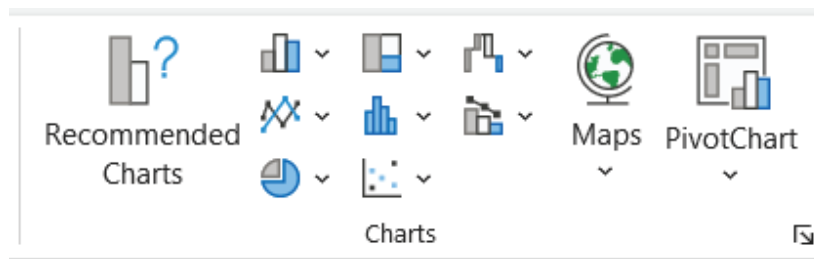


Figure: Chart group

- 3. Design Elements:** Once your chart is created, you can customize various elements. These include adding a chart title, a legend, data labels, and more.

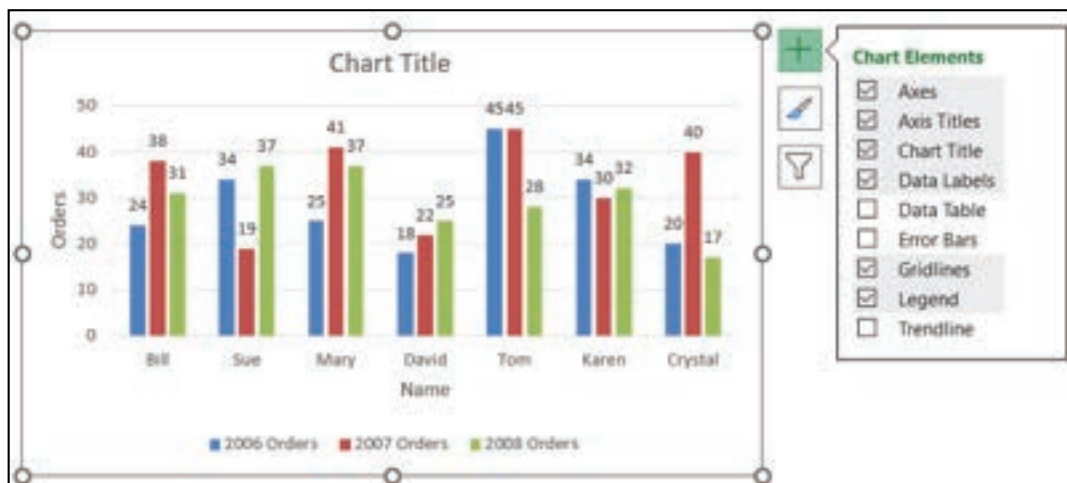


Figure: Chart elements

- 4. Formatting:** Excel offers extensive formatting options. You can adjust colors, styles, and fonts to match your document's design.



Figure: Chart Styles, Change colors in Chart Design tab



Figure: Chart Styles, Change colors

- 5. Fine-Tuning:** For further customization, you can right-click on individual chart elements (e.g., data series, data points) to make specific modifications.



Figure: Format data series, Format data labels option from right click

## 5.3. CHART DESIGN AND FORMATTING

Design and formatting play a crucial role in the effectiveness of your charts. Properly designed charts are not only visually appealing but also easy to understand.

### Design Tips:

1. **Colors and Themes:** Choose color schemes that are visually appealing and easy to read. Excel provides themes that can help maintain consistency with your document's design.

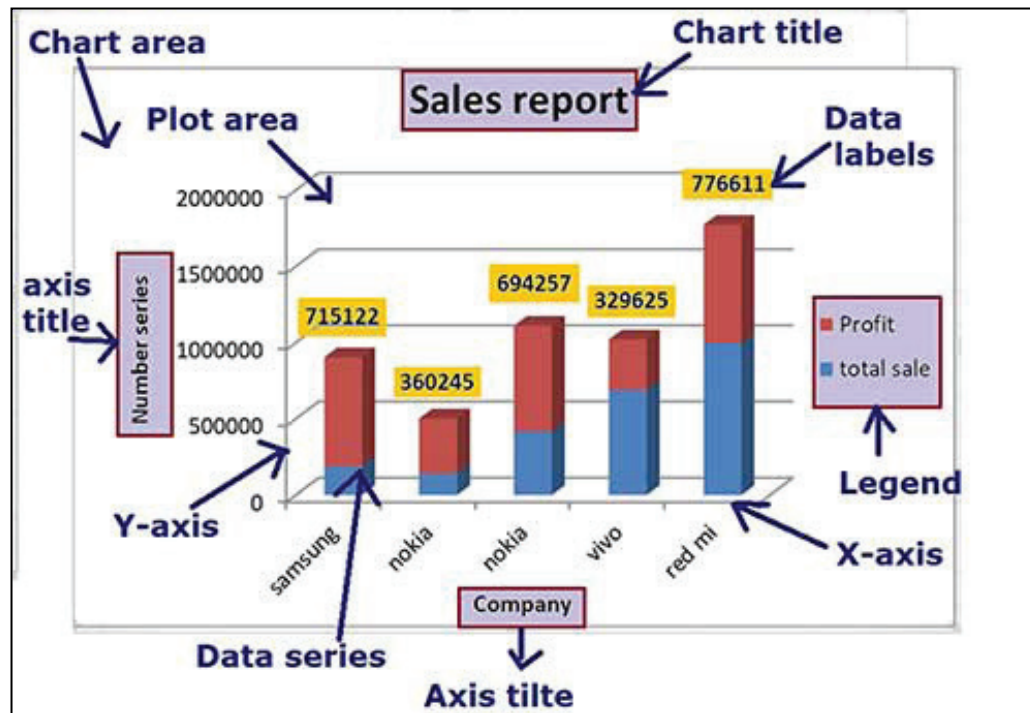


Figure: layout of Charts

2. **Labels and Titles:** Always include descriptive chart titles and axis labels. This helps viewers quickly understand the chart's context.
3. **Gridlines and Axes:** Adjust gridlines and axes to match the scale and granularity of your data. Gridlines should be present but not overpowering.
4. **Data Labels:** Data labels provide clarity by displaying exact values on the chart. You can choose to display values, percentages, or custom labels.
5. **Legend:** Place the legend where it doesn't obstruct the chart. If your chart has only a few data series, you can even label data directly instead of using a legend.

Effective design and formatting enhance the communication of your data and insights to your audience.

## 5.4. DATA LABELS AND CALLOUTS

Data labels and callouts are essential tools for adding context and emphasis to your charts. They provide additional information about specific data points or trends.

#### 5.4.1 ADDING DATA LABELS:

1. **Select Data Series:** To add data labels to a specific data series in your chart, right-click on the data series to access the “Add Data Labels” option.
2. **Customize Labels:** Excel allows you to customize data labels extensively. You can choose to display values, percentages, or custom text. Right-click on a data label to access formatting options.

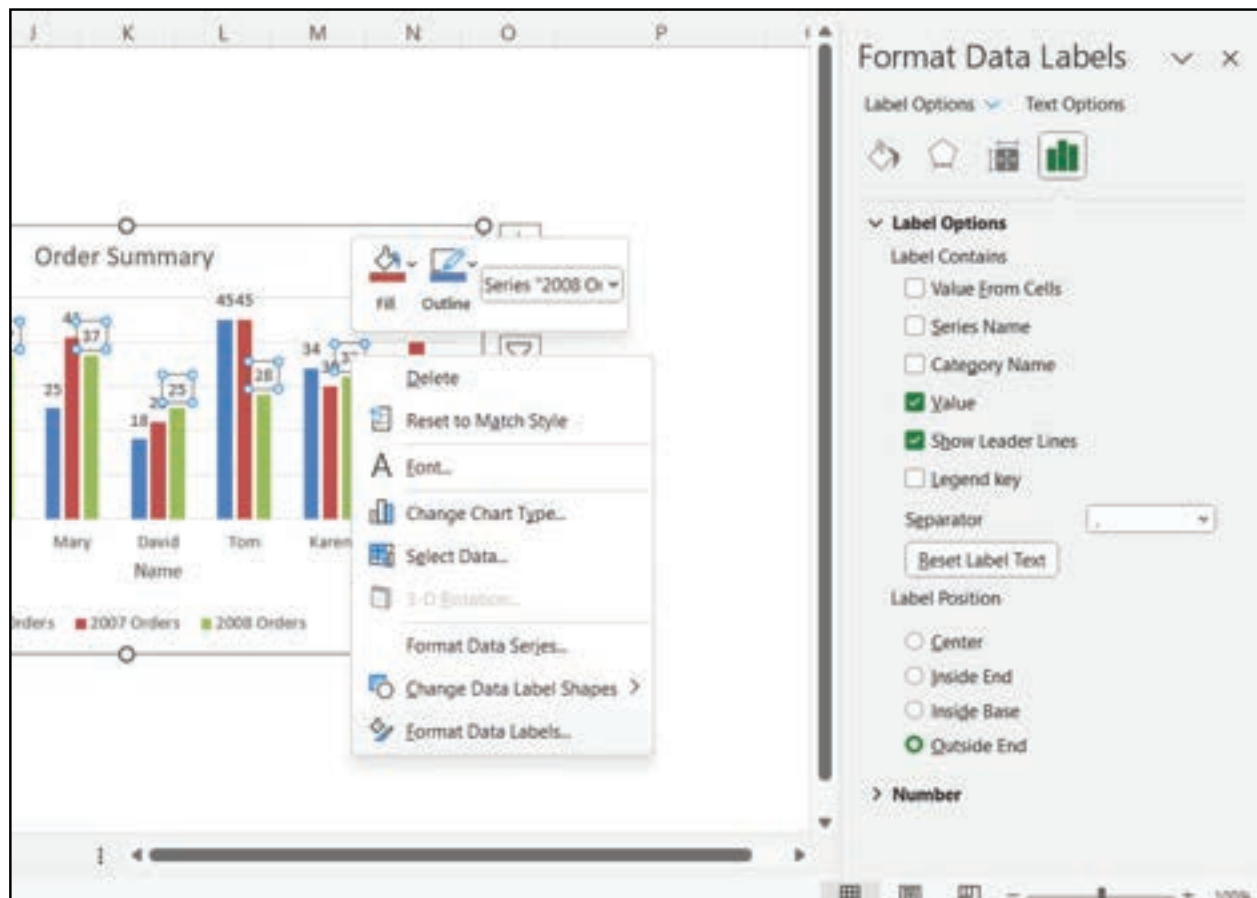


Figure: Format data labels

#### 5.4.2 USING CALLOUTS:

1. **Insert Shape:** To create a callout, go to the “Insert” tab in Excel and choose a shape from the “Shapes” menu. Typically, arrow or speech bubble shapes work well for callouts.

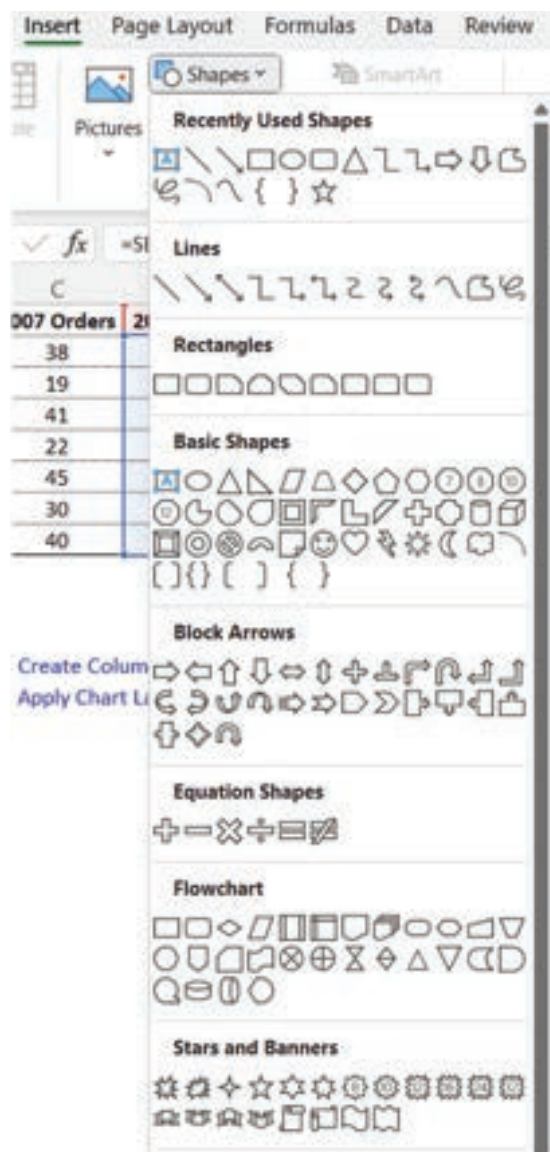


Figure: Insert shapes

2. **Add Text:** Once you've inserted a shape, double-click it to add text. Enter the text you want to appear in the callout.
3. **Positioning:** Drag the callout to the desired location on the chart. You can use callouts to draw attention to specific data points or trends.

Thus, this module equips you with the knowledge and skills needed to create a variety of charts in Excel, choose the right chart type for your data, and enhance chart effectiveness through design, formatting, data labels, and callouts. Effective chart creation is essential for conveying financial insights and analysis effectively.





## SUMMARY

- Key chart types include bar charts, line charts, pie charts, scatter plots, area charts, and specialized charts.
- Steps to create charts include selecting data, inserting the chart, designing elements, formatting, and fine-tuning.
- Design and formatting significantly impact chart effectiveness. Consider color schemes, summarised title, appropriate gridlines, and clear data labels.
- Excel allows extensive customization of data labels, including displaying values, percentages, or custom text.
- Callouts are tools for emphasizing specific data points or trends in a chart. To create a callout, go to the "Insert" tab and choose a shape from the "Shapes" menu. Double-click the shape to add text and position it as needed.

## MULTIPLE CHOICE QUESTIONS (MCQS)

### 1. What is the purpose of a bar chart in Excel?

- a) Showing trends over time
- b) Comparing data across different categories
- c) Displaying parts of a whole
- d) Visualizing relationships between two sets of data

### 2. When would you use a line chart in Excel?

- a) To compare data across different categories
- b) To display trends over time
- c) To show parts of a whole
- d) To visualize relationships between two sets of data

### 3. Which type of chart is suitable for displaying the distribution of expenses in a budget?

- a) Bar Chart
- b) Line Chart
- c) Pie Chart
- d) Scatter Plot

### 4. In Excel, what does a scatter plot visualize?

- a) Trends over time
- b) Relationships or correlation between two sets of data
- c) Parts of a whole
- d) Comparison of data across different categories

**5. When might you use an area chart instead of a line chart?**

- a) To emphasize proportions and trends over time
- b) To display data points connected by lines
- c) To compare data across different categories
- d) To visualize relationships between two sets of data

**6. What does a pie chart represent in Excel?**

- a) Trends over time
- b) Relationships or correlations between two sets of data
- c) Distribution of parts of a whole
- d) Comparison of data across different categories

**7. What type of chart adds a third dimension to data visualization?**

- a) Waterfall Chart
- b) Radar Chart
- c) Bubble Chart
- d) Area Chart

**8. How do you start creating a chart in Excel?**

- a) By selecting data and clicking the "Create Chart" button
- b) By selecting data and choosing the chart type from the "Insert" tab
- c) By typing the chart command in a cell
- d) By right-clicking on the data and selecting "Create Chart"

**9. What step follows after selecting data when creating a chart in Excel?**

- a) Customizing chart elements
- b) Inserting the chart
- c) Choosing the chart type
- d) Formatting the chart

**10. What is an essential design tip for creating effective charts in Excel?**

- a) Using random color schemes
- b) Including descriptive chart titles and axis labels
- c) Avoiding the use of gridlines
- d) Not providing a legend

**11. How can you customize data labels in Excel?**

- a) By right-clicking on a data label and selecting "Customize"
- b) By accessing the "Format Data Labels" option
- c) By pressing Ctrl+D while the data label is selected
- d) By double-clicking on the data label



**12. What is the purpose of a callout in a chart?**

- a) Adding context and emphasis to specific data points or trends
- b) Highlighting the entire chart
- c) Adjusting the chart's color scheme
- d) Providing a legend for the chart

**13. How can you add a callout in Excel?**

- a) By right-clicking on a data point and selecting "Add Callout"
- b) By going to the "Insert" tab and choosing a shape
- c) By typing a callout command in a cell
- d) By clicking on the chart title and selecting "Add Callout"

**14. Which element is crucial for ensuring data clarity in a chart?**

- a) Gridlines
- b) Legend
- c) Data Labels
- d) Axis Titles

**ANSWERS**

1. b) Comparing data across different categories
2. b) To display trends over time
3. c) Pie Chart
4. b) Relationships or correlations between two sets of data
5. a) To emphasize proportions and trends over time
6. c) Distribution of parts of a whole
7. c) Bubble Chart
8. b) By selecting data and choosing the chart type from the "Insert" tab
9. b) Inserting the chart
10. b) Including descriptive chart titles and axis labels
11. b) By accessing the "Format Data Labels" option
12. a) Adding context and emphasis to specific data points or trends
13. b) By going to the "Insert" tab and choosing a shape
14. c) Data Labels



### **SELF-EXAMINATION QUESTIONS FOR PRACTICE**

1. What are the key advantages of using charts in financial analysis and reporting?
2. Name three common types of charts used in Excel and briefly explain when each one is most suitable.
3. You want to compare the quarterly sales of different products in your company. Which type of chart would you choose, and why?
4. Explain the steps involved in creating a chart in Excel.
5. What are the important elements you can customize when designing a chart in Excel?
6. Why is it essential to choose an appropriate color scheme and labelling for your charts?
7. Describe when it's appropriate to use data labels in a chart, and how can they enhance data visualization?
8. What is the purpose of a legend in a chart, and where should it be placed for maximum clarity?
9. Explain the significance of gridlines and axes in chart design. How should you adjust them for different types of data?
10. How can you use callouts to draw attention to specific data points or trends in a chart?

# CHAPTER 6

## PIVOT TABLES



### LEARNING OBJECTIVES

- ✓ Understand the fundamental concept of pivot tables in MS Excel, including their purpose and benefits.
- ✓ Learn how to create pivot tables from raw data, selecting appropriate fields for rows, columns, and values.
- ✓ Explore advanced pivot table functionalities such as filtering, grouping, and custom calculations to analyze data effectively.
- ✓ Gain proficiency in formatting and customizing pivot tables to present data in a clear and visually appealing manner.
- ✓ Master the art of updating and refreshing pivot tables as new data becomes available, ensuring data accuracy and relevance.

### 6.1. INTRODUCTION TO PIVOT TABLES

Pivot tables are a dynamic tool in Microsoft Excel that empowers users to extract insights from complex datasets. They enable users to reorganize and summarize data quickly, facilitating better decision-making. Pivot tables offer an efficient way to analyze large volumes of data, transforming it into understandable summaries. The user-friendly interface requires minimal technical expertise, making them accessible to a wide range of users.

#### 6.1.1. BENEFITS OF PIVOT TABLES:

- **Efficient Data Summarization:** Pivot tables eliminate the need for manual calculations by automatically aggregating data. This ensures accuracy and saves valuable time.
- **Flexibility:** Users can effortlessly modify the arrangement of data fields, helping them gain diverse perspectives and insights from the same dataset.
- **Quick Ad-Hoc Analysis:** Pivot tables enable users to interactively dissect data, refining their analysis on-the-fly without altering the original dataset.

#### 6.1.2. WHEN TO USE PIVOT TABLES:

- **For Large Datasets:** Pivot tables excel when handling substantial datasets where manual analysis would be impractical and time-consuming.

- **Exploratory Analysis:** They're invaluable for uncovering trends, patterns, and outliers, making them an indispensable tool for data exploration.
- **Reporting:** Pivot tables simplify the creation of concise, informative summary reports, aiding in effective communication of data-driven insights.

### 6.1.3. EXERCISE:

**Scenario:** Imagine you're an analyst at a retail company. You have a sales dataset containing product information, sales dates, quantities, and revenues.

**Task:** Try using a pivot table to summarize total sales revenue by product categories and analyze trends over months.

## 6.2. CREATING PIVOT TABLES

### 6.2.1. SOURCE DATA SELECTION:

Instructions: The foundation of a pivot table is the data you select for analysis. This data range should include column headers to help Excel recognize field names accurately.

#### Steps:

1. **Select Data Range:** Click any cell within your dataset.
2. **Insert PivotTable:** Go to the "Insert" tab on the Excel ribbon and click "PivotTable." The "Create PivotTable" dialog box appears.
3. **Define Data Range:** Ensure your data range is correctly displayed in the "Table/Range" field.
4. **Choose Location:** Choose whether you want to place the pivot table in a new or existing worksheet.
5. **Confirm:** Click "OK" to create the pivot table.

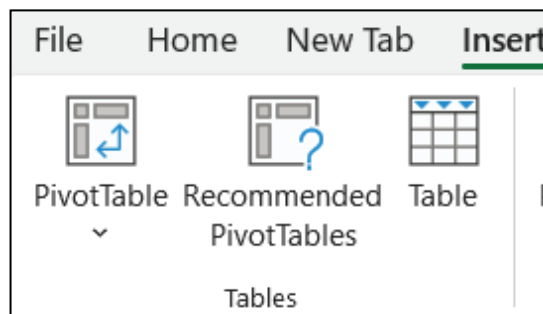


Figure: Tables group

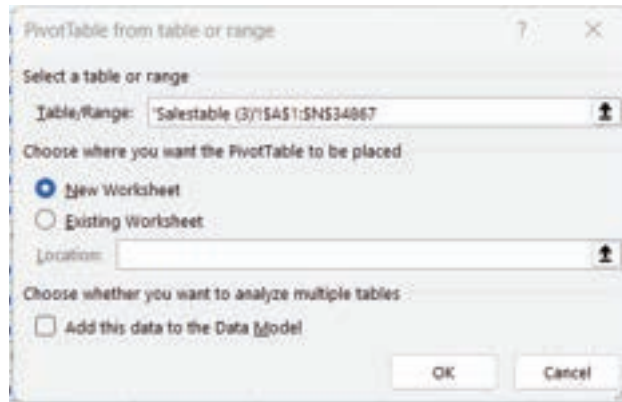


Figure: Create Pivot table window

### 6.2.2. CREATING A PIVOT TABLE:

#### Steps:

- **PivotTable Field List:** After creating the pivot table, the “PivotTable Field List” pane appears on the right.
- **Drag and Drop Fields:** Drag fields from the Field List into the following areas:
- **Rows:** Specify the criteria by which you want to categorize data vertically.
- **Columns:** Define how you want to categorize data horizontally.
- **Values:** Choose fields to be summarized, such as sales amounts or quantities.
- **View the Pivot Table:** Excel generates the pivot table based on your field selections.
- **Modify Layout and Format:** The “PivotTable Analyze” tab provides options to customize the layout, format, and calculations.

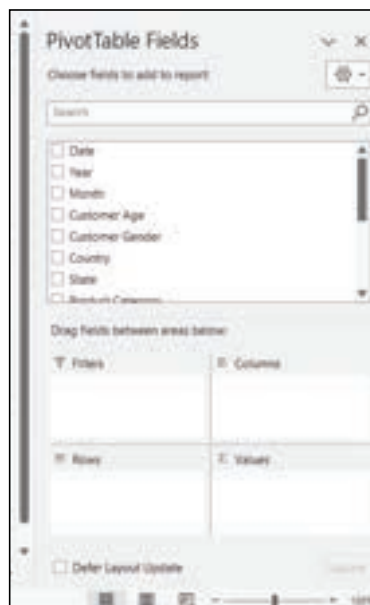


Figure: Pivot Table Fields

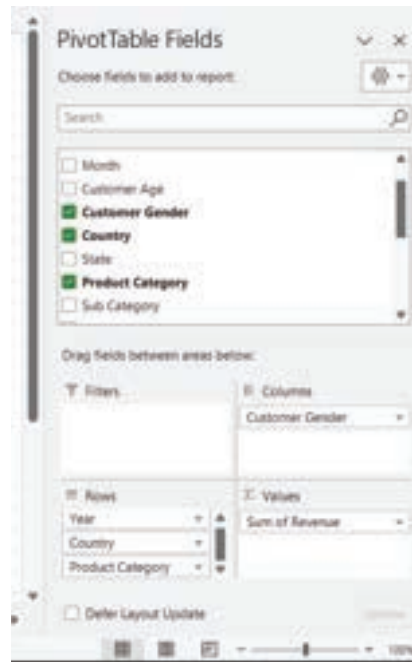


Figure: Dragging items from Pivot table fields

Sum of Revenue	Column Labels		
Row Labels	F	M	Grand Total
<b>2015</b>	<b>5051536</b>	<b>4896235</b>	<b>9947771</b>
<b>France</b>	<b>719843</b>	<b>824730</b>	<b>1544573</b>
Accessories	201535	208728	410263
Bikes	434078	511320	945398
Clothing	84230	104682	188912
<b>Germany</b>	<b>929618</b>	<b>843705</b>	<b>1773323</b>
Accessories	246798	208495	455293
Bikes	606991	549074	1156065
Clothing	75829	86136	161965
<b>United Kingdom</b>	<b>957609</b>	<b>936858</b>	<b>1894467</b>
Accessories	257715	240262	497977
Bikes	592407	594207	1186614
Clothing	107487	102389	209876
<b>United States</b>	<b>2444466</b>	<b>2290942</b>	<b>4735408</b>
Accessories	743854	718380	1462234
Bikes	1299737	1176284	2476021
Clothing	400875	396278	797153
<b>2016</b>	<b>5881098</b>	<b>6515707</b>	<b>12396805</b>
<b>France</b>	<b>955895</b>	<b>945636</b>	<b>1901531</b>
Accessories	360339	328575	688914
Bikes	454402	472803	927205
Clothing	141154	144258	285412
<b>Germany</b>	<b>1252107</b>	<b>1219080</b>	<b>2471187</b>
Accessories	360339	328575	688914

Figure: Created Pivot table



Figure: Pivot table Analyze tab

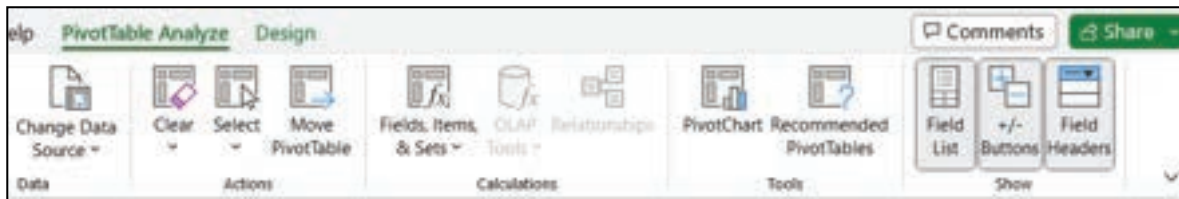


Figure: Pivot table Analyze tab

### 6.2.3. EXERCISE:

**Scenario:** You're managing HR data with employee details, departments, and salaries.

**Task:** Create a pivot table to display the average salary by department and analyze if there are any significant variations.

## 6.3. PIVOT TABLE LAYOUT AND STRUCTURE

### 6.3.1. LAYOUT COMPONENTS:

Pivot tables consist of specific areas – rows, columns, values, and filters – that determine how data is organized and presented.

**Row Area:** Categorizes data vertically.

**Column Area:** Categorizes data horizontally.

**Values Area:** Displays summarized data.

**Filter Area:** Applies filters to limit data.

You can easily modify the pivot table structure by dragging fields between different areas of the Field List.

### 6.3.2. EXERCISE:

Move a "Region" field from the Row Area to the Column Area to analyze sales trends by region.

## 6.4. MANAGING DATA SOURCE

### 6.4.1. UPDATING AND REFRESHING DATA:

Pivot tables are connected to source data. When the source data changes, you must refresh the pivot table to reflect the updates.

- **Automatic Refresh:** Pivot tables can be set to refresh automatically when the file is opened.
- **Manual Refresh:** Manually refresh by right-clicking the pivot table and selecting "Refresh."

Row Labels	Sum of Revenue	Sum of Profit margin	Total Sum of Revenue	Total Sum of Profit margin
<b>2016</b>	<b>₹ 58</b>	<b>0.19</b>	<b>₹ 1,23,96,805.00</b>	<b>0.19</b>
France	₹ 9	0.15	₹ 19,01,531.00	0.15
Accessories	₹ 3,603,339.00	0.27	₹ 6,88,914.00	0.27
Bikes	₹ 4	0.07	₹ 9,27,205.00	0.07
Clothing	₹ 1	0.21	₹ 2,85,412.00	0.23
Germany	₹ 12	0.39	₹ 24,71,187.00	0.37
Accessories	₹ 3	0.52	₹ 8,34,117.00	0.52
Bikes	₹ 7	0.28	₹ 13,09,362.00	0.28
Clothing	₹ 1	0.48	₹ 3,27,708.00	0.48
United Kingdom	₹ 11	0.15	₹ 23,81,753.00	0.16
Accessories	₹ 3	0.27	₹ 8,11,071.00	0.27
Bikes	₹ 5	0.07	₹ 12,28,503.00	0.07
Clothing	₹ 1	0.24	₹ 3,42,179.00	0.25
United States	₹ 25	0.15	₹ 56,42,334.00	0.15
Accessories	₹ 9	0.24	₹ 22,60,795.00	0.24
Bikes	₹ 10	0.04	₹ 22,57,187.00	0.04
Clothing	₹ 4	0.21	₹ 11,24,352.00	0.21
<b>2015</b>	<b>₹ 50</b>	<b>0.03</b>	<b>₹ 99,47,771.00</b>	<b>0.03</b>
France	₹ 7	0.01	₹ 15,44,573.00	0.01
Accessories	₹ 2	0.12	₹ 4,10,263.00	0.13
Bikes	₹ 4	(0.05)	₹ 9,45,398.00	(0.04)
Clothing	₹	0.07	₹ 1,88,912.00	0.07
Germany	₹ 9	0.19	₹ 17,73,323.00	0.19
Accessories	₹ 2	0.34	₹ 4,55,293.00	0.34
Bikes	₹ 6	0.13	₹ 11,56,065.00	0.13

Figure: Refresh pivot table option

#### 6.4.2. HANDLING CHANGES:

If you add, remove, or modify data, refresh the pivot table to include those changes.

**Scenario:** You add new sales data for the current month. Refreshing the pivot table will incorporate this new data.

#### 6.4.3. CONNECTING TO EXTERNAL DATA:

You can connect pivot tables to external data sources such as databases or other Excel workbooks.

#### 6.4.4. EXERCISE:

Connect a pivot table to a SQL database to directly analyze up-to-date sales records.

### 6.5. WORKING WITH PIVOT TABLE FIELDS

#### 6.5.1. DATA FIELD TYPES:

Pivot tables have three main types of data fields: value fields, label fields, and calculated fields.

- **Value Fields:** Numeric data that is summarized (e.g., total sales).
- **Label Fields:** Categorical data used to categorize rows or columns (



e.g., product categories).

- **Calculated Fields:** Custom calculations based on existing fields.

#### 6.5.2. Custom Calculations and Calculated Fields:

- **Instructions:** Create calculated fields by using mathematical expressions involving existing fields.
- **Example:** Calculate profit margin by subtracting the cost from the revenue and dividing by revenue.

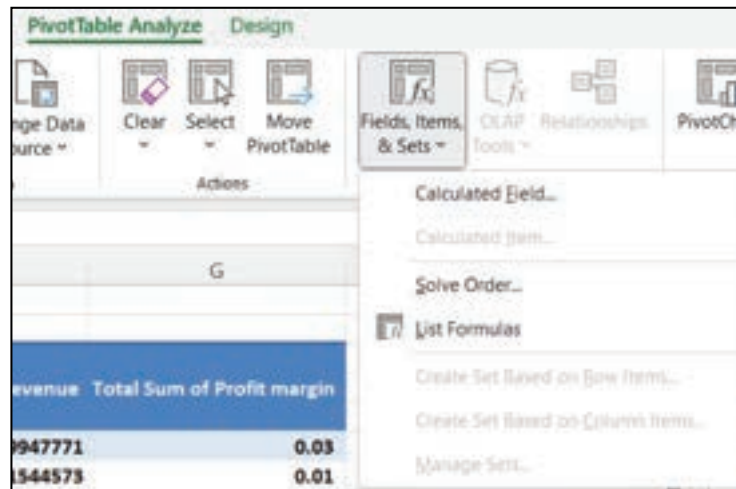


Figure: Calculated Field

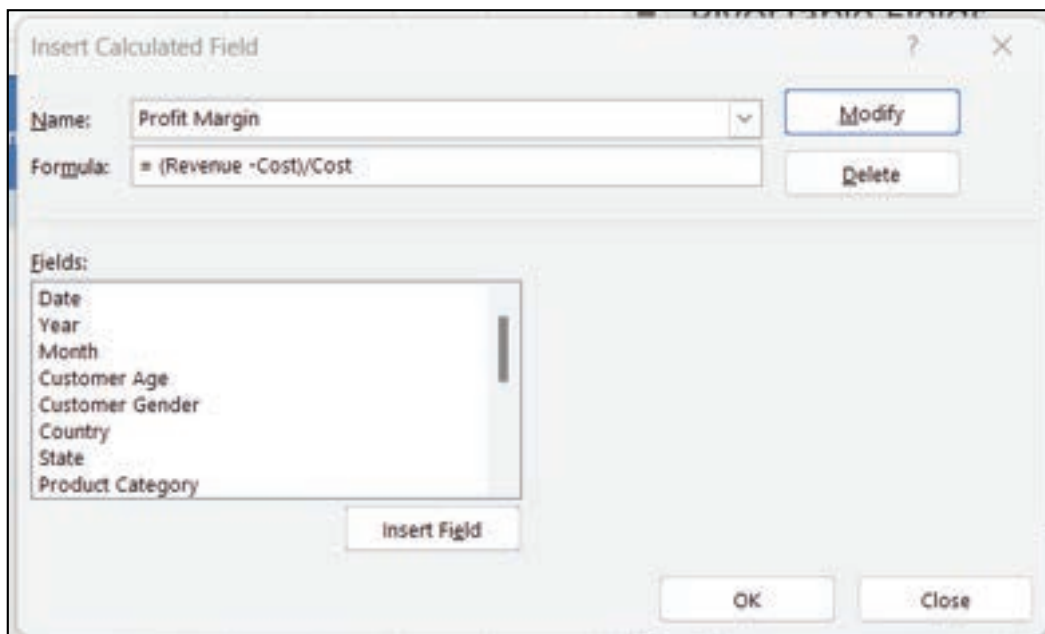


Figure: Insert Calculated Field window

### 6.5.3. Formatting and Summarizing Values:

Format value fields to enhance readability (e.g., currency symbols, decimal places). Summarization Options choose how values are summarized (sum, average, count, etc.).

**Example:** Format a "Profit" value field to show as currency and summarize "Sales" as the sum.

Column Labels	F	M	Total Sum of Revenue	Total Sum of Profit margin
Row Labels	Sum of Revenue	Sum of Profit margin	Sum of Revenue	Sum of Profit margin
2015	5051536	0.03	4896235	0.03
France	719843	0.02	824730	0.01
Accessories	201535	0.14	208728	0.12
Bikes	434078	(0.04)	511320	(0.05)
Clothing	84230	0.06	104682	0.07
Germany	929618	0.19	843705	0.19
Accessories	246798	0.33	208495	0.34
Bikes	606991	0.13	549074	0.13
Clothing	75829	0.32	86136	0.29
United Kingdom	957609	0.01	936858	0.00
Accessories	257715	0.12	240262	0.12
Bikes	592407	(0.05)	594207	(0.05)
Clothing	107487	0.10	102389	0.09
United States	2444466	(0.00)	2290942	(0.01)
Accessories	743854	0.10	718380	0.09
Bikes	1299737	(0.07)	1176284	(0.08)
Clothing	400875	0.07	396278	0.07
2016	5881098	0.19	6515707	0.19
France	955895	0.16	945636	0.15
Accessories	360339	0.27	328575	0.26
Bikes	454402	0.06	472803	0.07
Clothing	141154	0.24	144258	0.21
Germany	1252107	0.36	1219080	0.39
Accessories	396290	0.51	437827	0.52

Figure: Pivot table before number formatting

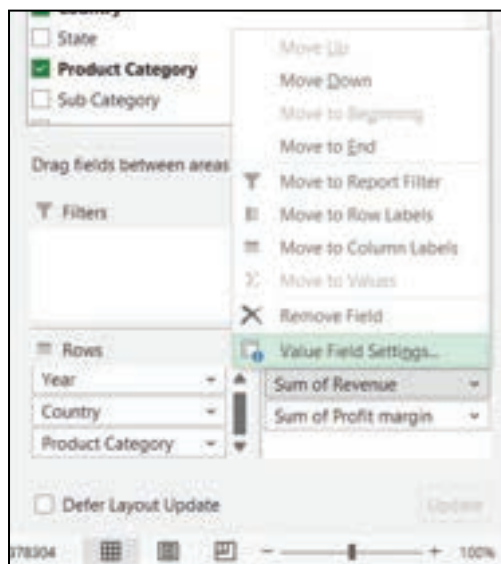


Figure: Value Field Settings Option

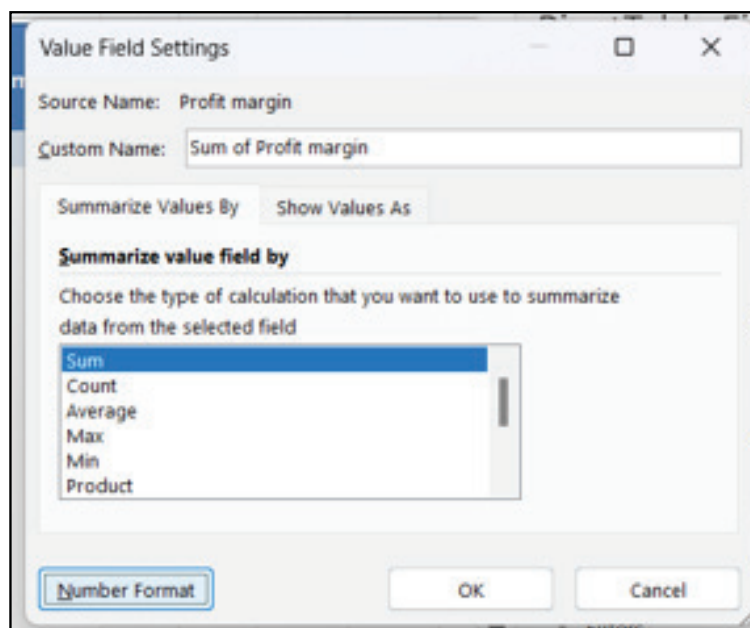


Figure: Number formatting option in Value field settings

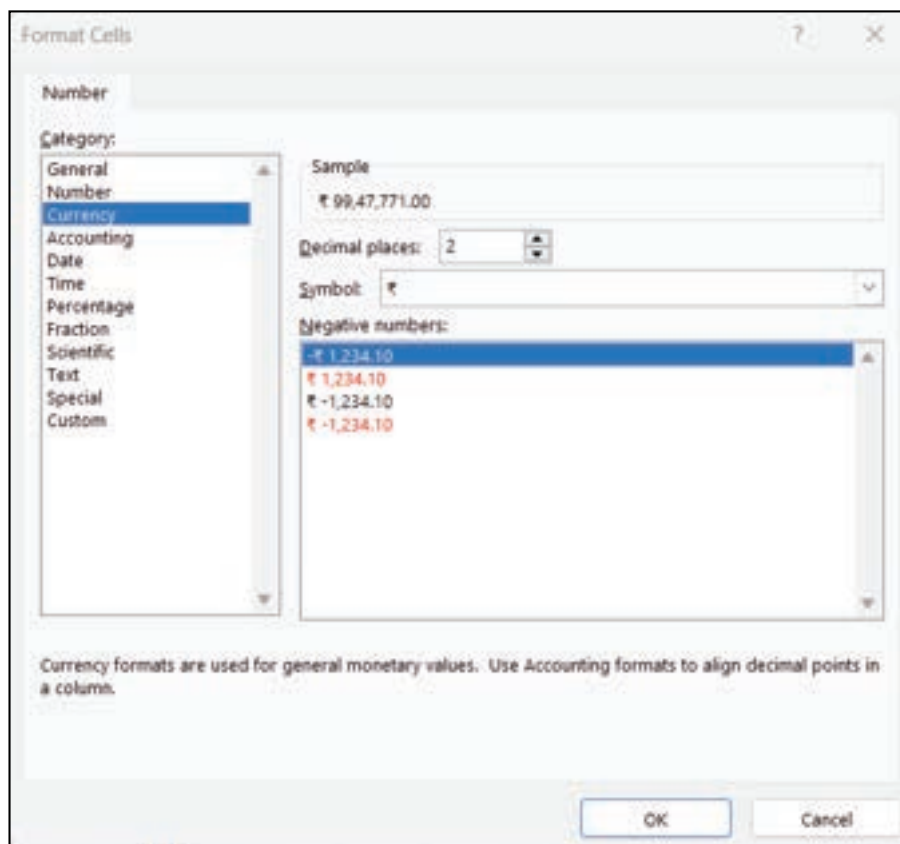


Figure: Number formatting window

Column Labels						
Row Labels	Sum of Revenue	Sum of Profit margin	Sum of Revenue	Sum of Profit margin	Total Sum of Revenue	Total Sum of Profit margin
2015	₹ 50,51,536.00	0.03	₹ 48,96,235.00	0.03	₹ 99,47,771.00	0.03
France	₹ 7,19,843.00	0.02	₹ 8,24,730.00	0.01	₹ 15,44,573.00	0.01
Accessories	₹ 2,01,535.00	0.14	₹ 2,08,728.00	0.12	₹ 4,10,263.00	0.13
Bikes	₹ 4,34,078.00	(0.04)	₹ 5,11,320.00	(0.05)	₹ 9,45,398.00	(0.04)
Clothing	₹ 84,230.00	0.06	₹ 1,04,682.00	0.07	₹ 1,88,912.00	0.07
Germany	₹ 9,29,618.00	0.19	₹ 8,43,705.00	0.19	₹ 17,73,323.00	0.19
Accessories	₹ 2,46,798.00	0.33	₹ 2,08,495.00	0.34	₹ 4,55,293.00	0.34
Bikes	₹ 6,06,991.00	0.13	₹ 5,49,074.00	0.13	₹ 11,56,065.00	0.13
Clothing	₹ 75,829.00	0.32	₹ 86,136.00	0.29	₹ 1,61,965.00	0.30
United Kingdom	₹ 9,57,609.00	0.01	₹ 9,36,858.00	0.00	₹ 18,94,467.00	0.00
Accessories	₹ 2,57,715.00	0.12	₹ 2,40,262.00	0.12	₹ 4,97,977.00	0.12
Bikes	₹ 5,92,407.00	(0.05)	₹ 5,94,207.00	(0.05)	₹ 11,86,614.00	(0.05)
Clothing	₹ 1,07,487.00	0.10	₹ 1,02,389.00	0.09	₹ 2,09,876.00	0.09
United States	₹ 24,44,466.00	(0.00)	₹ 22,90,942.00	(0.01)	₹ 47,35,408.00	(0.00)
Accessories	₹ 7,43,854.00	0.10	₹ 7,18,380.00	0.09	₹ 14,62,234.00	0.09
Bikes	₹ 12,99,737.00	(0.07)	₹ 11,76,284.00	(0.08)	₹ 24,76,021.00	(0.08)
Clothing	₹ 4,00,875.00	0.07	₹ 3,96,278.00	0.07	₹ 7,97,153.00	0.07
2016	₹ 58,81,098.00	0.19	₹ 65,15,707.00	0.19	₹ 1,23,96,805.00	0.19
France	₹ 9,55,895.00	0.16	₹ 9,45,636.00	0.15	₹ 19,01,531.00	0.15
Accessories	₹ 3,60,339.00	0.27	₹ 3,28,575.00	0.26	₹ 6,88,914.00	0.27
Bikes	₹ 4,54,402.00	0.06	₹ 4,72,803.00	0.07	₹ 9,27,205.00	0.07
Clothing	₹ 1,41,154.00	0.24	₹ 1,44,258.00	0.21	₹ 2,85,412.00	0.23
Germany	₹ 12,52,107.00	0.36	₹ 12,19,080.00	0.39	₹ 24,71,187.00	0.37
Accessories	₹ 3,96,290.00	0.51	₹ 4,37,827.00	0.52	₹ 8,34,117.00	0.52

Figure: Pivot table after number formatting

## 6.6. SORTING, FILTERING AND SLICING DATA

### 6.6.1. SORTING DATA:

Sort data within rows or columns to identify trends.

**Example:** Sort products by sales based on the Sum of Revenue in descending order.



Figure: More Sort options

Sort (Year) ? X

Sort options

☐ Manual (you can drag items to rearrange them)

☐ Ascending (A to Z) by:

Sum of Revenue

☒ Descending (Z to A) by:

Sum of Revenue

Summary

Sort Year by Sum of Revenue in descending order

More Options... OK Cancel

Figure: Sort option window

Row Labels	Sum of Revenue	Sum of Profit margin	Sum of Revenue	Sum of Profit margin	Total Sum of Revenue	Total Sum of Profit margin
2016	₹ 58,81,098.00	0.19	₹ 65,15,707.00	0.19	₹ 1,23,96,805.00	0.19
France	₹ 9,55,895.00	0.16	₹ 9,45,636.00	0.15	₹ 19,01,531.00	0.15
Accessories	₹ 3,60,339.00	0.27	₹ 3,28,575.00	0.26	₹ 6,88,914.00	0.27
Bikes	₹ 4,54,402.00	0.06	₹ 4,72,803.00	0.07	₹ 9,27,205.00	0.07
Clothing	₹ 1,41,154.00	0.24	₹ 1,44,258.00	0.21	₹ 2,85,412.00	0.23
Germany	₹ 12,52,107.00	0.36	₹ 12,19,080.00	0.39	₹ 24,71,187.00	0.37
Accessories	₹ 3,96,290.00	0.51	₹ 4,37,827.00	0.52	₹ 8,34,117.00	0.52
Bikes	₹ 7,06,734.00	0.27	₹ 6,02,628.00	0.28	₹ 13,09,362.00	0.28
Clothing	₹ 1,49,083.00	0.49	₹ 1,78,625.00	0.48	₹ 3,27,708.00	0.48
United Kingdom	₹ 11,19,076.00	0.16	₹ 12,62,677.00	0.15	₹ 23,81,753.00	0.16
Accessories	₹ 3,99,239.00	0.27	₹ 4,11,832.00	0.27	₹ 8,11,071.00	0.27
Bikes	₹ 5,53,655.00	0.07	₹ 6,74,848.00	0.07	₹ 12,28,503.00	0.07
Clothing	₹ 1,66,182.00	0.26	₹ 1,75,997.00	0.24	₹ 3,42,179.00	0.25
United States	₹ 25,54,020.00	0.14	₹ 30,88,314.00	0.15	₹ 56,42,334.00	0.15
Accessories	₹ 9,77,788.00	0.24	₹ 12,83,007.00	0.24	₹ 22,60,795.00	0.24
Bikes	₹ 10,80,777.00	0.04	₹ 11,76,410.00	0.04	₹ 22,57,187.00	0.04
Clothing	₹ 4,95,455.00	0.21	₹ 6,28,897.00	0.21	₹ 11,24,352.00	0.21
2015	₹ 50,51,536.00	0.03	₹ 48,96,235.00	0.03	₹ 99,47,771.00	0.03
France	₹ 7,19,843.00	0.02	₹ 8,24,730.00	0.01	₹ 15,44,573.00	0.01
Accessories	₹ 2,01,535.00	0.14	₹ 2,08,728.00	0.12	₹ 4,10,263.00	0.13
Bikes	₹ 4,34,078.00	(0.04)	₹ 5,11,320.00	(0.05)	₹ 9,45,398.00	(0.04)
Clothing	₹ 84,230.00	0.06	₹ 1,04,682.00	0.07	₹ 1,88,912.00	0.07
Germany	₹ 9,29,618.00	0.19	₹ 8,43,705.00	0.19	₹ 17,73,323.00	0.19
Accessories	₹ 2,46,798.00	0.33	₹ 2,08,495.00	0.34	₹ 4,55,293.00	0.34
Bikes	₹ 6,06,991.00	0.13	₹ 5,49,074.00	0.13	₹ 11,56,065.00	0.13
Clothing	₹ 75,829.00	0.32	₹ 86,136.00	0.29	₹ 1,61,965.00	0.30

Figure: Sorted Pivot table

In the above figure, the data is sorted based on the Sum of Revenue in descending as chosen in the Sort options above.

### 6.6.2. APPLYING FILTERS:

Use filters to focus on specific subsets of data in the pivot table.

**Example:** Apply a filter to show only sales data from a certain year.



Figure: Filter in Pivot table

#### 6.6.2.1. APPLYING VALUE-BASED FILTERS:

Use value-based filters to show specific data ranges.

**Example:** Filter sales data to show products with sales above a certain threshold.

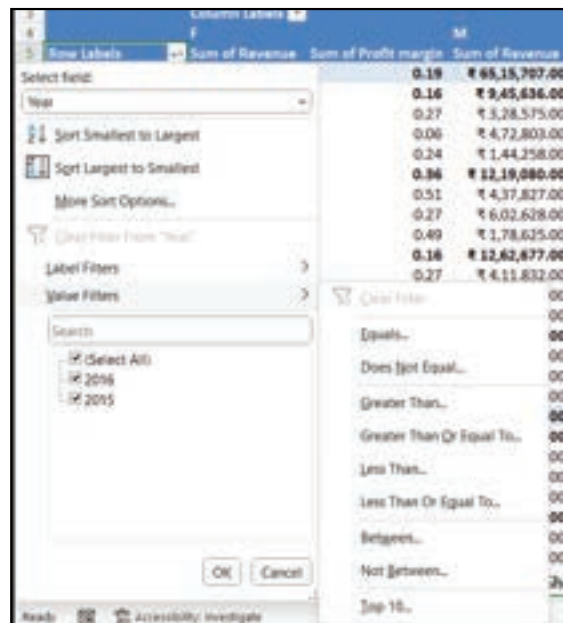


Figure: Value Filter Option



### 6.6.3 SLICERS AND TIMELINES

Slicers are interactive visual filters. Timelines offer easy filtering by dates.

**Usage:** Insert slicers for categorical fields like regions or timelines for date fields.

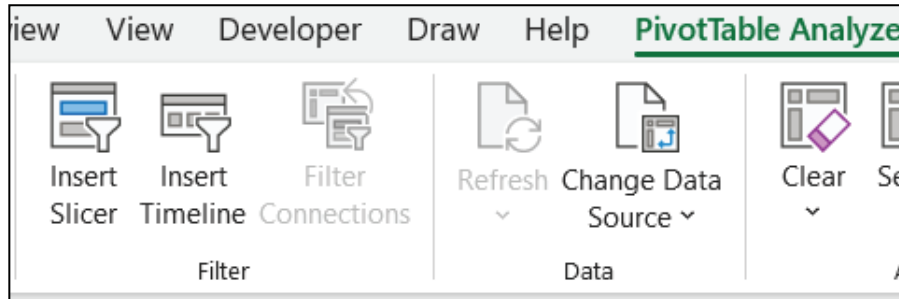


Figure: Slicer and Timeline in filter group

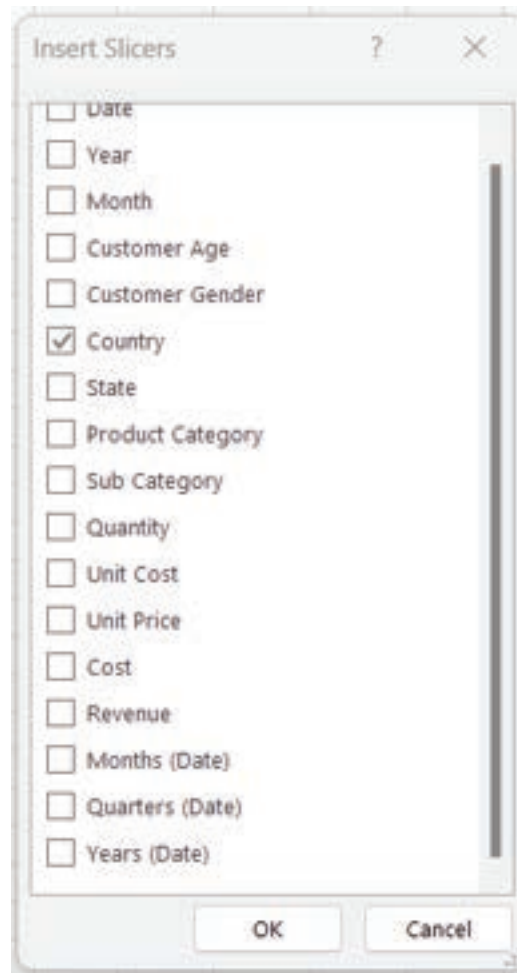


Figure: Insert Slicers window

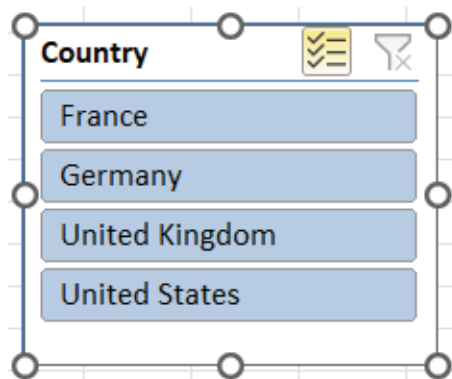


Figure: Inserted Slicer



Figure: InsertTimelines window

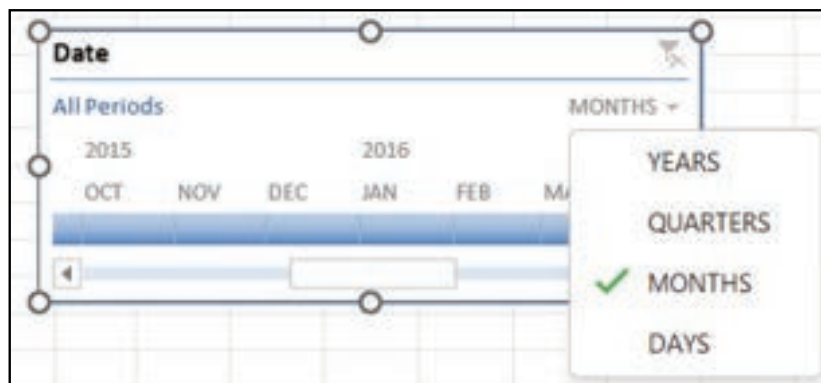


Figure: Inserted Timelines



### 6.6.4 CONDITIONAL FORMATTING

Conditional formatting visually highlights cells based on specified rules.

**Example:** Apply color scales to profit values to visually identify high and low-profit areas.

**Scenario:** Apply data bars to show relative sales performance. The longer the bar, the higher the sales.

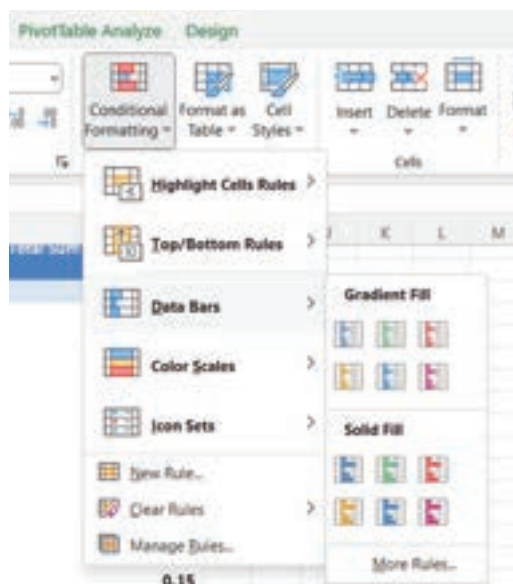


Figure: Data bars in conditional formatting

Column Labels		M		Total Sum of Revenue		Total Sum of Profit margin	
Row Labels	Sum of Revenue	Sum of Profit margin	Sum of Revenue	Sum of Profit margin			
2016	₹ 58,81,098.00	0.19	₹ 65,15,707.00	0.19	₹ 1,23,96,805.00	0.19	
France	₹ 9,55,895.00	0.16	₹ 9,45,636.00	0.15	₹ 19,01,531.00	0.15	
Accessories	₹ 3,60,339.00	0.27	₹ 3,28,575.00	0.26	₹ 6,88,914.00	0.27	
Bikes	₹ 4,54,402.00	0.06	₹ 4,72,803.00	0.07	₹ 9,27,205.00	0.07	
Clothing	₹ 1,41,154.00	0.24	₹ 1,44,258.00	0.21	₹ 2,85,412.00	0.23	
Germany	₹ 12,52,107.00	0.36	₹ 12,19,080.00	0.39	₹ 24,71,187.00	0.37	
Accessories	₹ 3,96,290.00	0.51	₹ 4,37,827.00	0.52	₹ 8,34,117.00	0.52	
Bikes	₹ 7,06,734.00	0.27	₹ 6,02,628.00	0.28	₹ 13,09,362.00	0.28	
Clothing	₹ 1,49,083.00	0.49	₹ 1,78,625.00	0.48	₹ 3,27,708.00	0.48	
United Kingdom	₹ 11,19,076.00	0.16	₹ 12,62,677.00	0.15	₹ 23,81,753.00	0.16	
Accessories	₹ 3,99,239.00	0.27	₹ 4,11,832.00	0.27	₹ 8,11,071.00	0.27	
Bikes	₹ 5,53,655.00	0.07	₹ 6,74,848.00	0.07	₹ 12,28,503.00	0.07	
Clothing	₹ 1,66,182.00	0.26	₹ 1,75,997.00	0.24	₹ 3,42,179.00	0.25	
United States	₹ 25,54,020.00	0.14	₹ 30,88,314.00	0.15	₹ 56,42,334.00	0.15	
Accessories	₹ 9,77,788.00	0.24	₹ 12,83,007.00	0.24	₹ 22,60,795.00	0.24	
Bikes	₹ 10,80,777.00	0.04	₹ 11,76,410.00	0.04	₹ 22,57,187.00	0.04	
Clothing	₹ 4,95,455.00	0.21	₹ 6,28,897.00	0.21	₹ 11,24,352.00	0.21	
2015	₹ 50,51,536.00	0.05	₹ 48,96,235.00	0.05	₹ 99,47,771.00	0.05	
France	₹ 7,19,843.00	0.02	₹ 8,24,730.00	0.01	₹ 15,44,573.00	0.01	
Accessories	₹ 2,01,535.00	0.14	₹ 2,08,728.00	0.12	₹ 4,10,263.00	0.13	
Bikes	₹ 4,34,078.00	(0.04)	₹ 5,11,320.00	(0.05)	₹ 9,45,398.00	(0.04)	
Clothing	₹ 84,230.00	0.06	₹ 1,04,682.00	0.07	₹ 1,88,912.00	0.07	
Germany	₹ 9,29,618.00	0.19	₹ 8,43,705.00	0.19	₹ 17,73,323.00	0.19	
Accessories	₹ 2,46,798.00	0.33	₹ 2,08,495.00	0.34	₹ 4,55,293.00	0.34	
Bikes	₹ 6,06,991.00	0.13	₹ 5,49,074.00	0.13	₹ 11,56,065.00	0.13	
Clothing	₹ 75,829.00	0.32	₹ 86,136.00	0.29	₹ 1,61,965.00	0.30	
United Kingdom	₹ 9,57,609.00	0.01	₹ 9,96,859.00	0.00	₹ 19,54,467.00	0.00	

Figure: Data Bar applied Pivot table



## SUMMARY

- Pivot tables in Excel empower users to extract insights from complex datasets quickly.
- Steps to create a pivot table involve selecting data, accessing the “Insert” tab, defining the data range, choosing the location, and confirming.
- Pivot tables are constructed by dragging fields from the PivotTable Field List to rows, columns, and values areas.
- Refresh pivot tables to reflect changes in source data.
- Filters are used to focus on specific subsets of data.
- Slicers and timelines enhance data filtering and visualization.
- Value-based filters allow showing specific data ranges.
- Conditional formatting can be combined with pivot tables to highlight cells based on rules.

## MULTIPLE CHOICE QUESTIONS (MCQS)

### 1. What is the primary function of a Pivot Table in Microsoft Excel?

- a) Data entry
- b) Data summarization and analysis
- c) Data formatting
- d) Data encryption

### 2. When did the concept of Pivot Tables first emerge?

- a) 1960s
- b) 1970s
- c) 1980s
- d) 1990s

### 3. Which area of a Pivot Table is used to categorize data vertically?

- a) Rows
- b) Columns
- c) Values
- d) Filters

### 4. What is the purpose of refreshing a Pivot Table?

- a) To change its formatting

- b) To update it with the latest data
- c) To delete it from the worksheet
- d) To apply conditional formatting

**5. Which field type is used for custom calculations based on existing fields in a Pivot Table?**

- a) Value Fields
- b) Label Fields
- c) Calculated Fields
- d) Summary Fields

**6. How can you modify the layout and format of a Pivot Table in Excel?**

- a) Through the Format menu
- b) By right-clicking and selecting "Format Table"
- c) Using the PivotTable Analyze tab
- d) None of the above

**7. What is the purpose of using Slicers in a Pivot Table?**

- a) To add color to the table
- b) To filter data interactively
- c) To create charts from the table
- d) To calculate custom fields

**8. How can you sort data within rows or columns in a Pivot Table?**

- a) By using the "Sort" option in the Home tab
- b) By right-clicking and selecting "Sort"
- c) Through the PivotTable Analyze tab
- d) All of the above

**9. Which aspect of design and formatting plays a crucial role in the effectiveness of charts?**

- a) Data labels
- b) Gridlines and axes
- c) Chart colors and themes
- d) Legend placement

**10. In Excel, how can you adjust gridlines and axes in a chart?**

- a) Through the Format menu
- b) By right-clicking on the chart
- c) Using the Chart Tools Design tab
- d) None of the above

**11. What is the primary function of the Chart Wizard in Excel?**

- a) To create charts from Pivot Tables
- b) To format text in charts
- c) To add data labels to charts
- d) To delete existing charts

**12. Which option allows you to automatically refresh a Pivot Table when the file is opened?**

- a) Automatic Refresh
- b) Manual Refresh
- c) Refresh on Demand
- d) Refresh on Save

**13. When creating a Pivot Table, why is it important for the source data to include column headers?**

- a) To allow for automatic aggregation
- b) To help Excel recognize field names accurately
- c) To enable sorting and filtering
- d) To apply conditional formatting

**14. What is the purpose of applying conditional formatting in a Pivot Table?**

- a) To change the font size
- b) To highlight cells based on specified rules
- c) To create a chart from the table
- d) To add new data fields

**ANSWERS**

1. b) Data summarization and analysis
2. c) 1980s
3. a) Columns
4. b) To update it with the latest data
5. c) Calculated Fields
6. c) Using the PivotTable Analyze tab
7. b) To filter data interactively
8. d) All of the above
9. c) Chart colors and themes
10. b) By right-clicking on the chart
11. a) To create charts from Pivot Tables
12. a) Automatic Refresh
13. b) To help Excel recognize field names accurately
14. b) To highlight cells based on specified rules



### **SELF-EXAMINATION QUESTIONS FOR PRACTICE**

1. Analyze why pivot tables are considered a powerful tool for data analysis.
2. Explain the step-by-step process of creating a pivot table in Excel.
3. Define the purpose of each area in a pivot table: Rows, Columns, Values, and Filters.
4. How would you handle changes in the source data (e.g., adding new data) to ensure your pivot table remains accurate?
5. Provide an example of a calculated field you might create to analyze data.
6. Describe the purpose of applying filters in a pivot table.
7. Use a scenario to explain when you would use a timeline in a pivot table.
8. What are slicers and how do they enhance data filtering in pivot tables?
9. Provide an example of how you might use conditional formatting to highlight data in a pivot table.

# CHAPTER 7

## INTRODUCTION TO XML & SCHEMA, XML TO EXCEL TO XML



### LEARNING OBJECTIVES

- ✓ Understand the fundamentals of XML: Learn the basic syntax, structure, and purpose of XML (Extensible Mark-up Language) and its role in data representation.
- ✓ Mastery of XML Schema: Gain proficiency in creating XML Schema Definition (XSD) documents to define and validate the structure and data types of XML documents.
- ✓ XML to Excel Transformation: Learn techniques and tools to convert XML data into Excel spreadsheets, enabling efficient data manipulation and analysis.
- ✓ Excel to XML Conversion: Explore methods to reverse the process and convert Excel data back into XML format while preserving data integrity.
- ✓ Practical Applications: Apply your knowledge to real-world scenarios, including data interchange, integration, and reporting, using XML and Excel as essential data transformation tools.

These learning objectives provide a comprehensive overview of the key concepts and skills that will be covered in the chapter. They aim to equip learners with a strong foundation in working with XML and understanding its practical applications in the financial sector.

### 7.1. INTRODUCTION TO XML (EXTENSIBLE MARKUP LANGUAGE)

XML, or eXtensible Markup Language, is a versatile data format used for structuring and storing information. It's a text-based language that's both human-readable and machine-readable. XML has become a standard for data exchange between different systems because of its simplicity and flexibility. XML uses tags to define elements and their relationships within a document, allowing you to create customized data structures.

#### Steps involved in Creating an XML Document for Book Inventory

1. Open a text editor like Notepad.
2. Define the XML prolog: `<?xml version="1.0" encoding="UTF-8"?>`.
3. Create the root element, e.g., `<library>`.
4. Add child elements for each book, with details like `<title>`, `<author>`, and `<price>`.
5. Close the root element `</library>`.
6. Save the file with a .xml extension.

**Example XML Document for Book Inventory**

```
<?xml version="1.0" encoding="UTF-8"?>
<library>
  <book>
    <title>Introduction to XML</title>
    <author>John Doe</author>
    <price>29.99</price>
  </book>
  <book>
    <title>Data Science Essentials</title>
    <author>Jane Smith</author>
    <price>34.95</price>
  </book>
</library>
```

**7.2. XML SYNTAX AND RULES**

XML documents follow a set of syntax rules. Each piece of data is enclosed in a tag, and tags are nested within one another to create a hierarchy. Tags must be properly opened and closed, and they are case-sensitive. Attributes provide additional information about elements. Well-formed XML documents adhere to these rules, making them valid and suitable for processing by XML parsers.

**Steps of preparing a Well-Formed XML Document**

1. Open a text editor.
2. Create a simple XML document with opening and closing tags.
3. Ensure all tags are properly nested and closed.
4. Make sure attributes are enclosed in double quotes.
5. Save and validate the XML using an online XML validator.

**Example of a Well-Formed XML Document**

```
<?xml version="1.0" encoding="UTF-8"?>
<data>
  <item>Apple</item>
  <item>Banana</item>
  <item>Cherry</item>
</data>
```

**7.3. XML DOCUMENT STRUCTURE**

An XML document starts with a root element that encapsulates all other elements. Elements can

contain other elements, forming a hierarchical structure. This tree-like structure makes it easy to represent complex relationships and data structures. Additionally, XML allows you to define namespaces to avoid naming conflicts when using elements and attributes from different sources.

#### Steps involved in creating an XML document representing a Company's Employee Hierarchy

1. Define the root element <company>.
2. Create child elements for departments, e.g., <hr>, <sales>.
3. Nest elements for employees within departments.
4. Use attributes like <employee id="1"> for unique identification.
5. Add relevant data within each element.

#### Example XML document representing a Company's Employee Hierarchy

```
<?xml version="1.0" encoding="UTF-8"?>
<company>
  <department>
    <name>HR</name>
    <employee>John</employee>
    <employee>Alice</employee>
  </department>
  <department>
    <name>Sales</name>
    <employee>Bob</employee>
    <employee>Eve</employee>
  </department>
</company>
```

### 7.4. DOCUMENT TYPE DEFINITION (DTD) AND XML SCHEMA

DTD and XML Schema are mechanisms used for validating the structure and content of XML documents. DTD is an older method and defines the allowed elements, attributes, and their order. XML Schema, on the other hand, provides a more powerful and flexible way to define data types, constraints, and relationships within an XML document. It's a critical tool for ensuring data integrity in XML-based systems.

#### Steps involved in creating an XML Schema for a Customer Database

1. Write an XML Schema with elements, attributes, data types, and constraints.
2. Define elements like <customer> with attributes for name and ID.
3. Specify data types, e.g., string, integer, for attributes.
4. Add constraints such as uniqueness or required elements.
5. Associate the XML document with the schema using schemaLocation.



### Example XML document for Creating an XML Schema for a Customer Database

```
<!-- XML Schema Definition (XSD) -->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="customer" type="customerType"/>
  <xs:complexType name="customerType">
    <xs:sequence>
      <xs:element name="name" type="xs:string"/>
      <xs:element name="id" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

The provided code is an example of an XML Schema Definition (XSD) document used to define the structure and constraints for an XML document representing customer data. Let's break down the code step by step:

1. **<!-- XML Schema Definition (XSD) -->**: This is a comment line that provides information about the purpose of the XML document. It indicates that this XML document is an XML Schema Definition.
2. **<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">**: This is the root element of the XSD document. It defines the XML Schema itself. Let's break down its components:
  - **<xs:schema>**: This is the opening tag for the schema element, indicating that this document is an XML Schema.
  - **xmlns:xs="http://www.w3.org/2001/XMLSchema"**: This attribute defines the XML namespace for the "xs" prefix. In this case, it's associated with the XML Schema namespace provided by the World Wide Web Consortium (W3C).
3. **<xs:element name="customer" type="customerType"/>**: This line defines an XML element called "customer" within the schema. Let's dissect it:
  - **<xs:element>**: This is the opening tag for the element definition.
  - **name="customer"**: This attribute specifies the name of the element, which is "customer" in this case.
  - **type="customerType"**: This attribute specifies the data type of the "customer" element. It references a complex type called "customerType," which is defined elsewhere in the schema.
4. **<xs:complexType name="customerType">**: This line defines a complex type named "customerType" within the schema. Complex types are used to define the structure of elements that have child elements. Breakdown:
  - **<xs:complexType>**: This is the opening tag for the complex type definition.

- **name="customerType"**: This attribute specifies the name of the complex type, which is "customerType" in this case.
- 5. **<xs:sequence>**: This line defines a sequence of child elements for the "customerType" complex type. It indicates that the elements defined inside the <xs:sequence> must appear in a specific order within an XML instance document.
- 6. **<xs:element name="name" type="xs:string"/>**: This line defines an element named "name" within the "customerType" complex type. Breakdown:
  - **<xs:element>**: This is the opening tag for the element definition.
  - **name="name"**: This attribute specifies the name of the element, which is "name."
  - **type="xs:string"**: This attribute specifies the data type of the "name" element. In this case, it's a string.
- 7. **<xs:element name="id" type="xs:int"/>**: This line defines an element named "id" within the "customerType" complex type. Breakdown:
  - **<xs:element>**: This is the opening tag for the element definition.
  - **name="id"**: This attribute specifies the name of the element, which is "id."
  - **type="xs:int"**: This attribute specifies the data type of the "id" element. In this case, it's an integer.

In summary, the provided XML Schema (XSD) defines the structure of an XML document representing customer data. It specifies that the document must contain a "customer" element, which in turn must contain a "name" element (with a string data type) and an "id" element (with an integer data type). This XSD provides a blueprint for creating valid XML documents that conform to this structure.

## 7.5. XML DATA TRANSFORMATION

XML data transformation involves changing the structure or presentation of XML data. XSLT (eXtensible Stylesheet Language Transformations) is commonly used for this purpose. XSLT scripts can convert XML data into various formats, such as HTML, plain text, or other XML documents. This transformation capability is valuable for presenting data in different ways without altering the underlying data.

### Steps involved in transforming XML Sales Data into HTML Report

1. Write an XSLT stylesheet that specifies the transformation rules.
2. Define templates for elements you want to transform.
3. Apply styles, formatting, and layout instructions in the XSLT.
4. Use an XSLT processor to apply the stylesheet to your XML data.
5. Save the transformed output as an HTML file.

### Example XML document for transforming XML Sales Data into HTML Report

(Note: XSLT examples can be extensive. This is a simplified example.)

XML Data:

```
<?xml version="1.0" encoding="UTF-8"?>
<sales>
<sale>
<product>Widget</product>
<quantity>50</quantity>
<revenue>2500.00</revenue>
</sale>
<!-- ... More sales data ... -->
</sales>
```

XSLT for HTML Transformation:

```
<!-- XSLT stylesheet -->
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
<html>
<head>
<title>Sales Report</title>
</head>
<body>
<h1>Sales Report</h1>
<table border="1">
<tr>
<th>Product</th>
<th>Quantity</th>
<th>Revenue</th>
</tr>
+
```

```
<?xml version="1.0" encoding="UTF-8"?>
<sales>
<sale>
<product>Widget</product>
<quantity>50</quantity>
<revenue>2500.00</revenue>
</sale>
<!-- ... More sales data ... -->
</sales>
```

```

<tr>
<xsl:for-each select="sales/sale">
<td><xsl:value-of select="product"/></td>
<td><xsl:value-of select="quantity"/></td>
<td><xsl:value-of select="revenue"/></td>
</tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>

```

The provided code consists of an example XML document and an associated XSLT (eXtensible Stylesheet Language Transformations) stylesheet for transforming the XML data into an HTML sales report. Let's break down each part:

#### XML Data:

This XML data represents sales information, including products, quantities sold, and revenue. It starts with a root element `<sales>` and contains multiple `<sale>` elements, each representing a sale.

- **<sales>**: The root element that encapsulates all sales data.
- **<sale>**: Child elements representing individual sales, including product, quantity, and revenue.

#### XSLT for HTML Transformation:

```

<!-- XSLT stylesheet -->
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
<html>
<head>
<title>Sales Report</title>
</head>
<body>
<h1>Sales Report</h1>
<table border="1">
<tr>
<th>Product</th>
<th>Quantity</th>
<th>Revenue</th>

```

```

</tr>
<xsl:for-each select="sales/sale">
<tr>
<td><xsl:value-of select="product"/></td>
<td><xsl:value-of select="quantity"/></td>
<td><xsl:value-of select="revenue"/></td>
</tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>

```

This XSLT stylesheet defines rules for transforming the XML sales data into an HTML sales report. Let's break down the key elements:

- **<xsl:stylesheet>**: This element declares the XSLT stylesheet. It specifies the XSLT version and defines the namespace for XSLT using xmlns:xsl.
- **<xsl:template match="/">**: This template defines how the root element of the XML (/) should be transformed. It represents the starting point of the transformation.
- **<html>, <head>, <title>, <body>, <h1>, <table>, <tr>, <th>, <td>**: These are HTML elements that are included in the output HTML. The XSLT stylesheet essentially generates an HTML structure.
- **<xsl:for-each select="sales/sale">**: This construct iterates over each <sale> element within the <sales> element in the XML data. For each <sale>, it generates an HTML table row (<tr>) and extracts values from the <product>, <quantity>, and <revenue> elements to populate the table cells (<td>).
- **<xsl:value-of select="product"/>, <xsl:value-of select="quantity"/>, <xsl:value-of select="revenue"/>**: These elements extract and output the values of the <product>, <quantity>, and <revenue> elements from the XML data into the HTML table cells.

In summary, this XSLT stylesheet takes the provided XML sales data and transforms it into an HTML sales report. It generates an HTML table with headers for "Product," "Quantity," and "Revenue," and then populates the table rows with data from each <sale> element in the XML. This is a simplified example of how XSLT can be used to convert XML data into various output formats, in this case, HTML.

## **7.6. USING XML WITH EXCEL**

Excel supports importing XML data directly into spreadsheets. This feature allows you to bring external data sources into Excel for analysis, reporting, and further manipulation. Excel offers tools for mapping XML elements to specific cells or columns in your worksheet, giving you control over how XML data is presented.

### **Steps involved in Importing XML Sales Data into Excel**

(Note: This example assumes that you have an XML file with sales data.)

1. Open Excel and create a new worksheet.
2. Go to the “Data” tab and select “From XML” or “Get Data.”
3. Choose the XML file you want to import.
4. Excel will prompt you to map XML elements to cells or columns.
5. Review the import settings and load the data into Excel.

## **7.7. EXCEL TO XML CONVERSION**

Conversely, Excel can export spreadsheet data into XML format. This is useful when you need to share structured data with systems that require XML input. Excel provides options for mapping Excel tables and worksheets to XML elements and attributes, allowing you to tailor the XML structure to your needs.

### **Steps involved in Exporting Excel Sales Data to XML**

1. In Excel, open the worksheet with the data you want to export.
2. Go to the “File” menu and select “Save As.”
3. Choose “XML Data (\*.xml)” as the file format.
4. Excel will prompt you to map cells to XML elements.
5. Review the mapping and save the file as XML.

## **7.8. XML DATA MANIPULATION IN EXCEL**

Excel provides various features for working with XML data once it’s imported. You can filter, sort, and query XML data as you would with any other Excel data. Additionally, you can use Excel formulas and functions to perform calculations or create new data based on XML content.

### **Steps involved in using Excel Formulas with Imported XML Data**

(Note: This example assumes you have imported XML sales data into Excel.)

1. Import XML data into Excel as explained previously.
2. In Excel, use formulas like SUM, AVERAGE, or IF to analyze XML data.
3. Create calculated columns based on XML data. You can calculate the total revenue, average quantity sold, or any other relevant metrics based on the imported data.
4. Visualize results using Excel charts or tables.

## 7.9. XML VALIDATION AND ERROR HANDLING

XML validation ensures that an XML document conforms to its defined structure and data types. XML Schema can be used to specify the expected format and content of an XML document. Validation is essential for data integrity and preventing errors. Excel provides options for validating XML data during import and handling validation errors gracefully.

### Steps involved in Validating XML Data in Excel

1. Import XML data into Excel.
2. Excel will automatically validate data based on the associated schema.
3. Review validation results in Excel's "XML Source" task pane.
4. Handle validation errors by correcting or marking problematic data.

## 7.10. A SCENARIO FOR PRACTICAL APPLICATION

Real-world applications of XML in the financial industry are numerous. For instance, XML is commonly used for exchanging financial data between different accounting systems, for regulatory reporting, and for data interoperability (the ability to access and process data from multiple sources without losing meaning and then integrate that data for visualization, and other forms of representation and analysis).

A financial analyst can use Excel to import XML data containing quarterly financial reports. The XML data is transformed into a structured Excel format using XSLT. Excel formulas are applied to calculate key financial ratios, and the data is presented in visually appealing charts. The analyst then exports the Excel report back to XML for sharing with stakeholders.



## SUMMARY

### 7.1. INTRODUCTION TO XML (EXTENSIBLE MARKUP LANGUAGE):

- XML is a versatile data format used for structuring and storing information.
- It is both human-readable and machine-readable.
- XML is widely used for data exchange between different systems due to its simplicity and flexibility.
- XML uses tags to define elements and their relationships within a document, allowing for customized data structures.
- Steps to create an XML document for book inventory include defining the XML prolog, creating the root element, adding child elements for each book, and saving the file with a .xml extension.

### 7.2. XML SYNTAX AND RULES:

- XML documents follow specific syntax rules.

- Data is enclosed in tags, which are case-sensitive.
- Tags must be properly nested and closed.
- Attributes provide additional information about elements.
- Well-formed XML documents adhere to these rules and are suitable for processing by XML parsers.
- Steps for preparing a well-formed XML document include ensuring proper nesting, closing tags, and enclosing attributes in double quotes.

### **7.3. XML DOCUMENT STRUCTURE:**

- An XML document starts with a root element that encapsulates all other elements.
- Elements can contain other elements, creating a hierarchical structure.
- XML's hierarchical structure is useful for representing complex relationships and data structures.
- Namespaces are used to avoid naming conflicts when using elements and attributes from different sources.
- Steps to create an XML document representing a company's employee hierarchy involve defining the root element, creating child elements for departments, nesting elements for employees, and using attributes for unique identification.

### **7.4. DOCUMENT TYPE DEFINITION (DTD) AND XML SCHEMA:**

- DTD and XML Schema are used for validating the structure and content of XML documents.
- DTD defines allowed elements, attributes, and their order.
- XML Schema provides a more powerful way to define data types, constraints, and relationships.
- XML Schema is crucial for ensuring data integrity in XML-based systems.
- Steps to create an XML Schema for a customer database include defining elements, attributes, data types, constraints, and associating the XML document with the schema.

### **7.5. XML DATA TRANSFORMATION:**

- XML data transformation involves changing the structure or presentation of XML data.
- XSLT (eXtensible Stylesheet Language Transformations) is commonly used for this purpose.
- XSLT can convert XML data into various formats, such as HTML.
- Transformation allows for presenting data differently without altering the underlying data.
- Steps to transform XML sales data into an HTML report include writing an XSLT stylesheet, defining templates, applying styles, using an XSLT processor, and saving the transformed output.

### **7.6. USING XML WITH EXCEL:**

- Excel supports importing XML data directly into spreadsheets.
- This feature allows for bringing external data sources into Excel for analysis and reporting.



- Tools in Excel enable mapping XML elements to specific cells or columns for data presentation.
- Steps for importing XML sales data into Excel involve selecting the XML file, mapping elements, and loading the data.

### **7.7. EXCEL TO XML CONVERSION:**

- Excel can export spreadsheet data into XML format.
- This is useful for sharing structured data with systems that require XML input.
- Excel allows mapping Excel tables and worksheets to XML elements and attributes.
- This customization tailors the XML structure to specific needs.
- Steps for exporting Excel sales data to XML include mapping cells, reviewing mapping, and saving as XML.

### **7.8. XML DATA MANIPULATION IN EXCEL:**

- Excel provides features for working with imported XML data.
- You can filter, sort, and query XML data.
- Excel formulas and functions can be used to perform calculations based on XML content.
- Calculated columns can be created to derive metrics from imported data.
- Visualizations like charts and tables can be used to present results.

### **7.9. XML VALIDATION AND ERROR HANDLING:**

- XML validation ensures conformance to structure and data type rules.
- XML Schema can specify the expected format and content.
- Excel validates XML data during import and handles errors gracefully.
- Validation results can be reviewed in Excel's "XML Source" task pane.
- Validation errors should be corrected or marked for handling.

### **7.10. A SCENARIO FOR PRACTICAL APPLICATION:**

- XML is widely used in the financial industry for data exchange, regulatory reporting, and interoperability.
- Excel can be used to import XML data for financial analysis.
- XSLT can transform XML data into structured Excel format. Excel formulas can calculate financial metrics. The data can be presented using charts.
- The Excel report can be exported back to XML for sharing with stakeholders.

These takeaways cover the key concepts and practical applications of XML and XML-related processes in Excel, making it a valuable module for handling structured data.

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What does XML stand for?**

- a. eXtensible Markup Language
- b. eXtra Modern Language
- c. Extended Markup Language
- d. Extended Modern Language

**2. Which of the following is a step involved in creating a basic XML document?**

- a. Define the XML prolog
- b. Insert images
- c. Use JavaScript code
- d. Apply styles using CSS

**3. Which of the following is a characteristic of well-formed XML documents?**

- a. Properly nested tags
- b. Case-insensitive tags
- c. Single-line structure
- d. No attribute usage

**4. In XML, what is used to encapsulate all other elements in a document?**

- a. Root element
- b. Parent element
- c. Container element
- d. Core element

**5. What is the purpose of namespaces in XML?**

- a. To define attributes
- b. To avoid naming conflicts
- c. To create hyperlinks
- d. To apply styles

**6. Which mechanism is used for validating the structure and content of XML documents?**

- a. DTD (Document Type Definition)
- b. CSS (Cascading Style Sheets)
- c. SQL (Structured Query Language)
- d. HTML (HyperText Markup Language)

**7. What does XML Schema provide a flexible way to define within an XML document?**

- a. Data types, constraints, and relationships
- b. Document formatting
- c. Hyperlinks
- d. Images

**8. In XML Schema, what is used to ensure the uniqueness of elements or attributes?**

- a. Constraints
- b. Datatypes
- c. Uniqueness validators
- d. Key elements

**9. What is the role of XSLT in XML data transformation?**

- a. Converting XML data to binary format
- b. Converting XML data to various formats
- c. Storing XML data in databases
- d. Validating XML data

**10. Which element in XSLT represents the starting point of the transformation process?**

- a. xsl:apply-templates
- b. <xsl:template match="/">
- c. xsl:transform
- d. xsl:output

**11. In Excel, how can XML data be imported into a spreadsheet?**

- a. From CSV files
- b. From XML files
- c. From PDF files
- d. From Word documents

**12. What is the purpose of Excel to XML conversion?**

- a. Exporting Excel data to XML format
- b. Importing XML data into Excel
- c. Converting XML data to JSON format
- d. Creating charts in Excel

**13. In Excel, what is used to validate imported XML data based on the associated schema?**

- a. XML Validator
- b. Data Checker
- c. XML Source task pane
- d. Excel Inspector

**14. Which of the following is an example of a practical application scenario for XML in the financial industry?**

- a. Storing images in XML format
- b. Exchanging financial data between accounting systems
- c. Creating interactive web pages
- d. Analyzing social media trends

**15. What is the key advantage of using XML for data exchange between different systems?**

- a. Complexity
- b. Flexibility
- c. Narrow applicability
- d. Incompatibility

**Answers**

1. eXtensible Markup Language
2. Define the XML prolog
3. Properly nested tags
4. Root element
5. To avoid naming conflicts
6. DTD (Document Type Definition)
7. Data types, constraints, and relationships
8. Constraints
9. Converting XML data to various formats
10. `<xsl:template match="/">`
11. From XML files
12. Exporting Excel data to XML format
13. XML Source task pane
14. Exchanging financial data between accounting systems
15. Flexibility



**SELF-EXAMINATION QUESTIONS FOR PRACTICE**

**1. XML Basics**

- a. Define XML and explain its significance in data exchange.
- b. What is the structure of an XML document?
- c. Explain the purpose of XML tags.

**2. Creating XML Documents**

- a. Describe the steps involved in creating a well-formed XML document.

- b. Provide an example of an XML document representing a personal address book.
- c. How are attributes used in XML? Give an example.

### **3. XML Document Structure**

- a. Explain the hierarchical structure of XML documents using an example.
- b. What is the purpose of namespaces in XML? Give an example.

### **4. Document Type Definition (DTD) and XML Schema**

- a. Compare and contrast DTD and XML Schema for XML validation.
- b. Describe the steps to create an XML Schema for a product catalog.
- c. Why is XML Schema considered more powerful than DTD?

### **5. XML Data Transformation**

- a. What is XSLT, and how is it used for XML data transformation?
- b. Provide an example of transforming XML data into HTML using XSLT.
- c. Explain the role of templates in XSLT.

### **6. Using XML with Excel**

- a. How does Excel support importing XML data?
- b. Describe the steps involved in importing XML sales data into Excel.
- c. Why is mapping XML elements important in Excel?

### **7. Excel to XML Conversion**

- a. Explain the process of exporting Excel sales data to XML.
- b. What is the purpose of mapping cells to XML elements during export?
- c. Provide a scenario where Excel to XML conversion is useful.

### **8. XML Data Manipulation in Excel**

- a. How can Excel formulas be used with imported XML data?
- b. Give an example of using Excel functions with XML data.
- c. What visualizations can be used to present XML data in Excel?

### **9. XML Validation and Error Handling**

- a. What is XML validation, and why is it important?
- b. Describe how Excel handles XML validation and errors.
- c. Explain the steps to correct validation errors in Excel.

### **10. Practical Applications**

- a. Provide real-world examples of how XML is used in the financial industry.
- b. Describe a scenario where Excel and XML are used together for financial analysis and reporting.

# CHAPTER 8

## INTRODUCTION TO JSON AND SCHEMA MAPPING WITH MS EXCEL



### LEARNING OBJECTIVES

- ✓ Understand the fundamentals of JSON (JavaScript Object Notation) and its role in data interchange.
- ✓ Learn how to efficiently import JSON data into Microsoft Excel and manipulate it effectively.
- ✓ Explore the concept of schema mapping and its importance in data transformation processes.
- ✓ Gain practical experience in mapping JSON data to Excel worksheets using various Excel functions and techniques.
- ✓ Develop the skills to automate JSON data retrieval and mapping workflows for improved data management and analysis in Excel.

These learning objectives aim to provide a comprehensive understanding of utilizing JSON, JSON Schema, and Excel for effective financial data management, covering various aspects from schema mapping to practical applications in financial scenarios.

### 8.1. UNDERSTANDING JSON (JAVASCRIPT OBJECT NOTATION)

#### 8.1.1. INTRODUCTION TO JSON AS A DATA INTERCHANGE FORMAT

JSON, short for JavaScript Object Notation, is a lightweight and widely used data interchange format. It is easy for both humans and machines to read and write. JSON is often employed to transmit data between a server and a web application, as well as between different parts of an application.

#### 8.1.2. COMPARISON BETWEEN JSON AND XML

JSON is often compared to XML, another popular data interchange format. While XML uses tags and attributes to structure data, JSON uses a simpler format of key-value pairs. JSON is more concise and easier to read for humans, making it a preferred choice for many modern applications.

### 8.1.3. ADVANTAGES OF USING JSON IN DATA EXCHANGE

JSON offers several advantages, including simplicity, ease of parsing (the process of converting a JSON object in text format to a JavaScript object that can be used inside a program), and efficient data transmission. It is particularly well-suited for web APIs and web services due to its lightweight nature.

## 8.2. JSON SYNTAX AND STRUCTURE

### 8.2.1. JSON objects, arrays, and key-value pairs

In JSON, data is organized into objects and arrays. Objects are enclosed in curly braces {} and consist of key-value pairs. Arrays are ordered lists of values enclosed in square brackets [].

Example of JSON Array: ["apple", "banana", "cherry"]

This example is a JSON array containing three string values.

### 8.2.2. RULES FOR WRITING VALID JSON:

JSON has strict syntax rules. For example, keys must be enclosed in double quotes, and strings must be enclosed in double quotes as well. Commas are used to separate key-value pairs or elements in an array.

### 8.2.3. EXAMPLES ILLUSTRATING JSON DATA STRUCTURES:

Examples of JSON data structures, including simple objects, nested objects, and arrays are given below. See how data is represented in JSON format.

**1. Simple JSON Object:** This represents a simple JSON object with key-value pairs.

```
{
  "name": "John Doe",
  "age": 30,
  "city": "New York"
}
```

**2. Nested JSON Object:** This demonstrates a JSON object with nested objects.

```
{
  "employee": {
    "name": "John Doe",
    "job": {
      "title": "Software Engineer",
      "department": "Development"
    },
    "salary": 80000
  }
}
```

**3. JSON Array:** This shows a JSON array with multiple items.

```
[
  "apple",
  "banana",
  "cherry"
]
```

**4. Nested JSON Array and Object:** This combines arrays and nested objects.

```
{
  "company": "ABC Inc.",
  "employees": [
    {
      "name": "Alice",
      "department": "HR"
    },
    {
      "name": "Bob",
      "department": "Sales"
    }
  ]
}
```

These examples illustrate the flexibility of JSON in representing structured data, from simple key-value pairs to complex nested structures and arrays.

### 8.3. CREATING JSON DOCUMENTS

#### Sample JSON Document:

This is a sample JSON document representing a book with properties such as title, author, and publication year.

```
{
  "book": {
    "title": "The Great Gatsby",
    "author": "F. Scott Fitzgerald",
    "year": 1925
  }
}
```

#### 8.3.1. STEPS FOR MANUALLY CREATING JSON DOCUMENTS USING A TEXT EDITOR:

Given below is the process of creating JSON data from scratch using a plain text editor like Notepad. Have included the examples of defining objects, arrays, and key-value pairs.



**1. Open a Text Editor (e.g., Notepad).****2. Start with an Object:**

- JSON data begins with an object enclosed within curly braces {}.

**3. Add Key-Value Pairs:**

- Inside the object, add key-value pairs separated by colons.
- Keys must be enclosed in double quotes, and values can be strings, numbers, or other JSON data types.

**4. Use Commas to Separate Pairs:**

- Separate key-value pairs with commas (no comma after the last pair).

**5. Nested Objects:**

- You can nest objects within objects by adding objects as values.

**6. Arrays:**

- Arrays are enclosed in square brackets [] and can contain multiple values.
- Arrays can also contain objects.

**7. Save the File:**

- Save the file with a .json extension (e.g., "data.json").

These steps allow you to manually create JSON data using a text editor. Ensure proper formatting, including indentation, for better readability.

**8.3.2. TOOLS AND LIBRARIES FOR GENERATING JSON DATA:**

Generating JSON data manually can be time-consuming, especially for complex structures. To streamline this process, various tools and libraries are available that automate JSON data generation. Here are the various options available for the same:

**1. Programming Languages:**

Many programming languages come with built-in support for generating JSON data.

**For example:**

- In Python, the json module allows you to create JSON data structures from native Python data types.
- In JavaScript, you can directly create JSON objects and arrays within your code.

**2. Online Generators:**

- Several online tools and websites offer JSON data generation. These tools often provide user-friendly interfaces for defining JSON structures and values. Users can input data, and the tool generates the corresponding JSON.
- Online generators are helpful for quick and simple JSON creation without writing code.

**3. Software Libraries:**

- Specialized software libraries and packages are available for generating JSON data.

- These libraries are often used in specific development environments or frameworks. For example, in web development, libraries like Jackson in Java or Newtonsoft.Json in C# (pronounced as “C sharp”) simplify JSON generation from data objects.

#### **4. Code Templates:**

- Developers can create code templates or scripts that generate JSON data based on predefined patterns. These templates can be reused to create JSON for similar data structures.

### **8.3.3. BEST PRACTICES FOR ORGANIZING AND FORMATTING JSON DATA:**

Maintaining consistency and readability in JSON data is essential for easy understanding and debugging. Here’s an explanation of best practices for organizing and formatting JSON data:

#### **1. Consistent Indentation:**

- Use consistent and meaningful indentation to represent the hierarchy of objects and arrays. Typically, each level of nesting is indented by a fixed number of spaces (e.g., 2 or 4 spaces).
- Consistent indentation makes the JSON structure visually clear and helps developers quickly grasp the hierarchy.

#### **2. Clear Key Naming:**

- Choose descriptive and meaningful key names. Key names should represent the data they hold and follow a consistent naming convention. Avoid using overly abbreviated or cryptic names.
- Clear key naming improves the understanding of data and enhances maintainability.

#### **3. Use Arrays and Objects Appropriately:**

- Use JSON arrays [...] when dealing with lists of similar items (e.g., a list of products).
- Use JSON objects {...} when modelling structured data with key-value pairs (e.g., representing a person’s attributes).
- Properly choosing between arrays and objects ensures the data structure accurately represents the information.

#### **4. Validation and Schema Compliance:**

- Ensure that the generated JSON adheres to a predefined schema or structure. Using a JSON schema helps validate data consistency and conformity.
- Compliance with a schema aid in data validation and integration with systems that expect specific JSON structures.

#### **5. Comments (where supported):**

- Some JSON parsers allow comments (though it’s not part of the official JSON standard). You can use comments to provide additional context or explanations within the JSON data.
- Comments can be helpful for documenting JSON structures.

By following these best practices, developers can create well-organized and maintainable JSON

data, making it easier for themselves and others to work with the data in various applications and scenarios.

## 8.4. JSON Schema

A JSON Schema is a JSON document that specifies the structure, constraints, and validation rules for JSON data. It acts as a blueprint that specifies what the JSON data should look like, including the expected properties, their data types, and any validation criteria.

### Example of a JSON Schema:

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "type": "object",
  "properties": {
    "name": {
      "type": "string"
    },
    "age": {
      "type": "integer",
      "minimum": 18
    }
  },
  "required": ["name", "age"]
}
```

This is an example of a JSON Schema using JSON Schema Draft 7. It defines the structure of an object with properties "name" (string type) and "age" (integer type with a minimum value of 18). It also specifies that both "name" and "age" are required properties.

### 8.4.1. THE ROLE OF JSON SCHEMA IN DEFINING STRUCTURE AND VALIDATION OF JSON DATA

JSON Schema plays a crucial role in ensuring the structure, consistency, and validity of JSON data. Here's a breakdown of its role:

- **Defining Allowed Properties:** JSON Schema allows you to specify which properties (fields) are allowed within a JSON document. For instance, if you're working with JSON data representing employees, you can define that each employee object must have properties like "name," "age," and "department." This ensures that your JSON data adheres to a consistent structure.
- **Data Type Specification:** JSON Schema lets you define the data types expected for each property. You can specify that "name" should be a string, "age" should be a number, and "department" should be a string as well. This ensures that the data conforms to the intended types.

- **Validation Rules:** JSON Schema allows you to set validation rules for properties. For instance, you can specify that the “age” property must be a positive integer, ensuring that the age is always represented as a valid positive whole number. These validation rules help maintain data integrity.
- **Optional vs. Required Fields:** JSON Schema lets you define which properties are required and which are optional. For example, you can specify that “name” and “age” are required fields, meaning they must be present in every JSON object, while “department” is optional. This enforces consistency in your data.
- **Complex Structures:** JSON Schema is not limited to simple properties. It can describe complex structures, including nested objects and arrays. This is particularly useful when dealing with hierarchical or nested data.
- **Formal Definition:** JSON Schema provides a formal, machine-readable definition of your JSON data’s structure. This means that both humans and machines can understand the expected structure and data types.

In essence, JSON Schema acts as a blueprint for your JSON data. It defines the rules and constraints that JSON data must adhere to, ensuring that data remains consistent, valid, and predictable.

#### **8.4.2. KEY CONCEPTS IN JSON SCHEMA**

**JSON Schema introduces several key concepts to achieve its goals:**

- **Properties:** Properties in JSON Schema are like the fields or attributes of your JSON data. They represent the key-value pairs within a JSON object. Each property can have its own data type, validation rules, and other attributes.
- **Required Fields:** You can specify which properties are required using the “required” keyword. This ensures that certain properties must be present in every JSON object that adheres to the schema. For example, in an employee schema, you might require that “name” and “age” are always present.
- **Data Types:** JSON Schema supports various data types, including strings, numbers, booleans, objects, and arrays. You can specify the expected data type for each property, ensuring that your data remains consistent.
- **Nested Objects:** JSON Schema allows you to define objects within objects. This is useful for representing complex, nested data structures. For example, an “address” property might contain sub-properties like “street,” “city,” and “postalCode.”
- **Arrays:** JSON Schema also supports arrays. You can define that a property should be an array containing items of a particular data type. This is handy for scenarios where you have a list of items, such as “employees” containing multiple employee objects.
- **Validation Keywords:** JSON Schema provides a set of validation keywords that

allow you to set constraints on properties. For example, you can use “minimum” and “maximum” to specify allowable numeric ranges, ensuring that values fall within a certain range.

- **Pattern Constraints:** JSON Schema supports pattern constraints using regular expressions. This is particularly useful for validating string properties with specific patterns, like email addresses or phone numbers.
- **Default Values:** You can set default values for properties. If a property is missing in a JSON object, it will be automatically assigned the default value specified in the schema.

In summary, JSON Schema introduces a rich set of concepts and tools for defining and validating the structure and content of JSON data. These concepts help maintain data consistency, improve data quality, and ensure that your JSON data aligns with your application’s requirements.

## 8.5. CREATING JSON SCHEMA

### 8.5.1. STEPS TO CREATE A JSON SCHEMA FOR A SPECIFIC JSON DATA FORMAT

**Step 1:** Start with a Basic JSON Schema Template

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "type": "object",
  "properties": {
    // Add your properties here
  },
  "required": []
}
```

**Step 2:** Define the Object Properties In the properties section, define the properties you expect in your JSON data. For example, in a financial context, let’s say we want to create a JSON Schema for a transaction:

```
{
  "transaction_id": {
    "type": "string"
  },
  "amount": {
    "type": "number",
    "minimum": 0
  },
  "currency": {
```

```

    "type": "string",
    "enum": ["USD", "EUR", "GBP"]
  },
  "timestamp": {
    "type": "string",
    "format": "date-time"
  }
}

```

Here, we have properties like `transaction_id`, `amount`, `currency`, and `timestamp`. We specify their data types and any additional constraints. For example, the `"amount"` must be a non-negative number, and `"currency"` must be one of the specified values.

**Step 3:** Specify Required Properties In the required section, list the properties that are mandatory in your JSON data:

```
"required": ["transaction_id", "amount", "currency", "timestamp"]
```

This ensures that these properties must be present in any valid JSON data conforming to this schema.

### 8.5.2. VALIDATION OF JSON DATA AGAINST A JSON SCHEMA

After creating a JSON Schema as shown above, the next step is to validate JSON data against this schema. This is crucial to ensure that the data adheres to the specified format and constraints.

How Validation Works:

Use a JSON Schema Validation Library. There are libraries available in various programming languages (e.g., `ajv` in JavaScript) that allow you to load your JSON Schema and use it to validate JSON data.

#### Example Code for JavaScript using `ajv` Library

Assuming you have the JSON Schema saved in a file named `schema.json` and your JSON data in a file named `data.json`, here's how you can validate it using JavaScript and the `ajv` library:

```

const Ajv = require("ajv");
const fs = require("fs");
// Load the JSON Schema
const schema = JSON.parse(fs.readFileSync("schema.json", "utf-8"));
// Load the JSON Data
const data = JSON.parse(fs.readFileSync("data.json", "utf-8"));
// Create an instance of Ajv
const ajv = new Ajv();
// Compile the schema
const validate = ajv.compile(schema);

```

```
// Validate the data
const isValid = validate(data);
if (isValid) {
  console.log("JSON data is valid according to the schema.");
} else {
  console.log("JSON data is not valid.");
  console.log(validate.errors);
}
```

### Handling Validation Errors:

If the JSON data doesn't conform to the schema, validation errors will be raised. These errors typically include details about what went wrong. For instance, it might indicate that a required property is missing or that a value is out of range. In a financial context, these errors can be critical as they may indicate data integrity issues.

### 8.5.3. COMMON USE CASES FOR JSON SCHEMA IN DATA VALIDATION:

#### 1. Validating User Input in Web Forms:

- **Scenario:** In a financial application, a user is entering their transaction details. The JSON Schema ensures that the data entered, such as account numbers or transaction amounts, meets the required format and constraints.
- **Benefits:** Prevents erroneous data submissions, enhancing user experience and data accuracy. It also reduces the risk of security vulnerabilities by validating user inputs rigorously.

#### 2. Ensuring Data Consistency in Databases:

- **Scenario:** Large financial databases store customer profiles, transaction history, and investment data. JSON Schema ensures that data consistently adheres to predefined standards, avoiding discrepancies.
- **Benefits:** Guarantees data consistency, which is vital for accurate financial analysis, regulatory reporting, and compliance.

#### 3. Verifying the Correctness of JSON-based APIs (Application Programming Interface):

- **Scenario:** Many financial applications use APIs for data exchange. JSON Schema ensures that data exchanged via APIs is accurate and follows the expected structure, reducing the risk of processing incorrect data.
- **Benefits:** Enhances the reliability of API-based financial services. Minimizes data-related errors in processes like algorithmic trading or account balance queries.

In the financial sector, where data accuracy and compliance are paramount, JSON Schema validation ensures that data conforms to predefined standards, reducing errors, improving data quality, and enhancing trust in financial systems and applications.

**Note:** API (Application Programming Interface) in Context:

An API, short for Application Programming Interface, is a set of rules and protocols that allows different software applications to communicate and interact with each other. APIs define how requests and responses should be structured, which functions or data can be accessed, and what actions can be performed by one software component when interacting with another.

## 8.6. SCHEMA MAPPING

### 8.6.1. UNDERSTANDING THE SCHEMA MAPPING CONCEPT:

Schema mapping is a fundamental concept in data management and integration. It involves defining relationships and correspondences between elements in different schemas. These schemas can represent various data structures, such as JSON data, database tables, or XML documents. It's a critical step in data integration.

Schema mapping involves associating JSON properties with database table columns or Excel cells. It ensures data is correctly imported, mapped, and validated.

#### Example Scenario – Mapping JSON to Database:

Consider a scenario where you have JSON data representing customer information, and you want to store this data in a relational database. Schema mapping, in this case, involves associating the properties in the JSON data with specific columns in a database table.

#### JSON Property:

```
{
  "name": "John",
  "age": 30
}
```

#### Database Table:

ID	Name	Age
1	John	30

In this example, you've mapped the "name" property in the JSON data to the "Name" column in the database table and the "age" property to the "Age" column. This mapping ensures that the JSON data is correctly imported, and the data fields are aligned with their corresponding database columns.

### 8.6.2. HOW SCHEMA MAPPING RELATES TO DATA TRANSFORMATION AND INTEGRATION

Schema mapping is closely related to data transformation and integration processes. Here's how it fits into these processes:

1. **Data Transformation:** Data often comes in various formats and structures. Schema



mapping plays a pivotal role in transforming data from one schema to another. For instance, you might need to convert XML data into a JSON object, and schema mapping defines how elements in the XML map to properties in the JSON object.

2. **Data Integration:** Data integration involves combining data from diverse sources or systems to provide a unified view. Schema mapping ensures that data from different sources is harmonized, allowing for effective data integration. For example, you may integrate customer data from both a CRM system and an e-commerce platform into a single database. Schema mapping ensures that the customer data from these two sources aligns in terms of structure.

### **8.6.3. IMPORTANCE OF SCHEMA MAPPING IN DATA CONSISTENCY:**

The importance of schema mapping in data consistency cannot be overstated. Here's why:

1. **Structural Consistency:** Schema mapping helps maintain structural consistency by ensuring that data elements from different sources adhere to a common structure or schema. This consistency simplifies data processing and analysis.
2. **Format Consistency:** It also ensures format consistency, meaning data is represented uniformly. For instance, when integrating data from multiple sources into a reporting tool like Excel, schema mapping ensures that date formats, numerical precision, and other data formatting conventions are consistent.
3. **Quality Assurance:** Schema mapping acts as a quality assurance step, reducing the risk of data anomalies or discrepancies during data integration. This is particularly crucial in financial applications, where data accuracy is paramount.

In summary, schema mapping is a foundational concept in data management and integration. It defines how data elements in different schemas relate to each other and plays a pivotal role in ensuring data consistency, facilitating data transformation, and supporting seamless data integration in various scenarios, including financial applications.

## **8.7. SCHEMA MAPPING WITH MS EXCEL**

### **8.7.1. WHY MICROSOFT EXCEL CAN BE USED FOR SCHEMA MAPPING?**

Microsoft Excel is a powerful and versatile tool that can be effectively used for schema mapping and data transformation. Here's why Excel is valuable for this purpose:

- **Familiar Interface:** Excel's spreadsheet layout is familiar to many users, making it accessible for mapping and working with structured data. Financial professionals, in particular, are often well-versed in using Excel for various tasks.
- **Data Visualization:** Excel provides a clear and structured way to visualize data, making it easier to map and understand data relationships.

### 8.7.2. IMPORTING JSON DATA INTO EXCEL FOR MAPPING

Scenario: Imagine you have a JSON dataset containing financial transactions, and you want to analyze and map this data in Excel for further processing and reporting.

#### Steps to Import JSON Data into Excel

1. Open Microsoft Excel.
2. Click on the “Data” tab in the Excel ribbon.
3. Select “Get Data” or “Get & Transform Data,” depending on your Excel version.
4. Choose the data source. In this case, you’d select “From JSON” since you want to import JSON data.
5. Browse to the location of your JSON file and select it.
6. Excel will then open the Power Query Editor, where you can preview and transform your JSON data.
7. You can perform various transformations and data cleaning tasks using the Power Query Editor. For example, you can filter columns, remove unnecessary data, and rename columns to align with your desired schema.
8. Once you’ve prepared the data, click “Close & Load” to import the JSON data into an Excel worksheet.

#### Advantages of Using Excel for Importing JSON Data:

- **Data Transformation:** Excel’s Power Query tools allow you to transform and clean the data during import, ensuring it matches your desired schema.
- **User-Friendly:** The import process is user-friendly, even for those without extensive programming experience.

### 8.7.3. CREATING EXCEL TABLES AND WORKSHEETS TO REPRESENT JSON DATA STRUCTURES

Scenario: Let’s say your JSON data contains a list of financial transactions, each with attributes like date, description, amount, and category. You want to map this data to an Excel table.

#### Steps to Create Excel Tables and Worksheets:

1. After importing your JSON data, it will be loaded into a new worksheet in Excel.
2. Select the data range you want to work with.
3. Click on the “Insert” tab in the Excel ribbon.
4. Choose “Table.” This will convert your selected data range into an Excel table.
5. You can then rename the table and its columns to match your desired schema. For ex-

ample, you can rename columns like "Column1" to more descriptive names like "Date," "Description," "Amount," and "Category."

6. You can create additional worksheets or tabs in your Excel file to represent different JSON data structures, such as objects or arrays.

In summary, Microsoft Excel's familiar interface and data manipulation capabilities make it a valuable tool for schema mapping and data transformation in financial scenarios. Excel allows you to import JSON data, clean and transform it to match your desired schema, and work with the data efficiently, supporting various financial analysis and reporting tasks.

## 8.8. MAPPING JSON ELEMENTS TO EXCEL CELLS

### 8.8.1. STEPS TO MAP JSON ELEMENTS TO EXCEL CELLS

**Scenario:** You have a JSON dataset containing financial transaction records. You want to map specific elements of this JSON data to corresponding cells in an Excel worksheet for further analysis.

1. **Import JSON Data:** Import the JSON data into an Excel worksheet following the steps mentioned earlier.
2. **Identify Elements:** Review your JSON data and identify the specific elements you want to map to Excel cells. For example, if your JSON contains transaction details, you might want to map "Date," "Description," and "Amount."
3. **Select the Excel Cell:** In your Excel worksheet, select the cell where you want to map the first JSON element. For instance, you might select cell A2 for "Date."
4. **Input Element:** Type an Excel formula to extract the desired JSON element. You can use Excel's built-in functions for this purpose. For example, if the JSON is in cell B2 and you want to extract the "Date" element, you can use the following formula:  
`=JSON.VALUE(B2, "Date")`

**Suppose your JSON data looks like this:**

```
{ "transaction": { "date": "2023-08-15", "description": "Groceries", "amount": 50.00,
                  "category": "Food" } }
```

You can map the "date" element to cell A2 in Excel by entering the formula `=TransactionData[@[date]]` in cell A2.

5. **Repeat for Other Elements:** Repeat the process for other elements you want to map. For example, in cell B2, you can input a formula to extract the "Description" element:  
`=JSON.VALUE(B2, "Description")`

6. **Drag/Fill Down:** If you have multiple rows of JSON data, you can drag or fill down the formulas to apply them to all rows.

### 8.8.2. HANDLING NESTED JSON STRUCTURES AND ARRAYS IN EXCEL:

**Scenario:** Your JSON data contains nested structures or arrays, such as transactions within an account. You want to map these nested elements to Excel tables and rows.

#### Steps for Handling Nested JSON Structures and Arrays:

1. Import your JSON data into Excel and create a table for the main JSON structure, such as accounts.
2. Identify the nested JSON elements you want to map, such as individual transactions within each account.
3. Create a new worksheet or table in Excel to represent the nested data. For example, create a table named "Transactions" to hold transaction data.
4. Use Excel formulas or Power Query to extract and map the nested JSON data to the corresponding Excel table. You can use functions like FILTER or VLOOKUP to accomplish this.
5. Ensure that you maintain data integrity by correctly associating nested data with its parent data. For example, each transaction should be associated with the correct account.

#### Scenario:

**Suppose you have JSON data like this:**

```
{
  "customer": "John Doe",
  "transactions": [
    {
      "date": "2023-01-15",
      "description": "Purchase 1",
      "amount": 50.00
    },
    {
      "date": "2023-02-05",
      "description": "Purchase 2",
      "amount": 75.50
    }
  ]
}
```

**Step-by-Step Instructions:****1. Import JSON Data into Excel:**

- Copy your JSON data.
  - In Excel, select the cell where you want to start the import. For example, you can select cell A1.
  - Go to the "Data" tab in Excel.
  - Click on "Get Data" or "Get & Transform Data" (this might vary slightly depending on your Excel version).
  - Choose "From Text/JSON."
  - Paste your JSON data into the dialog box and click "Load."
- Excel will import your JSON data into a table in the worksheet.

**2. Working with Nested JSON Arrays:**

- In this example, the "transactions" field is an array. To work with it, you can use Excel's built-in Table functionality.
- Click anywhere within the table that contains the JSON data.
- Go to the "Table Design" tab (this might be named differently in older Excel versions).
- In the "Properties" group, give your table a meaningful name, like "TransactionData."
- Now, you can work with the array data efficiently.

**3. Mapping Nested JSON Elements:**

- In your Excel worksheet, you can add columns to map the elements within the JSON array.
- For example, you can add columns "Date," "Description," and "Amount."
- In the cell next to the "Date" column header, type the following formula to extract the "date" element from the JSON array: `=INDEX(TransactionData[date],ROW()-1)`
- `TransactionData[date]` references the "date" column in your JSON data table.
- `ROW()-1` ensures that the formula starts from the second row (since the first row contains column headers).
- Similarly, add formulas for the "Description" and "Amount" columns:
- For "Description": `=INDEX(TransactionData[description],ROW()-1)`
- For "Amount": `=INDEX(TransactionData[amount],ROW()-1)`

**4. Drag/Fill Down:**

- After entering the formulas for one row, you can fill down these formulas for all rows in the Excel table. Excel will automatically adjust the references.

- Click on the small square in the lower-right corner of the cell containing the formula (the cursor will change to a small black cross).
- Drag this down to fill all the rows you need. Excel will copy the formulas accordingly.

### 5. Result:

Your Excel worksheet should now contain a structured representation of the nested JSON array data, with each transaction in a separate row.

Date	Description	Amount
2023-01-15	Purchase 1	50.00
2023-02-05	Purchase 2	75.50

This example demonstrates how to handle nested JSON arrays in Excel and extract data from them into separate rows. Excel's built-in Table functionality and formulas like INDEX are valuable tools for such data manipulation.

### 8.8.3. MAPPING JSON PROPERTIES TO EXCEL COLUMN HEADERS

**Scenario:** You want to ensure that the column headers in your Excel worksheet match the JSON properties, providing clear labelling and structure to your data.

#### Steps for Mapping JSON Properties to Excel Column Headers

1. Open your Excel worksheet where you've imported JSON data.
2. Review the JSON properties and identify the Excel columns where you want to place the corresponding data.
3. Rename the Excel column headers to match the JSON property names. This ensures that your data is appropriately labelled and structured.
4. To rename an Excel column header, simply double-click on the existing header, type the desired name, and press Enter.

#### Example:

Suppose your JSON data has properties like "transaction\_date," "transaction\_description," "transaction\_amount," and "transaction\_category." You can rename the Excel column headers to match these properties for clarity.

In summary, mapping JSON elements to Excel cells involves identifying the data you want to map, using appropriate Excel formulas or functions to extract JSON elements, handling nested structures or arrays, and ensuring that Excel column headers align with JSON properties for clear labelling and structured data representation.

## 8.9. DATA TRANSFORMATION AND VALIDATION

### 8.9.1. USING EXCEL FORMULAS AND FUNCTIONS TO TRANSFORM JSON DATA

Excel offers a powerful set of formulas and functions that can be used to manipulate and transform JSON data within Excel. Here's a scenario and a step-by-step example:

**Scenario:** You have JSON data containing sales transactions in various currencies, and you want to convert them to a single currency and calculate the total revenue.

#### Step-by-Step Instructions:

##### 1. Import JSON Data into Excel:

- First, you'll need to import your JSON data into Excel using the steps discussed earlier on the same topic.

##### 2. Create a Currency Conversion Table:

Create a table or a list that contains currency conversion rates. For example:

Currency	Conversion Rate
USD	1.00
EUR	0.85
GBP	0.73
JPY	110.25

##### 3. Perform Currency Conversion:

- In Excel, create a new column where you want to display the converted amounts (e.g., "Amount in USD").
- Use Excel's VLOOKUP function to convert amounts from different currencies to USD. Assuming your JSON data has currency information in the "Currency" column and the original amount in the "Amount" column, you can use a formula like this:  
`=B2 * VLOOKUP(A2, CurrencyConversionTable, 2, FALSE)`
- B2 references the original amount in the current row.
- A2 references the currency in the current row.
- CurrencyConversionTable is the table containing conversion rates.
- 2 specifies that you want to retrieve the conversion rate.
- FALSE ensures an exact match.

##### 4. Calculate Total Revenue:

- In a new cell, you can calculate the total revenue by using the SUM function:  
`=SUM(D2:Dn)`

D2:Dn refers to the range of converted amounts (e.g., "Amount in USD").

### 8.9.2. Validating JSON Data Against a Predefined JSON Schema Within Excel

Excel doesn't have built-in native support for JSON Schema validation. However, you can set up a basic validation check using Excel's features. Here's an example scenario:

**Scenario:** You have JSON data representing customer information, and you want to ensure that each record contains essential fields such as "name" and "email."

#### 1. Define Required Fields:

- Create a list of required fields in your JSON data. In this case, you need "name" and "email."

#### 2. Use Excel's Data Validation:

- Select the cells or columns where your JSON data is imported.
- Go to the "Data" tab in Excel.
- Choose "Data Validation."
- In the "Data Validation" dialog box, select "Custom."
- In the "Formula" field, you can use a formula like this to check if both "name" and "email" are present in each row:

```
=AND(ISNUMBER(SEARCH("name", A2)), ISNUMBER(SEARCH("email", A2)))
```

This formula checks if both "name" and "email" exist in cell A2 (modify the cell reference as needed).

- If this formula returns TRUE, the data is considered valid. If FALSE, there's a validation error.

#### 3. Handling Validation Errors:

- You can set up conditional formatting to highlight rows with validation errors or use Excel's built-in error checking features.
- For more advanced JSON Schema validation, you might need to use VBA (Visual Basic for Applications) to create custom validation functions.

**Scenario:** You have JSON data representing invoices, and you want to validate if the "total-Amount" in each invoice is greater than zero.

#### Step-by-Step Instructions:

##### 1. Open Excel and Press Alt + F11 to Open the VBA Editor:

- This is where you'll write your custom validation script.

##### 2. Insert a New Module:



- In the VBA editor, go to Insert>Module to create a new module.
- 3. Write a Custom Validation Function:**
- Write a VBA function that parses the JSON data and validates it against your JSON Schema. Below is a simplified example:

**Function ValidateInvoice(json As String) As Boolean**

```

' Parse the JSON string (you'll need a JSON library reference)
Dim jsonObject As Object
Set jsonObject = JsonConverter.ParseJson(json)

' Check if the totalAmount is greater than zero
If jsonObject("totalAmount") > 0 Then
    ValidateInvoice = True
Else
    ValidateInvoice = False
End If
End Function

```

This function takes a JSON string as input, parses it using a JSON library (you need to reference a JSON library in VBA), and checks if the "totalAmount" is greater than zero.

- 4. Call the Validation Function:**
- You can call this function from an Excel cell like this: `=ValidateInvoice(A2)`
  - A2 contains the JSON data you want to validate.

### 8.9.3. HANDLING ERRORS AND INCONSISTENCIES DURING DATA TRANSFORMATION:

Handling errors and inconsistencies is vital to maintain data quality during the transformation process. Here are some best practices:

- **Use Data Validation Rules:** Implement data validation rules to check data consistency and correctness during transformation.
- **Error Handling:** In VBA, you can use error handling techniques to gracefully manage errors during transformation.
- **Logging:** Create logs or reports to record errors and inconsistencies encountered during data transformation. This can help identify and resolve issues efficiently.
- **Testing:** Thoroughly test your data transformation process with various datasets to identify and address potential problems before deploying it in a production environment.

- **Feedback Mechanism:** If the data transformation process involves user interaction, provide feedback to users about errors and inconsistencies, and guide them on how to correct them.

These best practices ensure that your data transformation process is reliable, even when dealing with complex transformations and potential errors.

## **8.10. SCENARIOS AND PRACTICAL APPLICATIONS OF JSON, JSON SCHEMA, AND EXCEL**

Below are some scenarios where financial professionals applying JSON, JSON Schema, and Excel for practical tasks, such as financial analysis, data integration, or reporting, and get benefits of automating data integration tasks with JSON and Excel including time savings and reduced error rates.

### **8.10.1. AUTOMATING FINANCIAL DATA INTEGRATION**

**Scenario:** A financial services company receives daily data feeds from various banks and financial institutions, each providing data in a different format (XML, JSON, CSV). They need to consolidate and integrate this data for analysis and reporting.

**Application:** JSON and JSON Schema can be used to standardize the data format. Excel can be used for data transformation and consolidation.

#### **Benefits:**

- **Automation:** JSON Schema ensures incoming data adheres to a standardized structure.
- **Efficiency:** Excel can automate the transformation and consolidation process.
- **Data Consistency:** JSON Schema enforces data consistency across sources.
- **Accuracy:** Reduced manual data entry leads to fewer errors.

### **8.10.2. FINANCIAL ANALYSIS AND REPORTING**

**Scenario:** An investment firm manages a portfolio of stocks and bonds. They receive daily market data in JSON format from multiple sources. Analysts need to calculate portfolio performance metrics and generate reports.

**Application:** JSON data can be imported into Excel for analysis. JSON Schema ensures data consistency. Excel formulas calculate metrics and generate reports.

#### **Benefits:**

- **Real-time Analysis:** JSON data import allows for real-time analysis.
- **Custom Reports:** Excel's flexibility enables custom report generation.
- **Data Quality:** JSON Schema ensures data quality and consistency.
- **Efficiency:** Automation reduces manual work.

### 8.10.3. RISK MANAGEMENT WITH JSON SCHEMA

**Scenario:** A bank needs to assess credit risk by analyzing data from different departments. JSON data (e.g., customer profiles, transaction history) is collected. Validation and standardization are critical.

**Application:** JSON Schema validates incoming data. Excel is used to create dashboards for risk analysis.

**Benefits:**

- **Data Integrity:** JSON Schema ensures data integrity.
- **Risk Assessment:** Excel's data visualization tools help in risk assessment.
- **Compliance:** Ensures compliance with data standards.
- **Efficiency:** Reduces manual data validation efforts.

### 8.10.4. Automating Financial Data Feeds

**Scenario:** An accounting firm receives financial statements from clients in various formats (PDF, Excel, CSV). They need to extract structured data for analysis and tax preparation.

**Application:** JSON Schema can be used to define structured data. JSON data is generated from extracted data and then imported into Excel for further analysis.

**Benefits:**

- **Structured Data:** JSON Schema defines the structure of data extraction.
- **Data Consistency:** Ensures consistent data format.
- **Accuracy:** Reduced manual data entry errors.
- **Automation:** Saves time during data processing.

### 8.10.5. FINANCIAL DATA VALIDATION AND COMPLIANCE

**Scenario:** A financial regulator requires investment firms to submit quarterly reports in JSON format. Compliance and data quality are essential.

**Application:** JSON Schema defines the required report structure and data types. Excel can validate data against the schema before submission.

**Benefits:**

- **Compliance:** Ensures data conforms to regulatory standards.
- **Data Quality:** Validation against JSON Schema improves data quality.
- **Efficiency:** Identifies and rectifies data issues early.
- **Documentation:** Schema acts as documentation for report structure.

In these scenarios, JSON, JSON Schema, and Excel work together to streamline data-related tasks, improve accuracy, and enhance reporting capabilities for financial professionals. The combination of structured data, schema validation, and automation provides significant benefits in terms of efficiency and data quality.



## SUMMARY

### 8.1. Understanding JSON (JavaScript Object Notation):

- Introduces JSON as a data interchange format.
- Compares JSON with XML, highlighting JSON's advantages in simplicity and readability.
- Discusses the advantages of using JSON in data exchange.

### 8.2. JSON Syntax and Structure:

- Explains JSON's syntax, including objects, arrays, and key-value pairs.
- Provides rules for writing valid JSON data.
- Offers examples illustrating various JSON data structures.

### 8.3. Creating JSON Documents:

- Details the steps for manually creating JSON documents using a text editor.
- Introduces tools and libraries for generating JSON data.
- Offers best practices for organizing and formatting JSON data.

### 8.4. JSON Schema:

- Explores the role of JSON Schema in defining the structure and validation of JSON data.
- Describes key concepts in JSON Schema, including properties, required fields, and data types.

### 8.5. Creating JSON Schema:

- Provides step-by-step guidance on creating a JSON Schema for specific JSON data formats.
- Explains how to validate JSON data against a JSON Schema.
- Discusses common use cases for JSON Schema in data validation.

**8.6. Schema Mapping:**

- Defines schema mapping and its importance in data integration.
- Explores how schema mapping relates to data transformation and integration.
- Highlights the significance of schema mapping in maintaining data consistency.

**8.7. Schema Mapping with MS Excel:**

- Explains why Microsoft Excel is a suitable tool for schema mapping.
- Describes the process of importing JSON data into Excel for mapping.
- Demonstrates how to create Excel tables and worksheets to represent JSON data structures.

**8.8. Mapping JSON Elements to Excel Cells:**

- Provides a step-by-step guide for mapping JSON elements to specific cells in Excel.
- Discusses strategies for handling nested JSON structures and arrays in Excel.
- Details the process of mapping JSON properties to Excel column headers.

**8.9. Data Transformation and Validation:**

- Explores how Excel's formulas and functions can be used for transforming JSON data.
- Demonstrates how to validate JSON data against a predefined JSON Schema within Excel.
- Discusses best practices for handling errors and inconsistencies during data transformation.

**8.10. Scenarios and Practical Applications:**

- Presents real-world scenarios and practical applications of JSON, JSON Schema, and Excel.
- Highlights automation in financial data integration, financial analysis and reporting, risk management, data feeds, and compliance.

This module equips learners with the fundamental knowledge and practical skills required to work with JSON data, create JSON Schemas, perform schema mapping in Excel, and apply these concepts to real-world financial scenarios.

**MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. What is the primary purpose of schema mapping in data management and integration?**

- A) Defining relationships between people
- B) Defining relationships and correspondences between elements in different schemas
- C) Defining relationships between tables
- D) Defining relationships between databases

**2. In the context of financial applications, why is schema mapping crucial?**

- A) It helps in drawing financial graphs
- B) It ensures data accuracy and consistency during integration
- C) It helps in creating financial reports
- D) It helps in conducting financial audits

**3. Which of the following best describes the role of schema mapping in data integration?**

- A) It combines data from diverse sources and provides a unified view
- B) It converts data into different formats
- C) It validates data
- D) It creates data visualizations

**4. What does Excel's Power Query Editor allow you to do during the process of importing JSON data?**

- A) Perform various transformations and data cleaning tasks
- B) Create new JSON schemas
- C) Export data to JSON format
- D) Generate random JSON data

**5. When mapping JSON elements to Excel cells, what formula can be used to extract a specific JSON element?**

- A) =JSON.GET
- B) =JSON.EXTRACT
- C) =JSON.VALUE
- D) =JSON.PULL

**6. What does the INDEX function in Excel do when used in the context of mapping JSON data?**

- A) Returns the index of a JSON element
- B) Returns the value of a specified JSON element

- C) Returns the total number of JSON elements
- D) Returns the type of a JSON element

**7. How can you handle nested JSON structures or arrays in Excel?**

- A) By using the IF function
- B) By using the INDEX function
- C) By using Excel's built-in Table functionality
- D) By using the VLOOKUP function

**8. In Excel, how can you rename an Excel column header to match a JSON property name?**

- A) Right-click on the header and choose "Rename"
- B) Double-click on the header, type the desired name, and press Enter
- C) Go to the "Data" tab and select "Rename Column"
- D) Use the CTRL + R keyboard shortcut

**9. What does VBA stand for in Excel?**

- A) Visual Basic for Applications
- B) Visual Binary Analysis
- C) Visual Business Automation
- D) Visualized Business Analytics

**10. In VBA, what function can be used to parse a JSON string?**

- A) JSON.PARSE
- B) JSON.CONVERT
- C) JSON.VALUE
- D) JSON.PULL

**11. What does the JSON Schema primarily ensure when validating data?**

- A) Data accuracy
- B) Data integrity and structure
- C) Data visualization
- D) Data encryption

**12. In the context of data transformation, what does error handling in Excel VBA involve?**

- A) Identifying data errors
- B) Managing errors that occur during data transformation
- C) Displaying error messages to users
- D) Creating error logs

**13. How can you create custom validation functions in Excel using VBA?**

- A) By using the "Custom Validation" option in the Data tab

- B) By going to the "Validation" tab in Excel options
- C) By opening the VBA editor and writing custom validation scripts
- D) By using the "Advanced Functions" feature in Excel

**14. In the context of financial data management, what is a practical application of JSON, JSON Schema, and Excel?**

- A) Creating 3D financial models
- B) Automating financial data integration from multiple sources
- C) Simulating financial market scenarios

**Answers**

1. B) Defining relationships and correspondences between elements in different schemas
2. B) It ensures data accuracy and consistency during integration
3. A) It combines data from diverse sources and provides a unified view
4. A) Perform various transformations and data cleaning tasks
5. C) =JSON.VALUE
6. B) Returns the value of a specified JSON element
7. C) By using Excel's built-in Table functionality
8. B) Double-click on the header, type the desired name, and press Enter
9. A) Visual Basic for Applications
10. A) JSON.PARSE
11. B) Data integrity and structure
12. B) Managing errors that occur during data transformation
13. C) By opening the VBA editor and writing custom validation scripts
14. B) Automating financial data integration from multiple sources

**SELF-EXAMINATION QUESTIONS FOR PRACTICE**



**Understanding JSON (JavaScript Object Notation):**

1. Explain the differences between JSON and XML. Provide examples of scenarios where JSON is a better choice than XML for data exchange.
2. Given the following JSON data, identify the key-value pairs and their corresponding data types:
 

```
{
  "name": "Alice",
  "age": 28,
```



```
"isStudent": true,  
"grades": [85, 92, 78]  
}
```

**JSON Syntax and Structure:**

1. Create a JSON object representing information about a book, including title, author, and publication year.
2. Write valid JSON data that includes a nested object and an array.
3. Identify and correct the errors in the following JSON structure:

```
{  
  "employee": {  
    "name": "Bob",  
    "position": "Manager",  
    "salary": 60000  
  }  
}  
"department": "HR"
```

**Creating JSON Documents:**

1. Manually create a JSON document using a text editor for a list of your favourite movies, including their titles and release years.
2. Research and list three tools or libraries that can generate JSON data automatically. Explain when and why you might use these tools.

**JSON Schema:**

1. Create a JSON Schema for validating a product's information, including its name (string), price (number), and availability (Boolean).
2. Explain the importance of defining required fields in a JSON Schema using practical examples.

**Schema Mapping:**

1. Describe a scenario where schema mapping is crucial for integrating data from multiple sources. Discuss the challenges and benefits.
2. Given a JSON structure representing customer data, map it to an Excel spreadsheet with appropriate column headers.

**Schema Mapping with MS Excel:**

1. Import a sample JSON dataset into Excel and create an Excel table to represent the data.

2. Using a financial dataset in JSON format, demonstrate how Excel's layout can facilitate schema mapping. Include the steps.

**Mapping JSON Elements to Excel Cells:**

1. Take a complex JSON structure and map its elements to specific Excel cells. Include nested structures in your example.
2. Explain how you would map JSON properties to Excel column headers when dealing with JSON data from a financial report.

**Data Transformation and Validation:**

1. In Excel, create a formula to calculate the total cost of products in a JSON dataset where each product has a price and quantity.
2. Validate JSON data against a JSON Schema using Excel functions. Describe the steps involved.
3. Discuss the potential errors and inconsistencies that can occur during data transformation in Excel and propose strategies for handling them.

**Practical Applications:**

1. Provide examples of how JSON and schema mapping can be used in financial analysis and reporting.
2. Describe a real-world scenario in the financial sector where automating data integration tasks with JSON and Excel would be highly beneficial.

TASK STATEMENT	KNOWLEDGE STATEMENT
Design a workbook, structure demonstrating effective organization and management of multiple worksheet to enhance data	Students must understand all basics and advanced level functions, and features including charts
Analyze the workbook and evaluate the benefits for the management of the company	Apply the knowledge and technique to secure the spreadsheet
Create a visualize diagram illustrating the relationship between worksheet	Demonstrating proficiency in using different types of functions
Create formulas and functions in excel to solve real world data analysis problem	
Compose a scenario for integrating various excel tools and techniques to solve the complex solutions	
Generate Pivot table by creating a case study and analyze the data summarize, filtering, grouping, validating etc	
Design data layout templates for different reporting and analysis	





UNIT

**1**

E-learning  
Basics of  
MS POWERPOINT



# CHAPTER 1

## MANAGE PRESENTATIONS AND SLIDES



### LEARNING OBJECTIVE:

**Upon completion of this module, participants will gain the skills to:**

- ✓ Create presentations from scratch or using templates.
- ✓ Efficiently manage slides by adding, duplicating, rearranging, and formatting them.
- ✓ Customize slide masters, handouts, and notes for a professional look.
- ✓ Organize slides effectively.
- ✓ Adjust presentation options and views as needed.
- ✓ Configure presentations for printing or digital distribution.
- ✓ Create and deliver engaging slide shows, including custom presentations, timing, and Presenter View.

These skills will enable participants to master presentation software and enhance their ability to communicate effectively in various contexts.

### 1.1. INTRODUCTION:

PowerPoint 365 makes managing presentations and slides very simple. The Microsoft Office 365 suite includes PowerPoint 365, which has a number of tools to help you make, edit, and arrange your presentations and slides. Here's a guide on how to manage presentations and slides:

### 1.2. CREATE PRESENTATION:

The term "presentations" refers to PowerPoint files. In order to begin a new project with PowerPoint, you must first build a brand-new presentation, which can be either blank or based on a template. Also necessary is the ability to open a previously created presentation.

#### 1.2.1. CREATE A NEW PRESENTATION:

- Open PowerPoint.
- In the left pane, select New.
- Select an option:
  - To create a presentation from scratch, select Blank Presentation.
  - To use a prepared design, select one of the templates.
  - To see tips for using PowerPoint, select Take a Tour, and then select Create.

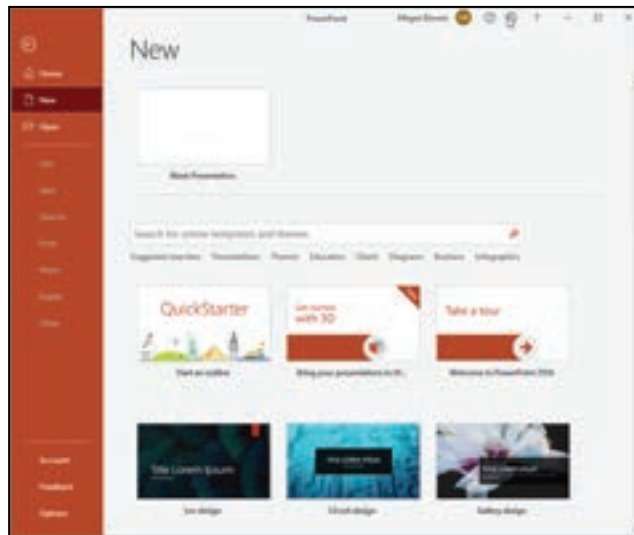


Figure 1.1. Create new presentation

## 1.2.2. CREATE A PRESENTATION BASED ON A TEMPLATE:

**If you want to use a template for your next presentation, here's how.**

- On the File tab, click New.
- Select Personal or Custom. (The name varies, depending on circumstance.)



Figure 1.2. Create a presentation based on a template (personal)



Figure 1.3. Create a presentation based on a template (custom)



- Double-click your template and a new presentation will open with your template applied to it.

### **1.3. INSERT AND FORMAT SLIDES:**

- Add and delete slides to organize your presentation how you want.

#### **1.3.1. ADD SLIDES:**

- Select the slide you want your new slide to follow.
- Select Home > New Slide.
- Select a layout.
- Select the text box and type.

#### **1.3.2. DELETE SLIDES:**

- **For a single slide:** Right-click the slide in the thumbnail pane on the left, and select Delete Slide.
- **For multiple slides:** Press and hold Ctrl, and in the thumbnail pane on the left, select the slides. Release the Ctrl key. Then right-click the selection and choose Delete Slide.
- **For a sequence of slides:** Press and hold Shift, and in the thumbnail pane on the left, select the first and last slides in the sequence. Release the Shift key. Then right-click the selection and choose Delete Slide.

#### **1.3.3. DUPLICATE A SLIDE:**

- In the thumbnail pane on the left, right-click the slide thumbnail that you want to duplicate, and then click Duplicate Slide. The duplicate is inserted immediately after the original.

#### **1.3.4. REARRANGE THE ORDER OF SLIDES:**

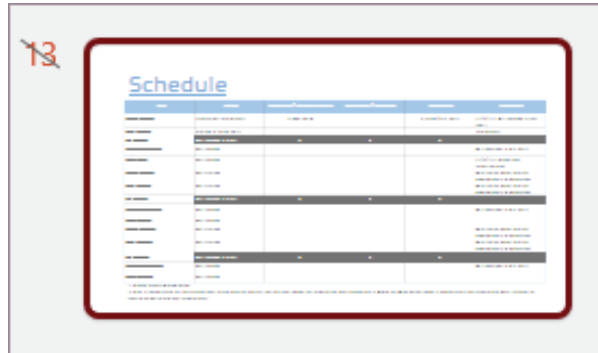
- In the pane on the left, click the thumbnail of the slide that you want to move, and then drag it to the new location.
- To select multiple slides: Press and hold Ctrl, and in the pane on the left, click each slide that you want to move. Release the Ctrl key, and then drag the selected slides as a group to the new location.

#### **1.3.5. HIDE AND UNHIDE SLIDES:**

You can conceal a slide if you wish to keep it in the presentation file but not have it show up in the slide show. When you open Slide Show view, a hidden slide is only hidden, but it is still present in the file. Any slide in the presentation has the ability to be hidden or revealed using the choices Hide Slide and Unhide Slide.

**HIDE A SLIDE:**

- In the left navigation pane, select the thumbnail image of the slide you want to hide.
- Right-click the slide, then select Hide Slide. The slide now shows a slash through the slide number to indicate that it's hidden.



*Figure 1.4. Hide a slide*

**UNHIDE A SLIDE:**

- In the left navigation pane, select the hidden slide you want to unhide.
- Right-click the slide, then select Unhide Slide.

**SHOW A HIDDEN SLIDE DURING A PRESENTATION:**

If you're in Slide Show view and you decide that you want to show a hidden slide, you can do so:

- Right-click the current slide and select See All Slides.  
(The screen switches to a thumbnail list of all the slides in the presentation.)
- Select the hidden slide you want to show.  
(The selected slide is shown full-screen and the slide show resumes.)

If you are using the presenter view, your audience won't see the steps you take to select the slide. They will simply see the slide you select in step 2.

**1.3.6. INSERT SPECIFIC SLIDE LAYOUTS:**

There are predefined arrangements for your slide material included in each theme in PowerPoint. "Placeholder" boxes provide you with areas where you can insert your material with little to no manual formatting and organizing. After selecting a layout in PowerPoint from a menu, you may add text and images. The predefined layouts include a Title slide to begin with, a general Title and Content layout, a side-by-side Comparison layout, and a Picture-with-Caption layout.

- Arrange slide content with different slide layouts to suit your taste and preference, or to improve the clarity and readability of the content.

- Select the slide that you want to change the layout for.
- Select Home > Layout.
- Select the layout that you want.

The layouts contain placeholders for text, videos, pictures, charts, shapes, clip art, a background, and more. The layouts also contain the formatting for those objects, like theme colours, fonts, and effects.

### 1.3.7. EDIT AND RE-APPLY A SLIDE LAYOUT:

When you apply a slide layout to one or more slides in your presentation and later amend that layout by inserting a placeholder, adding custom prompt language, or carrying out another layout-altering activity, you must reapply the layout to the slides in order for the slides to follow the revised layout.

#### Change an existing layout:

- On the View tab, click Slide Master.
- In the thumbnail pane that contains the slide masters and layouts, pick the layout that has the closest arrangement of placeholders to how you want your slide to look.

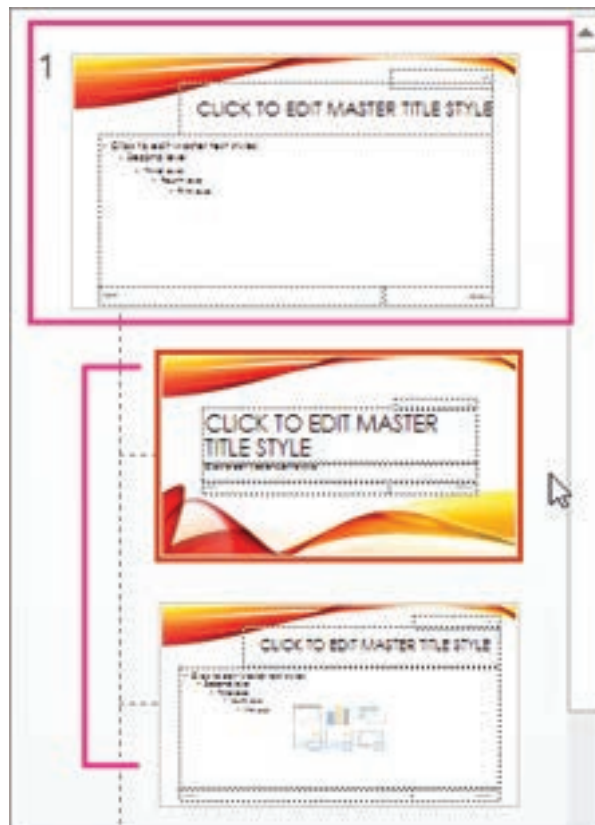


Figure 1.5. Change an existing layout

**To change an existing layout, do one or more of the following:**

- To add a placeholder, on the Slide Master tab, click Insert Placeholder, and then select a placeholder type from the list. Click a location on the layout, and then drag to draw the placeholder.
- Add, edit, or remove a placeholder on a slide layout.
- To rename the layout, in the thumbnail list of layouts, right-click the layout that you customized, and then click Rename Layout.
- In the Rename Layout dialog box, type a new name that describes the layout you've just created, and then click Rename.
- On the Slide Master tab, click Close Master View.

**Apply the updates so that they appear on your slides:**

- In Normal View, in the thumbnail pane, click the slide that you want to reapply the updated layout to.
- On the Home tab, in the Slides group, click Layout, and then select the layout that you updated in Slide Master View.

**1.3.8. INSERT SLIDE HEADERS, FOOTERS AND PAGE NUMBERS:**

Standard footer elements can be added, and they will show up on each slide in your presentation. You may include the date and time, the title of the presentation, or the page number, for instance.

**Add page numbers to slides and notes:**

All slides, including hidden slides, are counted when slide numbers are added. Page numbers are present in the notes when printed.

- On the Insert tab, click Header & Footer Header & Footer button.
- In the Header and Footer box, on the Slide tab, select the Slide number check box, and then in the Starts at box, type the page number that you want to start with on the first slide.
- Click Apply to All.

**Add footer text:**

- On the Insert tab, click Header & Footer Header & Footer button.

- In the Header and Footer box, on the Slide tab, select the Footer check box, and then type the footer text that you want.
- Click Apply to All.

**If footers don't appear on slides:**

- If footers don't appear on title slides, in the Header and Footer box, make sure they Don't show on title slide check box is not selected.
- If the footers are missing from other slides, the placeholders for these items might have been removed from specific slide layouts or the slide master.

**Add the date and time:**

Adding the date and time to a PowerPoint presentation in PowerPoint 365 is a useful feature, especially for keeping your audience informed about when the presentation was created or when it's being delivered. You can add the date and time manually or set it to update automatically. Here's how to do both:

**Manually Adding Date and Time:**

- Go to the slide where you want to add the date and time.
- Click on the text box or placeholder where you want to insert the date and time.
- Go to the "Insert" tab in the ribbon.
- In the "Text" group, click on the "Date & Time" button.
- A dialog box will appear. You can select the date and time format you prefer from the options.
- Check the box next to "Update automatically" if you want the date and time to update automatically whenever you open the presentation.
- Click "OK" to insert the date and time into the selected text box or placeholder.

**Automatically Adding Date and Time (Header/Footer):**

If you want to add the date and time to the header or footer of every slide in your presentation, you can use the Header & Footer feature:

- Go to the "Insert" tab in the ribbon.
- In the "Text" group, click on the "Header & Footer" button.
- In the Header & Footer dialog box, go to the "Slide" tab.
- Check the boxes for "Date and time" and "Update automatically" if you want the date

and time to update automatically.

- Choose the format and location (Header or Footer) where you want the date and time to appear.
- Click “Apply” to add the date and time to all slides.
- If you have existing slides, you may need to manually add them by editing the Slide Master. To do this, click on the “View” tab, and then select “Slide Master.” Here, you can customize the date and time format and placement for all slides.

**Note:** Remember that when you choose the “Update automatically” option, the date and time will reflect the current date and time each time you open or print the presentation. This can be helpful for keeping your presentation information up-to-date.

### 1.3.9. INSERT ZOOM:

If you would like to make your presentations more dynamic and exciting, try using zoom for PowerPoint.

- To add a zoom, go to Insert > Zoom.
- To summarize the entire presentation on one slide, choose Summary Zoom.
- To show selected slides only, choose Slide Zoom.
- To show a single section only, choose Section Zoom.

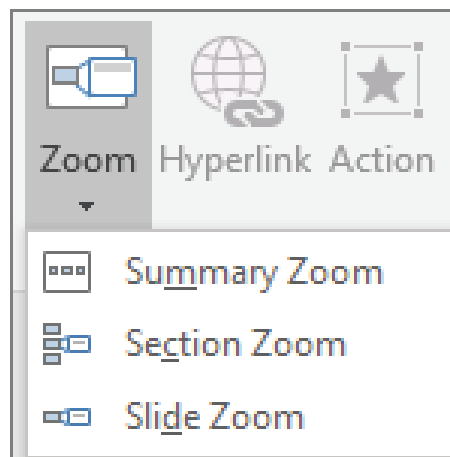


Figure 1.6. Insert zoom

**SUMMARY ZOOM:**

A summary zoom is like a landing page where you can see the pieces of your presentation all at once. When you're presenting, you can use the zoom to go from one place in your presentation to another in any order you like. You can get creative, skip ahead, or revisit pieces of your slide show without interrupting the flow of your presentation.

**SLIDE ZOOM:**

A slide zoom can help you make your presentation more dynamic, allowing you to navigate freely between slides in any order you choose without interrupting the flow of your presentation. They're a good option for shorter presentations without lots of sections, but you can use slide zooms for lots of different presentation scenarios.

Slide zooms help you drill down into multiple pieces of information while feeling as though you're staying on the same canvas.

**SECTION ZOOM:**

A section zoom is a link to a section already in your presentation. You can use them to go back to sections you want to really emphasize, or to highlight how certain pieces of your presentation connect.

**1.4. MODIFY SLIDES, HANDOUTS AND NOTES:**

Modifying slides, handouts, and notes is a common task when preparing for a presentation or lecture.

**1.4.1. CHANGE THE SLIDE MASTER THEME OR BACKGROUND:**

Use a slide master to assist you in unifying the format of your presentation and give uniformity to your presentation's colours, headings, fonts, logos, and other elements. A slide master's colours, typefaces, and effects are all editable. Placeholders can be hidden or displayed.

**Change the slide master:**

- Select View > Slide Master.
- Make the text, color, and alignment changes you want.

If you want to use a predefined theme, select that first by clicking Themes on the Slide Master tab. Then proceed with selecting Colours, Fonts, Effects, and Background Styles.

- When you're done, select Close Master View.

### **1.4.2. MODIFY THE HANDOUT MASTER:**

Open the handout master by selecting VIEW > Handout Master to make more precise formatting and layout changes than are possible in Print view.

#### **Create or change a presentation's handout:**

Use the HANDOUT MASTER tab to edit the appearance and layout of presentation handouts. Changes made to the handout master appear on all the pages of the printed handout.

- On the VIEW tab, in the Master Views group, click Handout Master. This opens the HANDOUT MASTER tab.
- On the page, click on a text placeholder (Header, Footer, Date, or Page Number) to make your changes. These changes can include:
- Edit or add content in the text placeholders: In addition to text changes, you can use commands on the INSERT tab to add graphics or other content types.
- Format the text shape and appearance: Select the text and use the FORMAT tab commands under DRAWING TOOLS.
- Change the text placeholders: Drag a text placeholder to move it, and use the text box sizing handles to change its size.
- Turn placeholders on or off: On the HANDOUT MASTER tab, in the Placeholders group, uncheck the box of the placeholder that you want to turn off.
- Add or change the background: On the HANDOUT MASTER tab, in the Background group, click Background Styles and then click a background, or click Format Background to create a background.
- To finish, on the HANDOUT MASTER tab, in the Close group, click Close Master View.

#### **PREVIEW YOUR HANDOUTS:**

##### **To preview how your handout will look when printed:**

- Click the FILE tab, and then click Print.
- Under Settings, click Full Page Slides, and then under Handouts, select the layout you want and look at the preview pane. Click the FILE tab again to return to your previous view.

### **1.4.3. MODIFY THE NOTES MASTER:**

You can alter how your presentation appears when printed with notes using the notes master.

#### **Open the Notes Master View:**

You can format the background, change the typefaces, and position headers and footers when



viewing notes in Notes Master view. Options for page setup are also available.

- Click the View tab on the ribbon.
- Click the Notes Master button



Figure 1.7. Notes master

You are brought to Notes Master view. Just like with Slide Master view, any changes you make here will apply to all notes in the presentation.

### **Edit the Notes Master:**

- While in Notes Master view, select the notes placeholders you want to use.
- Click Notes Page Orientation and select an option.
- Make any additional changes to the Notes Master.
- Click the Close Master View button.

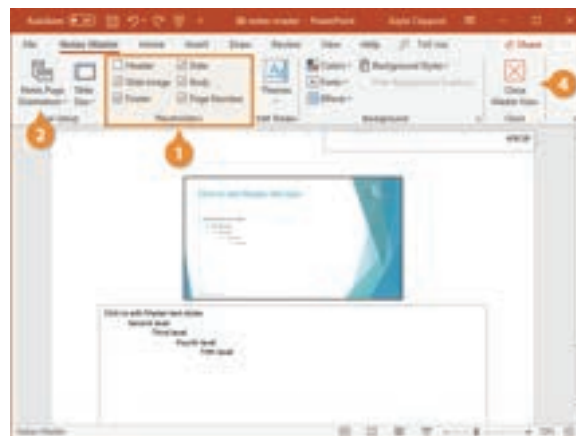


Figure 1.8. Edit the Notes Master

### 1.5. ORDER AND GROUP SLIDES:

Slides can be organized into logical groups using sections, much as folders are used to organize files.

- Right-click between slides and select Add Section.
- An Untitled Section is added in the thumbnail pane, and the Rename Section dialog box opens.
- Type a name in the Section name box.
- Select Rename.
- To collapse a section, click the triangle next to the section name. The numeral by the section name shows the number of slides in that section.

To move or delete a section, select View > Slide Sorter.

#### **From here, you can:**

- Move a section: Right-click and select Move Section Up or Move Section Down.
- Delete a section: Right-click and select Remove Section.

You can also drag and drop sections.

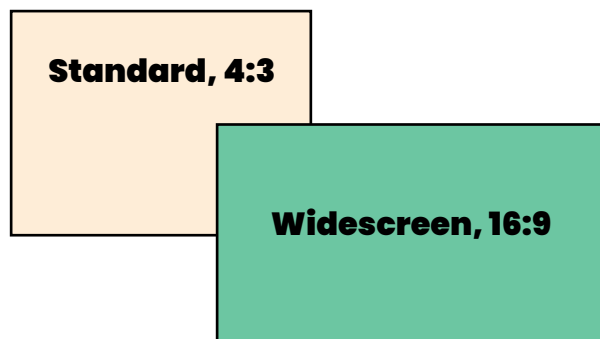
### 1.6. CHANGE PRESENTATION OPTIONS AND VIEWS:

Changing presentation options and views can help you customize how your slides are displayed and how you deliver your presentation.

#### 1.6.1. CHANGE THE SLIDE SIZE:

##### **To change the slide size:**

- Select the Design tab of the toolbar ribbon.
- Select the Slide Size icon near the far-right end of the toolbar.
- Select Standard (4:3 aspect ratio) or Widescreen (16:9) or Custom Slide Size.



*Figure 1.9. Change the slide size*



### **1.6.2. CHANGE VIEWS OF A PRESENTATION:**

To select the appropriate view for your needs, click the PowerPoint View tab. The task's bottom-screen icons allow you to choose a different view as well.

For creating and editing your presentations, the default Normal option works well.

To see all of your slides listed in a column, choose Outline View. To view thumbnails of all your slides, use Slide Sorter. By choosing a slide and dragging it to a different position, you can rearrange your slides in either view.

Choose Notes Page to view your speaker notes. You'll see each slide separately.

To see your presentation full screen, select the Slide Show icon  from the task bar at the bottom of the screen. If you want to see your current slide, next slide, and speaker notes while you present, select three dots  at the bottom of screen, then Show Presenter View.

### **1.6.3.SET FILE PROPERTIES:**

Document properties, commonly referred to as metadata, are informational elements that identify or characterize a file. They contain information that identifies the subject or contents of the document, such as the title, author, subject, and keywords.

You can quickly organize and categorize your files later on if you include the document properties. Additionally, you can insert documents into your papers or do a search for them depending on their properties.

- **Standard properties:** Microsoft 365 documents come with a basic set of characteristics by default, including author, title, and subject. For these attributes, you can provide custom text values to make it simpler to categorize and identify your documents. For instance, with Word, you can add the keyword "customers" to your sales papers by using the Keywords feature, commonly known as Tags. After that, you can use that term to look through all sales documents.
- **Automatically updated properties:** Both file system data (such as file size or the dates a file was created or last modified) and statistics that are kept for you by Microsoft 365 programs (such as the number of words or characters in a document) are included in this list of properties. The properties that are automatically updated cannot be specified or altered.
- **Custom properties:** Your Microsoft 365 documents can have additional custom characteristics defined. Custom attributes allow you to set a text, time, or numeric value in addition to the yes/no options. A list of suggested names is available, or you can define your own.

- **Document library properties:** These are attributes connected to files in a public folder or a document library on a website. One or more document library properties can be specified, and their values can be subject to rules when a new document library is created. You are prompted to provide values for any properties that are needed or to rectify any incorrect properties when you add documents to the document library. A document library that compiles product ideas, for instance, can ask the user for information like Submitted By, Date, Category, and Description. By selecting File > Info, you may modify and update these document library settings when you open a document from a document library in Word, Excel, or PowerPoint. All required properties from the document library are outlined with red borders on the Info tab in Word, Excel, and PowerPoint.

## **1.7.CONFIGURE A PRESENTATION FOR PRINT**

Even though PowerPoint presentations are designed to be watched on a computer, you may want to print them on occasion.

You may even print customized versions of a presentation, which can come in handy while giving a presentation. The Print pane makes previewing and printing your presentation a breeze. When printing a presentation, PowerPoint has numerous layout options. The arrangement you select will mostly be determined by the reason for printing the slide presentation.

### **Print layouts are divided into four categories:**

- **Full Page Slides:** Each slide in your presentation will be printed on a full page. If you need to review or update a printed copy of your presentation, this layout is ideal.
- **Notes Pages:** This publishes each slide, as well as any speaker notes associated with that slide. You might keep a printed copy of the notes with you during the presentation if you've included a lot of notes for each slide.
- **Outline:** This prints the slide show's overall outline. You might use this to go over your slide show's organization and get ready to give your presentation.
- **Handouts:** This generates thumbnail versions of each slide with space for notes if desired. This arrangement is very beneficial if you want to hand out a tangible copy of your presentation to your audience. They can take notes on each slide using the optional area.

### **1.7.1. PRINT ALL OR PART OF A PRESENTATION:**

- Select the File > Print.
- For Printer, select the printer you want to print to.

- For Settings, select the options you want:
- Slides – From the drop-down, choose to print all slides, selected slides, or the current slide. Or, in the Slides box, type which slide numbers to print, separated by a comma.
- Print Layout – Choose to print just the slides, the speaker notes, an outline, or handouts.
- Collated – choose if you want them collated or uncollated.
- Color – choose if you want color, grayscale, or pure black and white.
- Edit Header & Footer – Select to edit the header and footer before printing.
- For Copies, select how many copies you want to print.
- Select Print.

### **1.7.2. PRINT NOTES PAGES:**

You can print your speaker notes, with or without thumbnail images of the accompanying slides, and distribute them to your audience after your presentation for them to review.

This publishes each slide, as well as any speaker notes associated with that slide. You might keep a printed copy of the notes with you during the presentation if you've included a lot of notes for each slide.

### **1.7.3. PRINT HANDOUTS:**

The audience receives handouts, which are paper copies of your PowerPoint presentation. They provide something substantial for your audience to refer to and take home.

They can also make their own notes by writing on the handouts. (Some handout designs even contain writing lines.)

This generates thumbnail versions of each slide with space for notes if desired. This arrangement is very beneficial if you want to hand out a tangible copy of your presentation to your audience. They can take notes on each slide using the optional area.

### **1.7.4. PRINT IN COLOR, GRAYSCALE, OR BLACK AND WHITE:**

To print your presentation in color, grayscale, or black and white, you typically need to adjust your printer settings and the way your slides are formatted. Here's how you can do it in common presentation software like Microsoft PowerPoint:

- **Go to the "File" Menu:** Click on the "File" tab in the upper left corner of the PowerPoint window.
- **Select "Print":** In the File menu, select "Print" from the options on the left-hand side.

- **Choose Printer and Settings:**
  1. In the Print menu, make sure the correct printer is selected in the Printer dropdown menu.
  2. Below the Printer dropdown menu, you should see “Settings.” Click on “Settings” to open the Print Settings dialog box.
- **Color/Grayscale/Black and White:**
  1. In the Print Settings dialog box, you’ll find the “Color” dropdown menu. Click on it to reveal the options.
  2. Select one of the following options:
    - a) **Color:** To print in full color.
    - b) **Grayscale:** To print in shades of grey.
    - c) **Black and White:** To print in black and white.
- **Adjust Other Print Settings (Optional):** You can also adjust other print settings like the number of copies, which slides to print, and the layout. Make sure to configure these settings as needed.
- **Print:** After configuring your print settings, click the “Print” button to print your presentation with the selected color mode.

## **1.8. CONFIGURE AND PRESENT A SLIDE SHOW**

Configuring and presenting a slide show effectively involves several steps to ensure your presentation goes smoothly. Here’s a step-by-step guide on how to do this using PowerPoint 365

### **1.8.1. CREATE CUSTOM SLIDE SHOWS:**

A subset of slides in a presentation file can essentially be tagged with the intention of showing that portion to a certain audience. It might come to mind as a playlist. This is a bespoke show, according to PowerPoint.

You can customize a presentation in PowerPoint so that it is appropriate for various audiences. Use a custom show to exhibit only a select few of your presentation’s slides or to establish a link to a selection of your slides.

Basic and hyperlinked custom shows are the two types available. A basic custom show is either a stand-alone presentation or a presentation that incorporates a few of the original presentation’s slides. A custom show with links provides a convenient way to access one or more independent presentations.

### Basic custom shows:

To display a portion of the slides in a presentation file, use a simple custom show. For instance, if your presentation has five slides altogether, a custom show called "Site 1" might only include slides 1, 3, and 5. Slides 1, 2, 4, and 5 could be a part of a second unique show called "Site 2". You can always run the entire presentation in its original sequential order when you make a custom show from a presentation.

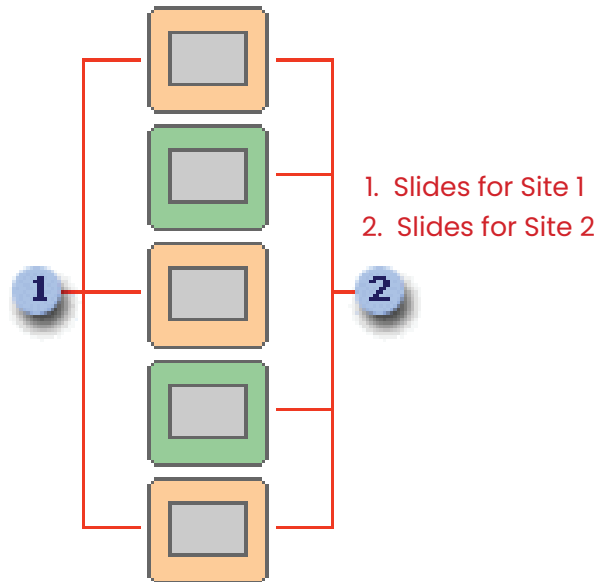


Figure 1.10. Basic custom shows

### Hyperlinked custom shows:

1. Slide with hyperlinks
2. Custom show for Department A
3. Custom show for Department B

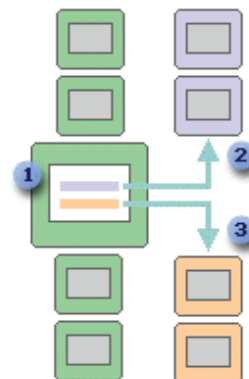


Figure 1.11. Hyperlinked custom shows

Use a custom show with hyperlinks to arrange the presentation's material. For instance, if you make a primary custom show describing the new organizational structure of your business, you may then make custom shows for each department inside it and link to them from the main presentation.

A custom show with hyperlinks can also be used to make a slide for the table of contents. You can choose which sections of your presentation to show to your audience at a given time by navigating to them using a table of contents slide.

**Create a basic custom show:**

- Go to Slide Show > Custom Slide Show, and then select Custom Shows.
- In the Custom Shows dialog box, select New.  
Tip: To preview a custom show, click the name of the show in the Custom Shows dialog box, and then click Show.
- Under Slides in presentation, choose the slides that you want to include in the custom show, and then select Add.
- To change the order in which slides appear, under Slides in Custom Show, select a slide, and then click one of the arrows to move the slide up or down in the list.
- Type a name in the Slide show name box, and then click OK.

**Create a hyperlinked custom show:**

- Go to Slide Show > Custom Slide Show, and then select Custom Shows.
- In the Custom Shows dialog box, select New.
- Under Slides in presentation, click the slides that you want to include in the main custom show, and then click Add.  
**Tip:** To change the order in which slides appear, under Slides in Custom Show, select a slide, and then click one of the arrows to move the slide up or down in the list.
- Type a name in the Slide show name box, and then click OK.
- To create a hyperlink to a supporting show in your presentation, select the text or object that you want to be the link.
- Go to Insert > Hyperlink.
- In the Insert Links dialog box, under Link to, click Place in This Document.

**Do one of the following:**

- To link to a custom show, in the Select a place in this document list, select the custom show that you want to go to, and then select the Show and return check box.



- To link to a location in the current presentation, in the Select a place in this document list, select the slide that you want to go to.

### Start a custom show from within PowerPoint:

- On the Slide Show tab, in the Set-Up group, click Set Up Slide Show.
- In the Set-Up Show dialog box, under Show slides, click Custom show, and then click the custom show that you want.
- Click OK.
- On the Slide Show tab, in the Start Slide Show group, click Custom Slide Show, and then click Custom Shows.
- In the Custom shows list, select a show, and then click Show.

### 1.8.2. CONFIGURE SLIDE SHOW OPTIONS:

There are various things you should think about before presenting to an audience. Set up the slide show to best suit the delivery method once you've selected how you'll give the presentation.

#### Set Up Slide Shows:

- Click the Slide Show tab on the ribbon.
- Click the Set-Up Slide Show button to view more options.

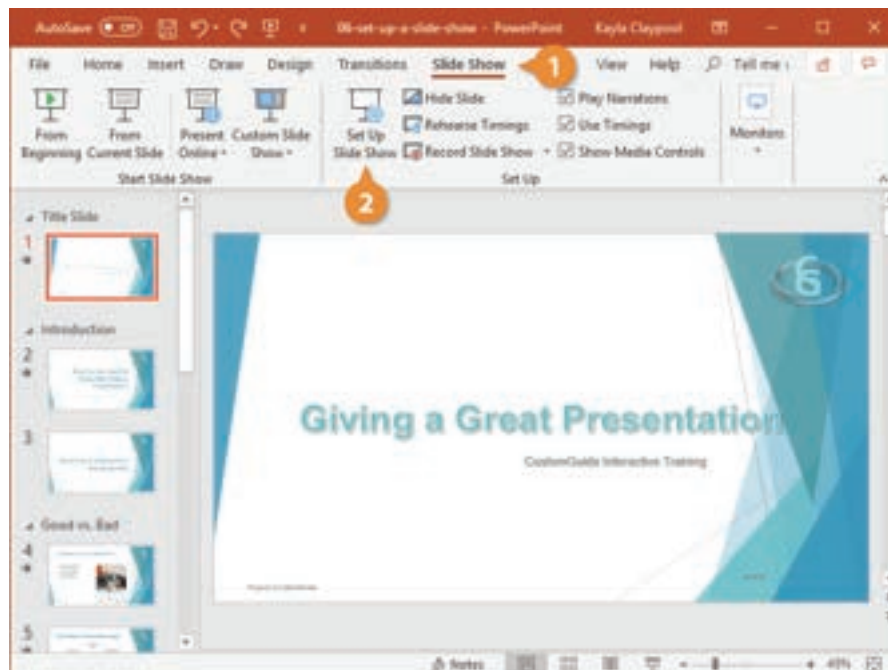


Figure 1.12. Set Up Slide Shows

## Make any desired changes to the settings.

- Show Type: Select the type of presentation you are giving.
- Show Options: Adjust looping, narration, animation, graphics, pen, and laser options.
- Show Slides: Select which slides to show in the presentation.
- Advance Slides: Choose to advance slides manually or automatically.
- Multiple Monitors: Set up for presenting using multiple monitors.

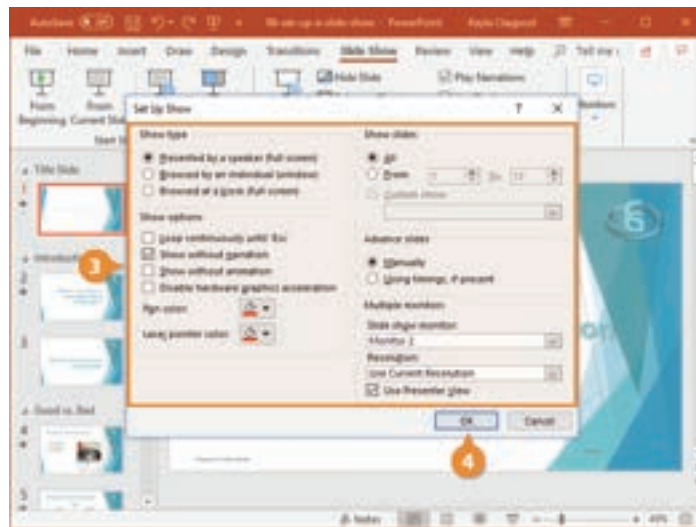


Figure 1.13. Make any desired changes to the settings.

- Now the slide show will play according to the settings you chose.

### 1.8.3. REHEARSE SLIDE SHOW TIMING:

There are several things to keep in mind when getting ready to present. How long do you anticipate it lasting? What will you say as a result? Fortunately, PowerPoint includes a variety of tools that can help you practice your slide show. To allow viewers to watch it on their own, you can also record a copy of the presentation with audio commentary. Practicing timings can be beneficial if you want to set up a presentation to play at a specified tempo without having to manually scroll through the slides. You can also use it to practice your talking points. With this feature, timings for each slide and animation can be saved. PowerPoint will use these times to play the presentation on its own. PowerPoint helps you record and time a presentation before you present it to an audience.

- Select Slide Show > Rehearse Timings.
- Select Next, click the mouse or press the Right Arrow key to go to the next slide.

- The time for the current slide is shown to the right of the Pause icon. The time to the right of that is the time for the whole presentation.
- Select Pause to pause the recording. Select Resume Recording to resume.
- Select Yes to save the slide timings, or No to discard them.
- You can also press Esc to stop the recording and exit the presentation.

### View the timings:

- Select View > Slide Sorter. The amount of time allotted to a slide is shown at the bottom-right of the slide.

### Turn off recorded slide timings before you give a presentation:

### To prevent slides from automatically advancing, use the recorded slide timings as follows:

- Select Set Up > Slide Show.
- Clear the Use Timings or Use Rehearsed Timings check box.
- To turn the slide timings on again, select Use Timings.

### 1.8.4. PRESENT A SLIDE SHOW BY USING PRESENTER VIEW:

In order to help you concentrate while presenting and engage with your audience, PowerPoint Presenter View displays the current slide, the next slide, and your speaker notes.

- Select the Slide Show tab.
- Select the Use Presenter View checkbox.

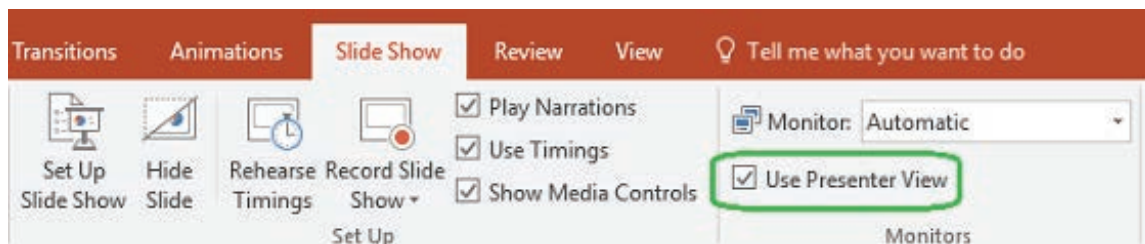


Figure 1.14. Present a slide show by using Presenter View

- Select which monitor to display Presenter View on.



- Select, From Beginning or press F5.

### In Presenter View, you can:

- See your current slide, next slide, and speaker notes.
- Select the arrows next to the slide number to go between slides.
- Select the pause button or reset button to pause or reset the slide timer in the upper left.
- See the current time to help you pace your presentation.
- Select the font icons to make the speaker notes larger or smaller.
- Select the annotations pen icon to draw on the screen in real time, or select a laser pointer.
- Select the thumbnail icon to see all the slides in your presentation and quickly jump to another slide.
- Select the magnifying glass icon to zoom in on a particular part of a slide.
- The screen icon lets you make the screen temporarily black to focus the attention on you.
- Select END SLIDESHOW when you're done presenting.

### SUMMARY:

- Managing presentations and slides in PowerPoint 365 involves various tasks and features that help users create, organize, and deliver effective presentations.

#### Creating Presentations:

- PowerPoint 365 allows users to create new presentations from scratch or use pre-designed templates.
- Users can start with a blank slide or utilize various layout options for different content types.
- PowerPoint provides a range of formatting options, including text formatting, shapes, images, and multimedia elements.
- PowerPoint 365 enables users to reorder, duplicate, or delete slides easily.
- Sections can be used to group and organize slides in larger presentations.



**MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE****1. What is the purpose of creating a new presentation in PowerPoint?**

- a) To apply slide layouts
- b) To modify existing presentations
- c) To start a presentation from scratch
- d) To add transitions to slides

**2. When would you use a presentation template in PowerPoint?**

- a) To duplicate a slide
- b) To create a new presentation quickly with a predefined design
- c) To rearrange slide order
- d) To add headers and footers to slides

**3. How can you add new slides to your presentation?**

- a) By right-clicking on the slide sorter view
- b) By pressing Ctrl+D
- c) By going to the Insert tab and clicking "New Slide"
- d) By copying and pasting an existing slide

**4. What action allows you to remove unnecessary slides from a presentation?**

- a) Pressing Ctrl+X
- b) Right-clicking and selecting "Delete Slide"
- c) Dragging the slide to the Recycle Bin
- d) Pressing Ctrl+S

**5. To make a copy of a slide within a presentation, you should:**

- a) Right-click the slide and choose "Copy Slide"
- b) Delete the slide and then create a new one
- c) Use the "Replace Slide" function
- d) Select the slide and press Ctrl+V

**6. How can you rearrange the order of slides in a presentation?**

- a) By dragging and dropping slides in the Slide Sorter view
- b) By using the "Sort Slides" option in the Home tab

- c) By copying and pasting slides in the desired order
- d) By right-clicking and selecting "Rearrange Slide Order"

**7. What does hiding a slide in PowerPoint mean?**

- a) Making it invisible during a presentation
- b) Deleting the slide permanently
- c) Changing the background color of the slide
- d) Adding animation effects to the slide

**8. Which feature allows you to choose and insert different slide layouts?**

- a) Slide Sorter
- b) Slide Transitions
- c) Slide Design
- d) Slide Layout

**9. How can you modify and reuse a slide layout in PowerPoint?**

- a) By deleting the layout and creating a new one
- b) By right-clicking on the layout and selecting "Edit"
- c) By changing the slide's background color
- d) By resizing the slide

**10. What is used to add consistent branding elements like headers and footers to slides?**

- a) Slide Master
- b) Slide Design
- c) Slide Properties
- d) Slide Format

**11. What feature allows you to incorporate zoom functionality into a presentation?**

- a) Zoom Transition
- b) Zoom Effect
- c) Zoom Master
- d) Zoom in PowerPoint

**12. How can you change the slide master theme or background in PowerPoint?**

- a) By right-clicking on the slide master and choosing "Change Theme"

- b) By going to the Slide Master view and applying a new theme
- c) By using the Format Painter tool
- d) By selecting the theme from the Design tab

**13. What does modifying the handout master in PowerPoint allow you to do?**

- a) Edit the content of individual slides
- b) Adjust the layout and content of printed handouts (Correct Answer)
- c) Change the design of slide transitions
- d) Customize slide animations

**14. Which part of a presentation can you modify when working on the notes master?**

- a) Slide titles
- b) Slide transitions
- c) Presenter notes
- d) Slide background

**Answers:**

1. c) To start a presentation from scratch
2. b) To create a new presentation quickly with a predefined design
3. c) By going to the Insert tab and clicking "New Slide"
4. b) Right-clicking and selecting "Delete Slide"
5. a) Right-click the slide and choose "Copy Slide"
6. a) By dragging and dropping slides in the Slide Sorter view
7. a) Making it invisible during a presentation
8. d) Slide Layout
9. b) By right-clicking on the layout and selecting "Edit"
10. d) Slide Format
11. d) Zoom in PowerPoint
12. b) By going to the Slide Master view and applying a new theme
13. b) Adjust the layout and content of printed handouts
14. c) Presenter notes

**SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

1. What is the importance of effective presentation management?
2. How can you create a new presentation from scratch?
3. Explain how to create a presentation based on a template.
4. What are the steps to add slides to a presentation?
5. How do you delete a slide from a presentation?
6. Describe how to duplicate a slide in a presentation.
7. How can you rearrange the order of slides in a presentation?
8. What is the purpose of hiding and unhiding slides in a presentation?
9. How can you insert specific slide layouts into your presentation?
10. Explain the process of editing and reapplying a slide layout.



# CHAPTER 2

## INSERT OBJECTS, TRANSITIONS AND ANIMATIONS



### LEARNING OBJECTIVE:

Upon completing this module, participants will:

#### 1. Manage Presentations and Slides

- Create, edit, and organize presentations.
- Customize slides, layouts, and master themes.
- Prepare presentations for various needs, including printing.
- Deliver engaging slide shows effectively.
- Assess understanding through summaries and practice questions.

#### 2. Insert Objects, Transitions, and Animations

- Add and format text, media, and shapes.
- Enhance presentations with transitions and animations.
- Control timing and effects for dynamic presentations.

### 2.1. INTRODUCTION:

Inserting objects, transitions, and animations can enhance the visual appeal and engagement of your presentations.

### 2.2. INSERT AND FORMAT TEXT:

Inserting and formatting text in a presentation is a fundamental skill when creating visually appealing and effective slides. Here's how to do it in PowerPoint 365:

#### 2.2.1. INSERT TEXT ON A SLIDE:

By placing a text box and entering text inside of it, you can add text to a PowerPoint slide or slide master. Then, after selecting the text or the full box, you can format that text. Both shapes and placeholders can have text added to them.

## Insert a text box:

- Open the slide you want to add the box to.
- On the ribbon, select the Insert tab, then select Text box button Text Box.
- On the slide, click and drag to draw the text box in the position and size you want.

## 2.2.2. ADD AND FORMAT TEXT:

- Select a text box and type some text.
- To format, select the text, and select an option to change the font, spacing, or alignment.
- To create bulleted or numbered lists, select the text, and then select Bullets or Numbering.

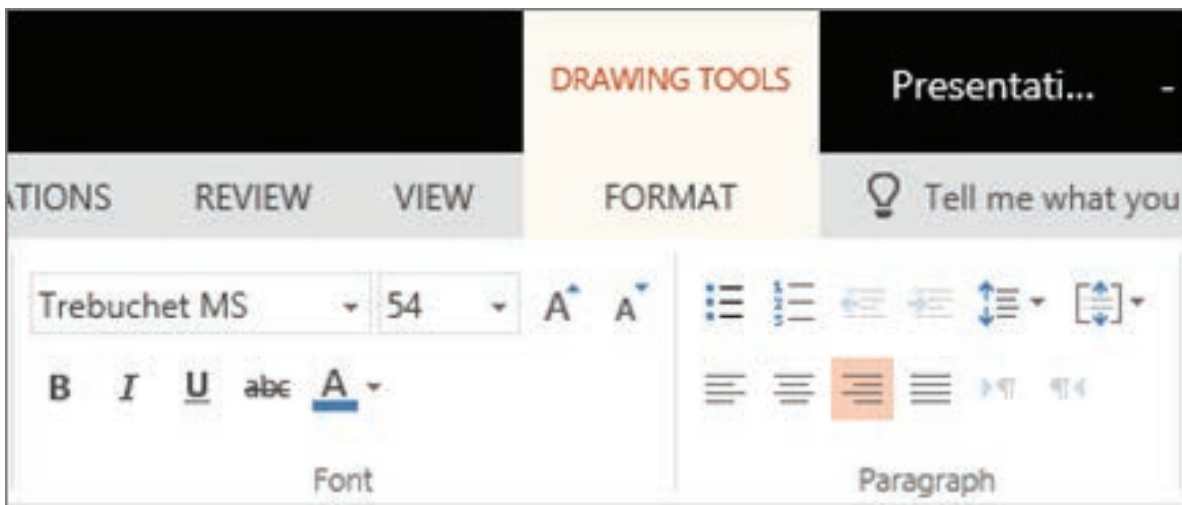
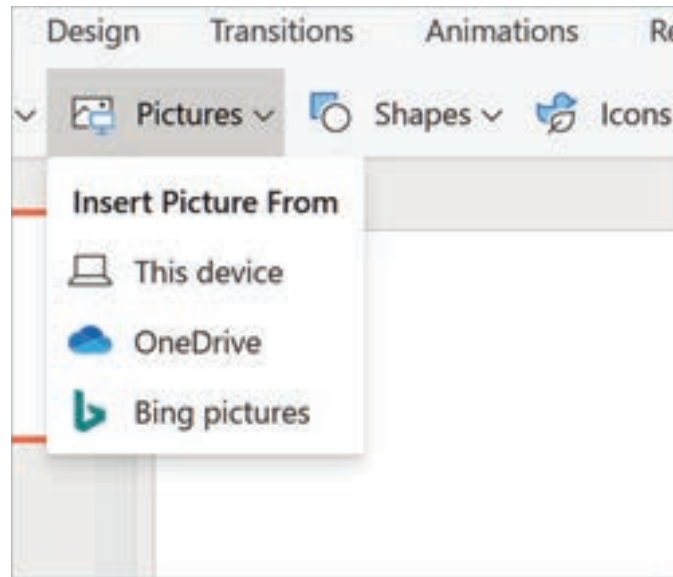


Figure 2.1. Add and format text

## 2.2.3. INSERT PICTURES:

- Select where you want to insert the picture on the slide.
- Select Insert > Pictures and where to find the image: This device, OneDrive, or Bing pictures.
- In the dialog box that opens, browse to the picture that you want to insert, tap that picture, and then Insert.

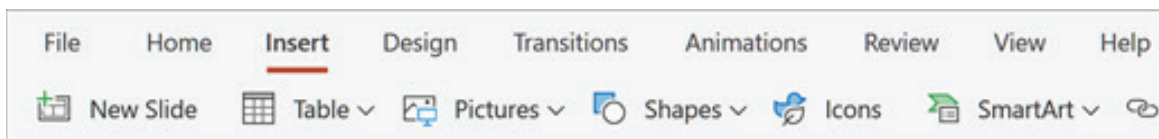


*Figure 2.2. Insert pictures*

#### **2.2.4. INSERT SHAPES, ICONS, AND SMARTART:**

The Insert tab allows you to add visual appeal to your slides.

- Select Insert > Shapes and in the drop-down select the shape.
- Select Insert > Icons and in the drop-down select the icon.
- Select Insert > SmartArt and in the gallery tap the layout for the SmartArt graphic you want.



*Figure 2.3. Insert Shapes, Icons, and SmartArt*

#### **2.2.5. INSERT VIDEOS:**

- Select Insert > Video and in the drop-down select either a video from the PC or from web

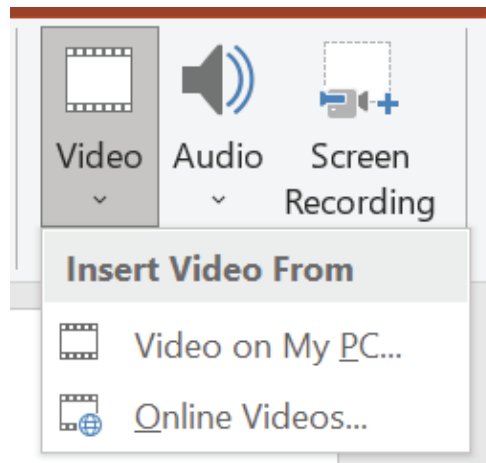


Figure 2.4. Insert videos

## **2.3. INSERT AND FORMAT SHAPES AND TEXT BOXES**

Shapes are an excellent way to spice up your displays. You can choose from a range of shapes in PowerPoint, and each one can be customised to match your unique requirements by using your own colour scheme, style preferences, and other elements. Forms can provide visual appeal to presentations; however, they are not always necessary. When a shape or text box is clicked, handles appear, allowing you to edit the shape.

### **2.3.1. FORMAT TEXT:**



When you select text and choose a format, hover over a menu option to see a live preview in your slide. Format options include:

- Font Color - Choose a font color for your text.
- Numbering or Bullets - Create a list using numbers or bullets.
- Add or Remove Columns - Add or remove columns in your text.
- Text Direction - Change the direction of text.
- Align Text - Connect your text to the top, middle, or bottom of a bounding box.
- Align Left, Center, Align Right, or Justify - Align your text the way you want.
- Increase List Level or Decrease List Level - Increase or decrease a list indent.

### **2.3.2. INSERT OR REPLACE SHAPES:**

Many of the regular Microsoft 365 or Microsoft 365 programs allow you to modify forms. When you do this, all of the original shape's characteristics—such as its color, border, and any text

within it—remain unchanged.

- Select the shape.
- Go to Shape Format and near the left end, select  Edit Shape.
- Select  Change Shape, then choose another shape from the gallery.

### **2.3.3. RESIZE SHAPES AND TEXT BOXES:**

In your Office file, you may simply resize images, text boxes, shapes, and WordArt. By cropping a photo, you can also get rid of undesirable elements from it.

If you want to stretch, shrink, or just change the size of a picture (or shape), use the sizing handles or for more precise control, the **Size** options on the **Picture Tools Format** tab or the **Drawing Tools Format** tab.

### **2.3.4. APPLY STYLES TO SHAPES AND TEXT BOXES:**

By altering a shape's fill or adding effects to it, such as shadows, glows, reflections, soft edges, bevels, and three-dimensional (3-D) rotations, you can alter the appearance of a shape or text box.

A shape's interior can be filled with any colour, design, pattern, texture, image, or gradient. A gradient is a smooth transition of hues and tones, typically from one hue to another or from one shade of the same hue to another.

Changing the fill color of a shape affects only the inside or front of the shape. If you add an effect to a shape, such as a shadow, and want a different color for that effect, you must change the color of the shadow separately from the fill color.

A 3-D effect adds depth to a shape. You can add a built-in combination of 3-D effects to your shape, or you can add individual effects. You can add combinations of individual effects to your shape in these programs: Excel, Outlook, Word, and PowerPoint.

#### **Add a fill or effect:**

To add a fill or effect, click your shape, click Format, click the arrow next to Shape Fill or Shape Effects, and select a color, gradient, texture, or effect.

- Click the shape that you want to fill. To add the same fill to multiple shapes, click the first shape, and then press and hold Ctrl while you click the other shapes.
- On the Format tab, in the Shape Styles group, click the arrow next to Shape Fill.

**Do one of the following:**

- To add or change a fill color, click the color you want.
- To choose no color, click No Fill.
- To use a color that isn't one of the theme colors, click More Fill Colors, and then either click the color that you want on the Standard tab, or mix your own color on the Custom tab. Custom colors and colors on the Standard tab do not update if you later change the document theme.
- To adjust the transparency of the shape, click More Fill Colors. At the bottom of the Colors dialog box, move the Transparency slider, or enter a number in the box next to the slider. You can vary the percentage of transparency from 0% (fully opaque, the default setting) to 100% (fully transparent).
- To add or change a fill picture, click Picture, locate the folder that contains the picture that you want to use, click the picture file, and then click Insert.
- To add or change a fill gradient, point to Gradient, and then click the gradient variation that you want. To customize the gradient, click More Gradients, and then choose the options that you want.
- To add or change a fill texture, point to Texture, and then click the texture that you want. To customize the texture, click More Textures, and then choose the options that you want.

## **2.4. APPLY SLIDE TRANSITIONS**

Applying slide transitions in PowerPoint 365 serves several important purposes, enhancing the overall quality and effectiveness of your presentation.

### **2.4.1. INSERT SLIDE TRANSITIONS:**

When you switch from one slide to the next in a presentation, an animation-like effect is called a slide transition. To give your PowerPoint presentation life, add slide transitions.

- Select the slide you want to add a transition to.
- Select the Transitions tab and choose a transition.
- Select a transition to see a preview.
- Select Effect Options to choose the direction and nature of the transition.

**Note:** Not every transition has Effect Options.

- Select Preview to see what the transition looks like.
- To remove a transition, select Transitions > None.

#### **2.4.2. REMOVE A TRANSITION:**

A transition determines how a slide enters, and how the previous slide exits. So if (for example) you didn't want a transition effect between slides 2 and 3, you would remove the transition from slide 3.

- Select the slide that has the transition you want to remove.
- On the Transitions tab, in the Transitions gallery, select None.
- If you want to remove all transitions from the presentation, after you select None, select Apply to All.

#### **2.4.3. CHANGE A TRANSITION:**

A slide can only have one transition effect active at once. As a result, if a slide already has a transition effect applied to it, you can switch to a different effect by heading to the Transitions tab and choosing the one you like most.

If you want to change an existing effect by modifying the timing or direction of it, you can do that by using the options on the Transitions tab of the ribbon, at the far end:

- Select the slide that has the transition you want to modify.
- On the Transitions tab, select Effect Options, then choose an option from the menu that appears.
- In the Timing group on the Transitions tab, you can change the duration of the effect. You can also specify whether the effect takes place after a mouse click or after a certain amount of time passes. There are also options for adding a sound to the transition effect or applying the transition to all slides in the slide show.

### **2.5. ANIMATE SLIDE CONTENT**

In your PowerPoint presentation, you can animate the text, images, shapes, tables, SmartArt graphics, and other objects. An object may appear, vanish, or move as a result of an effect. They can alter the size or colour of an object.

#### **2.5.1.ADD ANIMATIONS TO TEXT, PICTURES, SHAPES, AND MORE IN YOUR PRESENTATION:**

- Select the object or text you want to animate.
- Select Animations and choose an animation.
- Select Effect Options and choose an effect.

### **2.5.2.MANAGE ANIMATIONS AND EFFECTS:**

**There are different ways to start animations in your presentation:**

- On Click: Start an animation when you click a slide.
- With Previous: Play an animation at the same time as the previous animation in your sequence.
- After Previous: Start an animation immediately after the previous one happens.
- Duration: Lengthen or shorten an effect.
- Delay: Add time before an effect runs.

### **2.5.3. ADD MORE EFFECTS TO AN ANIMATION:**

- Select an object or text with an animation.
- Select Add Animation and choose one.

### **2.5.4.CHANGE THE ORDER OF ANIMATIONS:**

- Select an animation marker.
- Choose the option you want:
  - **Move Earlier:** Make an animation appear earlier in the sequence.
  - **Move Later:** Make an animation occur later in the sequence.

### **2.5.5.ADD ANIMATION TO GROUPED OBJECTS:**

**You can add an animation to grouped objects, text, and more.**

- Press Ctrl and select the objects you want.
- Select Format > Group > Group to group the objects together.
- Select Animations and choose an animation.

## **2.6.SET TIMING FOR TRANSITIONS AND ANIMATIONS**

The length of a transition, its appearance, and even the sound that will play during it can all be changed. Additionally, you may select how long should be spent on each slide before moving on to the next.

### **2.6.1.SET THE SPEED OF THE TRANSITION:**

Use Duration to set transition speed. A shorter duration means that a slide advances faster, and a larger number makes the slide advance more slowly.



- Select the slide that has the transition that you want to modify.
- On the Transitions tab, in the Timing group, in the Duration box, type the number of seconds that you want.

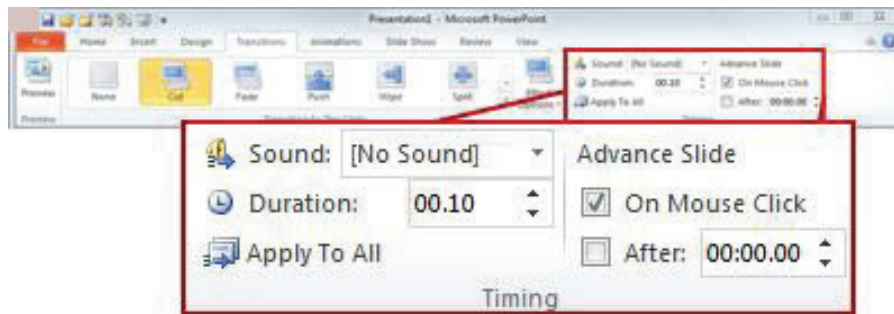


Figure 2.5. Set the speed of the transition

### 2.6.2.MODIFY THE EFFECT OPTIONS FOR A TRANSITION:

**Many, but not all, of the transitions in PowerPoint can be customized.**

- Select the slide that has the transition you want to modify.
- On the Transitions tab, in the Transition to This Slide group, click Effect Options and select the option that you want.

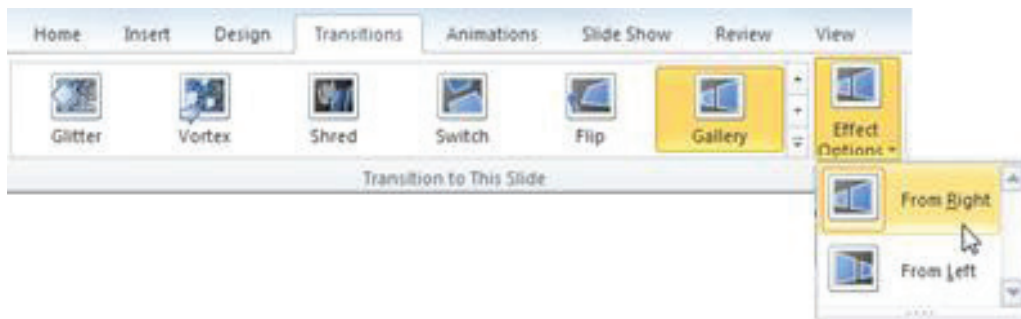


Figure 2.6. Modify the Effect options for a transition

### 2.6.3.SPECIFY A TIME TO ADVANCE TO THE NEXT SLIDE:

By defining how long a slide remains visible before switching to the following slide, Advance Slide determines the timing of transitions. When you click the mouse, slides advance if timing is not selected.

- Select the slide that you want to set the timing for.
- On the Transitions tab, in the Timing group, under Advance Slide, do one of the following:

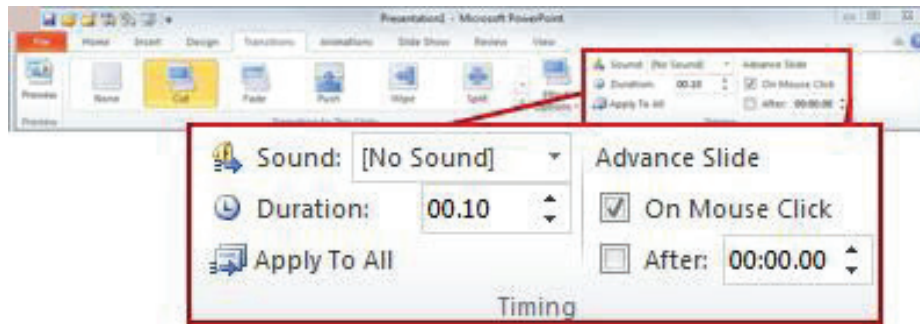


Figure 2.7. Specify a time to advance to the next slide

- To make the slide advance to the next slide when you click the mouse, select the On Mouse Click check box.
- To make the slide advance automatically, select the "After" check box, and then enter the number of minutes or seconds that you want. The timer starts when the final animation or other effect on the slide finishes.
- To enable both the mouse and automatic advance, select both the On Mouse Click check box and the "After" check box. Then, at After, enter the number of minutes or seconds that you want. The slide will advance automatically, but you can advance it more quickly by clicking the mouse.

#### 2.6.4. SET A SOUND TO PLAY DURING A TRANSITION:

- Select the slide that has the transition that you want to modify.
- On the Transitions tab, in the Timing group, in the Sound list, select the sound that you want.

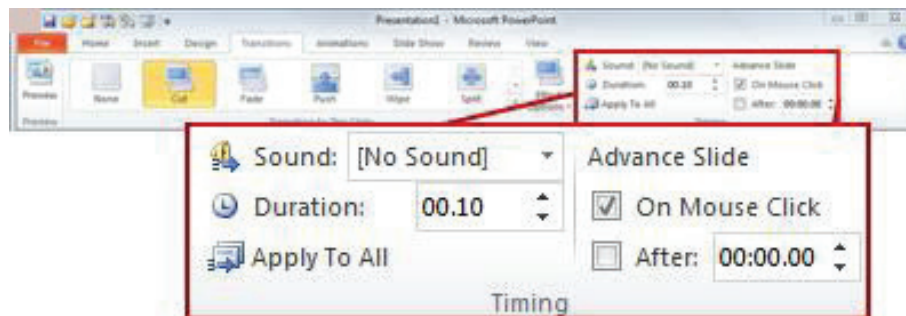


Figure 2.8. Set a Sound to play during a transition



### SUMMARY:

- PowerPoint 365 allows you to insert various objects into your slides, including images, videos, audio, shapes, charts, and tables. These objects can be resized, moved, and formatted to suit your presentation's needs.
- Slide transitions and animations can be added to enhance the visual appeal of presentations. Transitions in PowerPoint 365 control how slides move from one to the next during a presentation. There's a wide range of transition effects to choose from, such as fade, slide, zoom, and more. You can set the duration, timing, and even apply transitions to specific slides or slide elements.
- Animations add movement and interactivity to individual elements within a slide. PowerPoint 365 offers entrance, exit, emphasis, and motion path animations. Users can customize animation effects, speed, and sequence to make content more engaging.

### MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE:

#### 1. What can you insert to enhance the visual appeal of a PowerPoint presentation?

- a) Transitions
- b) Animations
- c) Objects
- d) All of the above

#### 2. How do you insert text onto a PowerPoint slide?

- a) By selecting "Insert" and then "Text Box"
- b) By selecting "Format" and then "Font"
- c) By selecting "Design" and then "Insert Text"
- d) By selecting "View" and then "Text Editor"

#### 3. Which tab in PowerPoint allows you to add visual elements like shapes and icons?

- a) Design
- b) Insert
- c) Format
- d) Home

**4. What feature allows you to add or remove columns in text boxes in PowerPoint?**

- a) Font Color
- b) Numbering
- c) Add or Remove Columns
- d) Text Direction

**5. Which option allows you to insert pictures into a PowerPoint slide?**

- a) Insert > Pictures
- b) Format > Pictures
- c) Design > Pictures
- d) File > Pictures

**6. What type of elements can be animated in a PowerPoint presentation?**

- a) Text only
- b) Images only
- c) Text, images, shapes, and more
- d) Shapes and icons only

**7. What is the purpose of slide transitions in PowerPoint?**

- a) To add visual elements
- b) To insert videos
- c) To enhance the overall quality and effectiveness of the presentation
- d) To change the slide background

**8. How can you remove a transition from a specific slide in PowerPoint?**

- a) Delete the slide
- b) Select the slide and press "Delete Transition"
- c) Select the slide and choose "Transitions > None"
- d) You cannot remove transitions from individual slides

**9. Which tab in PowerPoint allows you to customize the timing and effects of slide transitions?**

- a) Design
- b) Transitions
- c) Format
- d) Home

**10. What is the purpose of applying animations to objects in PowerPoint?**

- a) To change the background color
- b) To enhance slide transitions

- c) To make objects appear, disappear, or move in a slide
- d) To add sound effects

**11. What does “On Click” animation mean in PowerPoint?**

- a) The animation occurs automatically
- b) The animation starts when you click a slide
- c) The animation starts after the previous one happens
- d) The animation is applied to text only

**12. How can you change the order of animations in PowerPoint?**

- a) By selecting “Edit Animation” from the Animation tab
- b) By using the “Move Earlier” or “Move Later” options
- c) By deleting and recreating animations
- d) Animations cannot be reordered

**13. What does “Advance Slide” determine in PowerPoint?**

- a) Slide background color
- b) Timing of transitions
- c) The order of animations
- d) Slide content

**14. How can you set the speed of a slide transition in PowerPoint?**

- a) By selecting the desired slide and clicking “Speed”
- b) By adjusting the font size
- c) By using the “Duration” option in the Transitions tab
- d) By selecting the “Fast” or “Slow” transition preset

**15. What feature allows you to specify a time to advance to the next slide automatically in PowerPoint?**

- a) On Mouse Click
- b) Duration
- c) Delay
- d) After

**Answers:**

1. d) All of the above
2. a) By selecting “Insert” and then “Text Box”
3. b) Insert
4. c) Add or Remove Columns

5. a) Insert > Pictures
6. c) Text, images, shapes, and more
7. c) To enhance the overall quality and effectiveness of the presentation
8. c) Select the slide and choose "Transitions > None"
9. b) Transitions
10. c) To make objects appear, disappear, or move in a slide
11. b) The animation starts when you click a slide
12. b) By using the "Move Earlier" or "Move Later" options
13. b) Timing of transitions
14. c) By using the "Duration" option in the Transitions tab
15. d) After



### **SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

1. What are some key elements you can insert into a PowerPoint presentation to enhance its visual appeal and engagement?
2. How do you insert text onto a PowerPoint slide or slide master?
3. What are the steps to format text in a PowerPoint presentation, and what formatting options are available?
4. Explain how to insert pictures, shapes, icons, and SmartArt in a PowerPoint presentation.
5. How can you insert videos into a PowerPoint presentation, and where can you source these videos?
6. Describe the purpose and importance of slide transitions in a PowerPoint presentation.
7. What steps do you follow to insert a slide transition, and what options can you customize for transitions?
8. How can you remove a transition from a specific slide in your PowerPoint presentation?
9. What are the animation options available for text, images, and shapes in PowerPoint, and how do you apply them?
10. How do you customize the timing of transitions and animations in a PowerPoint presentation, and what options are available for timing adjustments?

<b>TASK STATEMENT</b>	<b>KNOWLEDGE STATEMENT</b>
Create a structured presentation outline, categorizing slides based on layout	Students must understand the basics of presentation and its objectives
Generate engaging presentations by inserting various multimedia objects like images, videos, audios and shapes	Students must be creative while applying the transitions and selecting the suitable images, settings etc
Generate animated presentations	To enhance the visual appeal and convey complex process effectively







UNIT

2

Overview of  
Statutory & Tax  
Compliances



# CHAPTER 1

## E PAN



### LEARNING OBJECTIVES:

- ✓ Understanding the Purpose of a PAN Card
- ✓ Eligibility and Documentation
- ✓ Online Registration Process
- ✓ Document Submission
- ✓ Payment of Fees
- ✓ Verification and Acknowledgment
- ✓ Downloading E-PAN

### INTRODUCTION

The registration of an E-PAN (Electronic Permanent Account Number) is a digital process used in India to obtain a PAN card, which is a unique identification number for taxpayers. The E-PAN serves the same purpose as a physical PAN card but is issued in electronic format.

The Indian government has been actively promoting digital governance and encouraging citizens to use online platforms for various services. E-PAN aligns with this broader digital transformation initiative, making it easier for individuals and entities to obtain and use their PAN cards without the need for physical copies.

E-PAN cards are accessible anytime, anywhere. Once issued, individuals can download their E-PAN cards from the official Income Tax Department website, reducing the risk of physical card loss or damage.

However, it's important to note that the specific details and requirements related to E-PAN registration may change over time due to evolving government policies and technological advancements. Therefore, individuals and entities seeking to register for E-PAN should regularly check the official website of the Income Tax Department of India or consult with tax professionals to ensure compliance with the latest regulations and procedures.

### TASK

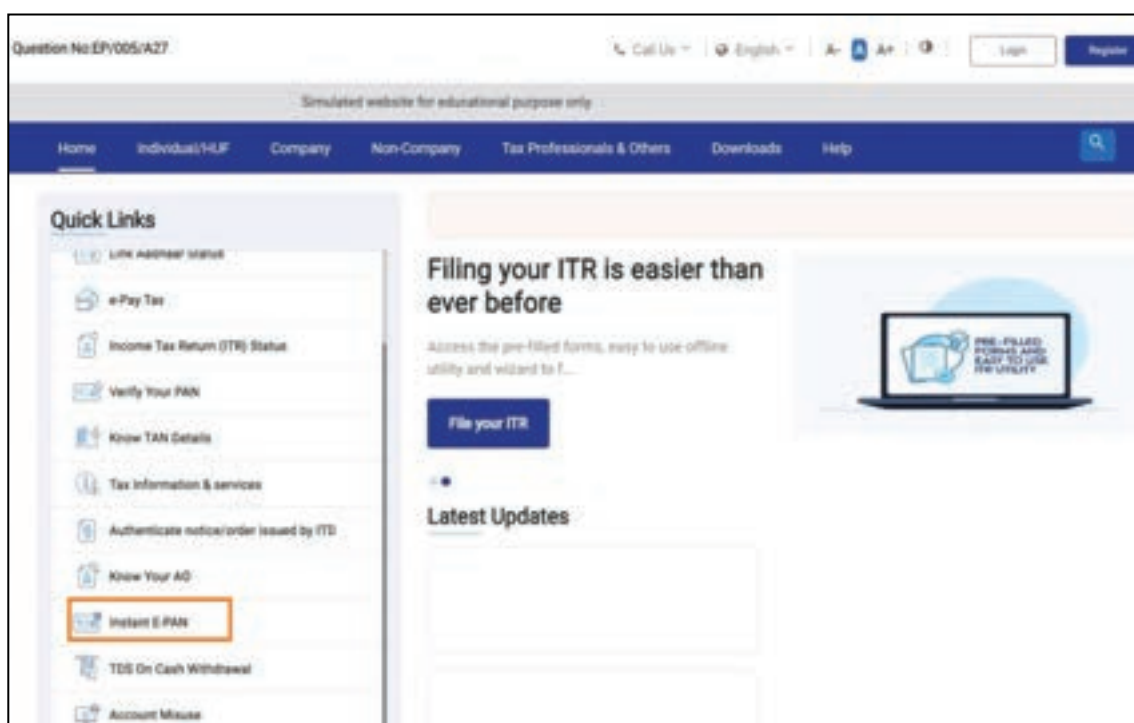
Susana Adler needs to invest in the stock exchange. For that, she needs a Demat account,

which makes the process of holding investments like shares, bonds, government securities, Mutual Funds, insurance, and ETFs easier by taking away the hassles of physical handling and maintenance of paper shares and related documents. For having a Demat account, she is required to have a PAN.

### 1.2 STEPS FOR APPLICATION OF INSTANT E-PAN

Generate New e-PAN

Go to the 'e-Filing' Portal <https://www.incometax.gov.in/iec/foportal/> and, Click Instant E-PAN.



On the E-PAN page, click Get new E-PAN.



On the Get new E-PAN page, a space is provided to enter 12 digital Aadhar number

**Remember:** It's an Aadhaar e-KYC based process and allotment of PAN is free of cost . A pdf file of PAN will be generated and issued to the applicant. Help?

Enter your 12 digit Aadhar Number for PAN allotment \*

☐ I confirm that \*

1. I have never allotted a Permanent Account Number(PAN)
2. My active mobile number is linked with Aadhaar
3. My complete date of birth (DD-MM-YYYY) is available on Aadhaar card
4. I am not minor as on application date of Permanent Account Number(PAN)

On the Get new E-PAN page, enter your 12 digital Aadhar number.

Select the "I confirm that" box after reading the conditions given below and click Continue.

Enter your 12 digit Aadhar Number for PAN allotment \*

226175987512

☒ I confirm that \*

1. I have never allotted a Permanent Account Number(PAN)
2. My active mobile number is linked with Aadhaar
3. My complete date of birth (DD-MM-YYYY) is available on Aadhaar card
4. I am not minor as on application date of Permanent Account Number(PAN)

Cancel

Continue >

Read the consent declaration for generation of new PAN based on Aadhaar e-KYC details.

**OTP Validation**

Request for generating OTP by SMS to your Aadhaar linked Mobile Number will be sent to UIDAI - Please read the terms and provide consent

**Consent Declaration for Generation of new PAN based on Aadhaar e-KYC details:**

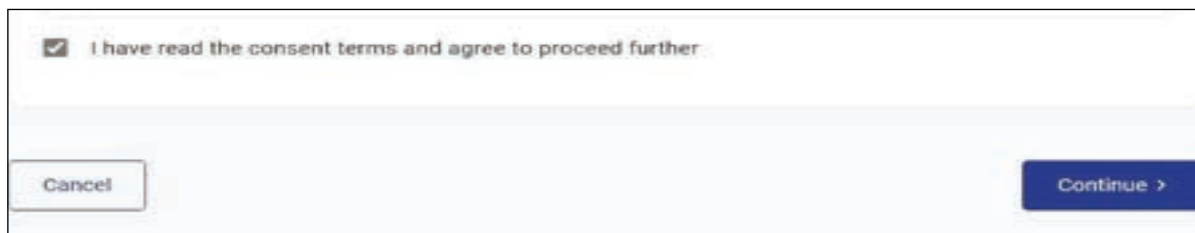
1. I have understood the process of authentication described herein and hereby grant consent for use of my Aadhaar identity information (through Aadhaar based e-KYC authentication facility of UIDAI) for purposes of authentication of my identity in accordance with the provisions of the Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act, 2016 and allied rules and regulations notified there under, and for purposes of verifying and validating my credentials as maintained by the Income Tax Department
2. I hereby grant consent to the Income Tax Department for recording, storing, using, updating, processing e-KYC data received through Aadhaar based eKYC authentication services of UIDAI, including my demographic information and photograph, for purpose of - (a) authenticating my identity on the e-filing portal [www.incometaxindiaefiling.gov.in](http://www.incometaxindiaefiling.gov.in) through measures including use of One Time Password(OTP) and/or (b) generating and allotting a PAN number and updating my information on the PAN database in accordance with my Aadhaar e-KYC data. I declare that my consent relating to e-KYC data above is voluntary and is my chosen alternative for submission of identity information.
3. I have understood that I bear the sole responsibility for maintaining up-to-date information linked to my Aadhaar, PAN and any other related information provided to the Income Tax Department, and the Income Tax Department shall not be liable in any manner whatsoever for any actions taken, or lack thereof, due to my failure to update or correct any such information.
4. I have understood that the Income Tax Department shall deploy reasonable security practices and safeguards to protect the security and confidentiality of data and information in possession or control of the Income Tax Department, and that such data and information will be stored for such time as may be prescribed by regulations issued by the UIDAI and other applicable law.
5. I hereby Certify that I do not have any PAN allotted to me and in case I am found to be in possession of more than one PAN then I shall be liable for penalty of Rs 10,000/- under section 272B(1).

☐ I have read the consent terms and agree to proceed further

Cancel

Continue

Click the "I have read the consent terms and agree to proceed further" box, and after that click **Continue**.



☒ I have read the consent terms and agree to proceed further

Cancel Continue >

On the OTP validation page, enter the 6-digit OTP received on the mobile number linked with Aadhar.



**Check your phone**

We have sent a One Time Password (OTP) in a text message (SMS) to your Primary mobile number +91 00\*\*\*\*\*23 and primary email id [aussadler@gmail.com](mailto:aussadler@gmail.com)

Enter the OTP-[437655]

**Error :This is a Mandatory Field.**

OTP expires in 14m:52s 3 attempts remaining

Resend OTP (Available in 00m:02s)

☐ I agree to validate my Aadhaar details with UIDAI. After successful validation of OTP entered by you, the request for e-KYC Aadhaar data will be fetched from UIDAI

Cancel Continue

Enter the 6 digit OTP and Click the “I agree to validate my Aadhar details with UIDAI” box and click **Continue**.

Enter the OTP\*[251038]

OTP expires in 14m.52s
3 Attempts remaining

Resend OTP (Available in 00m.02s)

☒ I agree to validate my Aadhaar details with UIDAI. After successful validation of OTP entered by you, the request for e-KYC Aadhaar data will be fetched from UIDAI

Cancel
Continue >

On the validated Aadhar details page, your Aadhar e-KYC details are displayed.

Fields	Details
Photo	
Aadhaar Number	**** *512
Name of the International group	****
Date of Birth	11/09/2001
Gender	FEMALE
Mobile Number	2314389623
Email id	sustadler@gmail.com <a href="#">Validate email</a>
	Enter the OTP*[354267] <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> OTP expires in 14m.52s 3 attempts remaining </div> <div> Resend OTP </div> <div> Cancel Submit </div>
Address	N 3, GK Part I, N Block, Main Market, New Delhi IN, 110048
<input type="checkbox"/> I accept that * <ol style="list-style-type: none"> <li>The above details are correct and I hereby certify that I do not have any PAN allotted to me.</li> <li>In case I am found be in possession of more than one PAN then I shall be liable for penalty of RS 10,000/- under section 272B(1).</li> <li>I agree that Permanent Account Number may be allotted based on Aadhaar as per with Rule 114 (1B) of Income-Tax Rules 1962.</li> </ol>	
Cancel Continue >	



Enter the 6-digit OTP given and click the submit button

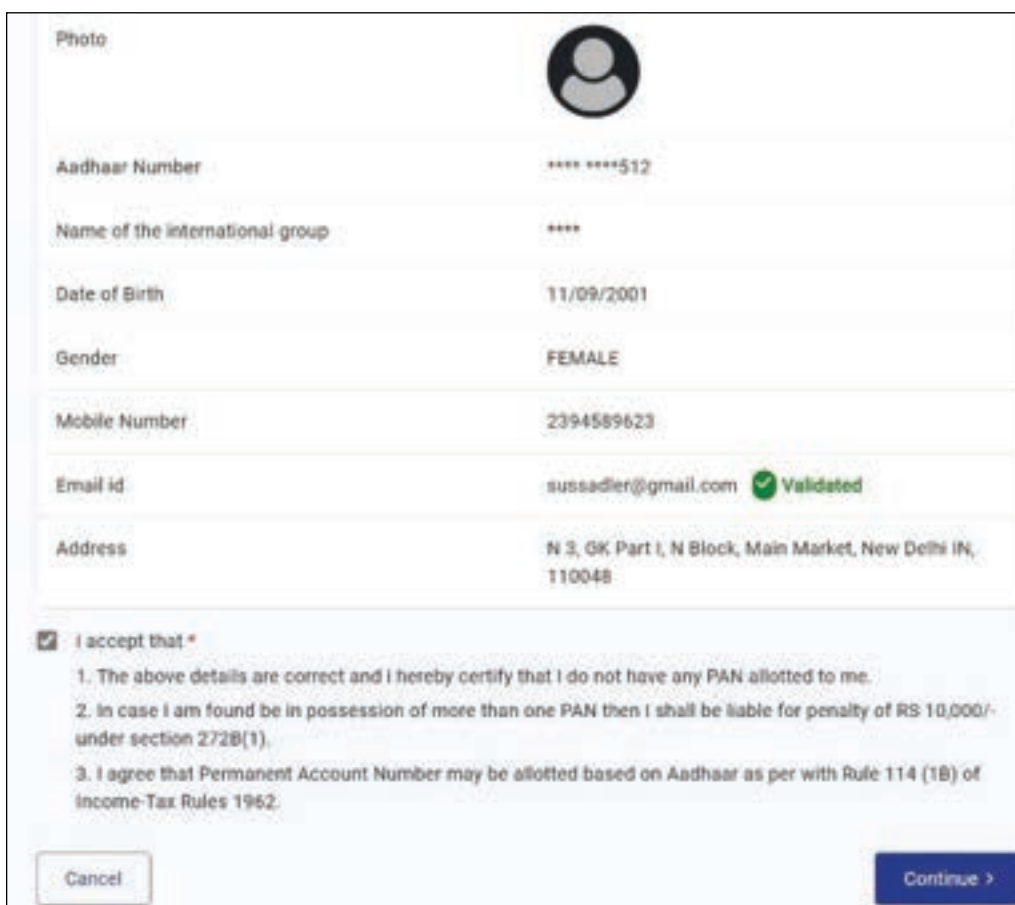
Validate Email ID from Aadhar e-KYC for the PAN database on this page.

Click validate email ID, and you will receive a 6-digit OTP on the e-mail OTP and click **submit**.



The screenshot shows a web form for email validation. At the top, it displays the email address 'sussadler@gmail.com' and a 'Validate email' link. Below this, it prompts the user to 'Enter the OTP\*[662824]' with six input boxes, each containing a digit. To the right of the last box is an eye icon. Below the OTP boxes, it shows 'OTP expires in 14m:52s' and '3 Attempts remaining'. There is a 'Resend OTP' link. At the bottom right, there are 'Cancel' and 'Submit' buttons.

Click the "I accept that" box after reading the conditions below it. Then click **continue**.

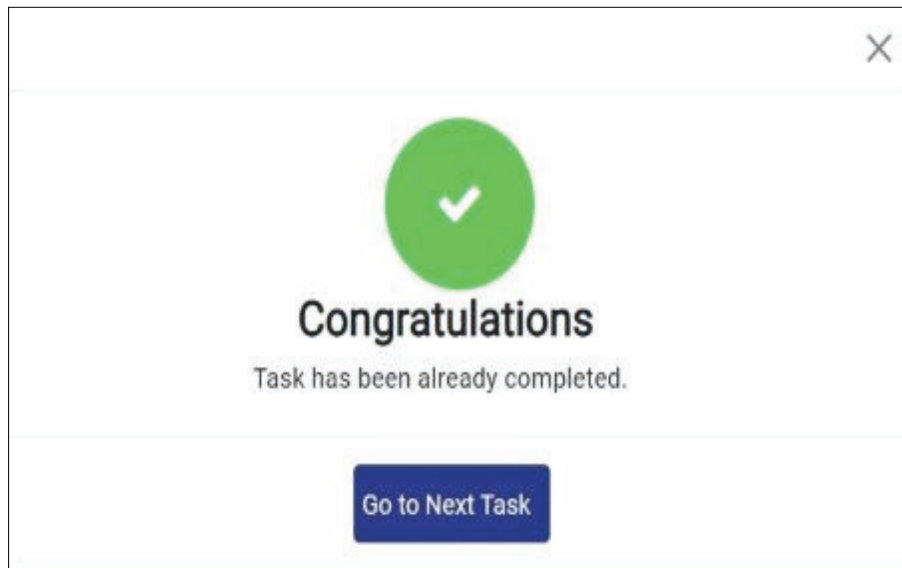


The screenshot shows a form for Aadhaar e-KYC. It includes a 'Photo' field with a placeholder icon. Below this are several fields: 'Aadhaar Number' (displayed as \*\*\*\* \*512), 'Name of the international group' (displayed as \*\*\*\*), 'Date of Birth' (11/09/2001), 'Gender' (FEMALE), 'Mobile Number' (2394589623), 'Email id' (sussadler@gmail.com with a green checkmark and 'Validated' text), and 'Address' (N 3, GK Part I, N Block, Main Market, New Delhi IN, 110048). Below these fields is a section titled 'I accept that' with a checked checkbox and three numbered conditions. At the bottom, there are 'Cancel' and 'Continue >' buttons.

☒ I accept that \*

1. The above details are correct and I hereby certify that I do not have any PAN allotted to me.
2. In case I am found be in possession of more than one PAN then I shall be liable for penalty of RS 10,000/- under section 272B(1).
3. I agree that Permanent Account Number may be allotted based on Aadhaar as per with Rule 114 (1B) of Income-Tax Rules 1962.

All the procedures related to the application of E PAN is completed and a message will be displayed for the completion of task



### MULTIPLE CHOICE QUESTIONS (MCQS)

**1. What is the primary purpose of E-PAN registration in India?**

- a) To apply for a passport
- b) To obtain a unique identification number
- c) To streamline the taxation process
- d) To access government healthcare services

Answer: c) To streamline the taxation process

**2. Which type of document is NOT typically required during the E-PAN registration process?**

- a) Proof of identity
- b) Proof of address
- c) Proof of educational qualifications
- d) Proof of date of birth

Answer: c) Proof of educational qualifications

**3. Where can you complete the E-PAN registration process in India?**

- a) Only at designated government offices
- b) Online through the official Income Tax Department website
- c) Through mobile apps provided by private companies
- d) By visiting any bank branch

Answer: b) Online through the official Income Tax Department website

**4. What is the benefit of having an E-PAN card?**

- a) It is a physical card that cannot be lost
  - b) It provides access to government housing schemes
  - c) It reduces paperwork and is accessible online
  - d) It is valid only for foreign nationals
- Answer: c) It reduces paperwork and is accessible online

**5. Which of the following is NOT a step in the E-PAN registration process?**

- a) Payment of processing fees
  - b) Uploading scanned documents
  - c) Providing a handwritten signature
  - d) Verification of application
- Answer: c) Providing a handwritten signature

# CHAPTER 2

## ITR REGISTRATION



### LEARNING OBJECTIVE

At the end of this chapter, you will be able to,

- ✓ Understand the procedure for taking an income tax registration
- ✓ Necessary details to take income tax registration.

### 2.1 STEPS FOR ITR REGISTRATION

#### TASK

Rajesh Kumar is an individual with income from multiple sources that exceeds the basic exemption limit. He needs to register under the income tax department. By registering on the e-Filing portal, he will gain access to various functionalities and tax-related services provided by the portal. Rajesh has provided you with the necessary information. As a tax practitioner, advise him to proceed with the registration under income tax.

Details for Registration of PAN		
PAN:	WERPX4578G	
Legal Status:	Individual	
Name:	Rajesh Kumar	
Gender:	Male	
Residential Status:	Resident	
Date of Birth:	April 25th, 1990	
Mobile:	9072424341	
E-mail Id:	rajesh12345@gmail.com	
Postal Address:	Flat/Door/Building:	13/BB, Skyline,
	Road/Street/Block/Sector:	Ajmer Road,
	Post Office:	Madrampur,
	Area/Locality:	Madrampur,
	Town/City/District:	Jaipur
	State:	Rajasthan
	Pin code:	302006

**STEP 2.1:** Access the page <https://www.incometax.gov.in>

**STEP 2.2:** Click on the Register switch provided on the top right corner.

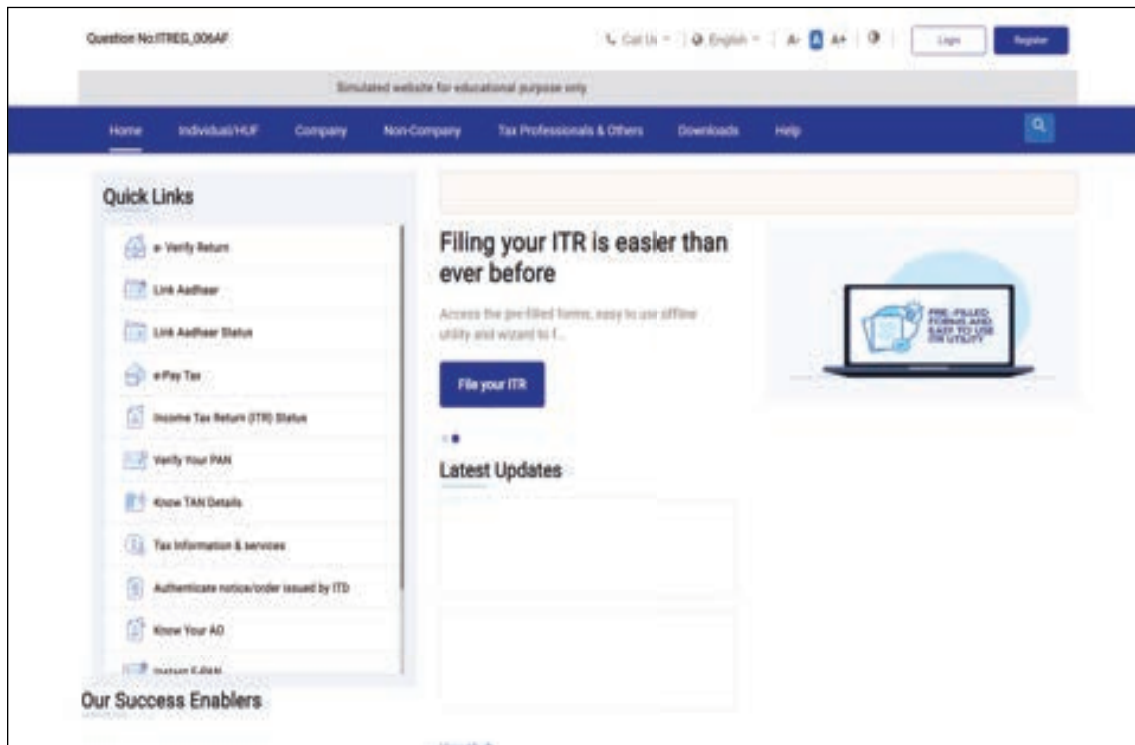


Fig. 1

**STEP 2.3:** Input the PAN Number in the provided column and click on validate.

- Validated
- Yes (If it wants to register as Individual Taxpayer)à
- Continue

The screenshot shows the registration page of the Income Tax e-filing portal. At the top, there is a navigation bar with links: Home, Individual/HUF, Company, Non-Company, Tax Professionals & Others, Downloads, and Help. Below the navigation bar, a progress bar indicates four steps: 1. Get Started, 2. Fill Details, 3. Verify Details, and 4. Secure Your Account. The main heading is "Let's get started". Under "Register as", there are two buttons: "Taxpayer" (selected) and "Others". Below this, there is a field for PAN with the value "WEPK45789" and a "Validate" button. A green message states "Success: PAN validated successfully". Below this, there is a section "Please confirm if you want to register as 'Individual taxpayer'" with radio buttons for "Yes" (selected) and "No". A note below states: "Note: Please ensure your Status is correct as details in subsequent screens will be based on your Status." At the bottom, there are two buttons: "Continue" and "Cancel". On the right side, there is a graphic of a person with a list of entity types: Individuals / Hindu Undivided Family / Company / Trust / Local Authority / Artificial Juridical Person / Firm / Limited Liability Partnership / Association Of Persons / Political Party / Government / Body Of Individuals. A small asterisk indicates mandatory fields.

FIG 2

**STEP 2.4:** Fill the columns with the basic details of taxpayer such as

- Name
- Date of Birth
- Gender
- Resident or not
- After filling this click on continue

Home Individual/HUF Company Non-Company Tax Professionals & Others Downloads Help

Home Register

1 Get Started 2 Fill Details 3 Verify Details 4 Secure Your Account

Registering as - Individual

\* Indicates mandatory fields

Basic Details Contact Details

**Basic Details**

PAN \*  
WEDPK4578Q

Last Name \*  
Kumar

Middle Name  
First Name  
Rajesh

Date of Birth \*  
25-04-1990

Gender \*  
☒ Male ☐ Female ☐ Transgender

Residential Status \*  
☒ Resident ☐ Non-resident

**Please Note**  
Please provide data as per PAN; on click of "Continue" details entered will be validated with PAN.  
If you have a single Name, then you can enter only "Last Name" field.

Back Continue

Fig 3

**STEP 2.5:** Fill the columns with the contact details of taxpayer such as

- Primary Contact Number
- Primary Mail Address
- Postal Address Details
- After filling this details, please click on continue

[Home](#)
[Individual/IEP](#)
[Company](#)
[Non-Company](#)
[Tax Professionals & Others](#)
[Downloads](#)
[Help](#)

[Home](#)
[Register](#)

Get Started

2

Fill Details

3

Verify Details

4

Store Your Account

### Registering as - Individual

\* Indicates mandatory fields

Basic Details

Contact Details

#### Contact Details

Primary Mobile Number \*

+91 90724-24361

Primary Mobile Number Belongs to \*

Self

Primary Email ID \*

rajesh12345@gmail.com

Primary E-Mail ID belongs to \*

Self

Landline Number

+91

#### Postal Address details

Country \*

INDIA

Flat/Door/Building \*

13/BB, Skyline

Road/Street/Block/Sector

Ajmer Road

Pincode \*

300006

Post Office \*

Madampur

Area/Locality \*

Madampur

Town/City/District \*

Jaipur

State \*

Rajasthan

Please Note

On click of "Continue" different OTPs will be sent on Primary Mobile Number and Primary Email id for verification.

Back

Continue

Fig 4



**STEP 2.6:** Confirm the OTP Validation through registered phone number and registered mail id and click on continue.

The screenshot shows a web interface for 'Registering as - Individual'. The page has a blue header with navigation links: Home, Individual/HUF, Company, Non-Company, Tax Professionals & Others, Downloads, and Help. A search icon is in the top right. Below the header, the page title is 'Registering as - Individual' with a note '\* Indicates mandatory fields'. The main content area is titled 'Enter OTP'. It states: 'We have sent a One Time Password (OTP) in a text message (SMS) to your Primary mobile number \*91 xxxxxxxxxx and primary email id \*\*\*\*\*@gmail.com'. There are two input fields: 'Mobile OTP-[907134]' and 'Email OTP-[363307]', each with a 6-digit grid and a clear button. Below these, it says 'Both OTP expires in 14m, 52s' and '3 Attempts remaining'. A note states: 'Note: You can go back and update your details if required.' At the bottom, there are two buttons: 'Continue' (blue) and 'Back' (white with blue border).

Fig 5

**STEP 2.7:** Verify the details and click on confirm if the information is right.

The screenshot shows the 'Verify Details' step in a registration process. At the top, a progress bar indicates four steps: 'Get Started' (checked), 'Fill Details' (checked), 'Verify Details' (active, with a '3' in a box), and 'Secure Your Account' (disabled). Below the progress bar, the text 'Registering as - Individual' is displayed. The main heading is 'Verify Details' with a subtext: 'Please review if the information is correct & modify your details if needed.' The form is divided into two sections: 'Basic Details' and 'Contact Details', each with an 'Edit' button. The 'Basic Details' section includes fields for PAN (WBRPX4578G), Name (Kumar), Date of Birth (25-04-1990), Gender (Male), and Residential Status (Resident). A note states: 'Note: You can only edit "Residential Status"'. The 'Contact Details' section includes fields for Primary Mobile Number (+91 9072434341 (Self)), Primary Email ID (rsjesh12345@gmail.com (Self)), Landline, and Postal Address (13/88, Skyline Ajmer Road Madrapur Madrapur Jaipur Rajasthan India, Pincode - 302006). At the bottom, there are 'Back' and 'Confirm' buttons.

Fig 6

**STEP 2.8:** Finally set a password which meets criteria and set a personalized message and then click on the Register Icon.

**The password must fulfil the following criteria:**

- Use 8 to 14 characters
- Use uppercase and lowercase letters(eg.Aa)
- Use a number (eg.123)
- Use a special character (eg.@#%\*)

**The personalized message criteria:**

Don't use your personally identifiable information like full name, Aadhar number, bank account number, passport number and email address.

It should be something you can remember.

**Some examples:**

**The personalized message criteria:**

- I love my family
- My pet name is Tommy
- Bangalore is my birthplace.

The screenshot shows the 'Secure your Account' step of the registration process. At the top, a progress bar indicates four steps: 'Get Started' (completed), 'Fill Details' (completed), 'Verify Details' (completed), and 'Secure Your Account' (current step, marked with a '4' in a box). Below the progress bar, the text 'Registering as - Individual' is displayed. The main form area is titled 'Secure your Account' and contains the following fields and instructions:

- Set Password \***: A password field with a strength indicator showing 'Success: Password is strong'.
- Confirm Password \***: A confirmation password field.
- Set your Personalized message \***: A text area containing 'I love my family'. A character count shows 'Remaining characters: 9'.

Below the form, the 'Personalized message criteria:' are listed:

- Don't use your personally identifiable information like full name, Aadhar number, bank account number, passport number and email address.
- It should be something you can remember. Some examples:
  - I love my family
  - My pet name is Tommy
  - Bangalore is my birth place.

At the bottom of the form, there are two buttons: a blue 'Register' button and a white '- Back' button.

Fig 7

**STEP 2.9:** At last, a pop message will be shown that the Registration has been completed successfully.

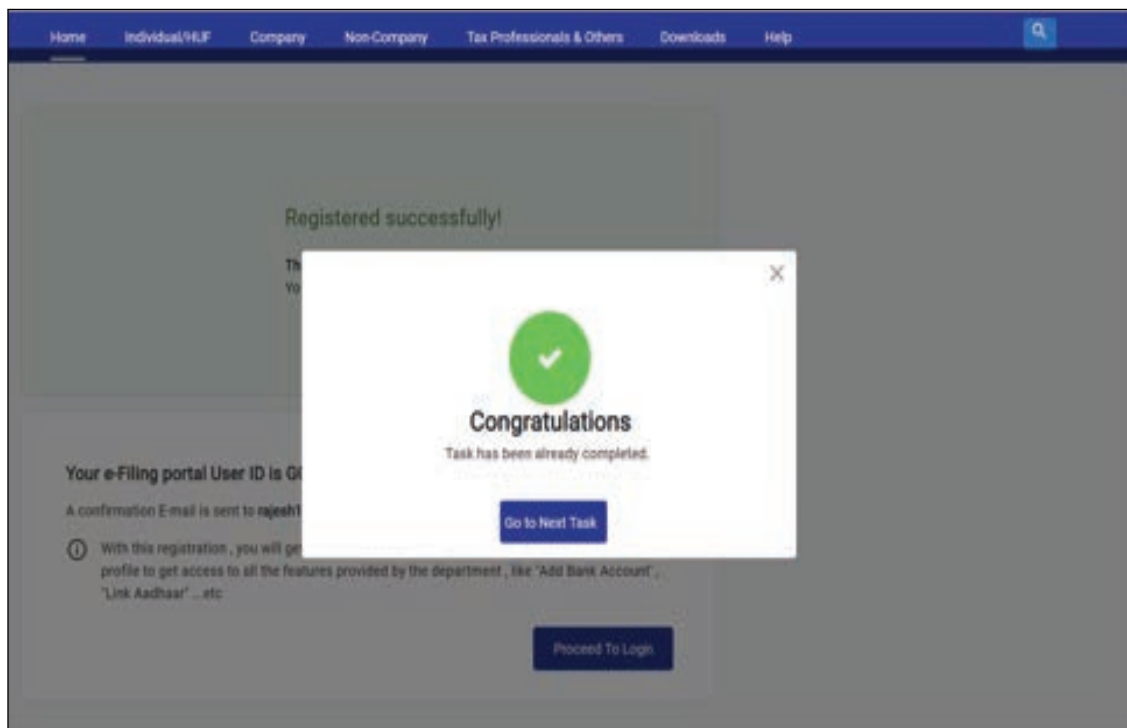


Fig 8

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the primary purpose of income tax registration?**

- a. To track personal expenses
- b. To determine eligibility for government benefits
- c. To calculate and pay income tax
- d. To obtain a driving license

**2. In India, what is the government agency responsible for income tax registration and collection?**

- a. Reserve Bank of India
- b. Ministry of Finance
- c. Central Board of Direct Taxes (CBDT)
- d. State Bank of India

**3. In India, which form is used for filing individual income tax returns?**

- a. ITR-1 (Sahaj)
- b. ITR-4 (Sugam)
- c. ITR-7
- d. ITR-10

**4. What is the last step to complete income tax registration?**

- a. Confirm OTP
- b. Provide Aadhar number
- c. Set a personalized message
- d. Click on Cancel

**5. Which website should you visit to initiate income tax registration?**

- a. <https://www.incometax.gov>
- b. <https://www.taxregistration.gov>
- c. <https://www.irs.gov>
- d. <https://www.taxportal.in>

**ANSWERS**

1	c
2	c
3	a
4	a
5	a

# CHAPTER 3

## E-FILING OF ITR1



### LEARNING OUTCOMES

- ✓ Understand the applicability and filing strategies of ITR1.
- ✓ Identify and understand the heads of income applicable and calculated in the ITR1.
- ✓ Learning the possible deductions for an individual.
- ✓ Understand the guidelines of online filing of ITR1.

### INCOME TAX RETURN ( ITR1)– SAHAJ

#### TASK

Mrs. Roopa is a resident individual working in a private sector bank. Roopa was born on August 25<sup>th</sup> 1986, and draws salary of Rs. 13,25,486/-.

She also gets the following perquisites & allowances:

HRA: Rs. 24,000/-

Bonus: Rs. 20,000/-

Car: Rs. 20,000/-

Newspaper: Rs. 2,000/-

Professional Tax: Rs. 2,500/-

Roopa paid the following expenses:

Contribution to PF: Rs. 95,000/-

Payment of LIC Premium: Rs. 46,750/-

Mutual Fund (Tax Saver): Rs. 25,000/-

Tuition Fee for the Minor Child: Rs. 15,000/-

Housing Loan (Principal): Rs. 65,000/-

Housing Loan (Interest): Rs. 1,35,000/-

Medical Insurance (Self): Rs. 26,000/-

Donation to Chief Minister Disaster Relief Fund via NEFT: Rs. 25,000/- (Pan number- AAAXA6807E, Address: 3rd Floor, North Block, Secretariat, Thiruvananthapuram, Kerala, PIN- 695001 state code:32).

In addition to the salary, Mrs. Roopa earned Rs. 32,400/- as interest on fixed deposit and Rs. 5,500/- as interest on saving bank account.

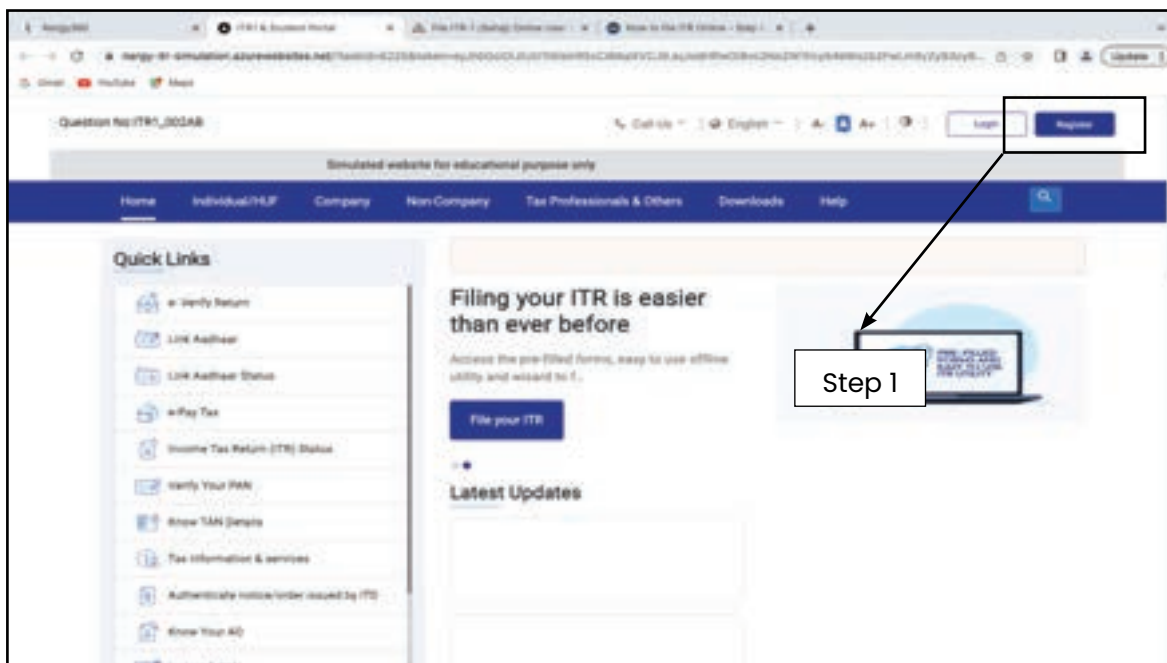
Employer deducted tax (TDS): Rs. 1,15,000/- (TAN - AAAX12345A, Name of Deductor: ABC Ltd., CGS Colony, Sector 3, Kane Nagar, Antop Hill, Mumbai, Maharashtra PIN- 400037).

Income Chargeable under Salaries: Rs. 8,55,000/-

Compute taxable income, tax liability, and balance tax payable or refund, if any, for Mrs. Roopa for the assessment year 2021-2022.

### 3.1 STEP BY STEP GUIDE ON HOW TO E-FILE ITR1 ON INCOME TAX PORTAL

Visit the simulated Income tax refiling portal and click to login



Enter the given below **"User Id"** and **"Password"** in respective column and click to Continue

- PAN: ABXIV9123A
- Password: abxiv9123a@



**Login**

Enter your User ID\*

ABXIV9123A

**Continue >**

**< Back**

Other ways to access your account

Net Banking

**Know about your User ID**

**PAN (Permanent Account Number)**  
For Individuals(Salaried employee, Senior citizen, Self-employed, NRI)  
For Other Than Individuals(Company, Trust, AOP, AJP, BOI, Firm, Local Authority)

**Aadhaar Number**  
For Individuals(Salaried employee, Senior citizen, Self-employed, NRI)

**Other User ID**  
For Chartered Accountant, Tax Deductor and Collector, e-Return Intermediary, TIN 2.0 Stakeholders, External Agency, ITDREIN  
ARCA (Authorised Representative Chartered Accountant)

**Step 2**

Dashboard e-File Authorized Patners Services Pending Actions Grievances Help

**Welcome Back,**

**ABXIV9123A**  
0085469875  
roopa76@gmail.com

Contact Details [Update](#)

Bank Account [Update](#)

Your account is not secure with e-vault [Secure Account](#)

**Activity Log**

Last log out	Jan 11, 2022, 03:02:51 PM
Last log in	Jan 11, 2022, 05:48:36 PM

**File your return for the year ended on 31-Mar-2021**  
For Assessment Year 01-Apr-2021 to 31-Mar-2022

**File Now**

**> Tax Deposit**

**> Recent Filed Returns**

**> Recent Forms Filed**

**Step 3**

Click to **"File Now"** Tab

Dashboard > e-File > Income Tax Return > File Income Tax Return

### Income Tax Return (ITR)

\* Indicates mandatory fields

Select Assessment year \*

Select

Select Mode of Filing \*

☐ Online(Recommended) ☐ Offline

Note :The user can select type of ITR applicable Later

< Back

Continue >

Step 4

Select the Assessment and mode of filing, **Click to Continue**

Dashboard e-File Authorized Patners Services Pending Actions Grievances Help

Dashboard > e-File > Income Tax Return > File Income Tax Return

### Income Tax Return

Any changes to the profile information will take 30 minutes to refresh. It's suggested to start new filing 30 minutes after the changes are done.

You have saved draft of Income Tax Return pending for submission

No Saved Draft

To file a fresh Income Tax Return

Income Tax Return is the form in which tax payer files information about his income and tax thereon to the Income Tax Department.

Start New Filing

Step 5

Click **Start New Filing**

Select the Filing Status as Individual and Click to **Continue**

The screenshot shows the 'Filing Returns for A.Y. 2021-22' dashboard. The main heading is 'Please select the status applicable to you to proceed further'. Below this, it states: 'Based on your last year's data we have pre-selected a status applicable to you. You may change the status if it is not applicable to you.' There are three status options: 'Individual' (selected with a radio button), 'HUF', and 'Others'. At the bottom left is a '< Back' button, and at the bottom right is a 'Continue >' button. A box labeled 'Step 6' with an arrow points to the 'Continue >' button.

Select the form ITR1 and “click to **Proceed with ITR1**”


The screenshot shows the 'Income Tax Returns' section with the heading 'You need to choose an ITR Form to proceed'. On the left, under 'Help me decide which ITR Form to file', there is a 'Proceed >' button. On the right, under 'Show Summary Immovable Property Sale Transaction Data', there is a section 'I know which ITR Form I need to file' with a dropdown menu showing 'ITR 1'. Below the dropdown, it states: 'For individuals being a resident (other than not ordinarily resident) having total income upto ₹ 50 lakh, having Income from Salaries, one house property, other sources (Interest etc.), and agricultural income upto ₹ 5,000. (Not for an individual who is either Director in a company or has invested in unlisted equity shares or in cases where TDS has been deducted u/s 194N or if income-tax is deferred on ESOP)'. At the bottom left is a '< Back' button, and at the bottom right is a 'Proceed With ITR 1' button. A box labeled 'Step 7' with an arrow points to the 'Proceed With ITR 1' button.

Click “**Let’s Get Started**” Button

### ITR 1 - (Income Tax Return 1)

For individuals being a resident (other than not ordinarily resident) having total income upto ₹ 50 lakh, having income from Salaries, one house property, other sources (Interest etc.), and agricultural income upto ₹ 5,000.

(Not for an individual who is either Director in a company or has invested in unlisted equity shares or in cases where TDS has been deducted u/s 194N or if income-tax is deferred on ESOP)



- 1 Validate your Returns breakup (Pre-filled)
- 2 Confirm your Return Summary
- 3 Verify & Submit your Return

[Back](#) [Let's Get Started](#)

Documents list to help you file faster

- Form 16
- House rent receipt
- Investment premium payment receipts - LIC,ULIP

[View more](#)

Frequently Asked Questions (FAQ)

- Do I need to file Income Tax Returns for this year?
- I don't have a Form-16, can I still file my returns?
- Can somebody else file income tax return on my behalf?

Step 8

In the following step, you will be prompted to specify the reason for filing your returns, here you have to select "Taxable Income more than exemption limit" and **Click to Continue**

### Please answer the following questions to proceed further

Are you filing the income tax return for any of the following reasons?

☒ Taxable income is more than basic exemption limit.

☐ Filing return of income due to fulfilling any one or more below mentioned conditions as per Seventh Proviso to section 139(1):

- ☐ Deposited amount or aggregate of amounts exceeding ₹ 1 crore in one or more current accounts during the previous year;
- ☐ Incurred expenditure of an amount or aggregate of amount exceeding ₹ 2 lakhs for travel to a foreign country for yourself or for any other person;
- ☐ Incurred expenditure of amount or aggregate of amount exceeding ₹ 1 lakh on consumption of electricity during the previous year

☐ Others

[Back](#) [Continue](#)

Step 9

In the **Personal Information** section of the ITR, you need to validate the pre-filled data which is auto-filled from your e-Filing profile

**Return Summary** Get Started

**Personal Information**  
Includes your Aadhaar, PAN, Contact and Bank details  
**Step 10**  
ABXIV9123A  
Provide your confirmation

**Gross Total Income**  
Includes your income from business, profession, salary, house property, income from other sources such as bank interest, etc.  
₹ 0  
Provide your confirmation

**Total Deductions**  
Includes tax saving deductions or payment towards life insurance, medical premium, pension funds, provident fund, etc.  
₹ 0  
Provide your confirmation

**Tax Paid**  
Includes details of taxes deducted and paid by deductors e.g. employer. Also includes taxes paid by you e.g. advance tax, self assessment tax  
₹ 0  
Provide your confirmation

Select Nature of Employment **“Others”**

**Contact** ✔ Save

Details furnished here will be used for communication purposes

**Address**  
Birch Cottage, Alipur, Delhi, Delhi-110036

**Mobile Number**  
+ 91 9885469875

**Email Address**  
roopa76@gmail.com

**Nature of Employment \***

- ✓ Select
- Central Government
- State Government
- Public Sector Undertaking
- Pensioners
- Others**
- Not Applicable (eg. Family pension etc)

**Step 11**

Return filed on or before due date  
Delayed Return filed after due date  
Revised Return revised after filing original return  
119(2)(b) After condonation of delay

Filed in response to notice u/s  
139(9) Filed in response to notice  
142(1) Return filed against notice  
148 Return filed against notice

Verify other prefilled Data and **Click to Confirm**

**Bank Details**  
Please declare details of all bank accounts held in India at any time during the previous year (excluding dormant accounts)

① Kindly ensure that atleast one bank account is prevalidated for transfer of refund

Do you want to add more bank accounts?

+ Add Another

② 1. Minimum one account should be selected for refund credit.  
2. In case of Refund, multiple accounts are selected for refund credit, then refund will be credited to one of the account decided by CPC after processing the return.  
3. Please ensure that at least one preferred bank account is pre-validated.


< Back To Summary

Confirm

Step 12

Click to **Gross Total Income** Tab and Enter the abovementioned details

**Return Summary**

Personal Information  Confirmed  
Includes your Aadhaar, PAN, Contact and Bank details

ABXIV9123A  
Modify if required

**Gross Total Income**  
Includes your income from business, profession, salary, house property, income from other sources such as bank interest, etc.

₹ 0  
Provide your confirmation

**Total Deductions**  
Includes tax saving deductions or payment towards life insurance, medical premium, pension funds, provident fund, etc.

₹ 0  
Provide your confirmation

**Tax Paid**  
Includes details of taxes deducted and paid by deductors e.g. employer.  
Also includes taxes paid by you e.g. advance tax, self assessment tax

₹ 0  
Provide your confirmation

Step 13

Click the Edit button and Enter the **Gross Salary**



### Verify your income source details

Please verify your income sources as collected from various sources and proceed.

[Need Help?](#)

#### Income from Salary

[Edit](#)

i. Gross Salary	₹ 0
ii. Less : Exempt Allowances	(-) ₹ 0
iii. Net Salary (i - ii)	₹ 0
iv. Deductions u/s 16	(-) ₹ 0
v. Income Chargeable under the head 'Salaries' (iii - iv)	₹ 0

#### Income from House Property

Income from only one house property can be shown in this ITR

Step 14

Enter the salary as per section 17(1) Rs. 13,69,486, Value of perquisites Rs. 22,000, Professional Tax 2,500 and **Click to Save**

### Edit Income from Salary

i. Gross salary (ia + ib + ic)	₹ 1391486
a. Salary as per section 17(1) / AIS	₹ 1369486
b. Value of perquisites as per section 17(2) / AIS	₹ 22000
c. Profit in lieu of salary as per section 17(3) / AIS	₹ 0
ii. Less : Exempt Allowances	
	₹ 0
<p style="font-size: 0.8em;">If you are eligible for any other exemption, Please claim.</p> <div style="text-align: center;"> <a href="#" style="border: 1px solid #ccc; padding: 2px 5px; font-size: 0.8em;">+ Add Another</a> </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>iii. Net Salary (i - ii)</span> <span>₹ 13,91,486</span> </div>	

iv. Deductions u/s 16 (iva + ivb + ivc)	₹	52500
a. Standard deduction u/s 16(ia) ⓘ	₹	50000
b. Entertainment allowance u/s 16(ii) ⓘ	₹	0
c. Professional tax u/s 16(iii) ⓘ	₹	2500
V. Income chargeable under the head Salaries (iii - iv)		₹ 13,38,986
<input type="button" value="Cancel"/>		<input type="button" value="Save"/>

Step 15

Select self-occupied property and enter 135000 as an interest on borrowed capital and click to add button

### Add House Property

Income from only one house property can be shown in this ITR

\*Indicates mandatory fields

Income chargeable under the head 'House Property' ₹ -1,35,000

Type of House Property

Self Occupied

i. Interest payable on borrowed capital ⓘ

₹ 135000

ii. Arrears/Unrealised rent received during the year less 30%

₹ 0

iii. Income chargeable under the head 'House Property' (ii - i) ₹ -1,35,000

Step 16

Select Income from Other Source and Enter the Amount 32400 and 5500



Income from other sources Edit Delete

<input type="checkbox"/> Interest from Saving Account	₹5500
<input type="checkbox"/> Interest from Deposit(Bank/Post Office/Cooperative Society)	₹32400
<input type="checkbox"/> Interest from Income Tax Refund	₹0
<input type="checkbox"/> Family Pension	₹0
<input type="checkbox"/> Dividend	₹0
<input type="checkbox"/> Any Other	₹0
Total	₹37900
Less Eligible Deduction u/s 57(ia)	0
Income Chargeable under the head 'Other Sources'	₹37900

Step 17

Verify the Gross Total Income and click to Confirm

Gross Total Income ₹ 12,41,886

Exempt Income  
This information is only for reporting purposes.

If you have any other source of income, please add it here

[+ Add Details](#)

[< Back To Summary](#) [Confirm](#)

Step 18

Click the Chapter VI A deductions and Enter the Given below details

- 80C- 246750
- 80D- 26000

Dashboard > Filing Returns for A.Y. 2021/22 > (TR) > Validate Your Pre-Filled Data > Deductions > Edit 80C Deduction

## Edit 80C Deduction

Life insurance premia, deferred annuity, contributions to provident fund, subscription to certain equity shares or debentures, etc. ⓘ

₹ 246750

Amount eligible for deduction under section 80C

₹ 150000

Cancel

Add

### 80D

Deduction in respect of health Insurance Premia

Edit Delete

Amount of Expenditure  
As per Form 16

₹ 26000

Amount eligible for deduction under section 80D

₹ 25000

### 80TTA

Interest on saving bank accounts

Edit Delete

Amount of Interest Paid

₹ 5500

Amount eligible for deduction under section 80TTA

₹ 5500

Enter the 80G Details In given Column and Click to Save, **Click to Confirm**

## TAX COMPLIANCES

**Add 80G Deduction**  
Donations to certain funds, charitable institutions, etc.

Donation Type  
Donations entitled for 100% deduction without quality

PAN of Donee \*  
AAAXA6807E ⓘ

Name of Donee \*  
Chief Minister Disaster Relief Fund

Address \*  
3rd Floor, North Block, Secretariat, Thiruvananthapuram

City / Town / District \*  
Thiruvananthapuram

State Code \*  
32

PIN Code \*  
695001

Donation in cash  
₹ 25000

Donation in Other Mode  
₹ 25000

Total Donation  
₹ 25000

Eligible Amount of Donations  
₹ 25000

Cancel Save

Step 20

Select the Tax Paid details and Click to Confirm

**Verify your taxes paid details**  
Please verify details of taxes paid by you in the last financial year and proceed further  
View your Form 26AS ⓘ

Details of Tax Deducted at Source (TDS) on Salary Income ⓘ  
Show Details > Total Tax Deducted ₹ 115000

Details of Tax Deducted at Source (TDS) from Income Other than Salary ⓘ  
Show Details > Total Tax Deducted ₹ 0

Details of Tax Deducted at Source [As per Form 16C furnished by the Paper(s)] ⓘ  
Show Details > Total Credit Claimed ₹ 0

Details of Tax Collected at Source (TCS) ⓘ  
Show Details > Total Tax Collected ₹ 0

Advance tax and Self-Assessment tax payments  
Show Details > Total advance tax and self assessment tax paid ₹ 0

Total Taxes Paid ₹ 115000

< Back To Summary Confirm

Step 21

Select Total tax Liability and Click to Confirm

## TAX COMPLIANCES

vii. Interest u/s 234A Applicable when return is filed after the due date <a href="#">Show Calculations &gt;</a>	₹ 0
ix. Interest u/s 234B Applicable when there is default in payment of advance tax. <a href="#">Show Calculations &gt;</a>	₹ 401
x. Interest u/s 234C Applicable when there is a shortfall in payment of quarterly advance tax. <a href="#">Show Calculations &gt;</a>	₹ 674
xi. Fee u/s 234F Fees on delay in filing of return	₹ 0
<b>Total Interest and Fee Payable</b> <a href="#">Show Calculations &gt;</a>	<b>₹ 1,075</b>
<b>Total Tax, Fee and Interest</b> <a href="#">Show Calculations &gt;</a>	<b>₹ 1,29,428</b>
<a href="#">Back To Summary</a>	<a href="#">Confirm</a>

Enter/ Edit your income and total deductions details in the different sections. After completing and confirming all the sections of the form, click **Proceed**.

<b>Personal Information</b> <span>Confirmed</span> Includes your Aadhaar, PAN, Contact and Bank details	ABX/V9123A <a href="#">Modify if required</a>
<b>Gross Total Income</b> <span>Confirmed</span> Includes your income from business, profession, salary, house property, income from other sources such as bank interest, etc.	₹ 12,41,886 <a href="#">Modify if required</a>
<b>Total Deductions</b> <span>Confirmed</span> Includes tax saving deductions or payment towards life insurance, medical premium, pension funds, provident fund, etc.	₹ 2,05,500 <a href="#">Modify if required</a>
<b>Tax Paid</b> <span>Confirmed</span> Includes details of taxes deducted and paid by deductors e.g. employer. Also includes taxes paid by you e.g. advance tax, self assessment tax	₹ 1,15,000 <a href="#">Modify if required</a>
<b>Total Tax Liability</b> <span>Confirmed</span> Includes computation of tax you owe to the Government based on your income and deductions	₹ 1,29,428 <a href="#">Modify if required</a>
<a href="#">Form Selection</a>	<a href="#">Download Form</a> <a href="#">Proceed &gt;</a>

View the Tax Summary details and Click to Pay Now

The screenshot shows a three-step process: 1. Validate Return (completed), 2. Confirm your Return Summary (current step), and 3. Verify and Submit. The main heading is 'You need to make a payment of ₹14,428'. Below this, it says 'Please view your Tax summary details and proceed further'. There are 'Print' and 'Download' buttons. The 'Calculation of your taxable income' section includes:

Category	Amount
A. Gross Total Income	₹ 12,41,886
B. Total Deductions	₹ 2,05,500
C. Total Taxable Income(A-B)	₹ 10,36,386

View the Tax Summary details and Click to Pay Now

The screenshot shows the 'Calculation of Tax Payable' section with the following details:

Category	Amount
D. Total Tax ,Fee and Interest	₹ 1,29,428
E. Total Tax Paid	₹ 1,15,000
Amount Payable	₹ 14,428

At the bottom, there is a 'Pay Now >' button, which is highlighted with a red box. An arrow points to this button from a box labeled 'Step 24'. Other buttons include '< Return Summary' and 'Pay Later'.

On the **Preview and Submit Your Return** page, select the declaration checkbox and click **Proceed to Preview**

Place: ①

☒ I,  : Son/daughter of  solemnly declare that to the best of my knowledge and belief, the information given in the return is correct and complete and is in accordance with the provisions of the Income Tax Act, 1961. I further declare that I am making this return in my capacity as:  and I am also competent to make this return and verify it. I am holding PAN:

If the return has been prepared by a Tax Return Preparer (TRP) give further details below:

Identification No. of TRP:

Name of TRP:  If TRP is entitled for any reimbursement from the Government, amount thereof: ₹

**Step 25** →

[Proceed to Preview](#)

[< Back](#)

Preview your return and click **Proceed to Validation**

**Details of Tax Collected at Source (TCS)**

Sl. No.	Tax Collection Account Number of the Collector	Name of the Collector	Gross payment which is subject to tax collection	Year of tax collection	Tax Collected	TCS Credit out of (3) claimed this year
1	2		3	4	5	6
Total						0

**VERIFICATION**

I, Roopa son/ daughter of solemnly declare that to the best of my knowledge and belief, the information given in the return is correct and complete and is in accordance with the provisions of the Income-tax Act, 1961. I further declare that I am making this return in my capacity as Self and I am also competent to make this return and verify it. I am holding permanent account number

Date: 30/08/2023

If the return has been prepared by a Tax Return Preparer (TRP) give further details below:

Identification No. of TRP:  Name of TRP:  Counter Signature of TRP:

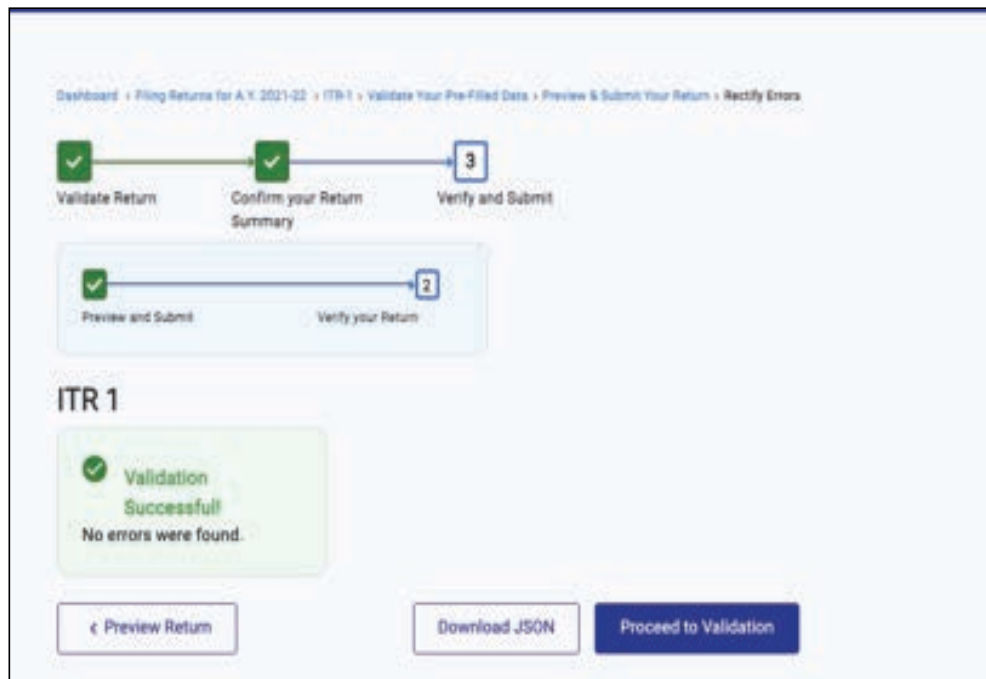
If TRP is entitled for any reimbursement from the Government, amount thereof: ₹

**Step 26** →

[Proceed to Validation](#)

[< Back](#)

Validation Successful

**MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. In filing of ITR1 Net salary is/are\_\_\_\_\_**

- a. Salary as per section 17(1)
- b. Salary as per section 17(1) + Perquisites
- c. Salary as per section 17(1) + Perquisites + Profit in lieu of salary
- d. None of the above

**2. What is the sole basis for an individual to choose for ITR form filing.**

- a. Sources of Income
- b. Residential status
- c. Neither (a) nor (b)
- d. Both (a) and (b)

**3. Considering ITR 1 filing, choosing new tax regime is \_\_\_\_\_**

- a. Mandatory
- b. Optional
- c. Neither (a) nor (b)
- d. None of the above

**4. AIS Stands for \_\_\_\_\_**

- a. Annual Information Statement
- b. Assessee's Information Statement
- c. Accounting Information Statement
- d. None of the above

5. Mr. June is a resident individual working in a Private Sector Bank. Drawing a salary of Rs. 13,25,486/- he also gets the following Perquisites & Allowances HRA 24000, Bonus 20000, Newspaper 2000, The cost of the car provided to employees for personal use 20000. His Salary as per section 17(1) \_\_\_\_\_

- a. 13,25,486
- b. 13,69,486
- c. 13,91,486
- d. 13,45,486

**ANSWERS:**

- 1. c. Salary as per section 17(1) + Perquisites + Profit in lieu of salary
- 2. d. Both (a) and (b)
- 3. b. Optional
- 4. c. Accounting Information Statement
- 5. b. 13,69,486



# CHAPTER 4

## INTRODUCTION TO TAX SOFTWARES

### COMPUTAX SOFTWARE

CompuTax is income tax software which now deals with taxation software. It is of immense help for preparing and filing income tax returns, TDS, service tax, ROC, and financial XBRL. You can also prepare profit and loss accounts, balance sheets as per revised Schedule VI, statutory and tax audit reports, and more using CompuTax

### FEATURES

PAN Verification: It automatically transfers master data like name, address, PAN, TAN, WDV of depreciation assets, NSC details, MAT credits, and more. Also, it looks into carrying forward of losses. File e-TDS: Import data like TDS, TCS, Advance Tax, and Self Assessment Tax from Form 26AS effortlessly.

With CompuTax, you can generate Form-16s, import data, and calculate tax as well as interest. Moreover, transferring files is also made easier with CompuTax. Along with computing taxes, it takes care of ceiling, deduction; set-off carry forward of losses and more. You can quickly prepare for income tax, wealth tax, and e-returns. Additionally, it enables you to e-fill the return with a single click.

CompuTax is proficient to auto-pick any intimation and letters received from CPC from your email account. Hence, you can free yourself from the process of providing passwords every time. Moreover, the master data gets transferred to the next assessment years automatically. It supports importing data from 26AS, TDS entries from CompuTds, balance sheet, P&L, and return form from CompuBal, and permanent information from the XML file.

### ADVANCED FEATURES:

- Advance Tax Estimation, Tax Calendar,
- Club Computation for new and old scheme u/s 115BAC.
- Comparison Chart for Companies u/s 115BAA /115BAB.
- Display of current & previous year figures of income & tax on screen.
- E-return error Locator with facility of correction on same screen.
- Direct navigation from one screen to other screen.
- Ready reckoner, Capital Gain Index, Gold & Silver rate, Tax rates.

- Auto picking of listed share price as on 31 January 2018.
- Facility of creating User defined password for all clients
- Easy Data Transfer
- Import data from xml file with bulk facility.
- Import of Balance Sheet, P&L, computation from CompuBal software.
- Automatic transfer of master data and particulars to the next assessment year(s).
- Transfer of Allowable Remuneration & other details of firm's partner to the Partner individual ITR.
- Keeps Investment details and transfer income in Computation & ITR for relevant years.

#### **DIRECT ONLINE ACTIVITIES FROM SOFTWARE**

- Register/update User Profile, DSC, and relevant detail at IT Portal.
- Online filing of e-return and e-Verify through Aadhaar OTP or generating EVC or Bank Pre-Validation.
- Auto download of ITR-V and auto Fill their Receipt date from CPC.
- View Import 26AS data, My Return/ITR/XML/JSON, Intimation Order.
- Request/Download Large 26AS & PAN Registration at TRACES.
- Auto pick & management of Intimations & communications received on your email Id (sent by ITD).
- Submit Rectification of ITR, Response to outstanding tax demand.
- Add CA & Approve Audit Report.

Bulk Function Utilities for Link Aadhaar with PAN, Return E-Verification, Bank Pre-Validation, download 26AS, Download Xml/JSON, Return Filing Status, Refund Status,etc.

#### **E-PROCEEDINGS MANAGEMENT:**

Auto download all notices, replies along with attachments by single click.

Ease in uploading response, auto naming of attachment taking care of restrictions of site, allow to attach more than 10 attachments.

#### **STATUS OF PROCEEDINGS (CLOSED/OPEN/SUBMITTED)**

Facility to view all e-proceedings and status of all clients at one screen.

## **WINMAN**



Winman is a software solution designed for accounting and taxation purposes. It primarily caters to the needs of businesses, accountants, and tax professionals by providing tools and features that streamline financial management and compliance with tax regulations.

Below is an overview of Winman software's key features and functionalities related to accounting:

### **FINANCIAL ACCOUNTING:**

Winman offers a comprehensive set of tools for recording financial transactions, managing accounts payable and receivable, and maintaining general ledgers.

Users can create, edit, and view various financial reports, including balance sheets, income statements, cash flow statements, and trial balances.

### **GST (GOODS AND SERVICES TAX) COMPLIANCE:**

In countries like India, where GST is a significant tax regime, Winman software helps businesses and professionals comply with GST regulations.

It assists in GST return filing, reconciliation, and tax calculation, ensuring accuracy and compliance with tax laws.

### **INCOME TAX COMPUTATION:**

Winman simplifies income tax calculations by providing tax computation features.

It helps users calculate income tax liabilities, deductions, and exemptions based on the prevailing tax laws.

**TDS (TAX DEDUCTED AT SOURCE) MANAGEMENT:**

Businesses and professionals can manage TDS-related processes efficiently, including TDS deduction, deposit, and return filing.

**E-FILING AND COMPLIANCE:**

Winman often includes features for e-filing various tax returns and forms electronically, making it easier to comply with tax requirements.

It keeps users updated on tax law changes and ensures that returns are filed accurately and on time.

**PAYROLL PROCESSING:**

Some versions of Winman may include payroll processing features for managing employee salaries, deductions, and statutory compliances.

**FINANCIAL ANALYSIS AND REPORTING:**

The software offers tools to generate financial reports and conduct financial analysis, helping businesses make informed decisions.

**DATA SECURITY AND BACKUP:**

Winman typically provides data security features to protect sensitive financial information and offers options for regular data backup to prevent data loss.

**USER-FRIENDLY INTERFACE:**

The software often features an intuitive and user-friendly interface, making it accessible to both accounting professionals and those with limited accounting knowledge.

**CUSTOMIZATION:**

Users can often customize Winman to suit their specific business needs and industry requirements.

**CUSTOMER SUPPORT AND UPDATES:**

Winman typically offers customer support services to assist users with software-related queries and provides regular updates to keep the software compliant with changing tax laws.

Winman CA-ERP software interface for filing an Income Tax Return (ITR) for the Assessment Year 2019-2020. The form is divided into two main sections: Personal Details and Income Details.

**Personal Details:**

- Name: [Text Field]
- Status: Individual
- Address: [Text Field]
- City/Place: [Text Field]
- Pin Code: [Text Field]
- State: [Dropdown Menu]
- Date of Birth: [Text Field]
- PAN: [Text Field]
- Date of Filing Return: 17-Feb-2020
- Residential Status: Resident

**Income Details:**

Heads of Income	No. of sources
Income from Salary	Number of Employees [Text Field]
Income from House property	Self Occupied property [Text Field]
Income from Capital gain	Long term Capital Gains [Text Field]
Income from Other sources	Short term Capital Gains [Text Field]

Buttons: [Send to], [Send to], [Back], [Print]

### FEATURES IN WINMAN CA-ERP

- Income Tax
- Income Tax computation in Single window
- Bulk Import of Previous year files with data
- Import all data from xml file
- Depreciation table covering all situations
- Copy / paste from Excel
- Document Map for filled-up ITRs
- Paper return & e-Return
- Automatic carry forward and set-off of losses
- Auto-import data from Firm file to Partner file
- Warnings on incomplete data entry
- Icon indicating mandatory e-Return
- User list with editing option
- Computation option for any status
- Option to convert an output cell to input cell

**E-FILING TOOLS**

- e-Return submit tool
- CA e-report filing tool
- e-Return error locator utility
- ITR V - Auto-download & remove password &
- E-verify ITR using EVC / Aadhaar OTP
- Register digital signature
- Change / Export e-filing password
- Mass import of Login details
- E-filing profile update
- Generates '.signature' file using Digital Signature Utility

**AUDIT REPORTS**

- Form 3CD / 29B / 29C / 3CEB / 10B / 10BB e-return
- Auto-transfer of data from computation & ITR
- Carry forward of relevant data to future years
- Import TDS data to 3CD from Winman TDS software
- CA e-Tools - Register CA, CA login, Add CA, approve e-report
- User-friendly reports
- e-Return filed / not filed report
- User-defined MIS report
- Changes Summary - when locked / finalised files are edited

**SOFTWARE UPDATE TOOLS**

- Auto-download updates
- Software update status display

**ONLINE TOOLS**

- PAN Validation
- e-Challan utility
- Rectification/Refund status report

- Mass e-return processing status report
- Import data from 26AS in a single click
- Quick access to Income Tax Act / Rules
- Auto-import of intimation e-mails and analysis report
- Download & import XML from IT website
- Download all filed Forms / XML from IT website
- Add / Register as Representative
- Link Aadhaar to PAN
- Submit e-Sahyog / Compliance
- Check PAN / TAN Application Status

#### **E- SERVICES**

- e-Payment
- Submission of payment details
- Message services
- Download digitally signed e-invoice
- Registration on renewal
- Auto-registration on formatting / surrendering license

#### **OTHER TOOLS**

- Billing
- Advance IT calculator
- Mass Advance Tax Planner
- Compare current year figures to previous year
- Lock file on finalisation
- Export / import salary data to Winman TDS
- View Bank - IFSC & BSR code

#### **ADD- ON FEATURES**

- FAQ / Instant table help / Training Videos
- Clarifications with law reference

- Query Manager Tool
- Enter Formula instead of value
- Keyboard shortcuts
- Show Desktop to Winman
- Integration with Cloud data services
- Open CA-ERP files in read-only mode
- View Data-path
- Easy to Group files within data-path
- Add 'File No.'
- Search file using PAN / part of PAN / File No.
- List out recently opened files
- Auto repair tool
- Format wizards
- Auto saving data
- Password Security
- Undo and Redo facility
- Periodic 3-way Auto-backup
- Concurrently edit many files in a PC
- Access attached file path in a single click



## **TAXMANN**

Taxmann is a well-known provider of tax and accounting software solutions in India. They offer a range of software products and services to help individuals, businesses, and professionals with their taxation and financial needs.

Here's an overview of Taxmann's software and some common features that their products typically include:

### **INCOME TAX SOFTWARE:**

Taxmann provides software for preparing and filing income tax returns. These software tools are designed to simplify the tax return filing process and help individuals and businesses comply with Indian tax laws.

#### **Key features may include:**

- Step-by-step guidance for filling out tax forms.
- Automatic calculation of tax liabilities.
- Importing financial data from various sources.
- E-filing of tax returns.
- Updates to incorporate changes in tax laws and regulations.

### **GST (Goods and Services Tax) Software:**

With the introduction of GST in India, Taxmann offers software solutions to assist businesses in managing their GST compliance. Common features include:

- GST return filing and reconciliation.
- Invoice and inventory management.
- Real-time GSTIN validation.
- E-way bill generation.
- Compliance reports and analytics.

### **Accounting Software:**

Taxmann may also offer accounting software for businesses. These tools help organizations

manage their financial transactions, bookkeeping, and reporting. Features often include:

- General ledger and chart of accounts.
- Accounts payable and receivable.
- Bank reconciliation.
- Financial statement generation.
- Multi-currency support.

### **TDS (Tax Deducted at Source) Software:**

- For businesses and individuals required to deduct TDS, Taxmann's software may include features such as:
- TDS calculation and deduction.
- TDS return preparation and filing.
- TDS certificate generation.
- Compliance tracking and reporting.

### **Compliance Updates:**

Taxmann typically provides regular updates to ensure that their software remains compliant with changing tax laws and regulations in India.

### **CUSTOMER SUPPORT:**

Taxmann usually offers customer support services to assist users with any software-related queries or issues they may encounter.

## TAX COMPLIANCES

### TRAINING AND DOCUMENTATION:

Taxmann may provide training materials, documentation, and tutorials to help users make the most of their software products.

The screenshot shows the 'Taxman 2008 - [Persons]' window. The menu bar includes 'Editing', 'Records', 'Open T1 General', 'Quit Business Forms', 'Tools', 'Help', and 'Quit Taxman'. The window displays personal information for a person named Donald Duck. The data is organized into two main sections: personal details and marital status.

Field	Value
SIN	000-000-000
Last Name	Duck
First Name	Donald
Address	1 Pond Lake
PO Box, SIN	
City	Ottawa
Prov/Terr	ON
Postal Code	O1D 2D2
Area Code	613
Number	123-4567
Work	
Cell	
Email	donald.duck@opcg.ca
Date of Birth	1934 / 06 / 09
Age in tax year	74
Marital Status	6
Labels	<input type="checkbox"/>
Spouse's Name	
Spouse's SIN	
Spouse's Date of Birth	
Children	

At the bottom, there is a table with columns: 'Tax/Yr', 'Fee', 'M/R', 'Community', 'Time', 'Date', and 'Charity'. The table is currently empty.

The screenshot shows the 'Taxman 2008 - [Page 4: T1 General]' window. The menu bar includes 'Editing', 'Records', 'Print', 'Page', 'Page2', 'Page3', 'Schedules', 'Forms', 'Tools', 'Help', and 'Exit to Persons'. The window displays tax calculations for Donald Duck. The data is organized into two main sections: 'Refund or Balance owing' and 'Total inc. tax deducted'.

Field	Value
Refund or Balance owing	4
Net Federal tax	420 13,447.66
CPP contr. on self-emp. or other earnings	421
Social benefits repay	422
Prov./terr. tax	428 7,261.94
total payable	435 20,709.60
Total inc. tax deducted	437 22,000.00
Quebec abatement	440
CPP overpayment	448
EI overpayment	450
Medical exp. supp.	452
Working income tax benefit	453
Refund of invest. tax credit	454
Part XIII.2 trust tax credit	456
Employee and partner GST/IMPST rebate	457
Tax paid by instal.	476
Prov./terr. tax credits	479
total credits	482 22,000.00
Refund	484 1,290.40
Balance owing	485

## **FEATURES OF TAXMANN**

### **Taxmann One Solution**

Taxmann's One Solution is a TDS filing software that helps users generate TDS or TCS returns, along with TDS certificates. It is a comprehensive solution for all your tax filing needs, having built-in calculation tools to make way for error-free return submissions. One can even deposit challan and make a detailed calculation of allowances, retirement benefits and perquisites for the ease of availing tax deductions on salary.

### **Taxmann's Help for Tax Professionals**

Taxmann helps to automate all the tax compliances of the users and is designed to fit in the requirements of every tax professional. The software enables users to handle various tax filing operations, including Income Tax filing, managing GST returns, Indirect Tax filing, managing Corporate Laws, and dealing with International Taxation. Taxmann also assists tax filers with Accounts and Audit management and offers support and guidance with the latest Indian Acts and Rules and the Insolvency and Bankruptcy Codes. Users can even import their data from another software via consolidated TDS files. Moreover, the application has the functionality of auto-generation of TDS or TCS forms, including 12BA, 16, 16A and 27D.

### **Unique Features of Taxmann**

There is also a facility for reverse tax calculation to enable users to calculate the amount of TDS and payment accurately.

It even has shortcut keys to help users have quick access to all the functionalities of Taxmann. Taxmann has a bulk PAN verification feature, allowing users to verify the PAN of all deductees or employees with a single click. Moreover, it also provides alerts for duplicate names, duplicate PAN or blank names. Taxmann can also help users define employee salary structures to ensure faster TDS entries.

### **How is Taxmann Different?**

With this ITR preparation software, users can generate TDS or TCS returns and even TDS certificates and deposit challans directly from TRACES. Taxmann's One Solution enables users to check Traces request and download TDS certificates, along with the consolidated files, and Justification Reports directly from TRACES. The application has a functionality of importing Deduction Entry directly from Excel that helps in bulk creation of deduction entries. One can import deduction entries directly from Excel to enable a bulk creation. The application helps them to automate tax calculations for other TDS returns including 26Q, 27Q and 27EQ.

## **GENIUS SOFTWARE**

### **INTRODUCTION**

Genius software is the return furnishing software made by the taxation and accounting software development company SAG Infotech which is situated in Jaipur. It is recognized and accepted software that assists professional customers to furnish distinct returns since the AY 2001-02.

### **FEATURES OF GENIUS SOFTWARE (TAX RETURN FILING)**

The software provides unlimited client return filing of income tax, TDS, AIR/SFT, etc with it's up to date taxation procedure. The Genius has a total of 6 modules including GEN BAL (Balance Sheet), GEN IT (Income Tax), GEN CMA, GEN FORM MANAGER, GEN TDS (Tax Deducted at Source) and AIR/SFT. **Genius tax return software** offers multiple features like Backup, Restore, Password Settings which makes it an overall tax filing software among the category of best taxation software in India.

### **GEN IT INCOME TAX (SOFTWARE FEATURES):**



### **GEN CMA/EMI CREDIT MONITORING ANALYSIS SOFTWARE FEATURES:**



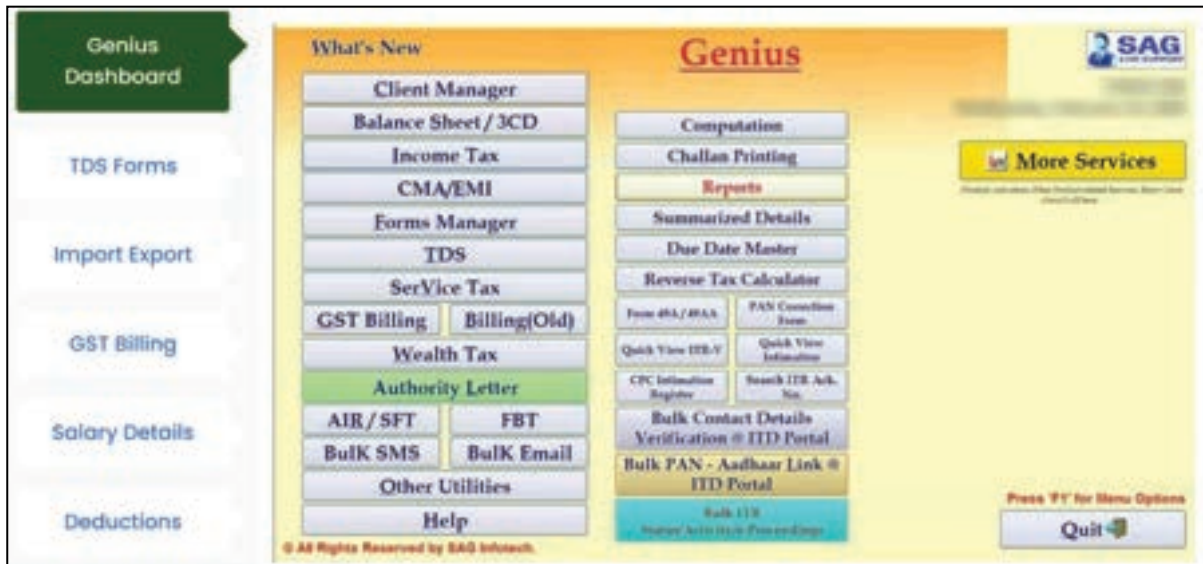
## GEN BAL (BALANCE SHEET) SOFTWARE FEATURES:



## GEN TDS (TAX DEDUCTED AT SOURCE) SOFTWARE FEATURES:



## USER INTERFACE OF GENIUS TAX FILING SOFTWARE:



## **FEATURES OF GENIUS TAX RETURN FILING SOFTWARE**

### **User Friendly Software**

Genius tax furnishing software for CA is simpler to execute, practice and is adaptable to the company's working nature. Its interface has been developed as per the compliance of the chartered accountants, company secretary and tax professionals.

### **REDUCED COST**

Prevent the cost and time-consuming manual steps of handling ITR filing. A manual filing consumes more time and is indeed not efficient in filing the taxes and thus wastes lots of resources along with the man-hours that will be costlier to you.

### **CUTTING-EDGE TECHNOLOGY**

The newer technology is being used to make the Genius software that helps in the automatic filing of ITR or TDS returns. Also, the company is putting resources into developing the ERP system for complete software packages to create a better infrastructure for the clients working on filing.

### **FURNISH ITR OR TDS RETURNS QUICKLY**

Genius can file the self-assessment, advance tax along with the computation of interest with a quick ITR filing of TDS return also. The overall CA tax software algorithm has been set up in accordance with the government compliance for better synchronization within the filing.

### **UNLIMITED CLIENT TAX RETURNS FILING**

You can add unlimited clients to the filing software and file their tax returns simultaneously. The software will add each client as an individual account and will also maintain the data separation between each account to create

### **ROLE-BASED ACCESS CONTROL**

The best tax return management software can be controlled by role-based access as the administrator can assign operative control to any of the subordinates or clients. The role-based access gives better control to the tax details and login security.

### **DATA SECURITY AND BACKUP**

Genius is the advanced CA tax return filing software. It has encryption security for complete customers' tax data with the facility to store and backup the overall tax details with a master copy for each individual client account. It is a bigger relief to the taxpayers.

### **TRUSTWORTHY SOFTWARE SINCE 2001**

The Genius software package has an all-India presence in the taxation industry and has been filing clients' taxes since 2001. The Genius package has been a worthy tax filing software and is officially recognized by the government department on the portal.

# CHAPTER 5

## E FILINGS UNDER GST



### LEARNING OUTCOMES

- ✓ GST Portal and associated features.
- ✓ The steps involved in obtaining a TEMPORARY REFERENCE NUMBER (TRN).
- ✓ Guidelines for generating TRN.

### TASK

Mr. Alwin Thomas is doing business in Bangalore under the name Alwin Agencies, and he wants to register for GST as a normal taxpayer. As a GST consultant, based on the given information you are required to advice on obtaining a GST TRN registration.

Aadhaar No: 1605 9325 8741

PAN No: BCBXJ3012K

Gender: Male

DOB: April 08th, 1997

Email Id: alwint@gmail.com

Phone No: 2363987456

Address: Bangalore (Rural), Karnataka

You are required to generate a unique TRN (Temporary Reference Number) in order to initiate the GST registration process.

### 5.1 STEPS FOR GENERATING A TRN

CLICK CONTINUE TO START THE TASK.



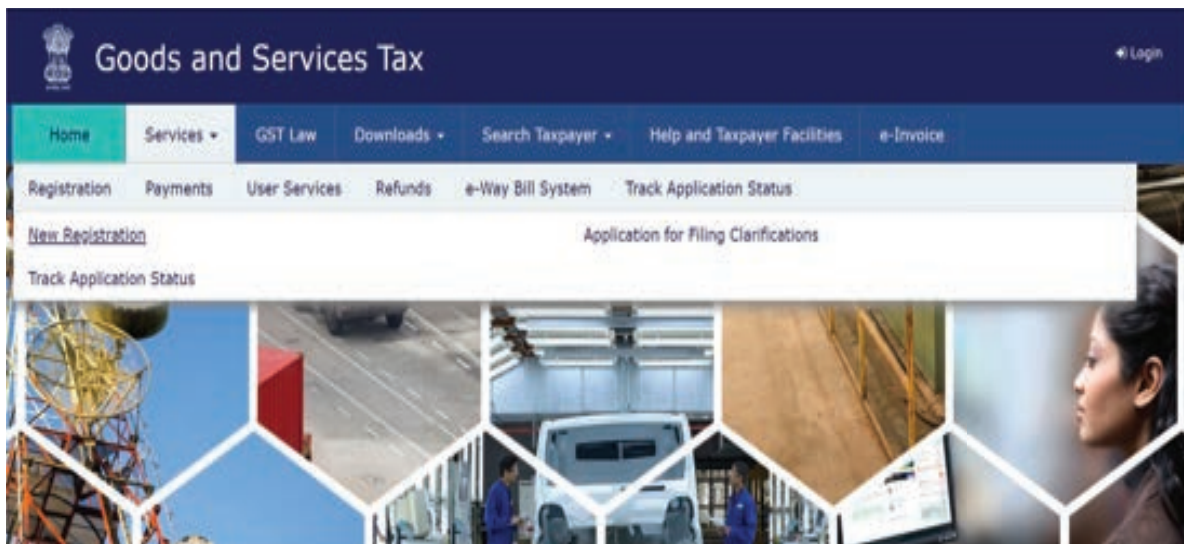


Fig no.1.1.a

### **PART A:**

Generate Temporary Reference Number for obtaining GSTIN:

Open Services > Registration > New Registration

Details and documents required for generating TRN:

Address

PAN

Email

Mobile

**ENTER THE DETAILS AS MENTIONED IN THE DOCUMENTS IN THE NEXT PAGE.**

Fig no.1.1.b

Goods and Services Tax

Dashboard Services

Home Registration English

1 User Credentials 2 OTP Verification

New Registration

\* indicates mandatory fields

☒ New Registration ☐ Temporary Reference Number (TRN)

I am a \*

Taxpayer

State / UT \*

Karnataka

District \*

Bengaluru (Bangalore) Rural

Legal Name of the Business (As mentioned in PAN) \*

Alwin Thomas

Permanent Account Number (PAN) \*

BCBX3012K

Eg. A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Email Address \*

alwin@gmail.com

OTP will be sent to this Email Address

Mobile Number \*

+91 2363967456

Separate OTP will be sent to this mobile number

Type the characters you see in the image below \*

580460

580460

PROCEED

Click on **New registration**.

Select the type of **Taxpayer/ deductor** as the case in the drop-down box shown.

Select the **State and District** from the drop-down box.

Enter the name mentioned in the PAN of the Proprietor or Business as the **Legal name**.

Provide a valid **Mobile No. and Email address** for OTP verification.

Type the captcha code shown in the box and click on **the proceed** button.

**VERIFY WITH THE OTPs SENT TO THE MAIL AND MOBILE.**

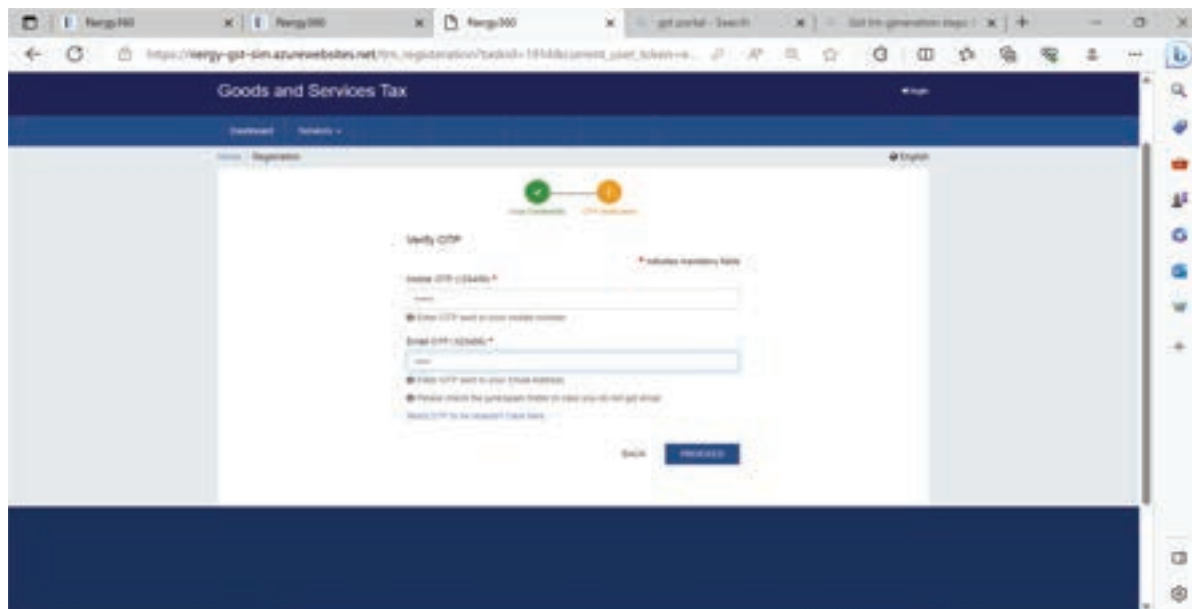
The screenshot shows a web browser window with multiple tabs. The active tab is titled 'get portal - Search'. The URL in the address bar is 'https://nrgy-gst-gin.azurewebsites.net/tns\_registration/trackid=18188&current\_page\_id=1&...'. The page header is 'Goods and Services Tax' with a 'login' link. Below the header, there's a navigation bar with 'Home' and 'Registration'. The main content area is titled 'Verify OTP' and features a progress indicator with a green circle (1) and an orange circle (2). The 'Verify OTP' section has a 'Verify OTP (SMS)' input field, a 'Verify OTP (Email)' input field, and a 'Verify OTP (Mobile)' input field. Below these fields, there are instructions: 'Enter OTP sent to your mobile number', 'Enter OTP sent to your Email address', and 'Enter OTP sent to your Mobile number'. At the bottom of the form, there are 'BACK' and 'PROCEED' buttons.

Fig no.1.1.c

Click **on the proceed** button after entering the OTPs.

Temporary reference number will be sent to you through Email or SMS. It will be valid for **15 days** for completing the registration procedure **PART B**.

After successful completion of TRN Generation, a Pop-Up window will be shown as **CONGRATULATIONS**.

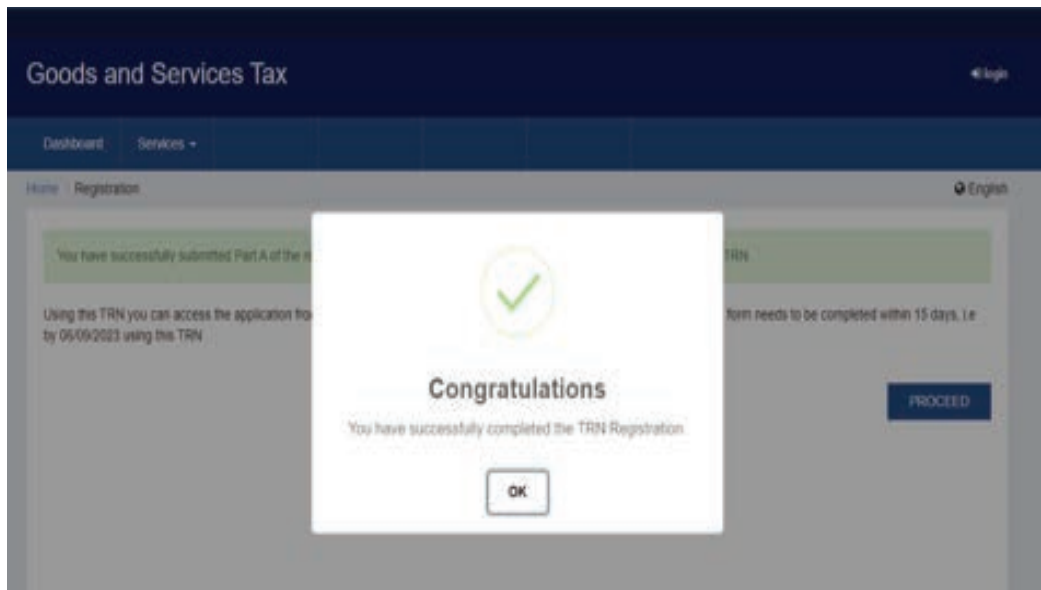


Fig no.1.1.D

The TM sent through email or mobile will be used for further registration process and will be valid for 15 days.

### MULTIPLE CHOICE QUESTIONS (MCQS)

#### 1.What does GST TRN stand for?

- (a) Goods and Services Tax Transaction Reference Number
- (b) Goods and Services Tax Taxpayer Registration Number
- (c) Goods and Services Tax Transaction Reporting Number
- (d) Goods and Services Tax Refund Number

#### 2.Who is required to obtain a GST TRN?

- (a) All individuals in the country
- (b) Only businesses engaged in manufacturing
- (c) Businesses and individuals liable to pay GST
- (d) Only large corporations

#### 3.Which government authority is responsible for issuing a GST TRN?

- (a) Local Municipality
- (b) State Tax Authority

- (c) Central Tax Authority
- (d) Ministry of Finance

**4. What information is typically required when applying for a GST TRN?**

- (a) Passport number and date of birth
- (b) Business name, address, and PAN (Permanent Account Number)
- (c) Driver's license and vehicle registration details
- (d) Educational qualifications and employment history

**5. How often should a business renew its GST TRN?**

- (a) Annually
- (b) Every five years
- (c) It doesn't need to be renewed
- (d) Whenever there is a change in business ownership

## **ANSWERS**

- 1 (b) Goods and Services Tax Taxpayer Registration Number
- 2 (c) Businesses and individuals liable to pay GST
- 3 (c) Central Tax Authority
- 4 (b) Business name, address, and PAN (Permanent Account Number)
- 5 (c) It doesn't need to be renewed

# CHAPTER 6

## GST REGISTRATION



### LEARNING OBJECTIVE

- ✓ Learn how to take a GST registration.
- ✓ Necessary documents needed for registration.

In order to obtain GST registration, the person liable to get registered should have with him, the necessary details which include the generated TRN, his reason to get registered, commencement date, residential details, business details, HSN or SAC codes on the basis of what the person is dealing.

### TASK

Ornate Enterprises is engaged in wholesale supply of non-alcoholic soft drinks in Panaji, Goa. It also supplies alcoholic liquor for human consumption from Nagaland. Its turnover in the current financial year is Rs. 38,00,000/- in Goa and Rs. 9,00,000/- in Nagaland. Since Ornate Enterprises is exclusively engaged in making taxable supplies of goods from Goa, the applicable threshold limit for obtaining registration is Rs. 40,00,000/-.

Further, the threshold limit will not be reduced to Rs. 10,00,000/- in this case, as supply of alcoholic liquor for human consumption from Nagaland (one of the special category states) are non-taxable supplies. In the given case, since the aggregate turnover of Ornate Enterprises exceeds the applicable threshold limit of Rs. 40,00,000/-, it is liable to obtain registration.

They will obtain registration in Goa, but it is not required to obtain registration in Nagaland as they are not making any taxable supplies from the said state. Ornate Enterprises tried to register for GST by themselves and completed the first stage of registration and a temporary reference number (TRN) is generated. For completing GST registration as a normal taxpayer, as a GST practitioner you are required to complete the GST registration process.

### Further details are given below:

- Temporary Reference Number: 234765871299TRN
- Reason to obtain Registration: Crossing the threshold

- The date of Commencement of Business: 10-08-2022
- The date on which Liability to Register arises: 05-09-2022

**Details of Proprietor:**

Name: Abhay Lal  
Father's Name: Anand Lal  
PAN No: KJLXA6754H  
Aadhar No: 4534 9856 7234  
Mob: 2324534534,  
DOB: May 13th, 1990,  
Email Id: [abhaylal90@gmail.com](mailto:abhaylal90@gmail.com)  
Residential Address:  
No. 6, 3rd Floor,  
World One,  
MO Road, Sector 14,  
Panaji,  
Goa,  
Pin code: 403001.  
Business Address:  
No. 645,  
2nd floor, Wild Estates,  
MG Road, Sector 25,  
Panaji,  
Goa,  
Pin code: 403001.  
Email Id: [abcltd@gmail.com](mailto:abcltd@gmail.com)

**Other Information:**

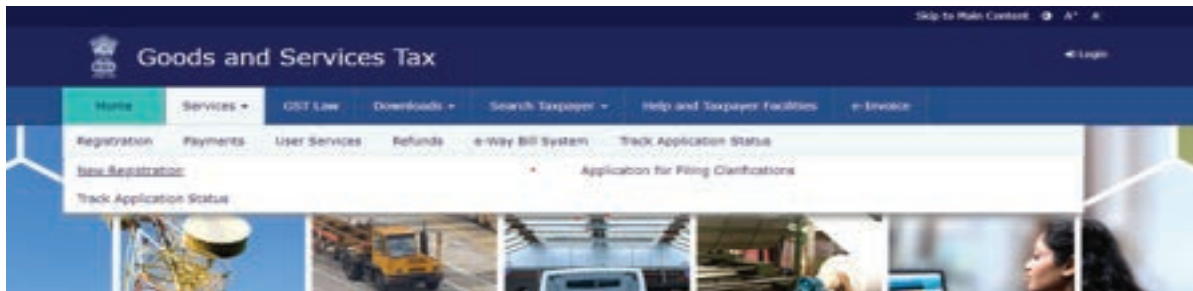
Commissionerate: Goa  
Division: 22  
Range: Goa  
Ward: 6  
Product's HSN: 220110, 220210 & 2202

**6.1 STEPS FOR GST REGISTRATION**

Access the page <https://www.gst.gov.in/>

Click on the services option, and under registration, select new registration.

Fig no:1.2.a



Select TRN option and insert the TRN and provide the CAPTCHA code as well and click **PROCEED**.

Fig no:1.2.b

The screenshot shows the "New Registration" form on the GST portal. At the top, there is a progress bar with two steps: "User Credentials" (Step 1) and "OTP Verification" (Step 2). The "New Registration" section includes a "Temporary Reference Number (TRN)" field with the value "234769871299TRN". Below this is a CAPTCHA verification section with the text "Type the characters you see in the image below" and a CAPTCHA image showing the characters "580460". A "PROCEED" button is located at the bottom of the form.

A One-time password would be sent to your mobile no and email ID, insert the OTP in the respective column and click **PROCEED**.



Fig no:1.2.c

Dashboard Services +

Home - Registration English

User Created OTP verification

Verify OTP

Mobile / Email OTP (123456) \*

Indicates mandatory fields

Fill OTP sent to Mobile and Email

Please check the junk/spam folder in case you do not get email.

Need OTP to be resend? Click here:

BACK PROCEED

In the dashboard, click on the edit symbol under **Action**.

Fig no:1.2.d

Goods and Services Tax login

Dashboard Services +

Dashboard English

My Saved Applications

Creation Date	Form Number	Form Description	Expiry Date	Status	Action
22/08/2023	GST REG-01	Application for new Registration	06/09/2023	Draft	

Track Application Status

You do not have any submitted applications

### BUSINESS DETAILS

10 boxes, from Business details of the person to the verification, would be shown and after giving information in each box separately, each box would turn blue, and a tick would appear on the box.

Dashboard Services

Home Business Details

if with Aadhaar can be verified at [https://resident.gst.gov.in/verify\\_email\\_mobile](https://resident.gst.gov.in/verify_email_mobile). Please wait 45 seconds before regenerating the OTP for Aadhaar authentication on GST portal.

Application Type	Due Date to Complete	Last Modified	Profile
New Registration	06/09/2023	22/08/2023	30%

Business Details Proprietor / Partners Authorized Signatory Authorized Representative Principal Place of Business Additional Place of Business Goods and Services State Specific Information Aadhaar Authentication Verification

Details of your Business

Legal Name of the Business: Ashay Lal Permanent Account Number (PAN): KJLXA6754H

Trade Name: Create Enterprises Constitution of Business (Select Appropriate): Proprietorship

Name of the State: Goa District: Panaji

Are you applying for registration as a casual taxable person? ☐

Option For Composition ☐

Reason to obtain registration: Crossing the Threshold Date of commencement of Business: 10/08/2022 Date on which liability to register arises: 05/09/2022

Indicate Existing Registrations

Type of Registration	Registration No.	Date of Registration
Select		dd/mm/yyyy

+ADD X CANCEL

BACK SAVE & CONTINUE

Fig no:1.2.e

- Provide **Tradename** of the person, and from the drop-down box, select which the **constitution of the business** of the assessee is.
- There would be an **ON/OFF** button asking whether he/she is applying as a **casual taxable person** or for a **composition scheme**, select according to their relevant preferences.
- From the drop-down box, select the **reason to obtain registration**, **Date of commencement of Business** and the **Date on which liability to register arises**.
- If the person has any existing registrations standing in his name, the assessee needs to provide information including the **Type of registration**, **Registration no.** as well as the **Date of registration** in prescribed columns and if more than one registration been taken, press **ADD+** to fill.
- Press **Save and continue**, then the website would take us to the details to be filled in the next box.

## PROMOTORS/ PARTNERS

Fig no: 1.2. f

Dashboard
Services
Home: Promoter partners
English
Mobile number's read at linked

Application Type	Due Date to Complete	Last Modified	Profile
New Registration	06/09/2023	22/08/2023	30%

Business Details
Promoter / Partners
Authorized Signatory
Authorized Representative
Principal Place of Business
Additional Places of Business
Goods and Services
State Specific Information
Aadhaar Authentication
Verification

\* indicates mandatory fields

### Details of Proprietor

#### Personal Information

Name of Person

First Name \*  
Niraj

Middle Name  
Niraj

Last Name  
Jai

Name of Father

First Name \*  
Anand

Middle Name  
Anand

Last Name  
Jai

Date of Birth \*  
15/05/1990

Mobile Number \*  
+91 2324534534

Email Address \*  
aniraj@niraj.com

Gender \*  
☒ Male
☐ Female
☐ Others

Telephone Number (with STD Code)  
 STD Code
 Telephone Number

#### Identity Information

Designation / Status \*  
proprietor

Director Identification Number \*  
Enter DIN Number

Are you citizen of India?  
☒ Yes
☐ No

Permanent Account Number (PAN) \*  
KJLJN6789H

Passport Number (in case of Foreigner)  
Enter Passport Number

Aadhaar Number \*  
Enter Aadhaar Number

#### Residential Address

Building No. / Flat No. \*  
5

Floor Number  
3

Name of the Premises / Building  
World One

Road / Street \*  
MG Road

City / Town / Locality / Village \*  
Pune

Country \*  
India

State \*  
Gujarat

District \*  
Pune

Pin Code \*  
400001

#### Document Upload

Upload Photograph (if person whose information has been given above) \*

☒ Only JPEG file format is allowed  
☒ Maximum file size for upload 100 KB

No file chosen

OR

☒ You can use your device camera to take self Photograph

#### Other Information

Also Authorized Signatory  
☒ Yes
☐ No

BACK
SHOW LIST
ADD NEW
SAVE & CONTINUE

- In **personal information**, provide the First and Last name of the **person, his father, Mobile-no., DOB, valid Email-ID** and **specify Gender** of the person.
- Under **Identity information**, from the drop-down box, specify the **Designation/ Status** of the person, whether the person has a Director Identification Number, insert **DIN** and **PAN** in the respective fields.
- Under **Residential Address**, specify **building/flat no., Floor no., Name of premises/ Building, Road/street, City / Town / Locality / Village, Country, state, district and Pin code.**
- Under Document Upload, the person may upload his photo, but should be in JPEG format less than 100kb or may take a picture using the device camera and upload instantly.
- In other information, if the person is the Authorized signatory and Authorized, then the person may switch ON the button provided, and the next two boxes named **Authorized signatory** and **Authorized representative** would be Auto filled. If the person is not the Authorized signatory, details of the signatory and representative need to be filled out separately.
- Press **save** and **continue**.

## PRINCIPAL PLACE OF BUSINESS

Fig no:1.2. g

Dashboard
Services

Home
Principal Place Of Business
English

If for Aadhaar authentication on GSE portal...

Application Type	Due Date to Complete	Last Modified	Profile
New Registration	06/09/2023	22/08/2023	100%

Business Details
Partner / Partners
Authorized Signatory
Authorized Representative
Principal Place of Business
Additional Place of Business
Goods and Services
State Specific Information
Aadhaar Authentication
Verification

\* indicates mandatory fields

### Details of Principal Place of Business

#### Address

Building No. / Flat No.
645

Floor Number
2

Name of the Premises / Building
Vast Chablers

Road / Street
MG Road

City / Town / Locality / Village
Panaji

State
Goa

District
Panaji

Pin Code
403001

Latitude
15°31' 4.000000

Longitude
73°54' 40.000000

State Jurisdiction Code

Sector / Circle / Ward / Charge / Unit
25

Center Jurisdiction
Refer the link for center Jurisdiction

Commissionerate
Goa

Division
22

Range
Goa

#### Contact Information

Office Email Address
abcde@gmail.com

Office Telephone Number (with STD Code)
0201
Enter telephone Number

Mobile Number
+91 2324534534

Office Fax Number (with STD Code)
0201
Enter telephone Number

If the Principal place of business is located in SEZ, ie the applicant is SEZ developer, necessary documents/certificates issued by Government of India are required to be uploaded by choosing "Other" value in Nature of possession of premises dropdown and upload the document.

Nature of possession of premises
Please Select
Select

Document Upload
Proof of details of authorized signatory
File with PCP in JPEG format is only allowed
Maximum file size for upload: 1 MB
Choose File
No file chosen

#### Nature of Business Activity being carried out at above mentioned premises

☐ Bonded Warehouse
☐ EOU / STP / EHTP
☐ Export

☐ Factory / Manufacturing
☐ Import
☐ Supplier of Services

☐ Leasing Business
☐ Office / Sale Office
☐ Recipient of Goods or Services

☐ Retail Business
☐ Warehouse / Depot
☒ Wholesale Business

☐ Works Contract
☐ Others (Please Specify)

Have Additional Place of Business
☐

BACK
SAVE & CONTINUE

- Under the Details of Principle place of Business, provide specified **building/flat no., Floor no., Name of premises/Building, Road/street, City / Town / Locality / Village, Country, state, district and Pin code.**
- The **Latitude** and **Longitude** of the PPOB would be automatically found by the GST website and would be auto filled.
- Provide State jurisdiction Circle as well.
- Under Contact information, provide Office Email ID, Office Telephone Number (with STD Code) (IF ANY), Mobile Number, Office Fax Number (with STD Code) (IF ANY).
- Provide the **NATURE OF POSSESSION OF PREMISES** and upload relevant **documents regarding the proof of Authorized signatory** as well. Documents need to be less than 1 MB in Size and should be in PDF or JPEG format.
- Under **Nature of Business Activity being carried out at above mentioned premises**, Click on the relevant checkbox of the activity of the person.
- If the person has an **Additional place of business**, the button may be switched ON and details of APOB may be provided.
- **Press save** and **continue**.

## 1.2.5 GOODS AND SERVICES

Fig no:1.2. h

The screenshot shows the 'Goods And Services' registration page. At the top, there's a header with 'Dashboard' and 'Services'. Below it, a yellow summary bar displays: 'Application Type: New Registration', 'Due Date to Complete: 06/09/2023', 'Last Modified: 22/08/2023', and 'Profile: 70%'. A row of icons represents different registration steps: Business Details, Promoter / Partners, Authorized Signatory, Authorized Representative, Principal Place of Business, Additional Places of Business, Goods and Services, State Specific Information, Aadhaar Authentication, and Verification. The 'Goods and Services' icon is highlighted. Below this, the 'Details of Goods / Commodities supplied by the business' section prompts the user to 'Please specify top 5 Commodities'. A search bar for 'Search HSN Chapter by Name or Code' is present. A 'List of Goods' table follows, with columns for 'Sl No', 'HSN Code', 'Description of Goods', and 'Action'. It lists three entries for mineral and aerated waters. At the bottom right, there are 'BACK' and 'SAVE & CONTINUE' buttons.

Sl No	HSN Code	Description of Goods	Action
1	200110	MINERAL WATERS AND AERATED WATERS	<a href="#">DELETE</a>
2	2302	WATERS, INCLUDING MINERAL WATERS AND AERATED WATERS, CONTAINING ADDED SUGAR OR OTHER SWEETENING MATTER OR FLAVOURED, AND OTHER NON-ALCOHOLIC BEVERAGES, NOT INCLUDING FRUIT OR VEGETABLE JUICES OF HEADING 2009	<a href="#">DELETE</a>
3	230210	WATERS, INCLUDING MINERAL WATERS AND AERATED WATERS, CONTAINING ADDED SUGAR OR OTHER SWEETENING MATTER OR FLAVOURED	<a href="#">DELETE</a>

- Search for the HSN or SAC codes depending upon the Goods or services the person is dealing with from the Drop-down box.
- Press **Save** and **Continue**.

## STATE SPECIFIC INFORMATION

Fig no:1.2. i

The screenshot shows a web application interface for 'State Specific Information'. At the top, there's a navigation bar with 'Dashboard' and 'Services'. Below it, a yellow banner displays 'Application Type: New Registration', 'Due Date to Complete: 06/09/2023', 'Last Modified: 22/08/2023', and 'Profile: 80%'. A row of icons represents various steps: Business Details, Promoter / Partners, Authorized Signatory, Authorized Representative, Principal Place of Business, Additional Places of Business, Goods and Services, State Specific Information (active), Aadhaar Authentication, and Verification. The main form area is titled 'State Specific Information' and contains four input fields: 'Professional Tax Employee Code (EC) No.', 'Professional Tax Registration Certificate (RC) No.', 'State Excise License No.', and 'Name of the person in whose name Excise License is held'. At the bottom right, there are 'BACK' and 'SAVE & CONTINUE' buttons.

- Provide (if any) details of **Professional Tax Employee Code (EC) No., Professional Tax Registration Certificate (RC) No., State Excise License No. and Name of the person in whose name Excise License is held.**
- Press **save** and **continue**.

## AADHAR AUTHENTICATION

Fig no:1.2. j

The screenshot shows a web application interface for 'Aadhaar Authentication'. At the top, there's a navigation bar with 'Dashboard' and 'Services'. Below it, a yellow banner displays 'Application Type: New Registration', 'Due Date to Complete: 06/09/2023', 'Last Modified: 22/08/2023', and 'Profile: 90%'. A row of icons represents various steps: Business Details, Promoter / Partners, Authorized Signatory, Authorized Representative, Principal Place of Business, Additional Places of Business, Goods and Services, State Specific Information, Aadhaar Authentication (active), and Verification. The main form area is titled 'Aadhaar Authentication' and contains a toggle switch labeled 'Do you want to opt for Aadhaar Authentication of details of Promoter/Partner, Primary Authorized Signatory added by you?'. Below the toggle, there are instructions: 1. Authentication request shall be shared on mobile number, email upon submission of application of Promoter/Partner, and Primary Authorized Signatory which are selected. 2. SMS will be generated once Aadhaar Authentication response is completed for an applicable person whose name are selected in this table. 3. Kindly select at least one person from Promoter/Partner for Aadhaar Authentication. Below the instructions is a table with columns: Select, S. No, Name, Citizen/Resident of India, Promoter/ Partner, Primary Authorized Signatory, Designation, Email Address, Mobile Number, and Status. The table has one row with data for a person named 'Ajay'. At the bottom right, there are 'BACK' and 'SAVE & CONTINUE' buttons.

- In order to authenticate Aadhar, the option needs to be switched ON. A checkbox specifying the details of the person would appear and the check box needs to be ticked.
- Press **Save** and **Continue**.



## VERIFICATION

Fig no:1.2. j

- Click on the verification checkbox for as a Self-declaration and then select the Authorized signatory from the drop-down list and insert the Place of Business.
- **Press Submit with EVC or DSC.**

- In the field shown above, insert the OTP sent to the specified E-mail/Mobile no. and click **PROCEED.**

**A POP-UP message indicating that we have completed the GSTIN REGISTRATION will Appear.**

**MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. What is the purpose of the OTP sent to your mobile number and email during GST registration?**

- a) To verify your email address
- b) To confirm your mobile number
- c) To proceed with the registration process
- d) To provide access to the GST portal

**2. What is the purpose of the “Authorized Signatory” in GST registration?**

- a) To represent the business
- b) To upload documents
- c) To verify Aadhar
- d) All of the above.

**3. What does “PPOB” stand for in GST registration?**

- a) Principal Place of Business
- b) Primary Point of Business
- c) Professional Place of Business
- d) Personal Place of Business.

**4. What does “EVC” stand for in GST registration?**

- a) Electronic Verification Code
- b) Enhanced Verification Credential
- c) Effective Verification Code
- d) Encrypting Verification Certificate

**5. What is the purpose of the HSN or SAC codes in the “Goods and Services” section?**

- a) To verify the business
- b) To calculate taxes
- c) To classify products and services
- d) To provide contact information

**ANSWERS**

1	C
2	A
3	A
4	A
5	C

# CHAPTER 7

## NIL RETURN FILING



### LEARNING OUTCOMES

#### AT THE END OF THIS CHAPTER, YOU WILL BE ABLE TO :

- ✓ Understand GST Nil Return
- ✓ File GST Nil Return

### TASK 1

Mr. Rahul Kishan started a manufacturing company named RK Associates on September 5th, 2022, and completed all necessary legal compliance, including GST registration, before beginning operations. However, due to technical reasons, the company could only commence its operations in October 2022. Mr. Rahul Kishan has requested that you file NIL GST returns for September 2022, as no purchases or sales occurred during the return period.

You are required to submit NIL GSTR-1 and GSTR-3B returns.

User Id: RAHUL@45

Password: Rk@123

GSTIN: 20AFSXN5937H1Z2

### 7.1 STEPS FOR NIL RETURN FILING

**Click continue to start the task.**

Then Click the login button > Enter User Id & Password > login.

Fig 1.3.a

The screenshot shows the 'Goods and Services Tax' login page. The header includes the GST logo and the text 'Goods and Services Tax'. Below the header is a navigation bar with links: Home, Services, GST Law, Downloads, Search Taxpayer, Help and Taxpayer Facilities, and e-Invoice. The main content area is titled 'Login' and contains the following fields and elements:

- Username\***: A text input field containing 'RAHUL@45'.
- Password\***: A password input field with masked characters.
- Type the characters, you see in the image below\***: A CAPTCHA field with the text '558562' and a small image of a car.
- LOGIN**: A blue button to submit the login form.
- Forgot Username** and **Forgot Password**: Links for password recovery.

A red asterisk indicates mandatory fields.

**Click on RETURN DASHBOARD**

Fig 1.3.b

The screenshot shows the 'Return Dashboard' of the GST Common Portal. The header includes the GST logo and the text 'Goods and Services Tax'. Below the header is a navigation bar with links: Dashboard, Services, GST Law, Downloads, Search Taxpayer, Help and Taxpayer Facilities, and e-Invoice. The main content area is titled 'Welcome RK Associates to GST Common Portal' and contains the following elements:

- Navigation Bar**: A bar with links: RETURN DASHBOARD, CREATE CHALLAN, VIEW NOTICE(S) AND ORDER(S), and ANNUAL RETURN.
- Quick Links**: A section with links: Check Cash Balance, Liability Ledger, and Credit Ledger.
- Buttons**: A blue button labeled 'CONTINUE TO DASHBOARD'.

Select appropriate Financial Year, Quarter and Period, then Click the SEARCH button.

Fig 1.3.c

The screenshot shows the Nergysys portal for Goods and Services Tax. The header includes the Nergysys logo and a disclaimer: "Simulated website - For educational purposes only". The main title is "Goods and Services Tax". Below the title, there are tabs for "Dashboard" and "Returns". The "Returns" tab is active, showing a "File Returns" section. This section includes a "through GSTR" dropdown, a "Financial Year" dropdown set to "2022-2023", a "Quarter" dropdown set to "Quarter 2 (Jul-Sep)", and a "Period" dropdown set to "September". A "SEARCH" button is located to the right of these dropdowns. A note at the bottom states: "You have selected to file the return on monthly frequency. GSTR-1 and GSTR-3B shall be required to be filed for each month of the quarter."

Open GSTR 1 > Tick in File Nil GSTR – 1 > Click on FILE STATEMENT

Fig 1.3.d

The screenshot shows the Nergysys portal with a grid of five cards. The top card is titled "Details of outward supplies of goods or services" and "GSTR1". It includes a "Due Date - 2022-09-18" and buttons for "PREPARE ONLINE" and "PREPARE OFFLINE". The second card is titled "Auto Drafted details (For view only)" and "GSTR1A", with "VIEW" and "DOWNLOAD" buttons. The third card is titled "Auto - drafted ITC Statement" and "GSTR2B", with "VIEW" and "DOWNLOAD" buttons. The fourth card is titled "Auto - drafted ITC Statement for the quarter" and "GSTR2B", with "VIEW" and "DOWNLOAD" buttons. The fifth card is titled "Monthly Return" and "GSTR3B", with a "Due Date - 2022-09-21" and buttons for "PREPARE ONLINE" and "PREPARE OFFLINE".

Fig 1.3.e

**GSTR-1: Details of outward supplies of goods or services**

GSTIN - 28AF50N937H122  
 FY - 2022-2023

Legal Name - RAHUL KISHAN  
 Return Period - September

Trade Name - RK ASSOCIATES  
 Status - Not Filed

Due Date - 11/10/2022

**File Nil GSTR-1**

*Note: Nil Form GSTR-1 can be filed by you if you have:*

- a. No Outward Supplies (including supplies on which tax is to be charged on reverse charge basis, zero rated supplies and deemed exports) during the month or quarter for which the form is being filed for
- b. No Amendments to be made to any of the supplies declared in an earlier form
- c. No Credit or Debit Notes to be declared / amended
- d. No details of advances received for services to be declared or adjusted

☐ The taxpayer for whom e-invoicing is not applicable may ignore the section/sections related to e-invoice download. The downloaded file would be blank in case taxpayer is not e-invoicing or when e-invoices reported to B2B are yet to be processed by GST system.

**E-INVOICE DOWNLOAD HISTORY**

BACK    DOWNLOAD DETAILS FROM E-INVOICES (EXCEL)    PREVIEW    RESET    FILE STATEMENT

Tick in the declaration Statement > Select Appropriate Authorised Signatory > Click FILE WITH EVC button.

Fig 1.3.f

**Goods and Services Tax**

RAHUL KISHAN  
 28AF50N937H122

Dashboard    Returns    File

GSTIN - 28AF50N937H122  
 FY - 2022-2023

Legal Name - Rahul Kishan  
 Return Period - September

Return Type - GSTR1  
 Status - Ready to File

**Business Filing for GSTR-1**

☒ I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my/our knowledge and belief and nothing has been concealed therefrom.

Authorized signatory \*

Rahul Kishan

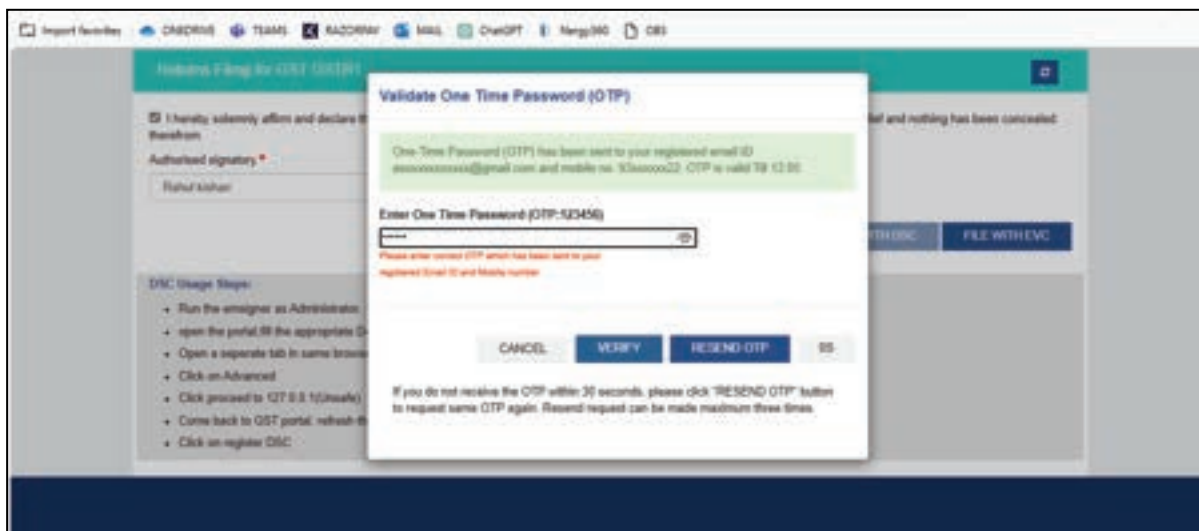
BACK    FILE WITH DISC    FILE WITH EVC

**DISC Usage Steps:**

- Run the emulator as Administrator
- open the portal fill the appropriate Details got to BE Update Register DISC
- Open a separate tab in same browser and have https://127.0.0.1:1585

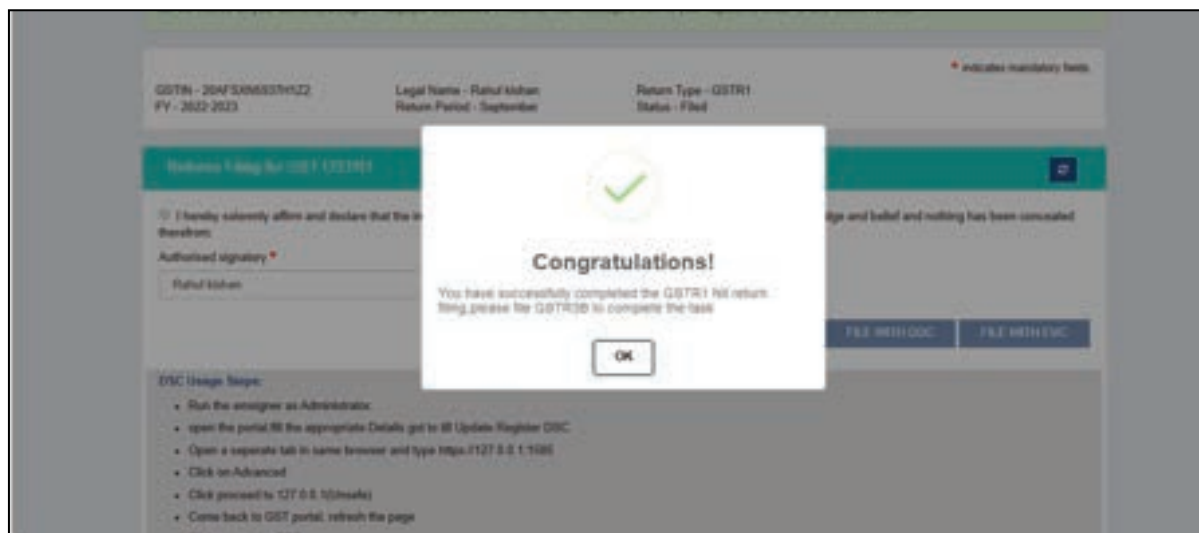
Enter the OTP and Click the Verify button to File the Nil Return

Fig 1.3.g



After successful completion of Nil Return Filing, a Pop-Up window will be shown as CONGRATULATIONS.

Fig 1.3.h





**MULTIPLE CHOICE QUESTIONS (MCQS)****1. When is a GST Nil Return typically required to be filed?**

- (a) Weekly
- (b) Monthly
- (c) Annually
- (d) Only when requested by the tax authorities

**2. Why is it important to file a Nil Return under GST even when there are no transactions to report?**

- (a) To receive a refund from the government
- (b) To avoid paying a late filing fee
- (c) To maintain compliance with tax regulations
- (d) To report exempt transactions

**3. What can be the consequence of not filing a required GST Nil Return?**

- (a) The government will automatically calculate and charge a penalty.
- (b) The taxpayer will be exempt from GST in the future.
- (c) No consequences, as Nil Returns are not mandatory.
- (d) The taxpayer will receive a tax refund.

**4. What is the primary purpose of maintaining records even when filing Nil Returns?**

- (a) To qualify for lower GST rates
- (b) To provide proof of income to lenders
- (c) To comply with tax laws and facilitate audits
- (d) To claim input tax credit

**5. Which GST return type is specifically used to report Nil Returns for regular taxpayers?**

- (a) GSTR-1
- (b) GSTR-2
- (c) GSTR-3B
- (d) GSTR-9

**ANSWERS**

- 1 (b) Monthly
- 2 (c) To maintain compliance with tax regulations
- 3 (a) The government will automatically calculate and charge a penalty.
- 4 (c) To comply with tax laws and facilitate audits
- 5 (c) GSTR-3B

# CHAPTER 8

## GSTR-1 FILING



### LEARNING OBJECTIVES:

- ✓ **Understanding the GST Framework:** Gain a comprehensive understanding of the Goods and Services Tax (GST) system in India, including its purpose, scope, and applicability.
- ✓ **Applicability and Thresholds:** Learn the criteria for mandatory registration under GST and the threshold limits for businesses to determine if they need to file GSTR-1.
- ✓ **Registration and Compliance:** Understand the process of GST registration, including the documentation and requirements involved in becoming a registered taxpayer.
- ✓ **Filing Frequency and Due Dates:** Learn about the filing frequency of GSTR-1 (monthly or quarterly) and the specific due dates for filing, ensuring compliance with timelines.
- ✓ **Components of GSTR-1:** Familiarize yourself with the different sections and components of GSTR-1, such as B2B supplies, B2C supplies, exports, and more

**Invoices and Documentation:** Understand the importance of maintaining accurate records and documentation for invoices, credit notes, debit notes, and advance receipts

### INTRODUCTION:

GSTR-1 is a return form under the Goods and Services Tax (GST) system in India. It is used by registered taxpayers to provide details of outward supplies of goods and services. GSTR-1 is designed to capture comprehensive information about a taxpayer's outward supplies. It helps in determining the tax liability of the supplier and the eligibility of the recipient for claiming Input Tax Credit (ITC). Registered taxpayers whose annual turnover exceeds the prescribed threshold limit are required to file GSTR-1 regularly. The threshold limit may vary for different categories of taxpayers. GSTR-1 is typically filed on a monthly basis. However, certain categories of taxpayers can opt for quarterly filing.

GSTR-1 was introduced as part of the GST regime from its inception. It was designed to capture the details of outward supplies made by registered taxpayers. Over time, the government made several amendments and simplifications to the GST law and the GSTR-1 filing process to address concerns and facilitate smoother compliance. GSTR-1 remained a critical component of the GST

compliance system in India. Its relevance in the current period, GSTR-1 data is used by recipients to claim Input Tax Credit. Businesses can offset the GST they have paid on purchases against the GST they collect on sales, thereby reducing their tax liability.

Taxpayers can make amendments or corrections to previously filed GSTR-1 returns in subsequent returns, using specific tables provided for this purpose. Failure to file GSTR-1 by the due date may result in penalties and interest charges. Late filing can also affect input tax credit claims. Taxpayers are required to maintain accurate records of all invoices, documents, and supporting data related to the information provided in GSTR-1 for a specified period.

In summary, GSTR-1 is a vital component of GST compliance in India. It ensures transparency in the tax system and facilitates the matching of input tax credit claims. Filing GSTR-1 accurately and on time is crucial for businesses to avoid penalties and maintain compliance with GST regulations.

**TASK**

STC Pvt. Ltd. is a wholesale dealer of electronic hardware in Kochi, registered in the state of Kerala. As a GST practitioner, you are requested to file GSTR-1 for the below sales records for the month of September 2022.

The monthly summary of their sales is given below.

Sales Details						
Date	Invoice No.	Recipient GST Number	Recipient Name	Taxable Value	GST Rate	Invoice Value
03-09-2022	INV456	32ADFXH-5236K1Z2	Fiber Spares	1,00,000	18%	1,18,000
11-09-2022	INV457		Jaya Shankar (Kerala)	10,000	18%	11,800
15-09-2022	INV458		Ravi Krishnan (Karnataka)	2,60,000	12%	2,91,200
18-09-2022	INV459	33AERXF-6598H1ZQ	Sakthi Electricals	1,00,000	18%	1,18,000
22-09-2022	INV460		Rajeev (Tamil Nadu)	10,000	18%	11,800

Document Issued: from INV456 to INV460

Total Issued Invoice: 5

Cancelled Invoice: 0

User Id: NERGYINDIA

Password: Nergy@123

### 8.1 STEPS FOR GSTR1 FILING

Clicking the “Start” button on the question page will redirect you to the portal’s homepage, where you can log in

Click on the login button

Fig1.4 a



After the login page appears, proceed to enter the necessary credentials in order to successfully log in.

Fig1.4. b

Figl.4. c

**Login**

• indicates mandatory fields

**Username** •

NERGYINDIA

**Password** •

\*\*\*\*\*

**LOGIN**

[Forgot Username](#) [Forgot Password](#)

**First time login:** If you are logging in for the first time, click [here](#) to log in.

Click on “Return Dashboard” to file GSTR 1 Return.

**RETURN DASHBOARD >** **CREATE CHALLAN >** **VIEW NOTICE(S) AND ORDER(S) >**

**ANNUAL RETURN >**

**Else Go to >>** **CONTINUE TO DASHBOARD >**

Figl.4. d

In the dashboard, enter the necessary credentials based on the scenario. In this case, you are asked to file the GSTR-1 for the month of September 2022.

Figl.4. e

**File Returns**

GSTR-2A can now be downloaded in excel/CSV format for your reference and further use. Nil return for GSTR-1, GSTR-3B and CMP-08 can now be filed through

• indicates mandatory fields

**Financial Year** •

2023-2024

**Quarter** •

Quarter 2 (Jul-Sep)

**Period** •

August

**SEARCH**

Financial year – 2022-2023

Quarter –Quarter 2 (July-September)

Period –September

Click the search button

Fig1.4. f

The screenshot shows a web interface titled "File Returns". At the top right, there is a note: "GSTR-2A can now be" and a red asterisk indicating mandatory fields. Below this, there are three dropdown menus: "Financial Year" (set to 2022-2023), "Quarter" (set to Quarter 2 (Jul-Sep)), and "Period" (set to September). A blue "SEARCH" button is located to the right of these filters.

Select GSTR 1 and click on "PREPARE ONLINE"

Fig1.4. g

The screenshot shows a dashboard with several options for tax returns. The first row contains three boxes: "Details of outward supplies of goods or services" (GSTR1), "Auto Drafted details (For view only)" (GSTR2A), and "Auto - drafted ITC Statement" (GSTR2B). The GSTR1 box shows a "Due Date - 2022-10-11" and has "PREPARE ONLINE" and "PREPARE OFFLINE" buttons, with "PREPARE ONLINE" highlighted by an orange border. The GSTR2A and GSTR2B boxes have "VIEW" and "DOWNLOAD" buttons. The second row contains two boxes: "Auto - drafted ITC Statement for the quarter" (GSTR2B) and "Monthly Return" (GSTR3B). The GSTR2B box has "VIEW" and "DOWNLOAD" buttons. The GSTR3B box shows a "Due Date - 2022-10-21" and has "PREPARE ONLINE" and "PREPARE OFFLINE" buttons.

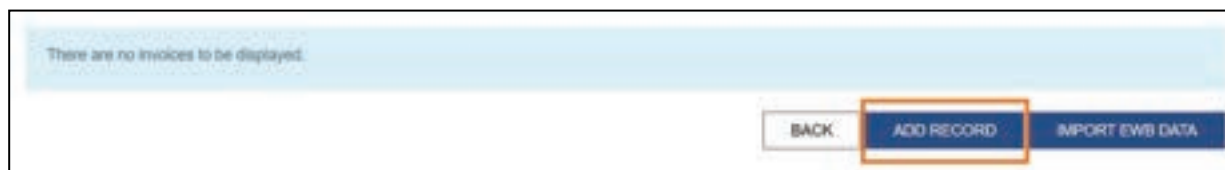
According to the provided question, there are B2B and B2C transactions; therefore, credentials need to be provided accordingly.



Fig1.4.h

Invoices associated with B2B transactions should be documented by selecting the 'ADD RECORD' option.

Fig1.4. i



Provide the information provided as per the question.

Fig1.4. j

Recipient (G/TIN/UE) \*

Recipient Name \*

Name as in Master

Invoice No. \*

Invoice Date \*

Total Invoice value(R) \*

PO# \*

Supply Type

Source

SRN

SRN date

BACK SAVE

03-09-2022	INV456	32ADFXH5236K1Z2	Fiber Spares	1,00,000	18%	1,18,000
------------	--------	-----------------	--------------	----------	-----	----------

Figl.4. k



## TAX COMPLIANCES

Recipient GSTIN/UIN *	Recipient Name *	Name as in Master
33ACFXH6336K1Z2	Fiber Spares	

GSTIN not present in master/ GSTIN is selected as supplier only.

[ADD TO MASTER](#)

Invoice No. *	Invoice Date *	Total Invoice value(₹) *
INV456	03-08-2022	118000.00

POB *	Supply Type
32-Kerala	Intra-State

Source	IRN	IRN date

Item details				
Rate(%)	Taxable value(₹) *	Amount of Tax		
		Central Tax (₹) *	State/UT Tax (₹) *	Cess (₹)
0%				
0.1%				
0.25%				
1%				
1.5%				
3%				
5%				
6%				
7.5%				
12%				
18%	100000.00	9000.00	9000.00	
28%				

[BACK](#) [SAVE](#)

## TAX COMPLIANCES

To add the other B2B transaction click on **ADD RECORD**.

Fig1.4. l

The screenshot shows a software interface with a blue button labeled 'ADD RECORD' in the top left corner, highlighted with a red rectangle. To its right is a blue button labeled 'IMPORT EWS DATA'. Below these buttons is a section titled 'Record Details' containing a table with the following data:

Recipient Details	Trade/Legal Name	Taxpayer Type	Processed Invoices	Pending/Entered Invoices	Add Invoice
32ADF3H6256H1Z2	Fiber Spares	Regular taxpayer	2	0	

At the bottom right of the 'Record Details' section is a 'BACK' button.

18-09-2022	INV459	33AERXF6598H1ZQ	Sakthi Electricals	1,00,000	18%	1,18,000
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Fig1.4. m

The screenshot shows a software interface for adding a record to a master. At the top, there is a message: 'PIN not present in master/ GSTIN is selected as supplier only.' Below this is a blue button labeled 'ADD TO MASTER'. The form contains several input fields:

- Inv No. \***: INV459
- Invoice Date \***: 18-09-2022
- Total Invoice value(₹) \***: 118000
- Supplier \***: S. Sankar Naidu
- Supply Type**: Inter-State
- SRN**: (empty)
- SRN date**: (empty)

Below these fields is a table with the following columns: 'Rate(%)', 'Taxable value(₹) \*', and 'Amount of Tax'. The table has 10 rows, each with a rate value in the first column and empty input fields for the taxable value and amount of tax in the subsequent columns.

Rate(%)	Taxable value(₹) *	Amount of Tax
0%		
0.1%		
0.25%		
1%		
1.5%		
3%		
5%		
6%		
7.5%		
12%		

B2C transactions can be categorized into two. B2B large and B2B others.

Inter-state outward supplies to an unregistered person having an invoice value greater than 2,50,000 will be entered under B2B large.

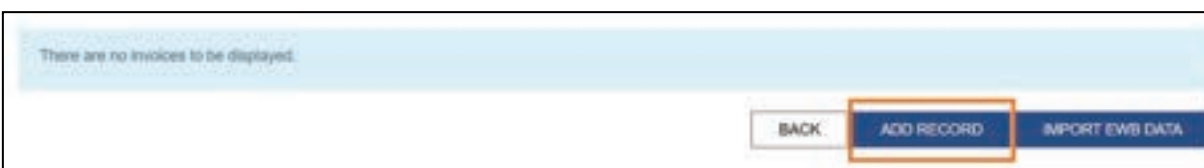
Taxable supplies to an unregistered person other than covered under Table 5.

Fig1.4. n



Invoices associated with B2C Large transactions should be documented by selecting the 'ADD RECORD' option.

Fig1.4. n



Provide information as per the question.

## TAX COMPLIANCES

Fig1.4. o

POS \*

Invoice No. \*

Invoice Date \*

Select

01-09-2022

Supply Type

Total Invoice value(₹) \*

Item details

Rate(%)	Taxable value(₹) <span style="color: red;">*</span>	Amount of Tax	
		Integrated Tax (₹) <span style="color: red;">*</span>	Cess (₹)
0%	0.00	0.00	0.00
0.1%	0.00	0.00	0.00
0.25%	0.00	0.00	0.00
1%	0.00	0.00	0.00
1.5%	0.00	0.00	0.00
3%	0.00	0.00	0.00
5%	0.00	0.00	0.00
6%	0.00	0.00	0.00
7.5%	0.00	0.00	0.00
12%	0.00	0.00	0.00
18%	0.00	0.00	0.00
28%	0.00	0.00	0.00

BACK

SAVE

15-09-2022	INV458		Ravi Krishnan (Karnataka)	2,60,000	12%	2,91,200
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## TAX COMPLIANCES

Fig1.4. p

**POS ⓘ \***

**Invoice No. \***

**Invoice Date \***

**Supply Type**

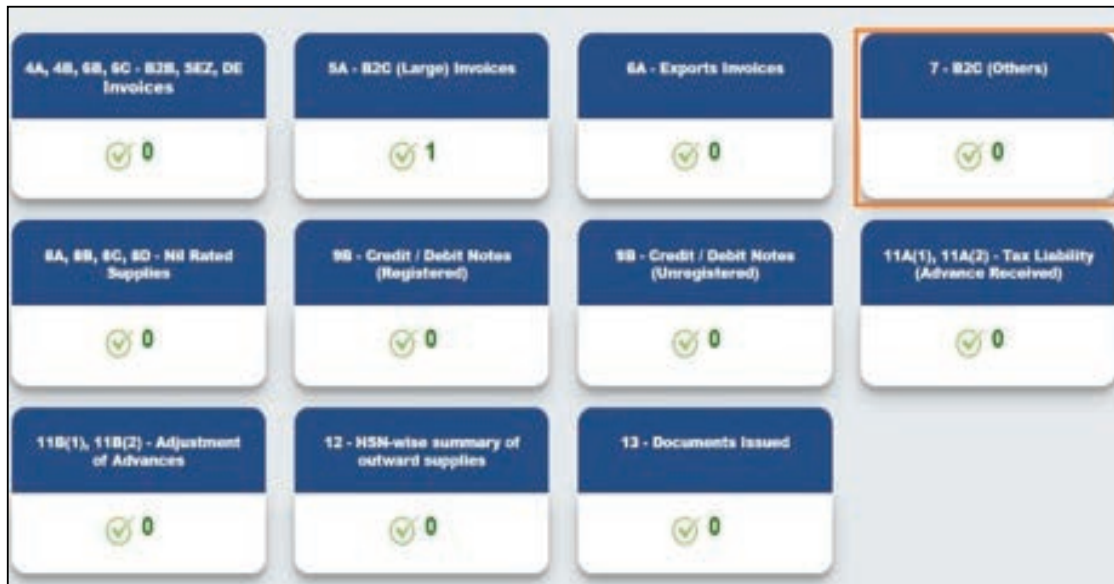
**Total Invoice value(₹) \***

**Item details**

Rate(%)	Taxable value(₹) *	Amount of Tax	
		Integrated Tax (₹) *	Cess (₹)
0%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
0.1%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
0.25%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
1%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
1.5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
3%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
6%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
7.5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
12%	<input type="text" value="260000.00"/>	<input type="text" value="31200.00"/>	<input type="text" value="0.00"/>
18%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
28%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>

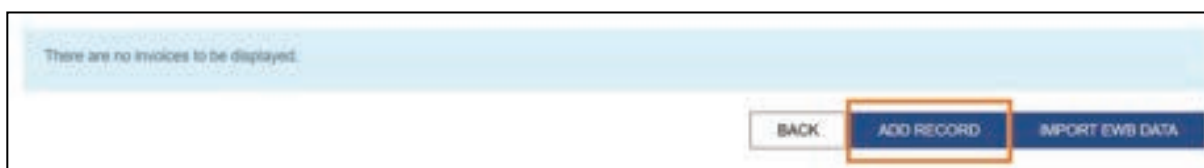
Transactions related to B2C others (as explained above) have to be entered under B2C large.

Fig1.4. q



Invoices associated with B2C Others transactions should be documented by selecting the **'ADD RECORD'** option.

Fig1.4. r



Information should be provided as per question

Figl.4. s

The screenshot shows a web form for tax compliance. It includes the following fields and options:

- POS \***: A dropdown menu with "Select" as the current selection.
- Taxable value (₹) \***: An empty text input field.
- Supply type**: A dropdown menu with "Intra-State" as the current selection.
- ☐ **Is the supply eligible to taxed at a differential percentage (%) of the existing rate of tax, as notified by the Government**
- Rate \***: A dropdown menu with "Select" as the current selection.
- Buttons**: "BACK" and "SAVE" buttons at the bottom right.

11-09-2022	INV457		Jaya Shankar (Kerala)	10,000	18%	11,800
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Figl.4. t

The screenshot shows the same web form as Figl.4. s, but with data entered and calculated values displayed:

- POS \***: "32-Kerala"
- Taxable value (₹) \***: "10000"
- Supply type**: "Intra-State"
- ☐ **Is the supply eligible to taxed at a differential percentage (%) of the existing rate of tax, as notified by the Government**
- Rate \***: "18"
- Central Tax (₹) \***: "900.00"
- State/UT Tax (₹) \***: "900.00"
- CESS (₹)**: "0.00"
- Buttons**: "BACK" and "SAVE" buttons at the bottom right.

To add another invoice, click on the “ADD RECORD” button.


Figl.4. u

Processed Invoices								
Place of Supply (Name of State)	Rate (%)	Total Taxable Value	Integrated Tax (₹)	Central tax (₹)	State/UT Tax (₹)	Cess (₹)	Applicable percentage(%)	Actions
32-Kerala	18	10000.00	0.00	900.00	900.00	0.00		 

BACK ADD RECORD

22-09-2022	INV460		Rajeev (Tamil Nadu)	10,000	18%	11,800
------------	--------	--	---------------------	--------	-----	--------

Figl.4. v

POS 

Taxable value (₹) \*

10000

Supply type

Inter-State

Is the supply eligible to taxed at a differential percentage (%) of the existing rate of tax, as notified by the Government

☐

Rate \*

18

Integrated Tax (₹) \*

1800.00

CESS (₹)

0.00

BACK SAVE

Number of Invoices issued should be updated under “Documents Issued”.



## TAX COMPLIANCES

4A, 4B, 6B, 6C - B2B, SEZ, DE Invoices	5A - B2G (Large) Invoices	6A - Exports Invoices	7 - B2G (Others)
✓ 0	✓ 1	✓ 0	✓ 2
8A, 8B, 8C, 8D - Nil Rated Supplies	9B - Credit / Debit Notes (Registered)	9B - Credit / Debit Notes (Unregistered)	11A(1), 11A(2) - Tax Liability (Advance Received)
✓ 0	✓ 0	✓ 0	✓ 0
11B(1), 11B(2) - Adjustment of Advances	12 - HSN-wise summary of outward supplies	13 - Documents Issued	
✓ 0	✓ 0	✓ 0	

Fig1.4. w

All the credentials provided in the question are to be given accordingly.

1. Invoices for outward supply

No.	Sr. No. *		Total number *	Cancelled *	Net issued *	Action *
	From	To				
1	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 20px; height: 20px; background-color: red; color: white;" type="button"/>

[ADD DOCUMENT](#)

Fig1.4. x

1. Invoices for outward supply

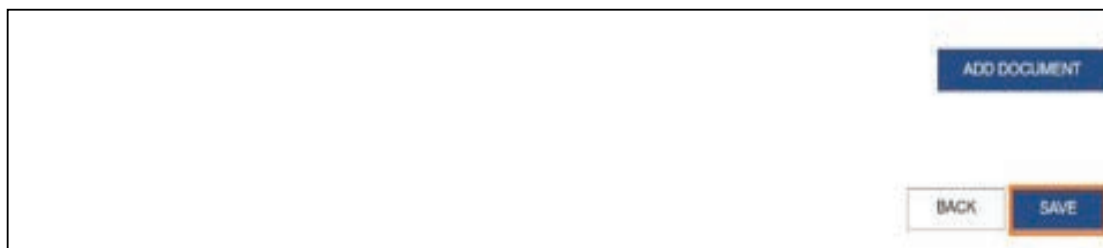
No.	Sr. No. *		Total number *	Cancelled *	Net issued *	Action *
	From	To				
1	INV456	INV460	5	0	5	<input style="width: 20px; height: 20px; background-color: red; color: white;" type="button"/>

[ADD DOCUMENT](#)

Figl.4. y

Save the document after providing necessary credentials.

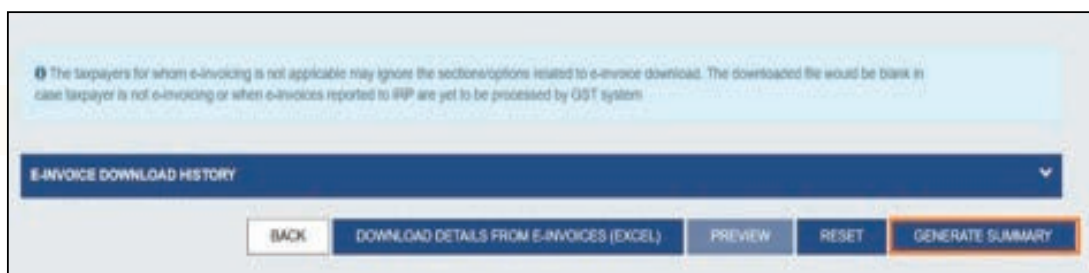
Figl.4. z



A screenshot of a web form. In the top right corner, there is a blue button labeled "ADD DOCUMENT". In the bottom right corner, there are two buttons: a white button labeled "BACK" and a blue button labeled "SAVE".

Click on generate summary to create a summary of the above

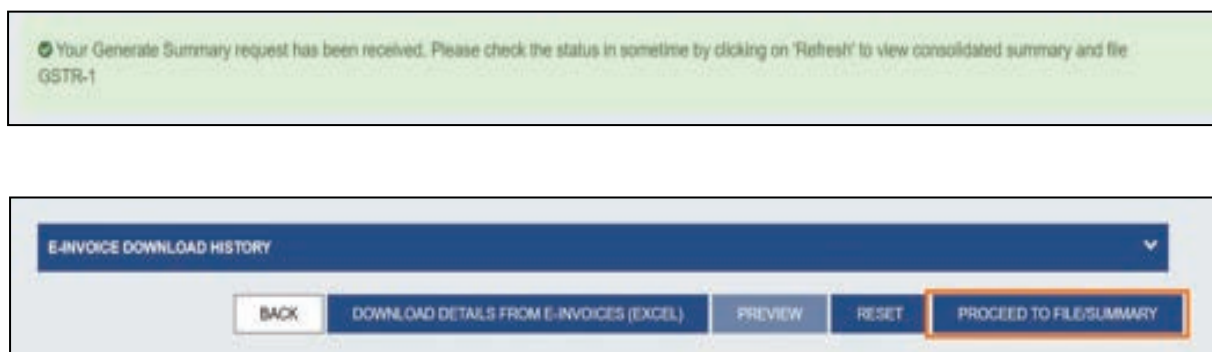
Figl.4. aa



A screenshot of a web interface. At the top, there is a light blue message box with an information icon and text: "The taxpayers for whom e-invoicing is not applicable may ignore the sections/options related to e-invoice download. The downloaded file would be blank in case taxpayer is not e-invoicing or when e-invoices reported to IRP are yet to be processed by GST system". Below this is a dark blue header bar labeled "E-INVOICE DOWNLOAD HISTORY" with a dropdown arrow. At the bottom, there are five buttons: "BACK", "DOWNLOAD DETAILS FROM E-INVOICES (EXCEL)", "PREVIEW", "RESET", and "GENERATE SUMMARY". The "GENERATE SUMMARY" button is highlighted with an orange border.

There will be a message displayed before filing the summary then click to "PROCEED TO FILE/SUMMARY".

Figl.4. ab



A screenshot of a web interface. At the top, there is a green message box with a checkmark icon and text: "Your Generate Summary request has been received. Please check the status in sometime by clicking on 'Refresh' to view consolidated summary and file GSTR-1". Below this is a dark blue header bar labeled "E-INVOICE DOWNLOAD HISTORY" with a dropdown arrow. At the bottom, there are five buttons: "BACK", "DOWNLOAD DETAILS FROM E-INVOICES (EXCEL)", "PREVIEW", "RESET", and "PROCEED TO FILE/SUMMARY". The "PROCEED TO FILE/SUMMARY" button is highlighted with an orange border.

A consolidated summary is displayed and click on the button "FILE STATEMENT" to file the statement.

# TAX COMPLIANCES

Downloaded Summary

Description (Expend Alt v)	No. of records	Document Type	Value (₹)	Integrated Tax(₹)	Central Tax(₹)	State/UT Tax(₹)	Gross(₹)
4A - Taxable outward supplies made to registered persons (other than reverse charge supplies) - B2B Register							
Total	1	Invoice	25000	3000	0	0	0
4B- Taxable outward supplies made to registered persons attracting tax on reverse charge - B2B Reverse charge							
Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
5A- Taxable outward inter-state supplies made to unregistered persons (where invoice value is more than 2.5 lakh)- B2CL (Large)							
Total	0	Invoice	0	0			0
6B-Supplies made to SEZ unit or SEZ developer - SEZWP/SEZVDP							
Total	0	Invoice	0.00	0.00			0.00
EXPWP	0	Invoice	0.00	0.00			0.00
EXPVDP	0	Invoice	0.00				
6A- Exports							
Total	0	Invoice	0.00	0.00			0.00
SEZWP	0	Invoice	0.00	0.00			0.00
SEZVDP	0	Invoice	0.00				
6C - Deemed Exports - DE							
Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
7 - Taxable supplies (Net of debit notes and credit notes) to unregistered persons other than the supplies covered in Table 5 - B2CL (Others)							
Total	1	Net Value	250000	30000	0	0	0
8- Not rated/Exempted and non GST outward supplies							
Total			0.00				
Not			0.00				
Exempted			0.00				
Non-GST			0.00				
9A - Amendment to taxable outward supplies made to registered person in returns of earlier tax periods in table 4 - B2B Register							
Amended amount - Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
9A - Amendment to taxable outward supplies made to registered person in returns of earlier tax periods in table 4 - B2B Reverse charge							
Amended amount - Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
9A - Amendment to inter-State supplies made to unregistered person (where invoice value is more than Rs.2.5 lakh) in returns of earlier tax periods in table 5 - B2CL (Large)							
Amended amount - Total	0	Invoice	0.00	0.00			0.00
Net differential amount(Amended - Original)			0.00	0.00			0.00
6B-Supplies made to SEZ unit or SEZ developer - SEZWP/SEZVDP							
Total	0	Invoice	0.00	0.00			0.00
EXPWP	0	Invoice	0.00	0.00			0.00
EXPVDP	0	Invoice	0.00				
6B-Supplies made to SEZ unit or SEZ developer - SEZWP/SEZVDP							
Total	0	Invoice	0.00	0.00			0.00
EXPWP	0	Invoice	0.00	0.00			0.00
EXPVDP	0	Invoice	0.00				
9B - Credit/Debit Notes (Registered) - CDNR							
Total - Net off debit/credit notes (Debit notes - Credit notes) v	0	Note	0.00	0.00	0.00	0.00	0.00
9B - Credit/Debit Notes (Unregistered) - CDNRU							
Total - Net off debit/credit notes (Debit notes - Credit notes) Unregistered Type V	0	Note	0.00	0.00			0.00
9C - Amended Credit/Debit Notes (Registered) - CDNR							
Amended amount- Total	0	Note	0.00	0.00	0.00	0.00	0.00
Net Differential amount (Net Amended Debit Notes - Net Amended Credit notes) - Total v			0.00	0.00	0.00	0.00	0.00
9C - Amended Credit/Debit Notes (Unregistered) - CDNRU							
Amended amount- Total	0	Note	0.00	0.00			0.00
Net Differential amount (Net Amended Debit Notes - Net Amended Credit notes) - Total			0.00	0.00			0.00
Unregistered Type V							
10 - Amendment to taxable outward supplies to unregistered person in returns for earlier tax periods in table 7 - B2CL (Others)							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
11A(1), 11A(2) - Advances received for which invoice has not been issued (tax amount to be added to the output tax liability) (Net of Refund Vouchers)							
Total	0	Net value	0.00	0.00	0.00	0.00	0.00
11B(1), 11B(2) - Advance amount received in earlier tax period and adjusted against the supplies being shown in this tax period in Table Nos. 4, 5, 6 and 7							
Total	0	Net value	0.00	0.00	0.00	0.00	0.00
11A - Amendment to advances received in returns for earlier tax periods in table 11A(1), 11A(2)							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential			0.00	0.00	0.00	0.00	0.00
11B - Amendment to advances adjusted in returns for earlier tax periods in table 11B(1), 11B(2)							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential			0.00	0.00	0.00	0.00	0.00
12 - Indirect summary of outward supplies							
Total	0	NA	0.00	0.00	0.00	0.00	0.00
13 - Document issued							
Net issued documents v	2	All Documents					
Total Liability (Outward supplies other than Reverse charge)							
			252000	30300	0	0	0

BACK

Download Summary (PDF)

File Statement

There is a display of an affirmation/declaration before filing GSTR 1. After submitting the declaration, there display a drop down to select the authorized signatory. Then click "FILE WITH EVC".

Fig.1.4. ad



I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my/our knowledge and belief and nothing has been concealed therefrom.

BACK FILE WITH DISC FILE WITH EVC

Fig.1.4. ae



I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my/our knowledge and belief and nothing has been concealed therefrom.

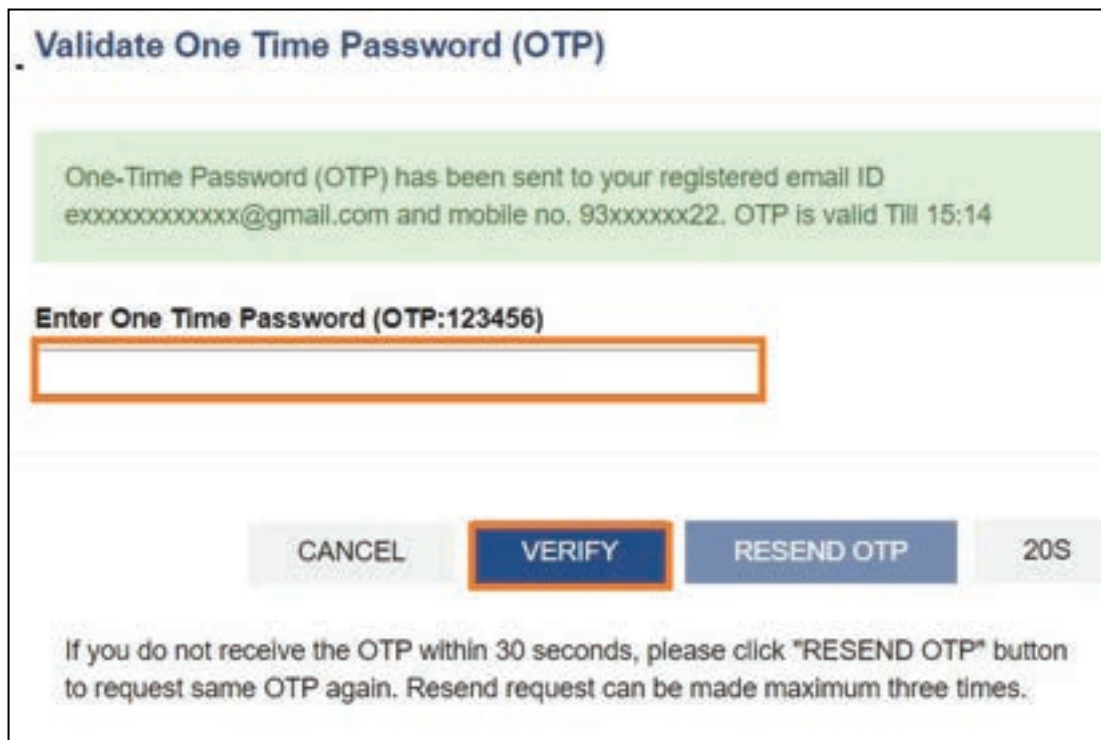
Authorized signatory \*

ARSH, MANOJ

BACK FILE WITH DISC FILE WITH EVC

Enter the one term password as provided in the question and click on "VERIFY"

Fig.1.4. af



### Validate One Time Password (OTP)

One-Time Password (OTP) has been sent to your registered email ID exxxxxxxxxx@gmail.com and mobile no. 93xxxxxx22. OTP is valid Till 15:14

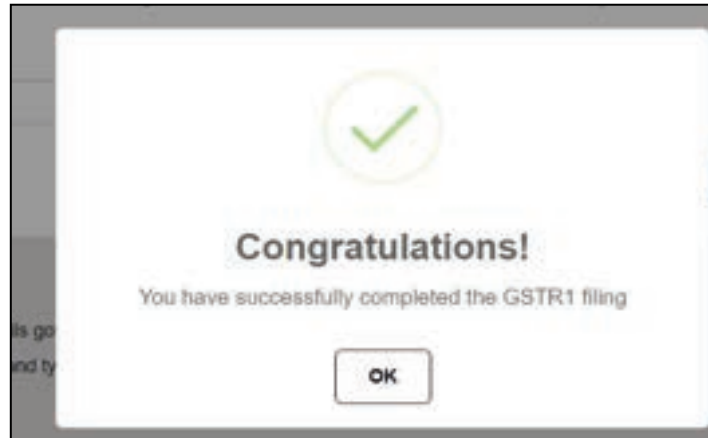
Enter One Time Password (OTP:123456)

CANCEL VERIFY RESEND OTP 20S

If you do not receive the OTP within 30 seconds, please click "RESEND OTP" button to request same OTP again. Resend request can be made maximum three times.

There displays a message for completion of GSTR-1 filing.

Fig.1.4. ag



### MULTIPLE CHOICE QUESTIONS (MCQS)

**1. What is the primary purpose of filing GSTR-1 under the Goods and Services Tax (GST) system in India?**

- a) To claim Input Tax Credit (ITC)
- b) To report outward supplies of goods and services
- c) To pay GST liability
- d) To request a GST refund

**Answer:** b) To report outward supplies of goods and services

**2. Which of the following taxpayers is required to file GSTR-1 on a monthly basis?**

- a) Businesses with an annual turnover below Rs. 20 lakhs
- b) Composition scheme taxpayers
- c) Businesses with an annual turnover above Rs. 1.5 crores
- d) All registered taxpayers

**Answer:** c) Businesses with an annual turnover above Rs. 1.5 crores

**3. When is the due date for filing GSTR-1 for monthly filers?**

- a) 10th of the following month
- b) 11th of the following month
- c) 15th of the following month
- d) 20th of the following month

**Answer:** b) 11th of the following month

**4. What type of supplies are reported in the B2C section of GSTR-1?**

- a) Business-to-business (B2B) supplies
- b) Business-to-government (B2G) supplies
- c) Business-to-consumer (B2C) supplies
- d) Export supplies

**Answer:** c) Business-to-consumer (B2C) supplies

**5. What happens if a taxpayer fails to file GSTR-1 by the due date?**

- a) They are automatically granted an extension.
- b) They lose their GST registration.
- c) They may be liable to pay penalties and interest.
- d) They can continue to make GST payments without filing GSTR-1.

**Answer:** c) They may be liable to pay penalties and interest.

# CHAPTER 9

## GSTR-3B FILING



### LEARNING OBJECTIVES:

- ✓ **Understanding GST Basics:** Gain a foundational understanding of the GST system in India, including its objectives, structure, and key concepts.
- ✓ **Purpose of GSTR-3B:** Learn the specific purpose of GSTR-3B, which is to provide a summary of GST liabilities for a tax period.
- ✓ **Applicability and Filing Frequency:** Understand which businesses are required to file GSTR-3B and the frequency of filing (monthly or quarterly).
- ✓ **Components of GSTR-3B:** Familiarize yourself with the various sections of the GSTR-3B form, including the details of outward supplies, inward supplies, and input tax credit.
- ✓ **Tax Calculation:** Learn how to calculate GST liability for different types of supplies (e.g., taxable, exempt, or nil-rated) and different tax rates (e.g., 5%, 12%, 18%, or 28%).
- ✓ **Input Tax Credit (ITC) Reconciliation:** Understand the process of reconciling input tax credit with GSTR-2A/2B data and how to claim ITC accurately.
- ✓ **Late Filing and Penalties:** Comprehend the consequences of late filing of GSTR-3B, including penalties and interest charges.

### INTRODUCTION

GSTR-3B is a crucial return form under the Goods and Services Tax (GST) system in India. It serves as a simplified summary return that taxpayers use to report their GST liabilities for a particular tax period. GSTR-3B is filed monthly or quarterly, depending on the taxpayer's category, and it plays a significant role in ensuring compliance with GST regulations.

**Here's an introduction to GSTR-3B:**

When GST was introduced on July 1, 2017, there were technical challenges and a learning curve for both businesses and the GST Network (GSTN) portal, which led to difficulties in filing comprehensive GST returns. Initially, GSTR-3B was introduced for a few months to help businesses get accustomed to the GST framework. However, it continued to be used as a parallel return filing system alongside the more detailed GSTR-1, GSTR-2, and GSTR-3 forms.

GSTR-3B continued to be relevant in the GST landscape in India. Here's why it remains important in the current period. GSTR-3B streamlines the GST compliance process by allowing taxpayers to report summary data, making it less administratively burdensome than the detailed returns. This simplification eases the compliance process for businesses.

GSTR-3B consists of various sections where taxpayers need to provide details of their GST liabilities, input tax credit (ITC) claims, and tax payments.

**These sections include:**

- Outward supplies and tax liability.
- Inward supplies attract reverse charge mechanism (RCM).
- ITC claimed and reversed.
- Tax liability and ITC reconciliation.
- Tax payment details.

In conclusion, GSTR-3B has played a crucial role in the Goods and Services Tax (GST) system in India since its introduction. It was initially introduced as a temporary measure to simplify the transition to the new tax regime and address early implementation challenges. However, it has continued to be relevant and remains a key component of GST compliance for businesses.

**TASK**

Karnataka The sales and purchase report for the month of August is provided below for in makes Infotech, a registered dealer located in Bangalore.



Sales Details							
Date	Invoice Number	Recipient GST Number	Recipient Name	Taxable Value	GST Rate	GST Amount	Invoice Value
12-08-2022	625	32ASQXE-1297HIZ3	RBG Pvt. Ltd.	2,000	18%	360	2,360
18-08-2022	626		Ajay (Kerala)	2,50,000	12%	30,000	2,80,000

The purchase details given below and the same are also reflected in GSTR-2B.

Date	Invoice Number	Recipient GST Number	Recipient Name	Taxable Value	GST Rate	GST Amount
15-08-2022	INV/126	33ACSXR4691HIZG	JK Traders	50,000	18%	9,000

File GSTR-1 & GSTR-3B.

## 9.1 STEPS FOR FILING GSTR 3B

Clicking the “Start” button on the question page will redirect you to the portal’s homepage, where you can log in

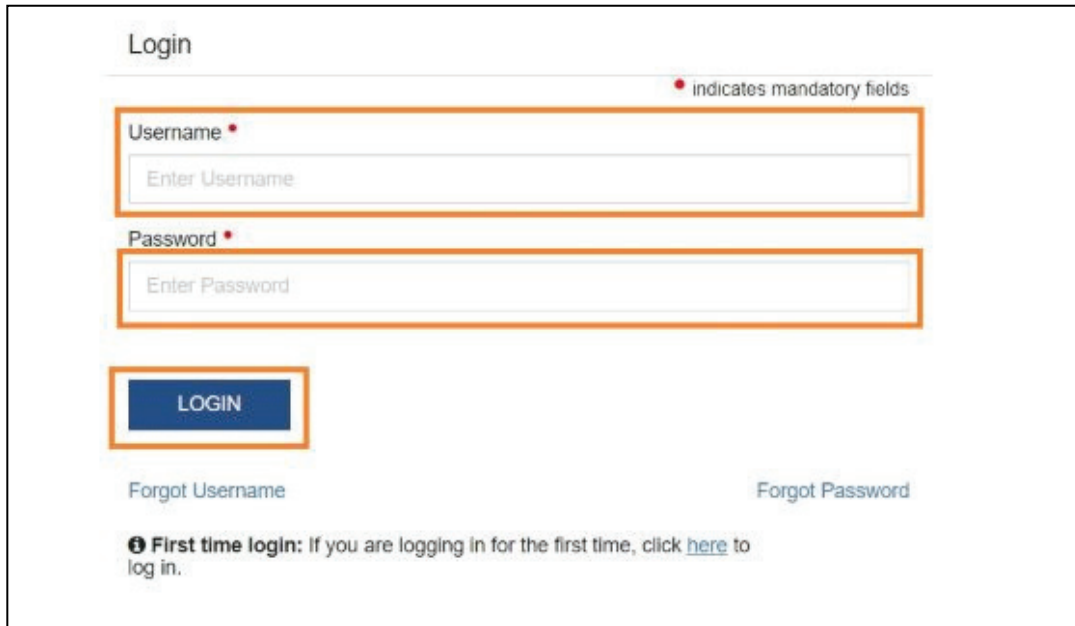
Click on the login button

Fig..1.5.a



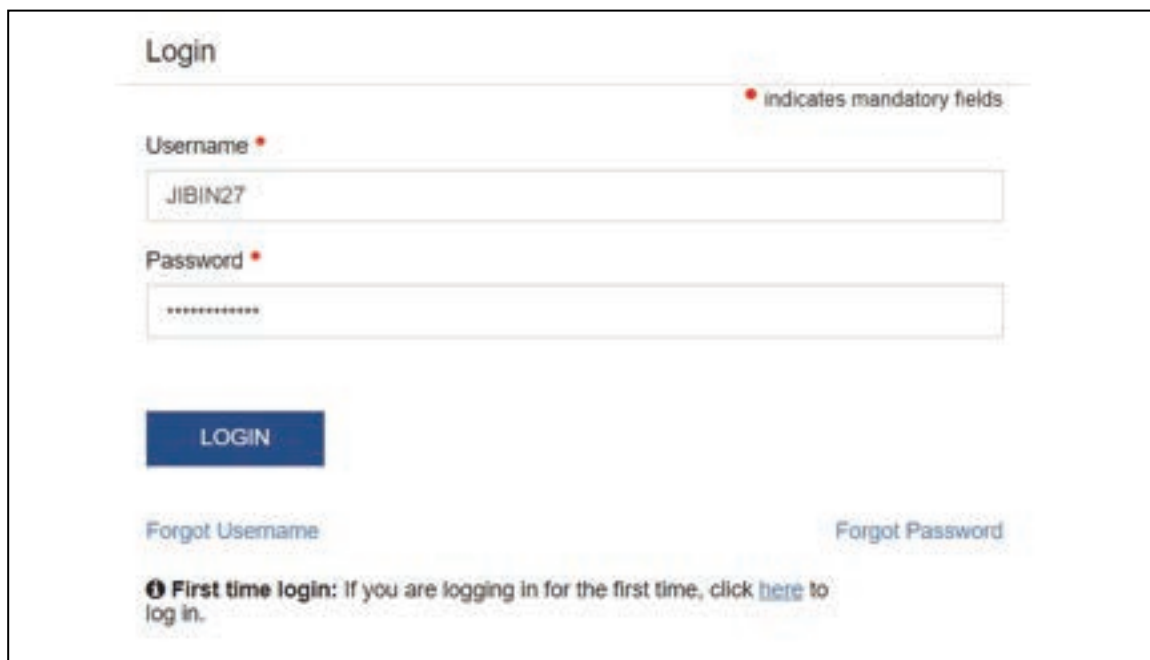
After the login page appears, proceed to enter the necessary credentials in order to successfully log in.

Fig..1.5.b



The login form is titled "Login". It features two input fields: "Username" and "Password", both marked with a red asterisk to indicate they are mandatory. The "Username" field contains the placeholder text "Enter Username" and the "Password" field contains "Enter Password". Below these fields is a blue "LOGIN" button. At the bottom, there are links for "Forgot Username" and "Forgot Password", and a note: "First time login: If you are logging in for the first time, click [here](#) to log in."

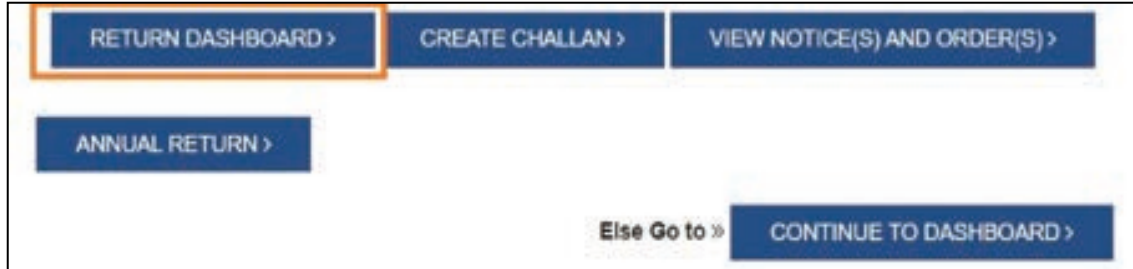
Fig..1.5.c



The login form is titled "Login". It features two input fields: "Username" and "Password", both marked with a red asterisk to indicate they are mandatory. The "Username" field contains the text "JIBIN27" and the "Password" field contains a series of dots representing a masked password. Below these fields is a blue "LOGIN" button. At the bottom, there are links for "Forgot Username" and "Forgot Password", and a note: "First time login: If you are logging in for the first time, click [here](#) to log in."

Click on “Return Dashboard” to file GSTR 1 Return.

Fig..1.5.d



In the dashboard, enter the necessary credentials based on the scenario. In this case, you are asked to file the GSTR-1 for the month of September 2022.

Fig..1.5.e

A screenshot of a web form titled 'File Returns'. It contains three dropdown menus labeled 'Financial Year \*', 'Quarter \*', and 'Period \*'. The 'Financial Year' dropdown is set to '2023-2024', the 'Quarter' dropdown is set to 'Quarter 2 (Jul-Sep)', and the 'Period' dropdown is set to 'August'. A blue 'SEARCH' button is located to the right of the dropdowns. Above the form, there is a message: 'GSTR-3A can now be downloaded in excel/CSV format for your reference and further use. Nil return for GSTR-1, GSTR-3B and CMP-08 can now be filed through'. A red asterisk indicates mandatory fields.

- Financial year – 2022-2023
- Quarter –Quarter 2 (July-September)
- Period – August
- Click the search button

Fig..1.5.f

A screenshot of a web form titled 'File Returns'. It contains three dropdown menus labeled 'Financial Year \*', 'Quarter \*', and 'Period \*'. The 'Financial Year' dropdown is set to '2022-2023', the 'Quarter' dropdown is set to 'Quarter 2 (Jul-Sep)', and the 'Period' dropdown is set to 'August'. A blue 'SEARCH' button is located to the right of the dropdowns. Above the form, there is a message: 'GSTR-3A can now be downloaded in excel/CSV format for your reference and further use. Nil return for GSTR-1, GSTR-3B and CMP-08 can now be filed through'. A red asterisk indicates mandatory fields.

Select GSTR 1 and click on “PREPARE ONLINE”.

Fig..1.5.g

<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Details of outward supplies of goods or services GSTR1</div> <div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Due Date - 2022-10-11</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="border: 2px solid orange; padding: 5px; background-color: #003366; color: white;">PREPARE ONLINE</div> <div style="padding: 5px; background-color: #003366; color: white;">PREPARE OFFLINE</div> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Auto Drafted details (For view only) GSTR2A</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="padding: 5px; background-color: #003366; color: white;">VIEW</div> <div style="padding: 5px; background-color: #003366; color: white;">DOWNLOAD</div> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Auto - drafted ITC Statement GSTR2B</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="padding: 5px; background-color: #003366; color: white;">VIEW</div> <div style="padding: 5px; background-color: #003366; color: white;">DOWNLOAD</div> </div>
<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Auto - drafted ITC Statement for the quarter GSTR-2B</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="padding: 5px; background-color: #003366; color: white;">VIEW</div> <div style="padding: 5px; background-color: #003366; color: white;">DOWNLOAD</div> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Monthly Return GSTR-3B</div> <div style="background-color: #003366; color: white; padding: 5px; text-align: center;">Due Date - 2022-10-21</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="padding: 5px; background-color: #003366; color: white;">PREPARE ONLINE</div> <div style="padding: 5px; background-color: #003366; color: white;">PREPARE OFFLINE</div> </div>	

According to the provided question, there are B2B and B2C transactions; therefore, credentials need to be provided accordingly.

Fig..1.5.h

<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">4A, 4B, 5B, 6C - B2B, 5EZ, DE Invoices</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">5A - B2C (Large) Invoices</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">6A - Exports Invoices</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">7 - B2C (Others)</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>
<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">8A, 8B, 8C, 8D - Nil Rated Supplies</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">9B - Credit / Debit Notes (Registered)</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">9B - Credit / Debit Notes (Unregistered)</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">11A(1), 11A(2) - Tax Liability (Advance Received)</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>
<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">11B(1), 11B(2) - Adjustment of Advances</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">12 - HSN-wise summary of outward supplies</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center;">13 - Documents Issued</div> <div style="text-align: center; margin-top: 10px;"> <span style="color: green; font-size: 24px;">✓</span> <span style="background-color: green; color: white; padding: 2px 5px; border-radius: 5px;">0</span> </div>	

Invoices associated with B2B transactions should be documented by selecting the 'ADD RECORD' option

Fig..1.5.

There are no invoices to be displayed.

BACK
ADD RECORD
IMPORT EWB DATA

Provide the information provided as per the question.

Fig..1.5.i

**Recipient GSTIN/URN \***

**Recipient Name \***

**Name as in Master**

**Invoice No. \***

**Invoice Date \***

**Total invoice value(₹) \***

**PO# \***

**Supply Type**

**Source**

**SRN**

**SRN date**

BACK
SAVE

12-08-2022	625	32ASQXE1297H1Z3	RBG Pvt. Ltd.	2,000	18%	360	2,360
------------	-----	-----------------	---------------	-------	-----	-----	-------

Fig..1.5.j

Recipient GSTIN/UIN \*  
32ASQXE1287H123

Recipient Name \*  
RSG Pvt. Ltd

Name as in Master

GSTIN not present in master! GSTIN is selected as supplier only.  
ADD TO MASTER

Invoice No. \*  
625

Invoice Date \*  
12-06-2022

Total Invoice value(₹) \*  
2360

POS ⓘ \*  
32-Kerala

Supply Type  
Inter-State

Source

IITH

IITH date

Item details

Rate(%)	Taxable value(₹) *	Amount of Tax	
		Integrated Tax (₹) *	Cess (₹)
0%			
0.1%			
0.25%			
1%			
1.5%			
3%			
5%			
6%			
7.5%			
12%			
18%	2000.00	360.00	
28%			

BACK
SAVE

To add the other B2B transaction click on ADD RECORD.

Fig..1.5.k

Recipient Details	Trade/Legal Name	Taxpayer Type	Processed Invoices	Pending/Erred Invoices	Add Invoice
32ASQRE1267H123	RSG Pvt. Ltd.	Regular taxpayer	1	0	<input type="button" value="Add Invoice"/>

B2C transactions can be categorized into two. B2B large and B2B others.

Inter-state outward supplies to an unregistered person having invoice value greater than 2,50,000 will be entered under B2B large

Taxable supplies to an unregistered person other than covered under Table 5.

Fig..1.5.l

Invoices associated with B2C Large transactions should be documented by selecting the 'ADD RECORD' option.

Fig..1.5.m

There are no invoices to be displayed.

BACK
ADD RECORD
IMPORT EWB DATA

Provide information as per the question.

Fig..1.5.n

POS ▼  

Select

Invoice No. \*

Invoice Date \*  

01-09-2022

Supply Type

Total Invoice value(₹) \*

Item details			
Rate(%)	Taxable value(₹) *	Amount of Tax	
		Integrated Tax (₹) *	Cess (₹)
0%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
0.1%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
0.25%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
1%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
1.5%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
3%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
5%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
6%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
7.5%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
12%	<div style="border: 2px solid orange; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
18%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>
28%	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>	<div style="border: 1px solid #ccc; padding: 2px; width: 100px;">0.00</div>

BACK
SAVE

18-08-2022	626		Ajay (Kerala)	2,50,000	12%	30,000	2,80,000
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Fig..1.5.o

**POS** \*

**Invoice No.** \*

**Invoice Date** \*

**Supply Type**

**Total Invoice value(₹)** \*

**Item details**

Rate(%)	Taxable value(₹) <span style="color: red;">*</span>	Amount of Tax	
		Integrated Tax (₹) <span style="color: red;">*</span>	Cess (₹)
0%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
0.1%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
0.25%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
1%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
1.5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
3%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
6%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
7.5%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
12%	<input type="text" value="250000.00"/>	<input type="text" value="30000.00"/>	<input type="text" value="0.00"/>
18%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
28%	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>



BACK

SAVE

To add another invoice, click on the “ADD RECORD” button. Otherwise click the BACK button.

## TAX COMPLIANCES

Fig..1.5.p

Processed Invoices						
Invoice No.	Invoice Date	Total Invoice Value(₹)	Total Taxable Value(₹)	Integrated Tax (₹)	Cess (₹)	Actions
626	2022-09-18	280000.00	250000.00	30000.00	0.00	 

BACK ADD RECORD IMPORT EWS DATA

Number of Invoices issued should be updated under “Documents Issued”.

Fig..1.5.q

4A, 4B, 6B, 6C - B2B, SEZ, DE Invoices	5A - B2C (Large) Invoices	6A - Exports Invoices	7 - B2C (Others)
✓ 0	✓ 1	✓ 0	✓ 2
8A, 8B, 8C, 8D - Nil Rated Supplies	9B - Credit / Debit Notes (Registered)	9B - Credit / Debit Notes (Unregistered)	11A(1), 11A(2) - Tax Liability (Advance Received)
✓ 0	✓ 0	✓ 0	✓ 0
11B(1), 11B(2) - Adjustment of Advances	12 - HSN-wise summary of outward supplies	13 - Documents Issued	
✓ 0	✓ 0	✓ 0	

All the credentials provided in the question are to be given accordingly.

Fig..1.5.r

1. Invoices for outward supply						
No.	Sr. No. *		Total number *	Cancelled *	Net issued *	Action *
	From	To				
1	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	

ADD DOCUMENT

Fig..1.5.s

1. Invoices for outward supply

No.	Sr. No. *	Total number *	Cancelled *	Net issued *	Action
	From	To			
1	625	626	2	0	2

[ADD DOCUMENT](#)

Save the document after providing necessary credentials.

Fig..1.5.t

ⓘ The taxpayers for whom e-invoicing is not applicable may ignore the sections/options related to e-invoice download. The downloaded file would be blank in case taxpayer is not e-invoicing or when e-invoices reported to IAPP are yet to be processed by GST system

E-INVOICE DOWNLOAD HISTORY

[BACK](#)
[DOWNLOAD DETAILS FROM E-INVOICES \(EXCEL\)](#)
[PREVIEW](#)
[RESET](#)
[GENERATE SUMMARY](#)

There will be a message displayed before filing the summary then click to “PROCEED TO FILE/ SUMMARY”.

Fig..1.5.u

✔ Your Generate Summary request has been received. Please check the status in sometime by clicking on 'Refresh' to view consolidated summary and file GSTR-1

E-INVOICE DOWNLOAD HISTORY

[BACK](#)
[DOWNLOAD DETAILS FROM E-INVOICES \(EXCEL\)](#)
[PREVIEW](#)
[RESET](#)
[PROCEED TO FILE/SUMMARY](#)

A consolidated summary is displayed and click on the button “FILE STATEMENT” to file the statement.

# TAX COMPLIANCES

Fig.1.5.v

Description [Expand All v]	No. of records	Document Type	Value (₹)	Integrated Tax(₹)	Central Tax(₹)	State/UT Tax(₹)	Cess(₹)
<b>4A - Taxable outward supplies made to registered persons (other than reverse charge supplies) - B2B Regular</b>							
Total	1	Invoice	2000	360	0	0	0
<b>4B- Taxable outward supplies made to registered persons attracting tax on reverse charge - B2B Reverse charge</b>							
Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
<b>5A- Taxable outward inter-state supplies made to unregistered persons (where invoice value is more than 2.5 lakh)- B2CL (Large)</b>							
Total	0	Invoice	0	0			0
<b>6B-Supplies made to SEZ unit or SEZ developer - B2ZVP/B2ZVOP</b>							
Total	0	Invoice	0.00	0.00			0.00
EXPVVP	0	Invoice	0.00	0.00			0.00
EXPVOP	0	Invoice	0.00				
<b>6A- Exports</b>							
Total	0	Invoice	0.00	0.00			0.00
SEZVP	0	Invoice	0.00	0.00			0.00
SEZVOP	0	Invoice	0.00				
<b>6C - Deemed Exports - DE</b>							
Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
<b>7 - Taxable supplies (Net of debit notes and credit notes) to unregistered persons other than the supplies covered in Table 5 - B2CS (Others)</b>							
Total	1	Net Value	250000	30000	0	0	0
<b>8- Not rated/Exempted and non GST outward supplies</b>							
Total			0.00				
Nil			0.00				
Exempted			0.00				
Non-GST			0.00				
<b>9A - Amendment to taxable outward supplies made to registered person in returns of earlier tax periods in table 4 - B2B Regular</b>							
Amended amount - Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
<b>9A - Amendment to taxable outward supplies made to registered person in returns of earlier tax periods in table 4 - B2B Reverse charge</b>							
Amended amount - Total	0	Invoice	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
<b>9A - Amendment to inter-state supplies made to unregistered person (where invoice value is more than Rs.2.5 lakh) in returns of earlier tax periods in table 5 - B2CL (Large)</b>							
Amended amount - Total	0	Invoice	0.00	0.00			0.00
Net differential amount(Amended - Original)			0.00	0.00			0.00
<b>9B-Supplies made to SEZ unit or SEZ developer - B2ZVP/B2ZVOP</b>							
Total	0	Invoice	0.00	0.00			0.00
EXPVVP	0	Invoice	0.00	0.00			0.00
EXPVOP	0	Invoice	0.00				
<b>9B-Supplies made to SEZ unit or SEZ developer - B2ZVP/B2ZVOP</b>							
Total	0	Invoice	0.00	0.00			0.00
EXPVVP	0	Invoice	0.00	0.00			0.00
EXPVOP	0	Invoice	0.00				
<b>9B - Credit/Debit Notes (Registered) - CDNR</b>							
Total - Net of debit/credit notes (Debit notes - Credit notes) v	0	Note	0.00	0.00	0.00	0.00	0.00
<b>9B - Credit/Debit Notes (Unregistered) - CDNRU</b>							
Total - Net of debit/credit notes (Debit notes - Credit notes)	0	Note	0.00	0.00			0.00
<b>9C - Amended Credit/Debit Notes (Registered) - CDNR A</b>							
Amended amount- Total	0	Note	0.00	0.00	0.00	0.00	0.00
Net Differential amount (Net Amended Debit notes - Net Amended Credit notes) - Total v			0.00	0.00	0.00	0.00	0.00
<b>9C - Amended Credit/Debit Notes (Unregistered) - CDNRU A</b>							
Amended amount- Total	0	Note	0.00	0.00			0.00
Net Differential amount (Net Amended Debit notes - Net Amended Credit notes) - Total			0.00	0.00			0.00
<b>10 - Amendment to taxable outward supplies to unregistered person in returns for earlier tax periods in table 7 - B2C (Others)</b>							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential amount(Amended - Original)			0.00	0.00	0.00	0.00	0.00
<b>11A(1), 11A(2) - Advances received for which invoice has not been issued (tax amount to be added to the output tax liability) (Net of Refund vouchers)</b>							
Total	0	Net value	0.00	0.00	0.00	0.00	0.00
<b>11B(1), 11B(2) - Advance amount received in earlier tax period and adjusted against the supplies being shown in this tax period in Table Nos. 4, 5, 6 and 7.</b>							
Total	0	Net value	0.00	0.00	0.00	0.00	0.00
<b>11A - Amendment to advances received in returns for earlier tax periods in table 11A(1), 11A(2)</b>							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential			0.00	0.00	0.00	0.00	0.00
<b>11B - Amendment to advances adjusted in returns for earlier tax periods in table 11B(1),11B(2)</b>							
Amended amount- Total	0	Net value	0.00	0.00	0.00	0.00	0.00
Net differential			0.00	0.00	0.00	0.00	0.00
<b>12 - HSN-wise summary of outward supplies</b>							
Total	0	NA	0.00	0.00	0.00	0.00	0.00
<b>13 - Document Issued</b>							
Net Issued documents v	2	All Documents					
<b>Total Liability (Outward supplies other than Reverse charge)</b>			252000	30360	0	0	0

[BACK](#)
[DOWNLOAD SUMMARY \(PDF\)](#)
[FILE STATEMENT](#)

There is a display of an affirmation/declaration before filing GSTR 1. After submitting the declaration, there display a drop down to select the authorized signatory. Then click "FILE WITH EVC".

Fig..1.5.w

I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my knowledge and belief and nothing has been concealed therefrom.

BACK FILE WITH DSC FILE WITH EVC

Fig..5.1.x

☒ I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my knowledge and belief and nothing has been concealed therefrom.

Authorized signatory \*

JIBIN DAVID

BACK FILE WITH DSC FILE WITH EVC

Enter the one term password as provided in the question and click on "VERIFY"

Fig..1.5.y

**Validate One Time Password (OTP)**

One-Time Password (OTP) has been sent to your registered email ID xxxxxxxxxxxx@gmail.com and mobile no. 93xxxxxx22. OTP is valid Till 15:14

Enter One Time Password (OTP:123456)

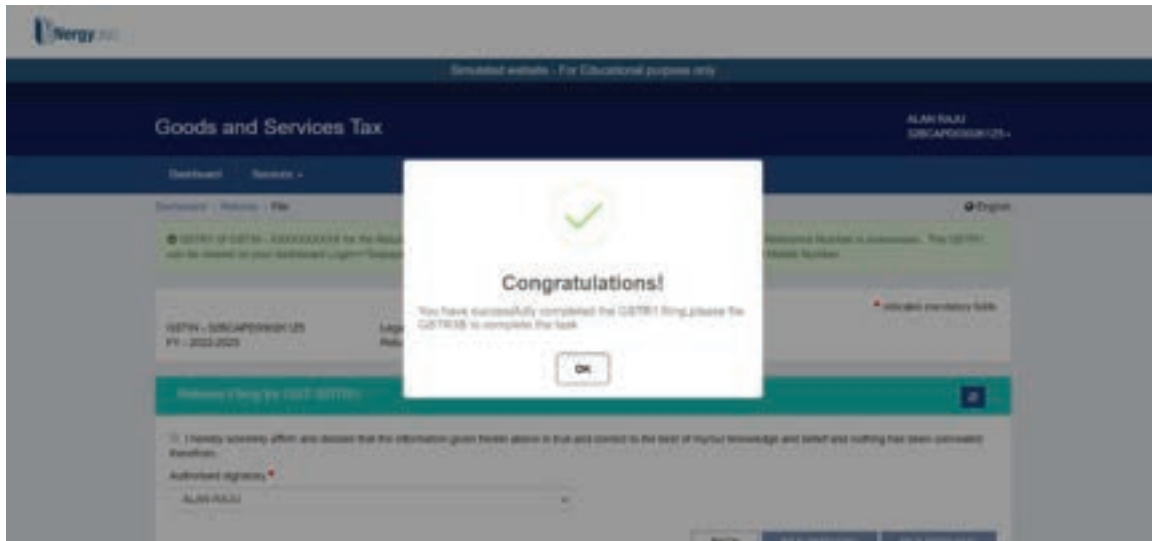
20S

CANCEL VERIFY RESEND OTP

If you do not receive the OTP within 30 seconds, please click "RESEND OTP" button to request same OTP again. Resend request can be made maximum three times.

There displays a message for completion of GSTR-1 filing and to proceed for GSTR 3B.

Fig..1.5.z



### FILING OF GSTR 3B

After the completion of GSTR 1 filing, move on to GSTR 3B filing for that move your cursor to GSTR 3B and click on "PREPARE ONLINE".

Fig.1.5.2.a





There displays a confirmation for filing nil return. Select “NO” and click next to proceed to the next page.

Fig..1.5.2.b

Do you want to file Nil return? \*

*Nil Form GSTR-3B for a tax period can be filed if you:*

- Have NOT made any Outward supplies and
- Have NOT received any Inward supplies and
- Do NOT have any liability for the particular tax period.

☐ Yes ☒ No

BACK
NEXT

All the information such as tax on reverse charge, ITC eligible and interest for late fee etc. are displayed and click on save GSTR 3 B.

Fig..1.5.2.c

<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">3.1 Tax on outward and reverse charge inward supplies</div> <table style="width: 100%; margin-top: 5px;"> <tr> <td>Integrated Tax</td> <td>Central Tax</td> </tr> <tr> <td>₹30000.00</td> <td>₹0.00</td> </tr> <tr> <td>State/UT Tax</td> <td>CESS</td> </tr> <tr> <td>₹0.00</td> <td>₹0.00</td> </tr> </table>	Integrated Tax	Central Tax	₹30000.00	₹0.00	State/UT Tax	CESS	₹0.00	₹0.00	<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">3.2 Inter-state supplies</div> <table style="width: 100%; margin-top: 5px;"> <tr> <td>Taxable Value</td> <td>Integrated Tax</td> </tr> <tr> <td>₹250000.00</td> <td>₹30000.00</td> </tr> </table>	Taxable Value	Integrated Tax	₹250000.00	₹30000.00	<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">4. Eligible ITC</div> <table style="width: 100%; margin-top: 5px;"> <tr> <td>Integrated Tax</td> <td>Central Tax</td> </tr> <tr> <td>₹8000.00</td> <td>₹0.00</td> </tr> <tr> <td>State/UT Tax</td> <td>CESS</td> </tr> <tr> <td>₹0.00</td> <td>₹0.00</td> </tr> </table>	Integrated Tax	Central Tax	₹8000.00	₹0.00	State/UT Tax	CESS	₹0.00	₹0.00
Integrated Tax	Central Tax																					
₹30000.00	₹0.00																					
State/UT Tax	CESS																					
₹0.00	₹0.00																					
Taxable Value	Integrated Tax																					
₹250000.00	₹30000.00																					
Integrated Tax	Central Tax																					
₹8000.00	₹0.00																					
State/UT Tax	CESS																					
₹0.00	₹0.00																					
<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">5. Exempt, nil and Non GST inward supplies</div> <table style="width: 100%; margin-top: 5px;"> <tr> <td>Inter-state supplies</td> <td>Intra-state supplies</td> </tr> <tr> <td>₹0.00</td> <td>₹0.00</td> </tr> </table>	Inter-state supplies	Intra-state supplies	₹0.00	₹0.00	<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">5.1 Interest and Late fee</div> <table style="width: 100%; margin-top: 5px;"> <tr> <td>Integrated Tax</td> <td>Central Tax</td> </tr> <tr> <td>₹0.00</td> <td>₹0.00</td> </tr> <tr> <td>State/UT Tax</td> <td>CESS</td> </tr> <tr> <td>₹0.00</td> <td>₹0.00</td> </tr> </table>	Integrated Tax	Central Tax	₹0.00	₹0.00	State/UT Tax	CESS	₹0.00	₹0.00									
Inter-state supplies	Intra-state supplies																					
₹0.00	₹0.00																					
Integrated Tax	Central Tax																					
₹0.00	₹0.00																					
State/UT Tax	CESS																					
₹0.00	₹0.00																					

Important Message

Once you have filled the relevant tables, please follow the following steps for filing:-

- Please click on 'Save GSTR3B' on the summary page.
- You may download and preview/save the draft GSTR-3B.
- Click on 'Proceed to payment' to offset your liabilities.
- In case of insufficient cash balance to set off the liabilities, challan creation facility has been provided on the same screen.
- After setting off liabilities, GSTR-3B can be filed by attaching DSC/EVC.

BACK
SYSTEM GENERATED GSTR-3B
SAVE GSTR3B
PREVIEW DRAFT GSTR-3B
PROCEED TO PAYMENT

Click on to “PROCEED TO PAYMENT”.

## TAX COMPLIANCES

Fig.1.5.2.c

Dashboard - Returns - GSTIN-00 - Payment of Tax English

### Payment of Tax

The cash available as on date and ITC available (considering ITC of current tax period) are shown in this table.

Description	Cash Ledger Balance					Credit Ledger Balance		
	Integrated Tax (₹)	Central Tax (₹)	State/UT Tax (₹)	CESS (₹)	Total (₹)	Integrated Tax (₹)	Central Tax (₹)	State/UT Tax (₹)
Tax	0.00	0.00	0.00	0.00	0.00	4000.00	2700.00	2700.00
Interest	0.00	0.00	0.00	0.00	0.00	0.00		
Late Fees		0.00	0.00		0.00	0.00		

System has auto-populated "Tax to be paid through ITC" fields with optimum utilization amounts based on provisions of the law relating to credit utilization. However, you may edit the ITC utilization. As you change ITC utilization, the cash to be paid will also get changed.

If available cash balance in Electronic cash ledger is not sufficient to offset the liabilities, additional cash required for paying liability is being reflected in the last column of the Table (Additional cash required). You may create challan for that amount directly by clicking on the "Create Challan" button.

The ITC and Cash utilization information entered will only be available for 2 days. After expiry of 2 days, the suggested utilization shall be reverted to original system suggested utilization.

Description	Other than reverse charge Tax payable (₹)	Paid through ITC				Other than reverse charge Tax to be paid in Cash (₹)	Reverse charge Tax payable (₹)	Reverse charge Tax to be paid in cash (₹)
		Integrated Tax (₹)	Central Tax (₹)	State/UT Tax (₹)	CESS (₹)			
1	2	3	4	5	6	7 (2 - 3 + 4 + 5 - 6)	8	9
Integrated Tax	4000.00	4000.00	2700.00	2700.00		0.00	0.00	0.00
Central Tax	0.00	0.00	0.00			0.00	0.00	0.00
State/UT Tax	0.00	0.00		0.00		0.00	0.00	0.00
CESS	0.00				0.00	0.00	0.00	0.00

[BACK](#)
[CREATE CHALLAN](#)
[MAKE PAYMENT/POST CREDIT TO LEDGER](#)
[PROCEED TO FILE](#)

TAX LIABILITY BREAKUP AS APPLICABLE

Click on "CREATE CHALLAN" to create a new challan.



Fig.1.5.2.d

3.1 Tax on outward and reverse charge inward supplies		3.2 Inter-state supplies		4. Eligible ITC	
Integrated Tax	Central Tax	Taxable Value	Integrated Tax	Integrated Tax	Central Tax
₹30360.00	₹0.00	₹250000.00	₹30000.00	₹9000.00	₹0.00
State/UT Tax	CESS			State/UT Tax	CESS
₹0.00	₹0.00			₹0.00	₹0.00

5. Exempt, nil and Non GST inward supplies		5.1 Interest and Late fee	
Inter-state supplies	Intra-state supplies	Integrated Tax	Central Tax
₹0.00	₹0.00	₹0.00	₹0.00
		State/UT Tax	CESS
		₹0.00	₹0.00

Important Message

Once you have filled the relevant tables, please follow the following steps for filing:-

- Please click on 'Save GSTR3B' on the summary page.
- You may download and preview/save the draft GSTR-3B.
- Click on 'Proceed to payment' to offset your liabilities.
- In case of insufficient cash balance to set off the liabilities, challan creation facility has been provided on the same screen.
- After setting off liabilities, GSTR-3B can be filed by attaching DSC/EVC.

BACK
SYSTEM GENERATED GSTR-3B
SAVE GSTR3B
PREVIEW DRAFT GSTR-3B
PROCEED TO PAYMENT

Next step is to confirm the payment method. Select the E payment.

Fig..1.5.2.e

**Reason For Challan**  
 Reason:  
 Any other payment

**Details of Deposit**

	Tax (₹)	Interest (₹)	Penalty (₹)	Fees (₹)	Other (₹)	Total (₹)
<b>CGST(0005)</b>	0	0	0	0	0	0
<b>IGST(0008)</b>	21360	0	0	0	0	21360
<b>CESS(0009)</b>	0	0	0	0	0	0
<b>Kerala SGST(0006)</b>	0	0	0	0	0	0
<b>Total Challan Amount:</b>		<b>₹ 21360</b>				
<b>Total Challan Amount (in Words):</b>		<b>Rupees Twenty One Thousand Three Hundred Sixty Only</b>				

**Payment Modes \***

☒ **E-Payment**  
☐ Over the Counter  
☐ NEFT/RTGS

GENERATE CHALLAN

After selecting the mode of payment click on to “GENERATE CHALLAN”.

Fig..1.5.2.f

**Payment Modes \***

☒ **E-Payment** ✓  
☐ Over the Counter  
☐ NEFT/RTGS

GENERATE CHALLAN

Select the Bank for the payment and accept the terms and conditions. Click on to make payment.

Fig.1.5.2.g

**GST Challan**

CPIN <b>85106085414463</b>	Challan Generation Date <b>01/09/2023 05:16:30</b>	Challan Expiry Date <b>01/10/2023</b>
-------------------------------	---	--

**Mode of Payment** **E-Payment**

**Details of Taxpayer**

GSTIN/Other Id	Email Address <b>xxxxxxx@xxxxx.com</b>	Mobile Number <b>7xxxxx8589</b>
----------------	---	------------------------------------

**Name** **JIBIN27** **Address** **xxxxxxxxxx**

**Reason For Challan**

Reason:  
**Any other payment**

**Details of Deposit**

	Tax (₹)	Interest (₹)	Penalty (₹)	Fees (₹)	Other (₹)	Total (₹)
<b>COST(0005)</b>	0	0	0	0	0	0
<b>IGST(0008)</b>	21360	0	0	0	0	21360
<b>CESS(0009)</b>	0	0	0	0	0	0
<b>Kerala SGST(0006)</b>	0	0	0	0	0	0

**Total Challan Amount:** ₹ 21360

**Total Challan Amount (In Words):** Rupees Twenty One Thousand Three Hundred Sixty Only

**Select Mode of E-Payment \***

☒ Preferred Banks ✓

☐ Net Banking

**Preferred Bank**

☒ STATE BANK OF INDIA

☒ Terms and Conditions apply

[DOWNLOAD](#) [MAKE PAYMENT](#)

There displays a payment summary page and click on to "CONTINUE".

Fig.1.5.2.h

**Payment Summary**

Your Payment is successfully completed.

Tax Remittance of **Rs. 21360** via Bank Transaction ID **226126320091380** successfully completed. [View Receipt](#)

Thank you!

[Click here to view your Cash Ledger](#)

[CONTINUE](#)

Click on to make payment.

Fig..1.5.2.i

Description	Other than reverse charge Tax payable (₹)	Paid through ITC				Other than reverse charge Tax to be paid in Cash(₹)	Reverse charge Tax payable(₹)	Reverse charge Tax to be paid in cash(₹)
		Integrated Tax (₹)	Central Tax (₹)	State/UT Tax (₹)	CESS (₹)			
1	2	3	4	5	6	7(2 + 3 + 4 + 5 + 6)	8	9
Integrated Tax	30360.00	3000.00	0.00	0.00		21360.00	0.00	0.00
Central Tax	0.00	0.00	0.00			0.00	0.00	0.00
State/UT Tax	0.00	0.00		0.00		0.00	0.00	0.00
CESS	0.00				0.00	0.00	0.00	0.00

BACK CREATE CHALLAN MAKE PAYMENT/POST CREDIT TO LEDGER PROCEED TO FILE

TAX LIABILITY BREAKUP, AS APPLICABLE

There is a warning message for the confirmation of credit claim and utilization. Click “YES” to continue

Fig..1.5.2.j

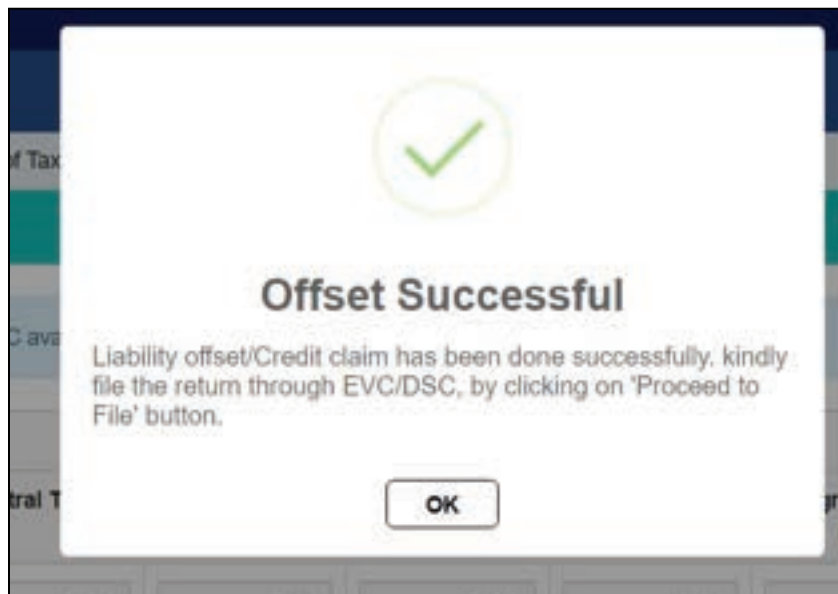
## Warning

**WARNING:** You are about to agree to credit claim and utilization, as indicated.Relevant amounts will be deducted from Electronic Cash and Credit ledgers and accordingly liability will be reduced. Also, amount of credit claimed will be credited to Electronic Credit ledger. Once these entries are made, these can NOT be reversed. Are you sure you want to continue?

NO
YES

A pop-up screen for the successful utilization of credit. Click ok to continue.

Fig..1.5.2.k



After the completion of the payment select "PROCEED TO FILE".

Fig..1.5.2.l

Description	Other than reverse charge Tax payable (₹)	Paid through ITC				Other than reverse charge Tax to be paid in Cash(₹)	Reverse charge Tax payable(₹)	Reverse charge Tax to be paid in cash(₹)
		Integrated Tax (₹)	Central Tax (₹)	State/UT Tax (₹)	CESS (₹)			
1	2	3	4	5	6	7(2+3+4+5+6)	8	9
Integrated Tax	30360.00	8600.00	0.00	0.00		21760.00	0.00	0.00
Central Tax	0.00	0.00	0.00			0.00	0.00	0.00
State/UT Tax	0.00	0.00		0.00		0.00	0.00	0.00
CESS	0.00				0.00	0.00	0.00	0.00

[BACK](#)
[CREATE CHALLAN](#)
[MAKE PAYMENT/POST CREDIT TO LEDGER](#)
[PROCEED TO FILE](#)

TAX LIABILITY BREAKUP, AS APPLICABLE

An affirmation/declaration is displayed.

Select the authorized signatory from the drop-down list and select "FILE GSTR 3B WITH EVC."

Fig..1.5.2.n

The screenshot shows a declaration box with a checked checkbox and the text: "We hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my/our knowledge and belief and nothing has been concealed therefrom." Below this is a label "Authorized signatory" and a dropdown menu showing "JIBIN DAVID". At the bottom, there are five buttons: "BACK", "SYSTEM GENERATED GSTR 3B", "PREVIEW DRAFT GSTR 3B", "FILE GSTR-3B WITH EVC" (highlighted with an orange border), and "FILE GSTR-3B WITH OSC".

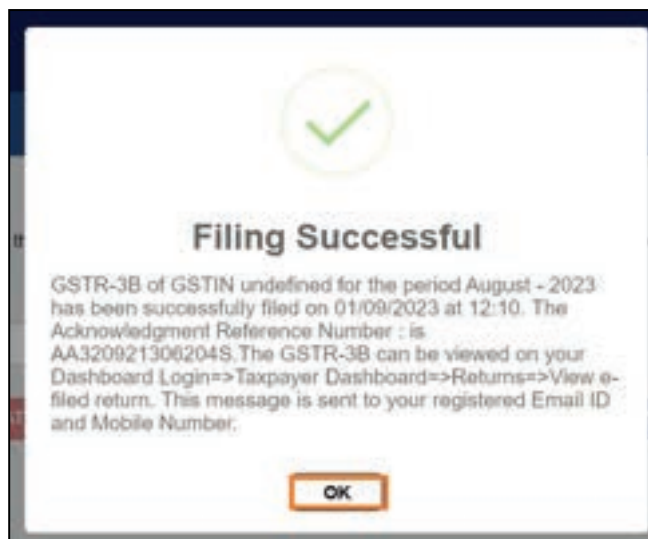
A one-time password should be validated. Provide the OTP as shown on the screen. Click on "VERIFY".

Fig..1.5.2.o

The screenshot shows a screen titled "Validate One Time Password (OTP)". It contains a green message box stating: "One-Time Password (OTP) has been sent to your registered email ID xxxxxxxxxxxx@gmail.com and mobile no. 93xxxxxxxx22. OTP is valid Till 15:14". Below this is a label "Enter One Time Password (OTP:123456)" and an empty input field. At the bottom, there are four buttons: "CANCEL", "VERIFY" (highlighted with an orange border), "RESEND OTP", and a timer "20S". A note at the bottom says: "If you do not receive the OTP within 30 seconds, please click 'RESEND OTP' button to request same OTP again. Resend request can be made maximum three times."

Displays a pop-up screen for the completion and successful filing of GSTR 3B.

Fig..1.5.2.p

**MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. What is the primary purpose of filing GSTR-3B under the Goods and Services Tax (GST) system in India?**

- a) To claim Input Tax Credit (ITC)
- b) To provide a summary of GST liabilities
- c) To report detailed invoice-level information
- d) To request a GST refund

**Answer:** b) To provide a summary of GST liabilities

**2. Who is required to file GSTR-3B on a monthly basis?**

- a) All registered taxpayers
- b) Businesses with an annual turnover above Rs. 1.5 crores
- c) Composition scheme taxpayers
- d) small businesses with an annual turnover below Rs. 20 lakhs

**Answer:** b) Businesses with an annual turnover above Rs. 1.5 crores

**3. What is the purpose of Input Tax Credit (ITC) in GSTR-3B?**

- a) To claim a refund from the government
- b) To report GST paid on outward supplies
- c) To offset GST paid on purchases against GST collected on sales
- d) To calculate penalties for late filing

**Answer:** c) To offset GST paid on purchases against GST collected on sales

**4. What happens if a taxpayer fails to file GSTR-3B by the due date?**

- a) They automatically receive an extension for filing.
- b) They lose their GST registration.
- c) They may be liable to pay late fees and interest charges.
- d) They can continue to make GST payments without filing.

**Answer:** c) They may be liable to pay late fees and interest charges.

**5. Which section of GSTR-3B is used to report the summary of inward supplies subject to the reverse charge mechanism (RCM)?**

- a) Section A: Outward Supplies and Tax Liability
- b) Section B: Inward Supplies Attracting RCM
- c) Section C: ITC Claimed and Reversed
- d) Section D: Tax Liability and ITC Reconciliation

**Answer:** b) Section B: Inward Supplies Attracting RCM



# CHAPTER 10

## GENERATING JSON USING THE GST OFFLINE CREATION TOOL



### LEARNING OBJECTIVES:

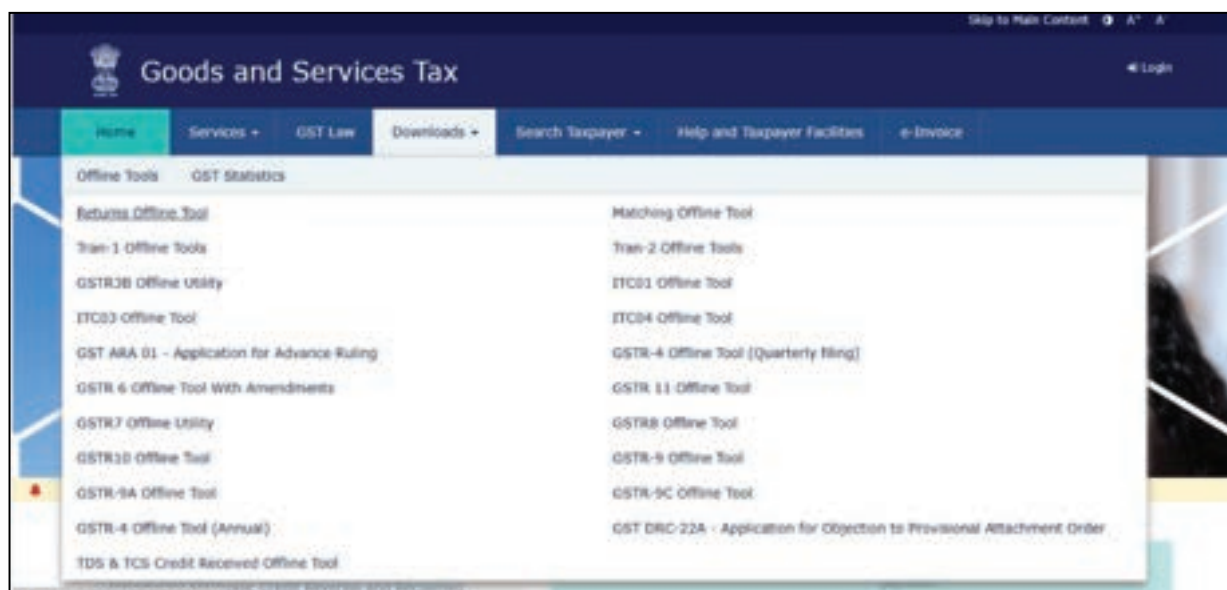
At the end of this chapter, you will be able to:

- ✓ Attain the knowledge of constructing json files utilizing the gst offline tool

### 10.1 STEPS FOR JSON CREATION

#### Download the latest version of GST Offline Tool

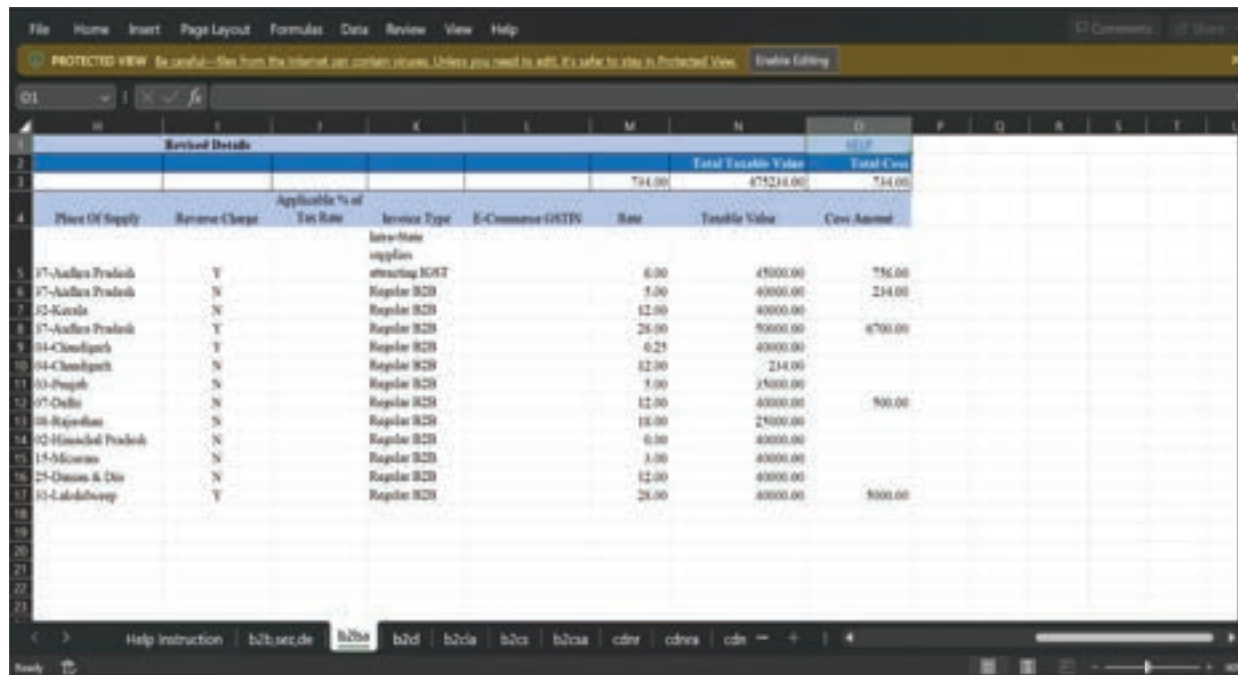
Go to GST Portal > Downloads > Returns Offline Tool. It contains excel utility for GSTR-1 to generate JSON file



#### Clear the sample data in the excel worksheet

Enter details of the relevant tax period in each of the sections displayed

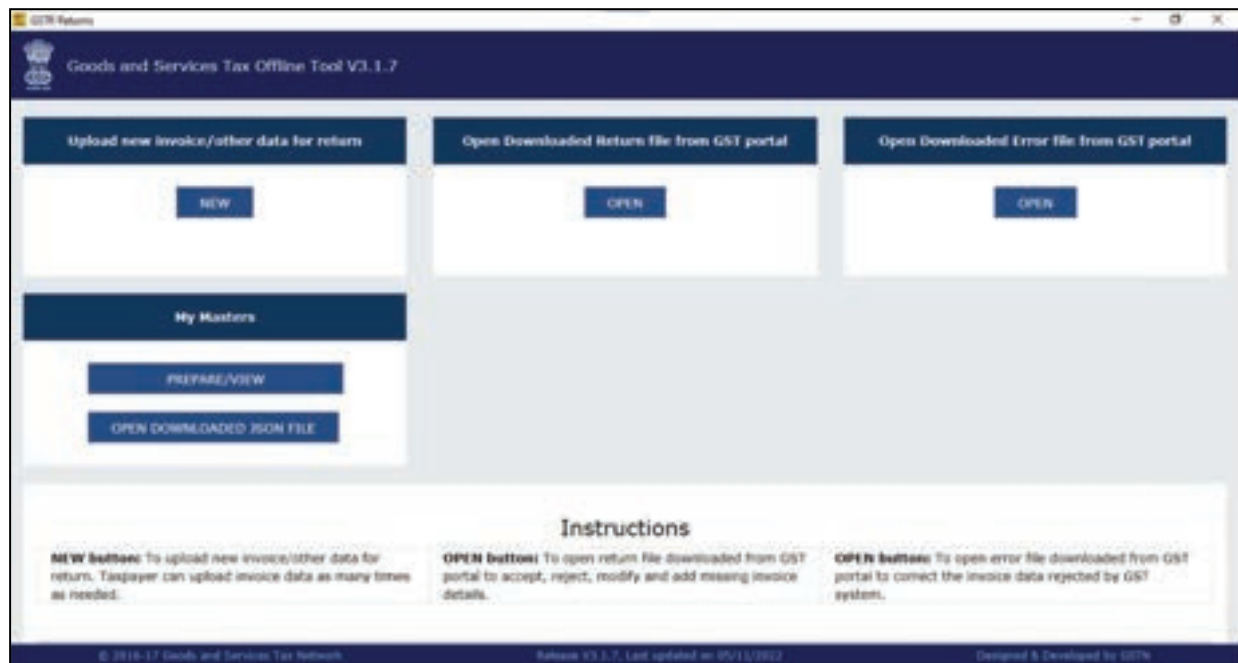
## TAX COMPLIANCES



Invoice Type	E-Commerce GSTIN	Rate	Taxable Value	Cess Amount
Interstate supplies attracting IGST		6.00	40000.00	756.00
Regular B2B		5.00	40000.00	214.00
Regular B2B		12.00	40000.00	
Regular B2B		28.00	50000.00	4700.00
Regular B2B		6.25	40000.00	
Regular B2B		12.00	214.00	
Regular B2B		5.00	25000.00	
Regular B2B		12.00	40000.00	900.00
Regular B2B		18.00	25000.00	
Regular B2B		6.00	40000.00	
Regular B2B		5.00	40000.00	
Regular B2B		12.00	40000.00	
Regular B2B		28.00	40000.00	8000.00

Open the GST Offline Tool and follow these steps

Click on New



**Upload new invoice/other data for return**

**NEW**

**Open Downloaded Return file from GST portal**

**OPEN**

**Open Downloaded Error file from GST portal**

**OPEN**

**My Masters**

**PREPARE/VIEW**

**OPEN DOWNLOADED JSON FILE**

**Instructions**

**NEW button:** To upload new invoice/other data for return. Taxpayer can upload invoice data as many times as needed.

**OPEN button:** To open return file downloaded from GST portal to accept, reject, modify and add missing invoice details.

**OPEN button:** To open error file downloaded from GST portal to correct the invoice data rejected by GST system.

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Enter GSTIN, Financial Year, Tax Period and click on Proceed

Goods and Services Tax Offline Tool V3.1.7

Returns

IT Statement/Returns\*  
GSTR-1/3FF

GSTIN of Supplier\*

Financial Year\*  
2021-22

e Period\*  
September

B2B Teesheet\* ☒ Yes ☐ No

Supplier Quarterly Sheet\* ☐ Yes ☐ No

BACK PROCEED

## Enter Data or Import Data

You can either enter data manually or import data from excel utility. Click on Import Files.

Goods and Services Tax Offline Tool V3.0.4

GSTR-1/3FF

IMPORT FILES DELETE ALL DATA CLEAR SECTION DATA VIEW SUMMARY

Import Section\* B2B Invoices - 4A, 4B, 4C, 6B, 6C

Search Invoices

Invoice GSTIN/ITIN*	Invoice Name	Invoice No.*	Invoice Date*	Total Invoice Value(T)*	Place of Supply	Supply Type*	Service Type*

Import Export

Please do not mention the E Commerce Tin while declaring your outward supplies in the worksheets B2B, b2c, b2cs, b2ba, b2cb, b2ca as the related provisions are not yet notified.

BACK

## Import Excel

You can either import the entire excel sheet or selected sections. Select Import CSV to import the .csv file.

Goods and Services Tax Offline Tool V3.0.4

GSTR-1/IFF 2021-22 July

Import Data Using Excel and CSV Import

Import Returns - All sections in one Go

IMPORT EXCEL

Import Returns - One section at a time

Select Section

Select

BACK VIEW SUMMARY

### Generate File

Select the Excel data of the section you wish to import. Click on View Summary. Review the data and click on Generate File to create a JSON file

Goods and Services Tax Offline Utility

GSTR1 19AAAWB0477A1Z0 2017-18 April

Summary

Section Name	No. Of Invoices	Total CGST	Total SGST	Total IGST	Total CESS
B2B Invoices	12	0.00	0.00	55,750.00	32,456.00
B2C(Large) Invoices	5	0.00	0.00	1,19,630.00	1,24,536.00
HSN-wise Summary of Outward Supplies	5	8,103.00	11,771.00	2,147.04	1,503.00

BACK GENERATE FILE

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Release V1.0, Last updated on 01/07/2017  
Designed & Developed by GSTN

### Open GST Portal

Log in to GST Portal with a valid username and password. Select the Financial Year and Period of filing. Click on PREPARE OFFLINE under GSTR-1

Financial Year\* 2023-24 Quarter\* Quarter 2 (Jul - Sep) Period\* August SEARCH

\* Indicates Mandatory Fields

1. Report ITC Reversal Opening Balance

You have selected to file the return on monthly frequency. GSTR-1 and GSTR-3B shall be required to be filed for each month of the quarter.

Details of outward supplies of goods or services  
GSTR1

Due Date - 11/09/2023

PREPARE ONLINE

PREPARE OFFLINE

Auto Drafted details (For view only)  
GSTR2A

VIEW DOWNLOAD

Auto - drafted ITC Statement for the month  
GSTR2B

VIEW DOWNLOAD

Monthly Return  
GSTR-3B

### Upload JSON file

Upload the JSON File that you have saved.

Goods and Services Tax

CHANDRASHEKHARAN - 3280YPC/925H125

Dashboard Services - GST Law Downloads - Search Taxpayer - Help and Taxpayer Facilities

e-Invoice

Dashboard Returns - GSTR

Offline Upload and Download for GSTR 1

Upload Download

No offline transaction for the given return period

Invoice Upload

Choose File No file chosen

BACK TO FILE RETURNS

Once the status changes to processed, go back to the returns dashboard and click on prepare online

**e-Invoice**

Dashboard | Returns | **GSTR** English

**Offline Upload and Download for GSTR-1**

[Upload](#) [Download](#)

✔ Your JSON file has been uploaded successfully. The validation process may take up to 15 minutes. Please revisit accordingly.

ⓘ to correct the same. After making required correction, please prepare JSON file following the same process as that for regular

**Invoice Upload**

[Choose File](#) No file chosen

**Upload History**

Date	Time	Reference Id	Status	Error Report
09/09/2023	10:51:02	62769efc-24d0-4cf7-9dd9-506a3251382d	Processed	NA

[BACK TO FILE RETURNS](#)

## Generate GSTR-1 Summary

Click on Generate GSTR 1 Summary to generate the latest summary of GSTR-1

**8A, 8B, 8C, 8D - Nil Rated Supplies**

✔ 0

**9B - Credit / Debit Notes (Registered)**

✔ 0

**9B - Credit / Debit Notes (Unregistered)**

✔ 0

**11A(1), 11A(2) - Tax Liability (Advances Received)**

✔ 0

**11B(1), 11B(2) - Adjustment of Advances**

✔ 0

**12 - HSN-wise summary of outward supplies**

✔ 0

**13 - Documents Issued**

✔ 1

**AMEND RECORD DETAILS**

ⓘ The taxpayers for whom e-invoicing is not applicable may ignore the sections/options related to e-invoice download. The downloaded file would be blank in case taxpayer is not e-invoicing or when e-invoices reported to IRP are yet to be processed by GST system.

**E-INVOICE DOWNLOAD HISTORY**

[BACK](#) [DOWNLOAD DETAILS FROM E-INVOICES \(EXCEL\)](#) [RESET](#) [PROCEED TO FILE/SUMMARY](#)

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Site best viewed at 1024 x 768 resolution in Microsoft Edge, Google Chrome 49+, Firefox 45+ and Safari 6+



### File Return

Goods and Services Tax

Dashboard Services + GST Law Downloads + Search Taxpayer + Help and Taxpayer Facilities e-Invoice

Dashboard > Returns > File

GSTR1 of GSTRN - 29AAOC08421R1ZM for the Return Period - June - 2022-23 has been successfully Filed. The Acknowledgment Reference Number is AA2906223840562. The GSTR1 can be viewed on your Dashboard Login>Taxpayer Dashboard>Returns. This message is sent to your registered Email ID and Mobile Number.

GSTRN - 29AAOC08421R1ZM	Legal Name - HERGY INDIA PRIVATE LIMITED	Return Type - GSTR1
Pr - 2022-23	Return Period - June	Status - Filed

Return Type - GSTR1

I hereby solemnly affirm and declare that the information given herein above is true and correct to the best of my/our knowledge and belief and nothing has been concealed therefrom.

Authorized Signatory\*

KCHNAHARABATH ANESH

BACK FILE WITH DRC FILE WITH EVC

### MULTIPLE CHOICE QUESTIONS (MCQS)

#### 1.How can you import data into the GST Offline Tool?

- a) Manually enter data only
- b) Import data only from Excel
- c) Both manually enter data and import data from Excel
- d) None of the above

#### 2.What is the final step in the GST Offline Tool before creating a JSON file?

- a) Review data
- b) Select the Excel data of the section
- c) Click on "View Summary"
- d) Import CSV

**3. When should you click on “Generate GSTR 1 Summary” on the GST Portal?**

- a) After uploading the JSON File
- b) After downloading the GST Offline Tool
- c) Before importing data into the Excel worksheet
- d) After clicking on “New” in the GST Offline Tool

**4. What file format is used to create a JSON file from the Excel data?**

- a) PDF
- b) CSV
- c) XLSX
- d) HTML

**5. What is the full form of “JSON”?**

- a) JavaScript Standard Object Notation
- b) Java Script Objective Notation
- c) JavaScript Object Notion
- d) JavaScript Object Notation

**ANSWERS**

1	C
2	D
3	A
4	B
5	D



# CHAPTER 11

## EMPLOYEES' PROVIDENT FUND ORGANISATION (EPFO)

### INTRODUCTION

The Employees' Provident Fund (EPF) acts as a saving tool. The employee and the employer contribute an equal amount towards savings that can be availed upon retirement or after switching jobs. The Employees' Provident Fund (EPF) came into existence with the enactment of the Employees' Provident Funds (EPF) Ordinance in 1951. The EPF Ordinance was later replaced by the EPF Funds Act, 1952. The EPF Bill was introduced in the parliament in 1952 to provide provident funds for employees in factories and other establishments.

If a company employs more than 20 people, it is required to enroll in the Employees Provident Fund Organisation of India. Companies with less than 20 workers have the option to voluntarily sign up for the Employees Provident Fund. The Employee Provident Fund or EPF is available to all individuals who receive a wage. In addition, all employees earning less than 15000 rupees annually must enroll in the EPF. Employees earning more than 15000 annually may choose to continue contributing to the EPF system.

### OBJECTIVES:

Employees holding an EPF account must have a minimum wage of 15,000 rupees or above. Only when the employee is an account holder can they benefit from the scheme. The Human Resources (HR) department deals with things like what employees of the company must hold an EPF or a Provident Fund account. While an employee is a part of the EPF, they must ensure every contribution to the account goes in. Every member of the EPF has access to their accounts online. Earlier claim settlements were of 20 days, but it has been reduced to 3 days recently.

### FUNCTIONS:

**The various functions of an Employees' Provident Fund Organization are as follows:**

Individual account management: Individual accounts are available for each employee, which can be managed and used for investments that are later withdrawable during any kind of contingencies such as sickness or death, post-retirement.

- **Settlement of claims:** During a case of death, sickness, injury, or any other kind of emergency, the invested amount can be claimed by the employee according to the EPFO guidelines and regulations.
- **Investment of funds:** The amount invested and contributed by the employer and the employee, which is 12%, will turn out to be an investment amount for the employee and this can further help lead to development.
- **Ensuring timely payment of pensions:** Through this scheme, employees working in the private sector will be ensured pension post-retirement.
- **Record updating:** EPF ensures that every investment and claim settlement will be recorded and updated in a timely manner.

## **ROLES AND RESPONSIBILITIES OF EPF**

The EPF helps employees who are economically weak, and the custodians of the EPF are its central board of trustees. The employee contribution to the EPF is deducted from the salary by nationalized banks, every month. These Banks are responsible for the disbursement of funds and activities like administering pensions. The EPF contribution rate as mentioned earlier is 3.67% by the employer and 8.33% being the employee contribution. Of the 8.33%, 1.1% is the Employees' Deposit Linked Insurance Scheme (EDLIS), of which 0.5% is the administration charge.

The EPF has some salient features, some of which are the employees registered with the scheme are liable to pay a particular percentage of salary every month to the EPF, and the ones eligible are employees earning more than 15,000 Rupees. The EPF act has 20 sections to it and 4 schedules, the applicability of the EPF act is mentioned and spoken about in the first section of the act.

## **BENEFITS**

As mentioned earlier, the EPFO is among one of the world's most important organizations that provide employees with social security. There are multiple benefits to EPF, and they are:

**Tax saving scheme:** While an employee contributes or invests in EPF for a span of five years, the paid amount will hold no taxes. Even after withdrawing the amount after 5 years, the employee will not be liable to pay any tax. But, if an employee withdraws the contributed amount before five years, then they are liable to pay taxes according to the tax slab.

- **Capital appreciation:** The Government of India has an interest rate for the amount contributed. The regulations state that once an employee starts investing, the contributions must be given every month without fail. The withdrawable amount in the end will be the invested amount and the interest calculated.

- **Retirement:** The EPF helps provide pensions to private sector employees, as they may not have an allotted pension. This scheme indeed helps people with less savings by providing them with security.
- **Financial emergency:** In the case of a financial emergency or any kind of contingencies, the amount invested can be withdrawn by the employee either partially or fully. More details regarding the same are available on the official website and can be referred accordingly.
- **Unemployment:** If an employee loses their job, the EPF scheme will provide them with compensation of kind, in which 75% of the amount invested can be withdrawn in the first month and the rest 25% can be withdrawn in the latter two months.
- **Death:** If there is a case of death, the EPF amount will be given to the dependents or the nominee of the employee, which can further help them financially.
- **Easy access:** While an EPF account is registered in an employee's name, they will receive a Universal Account Number (UAN) allotted by the EPFO which can be further used by the employee, even if there is a change in the workplace or organization, as the UAN remains.

### APPLICABILITY OF THE EPF

The EPF scheme applies to all the establishments that have employed a minimum of 20 people. The employer must obtain EPF registration within 1 month of meeting the eligibility criteria.

Even if the employee strength of a registered establishment falls below the requisite number, the rules or regulations of the act will continue to apply to it.

Establishments with less than 20 employees can also opt for voluntary registration. All the employees of such an establishment will be eligible for EPF right from the beginning of their employment.

**There are certain situations when a 10% rate is applicable. For instance, if a company meets the following criteria:**

- Has employed less than 20 employees
- Has suffered losses more than its entire net worth
- Belongs to beedi, brick, jute or guar gum industry
- Is a sick industrial company and which has been declared as such by the Board for Industrial and Financial Reconstruction (BIFR)

### Here's the breakup of EPF contribution:

The whole 12% of an employee's salary goes to their EPF account while the employer's contribution is divided among the following:

- 8.33% to the Pension Fund
- 3.67% to the EPF account

### UNIVERSAL ACCOUNT NUMBER

The Universal Account Number (UAN) is a 12-digit number that registered employees receive which can be used to avail of benefits from the EPF, EPS, and so on. The employer is responsible to sign the employees up for the same. It is through the UAN the details of employee payment, contributions, withdrawal, period of service is kept track of.

Now, there are exceptions when it comes to wages, bonuses, overtime allowance, dearness allowance, food allowance, housing allowance, or rent allowance in the EPF.

### To be registered with EPF the employer or the company must have the following details:

- The name and address of the firm
- The head office or branch details
- The date of the company incorporation
- The nature of business
- The business partner or director details
- The employee details.
- Employee salary details
- Company PAN details

### The online procedures to register with EPF are:

- **Employer registration:** The employer must register via EPF website or their portal with mentioned above information.
- **Verification:** Once registered, the employer will receive an OTP in the registered mobile number, with a Permanent Account Number. The E-PAN card will be verified online.

- **Establishment login:** With the receive PAN, the employer can login after the registration.
- **Registration certificate:** After the employer fills the form 5, a Universal Account Number will be assigned.
- **KYC Updation:** Then, employee details and KYC updation can be done through the common registration portal.

After the signup procedure EPFO registration can be done with the created user Id and password.

## **MULTIPLE CHOICE QUESTIONS (MCQS)**

### **1. Who is required to register for EPF in India?**

- a. Only government employees
- b. All employees in the private sector
- c. Employees with a monthly salary above a certain threshold
- d. Self-employed individuals

### **2. What is the primary purpose of registering in EPF?**

- a. Providing unemployment benefits
- b. Offering health insurance to employees
- c. Promoting employee savings for retirement
- d. Funding employee training programs

### **3. In which government department does EPF registration and management typically fall?**

- a. Ministry of Finance
- b. Ministry of Commerce and Industry
- c. Ministry of Human Resource Development
- d. Ministry of Labor and Employment

### **4. How many digits does the UAN (Universal Account Number) consist of?**

- a. 16
- b. 11
- c. 12
- d. 14

**5. What does EPF stand for?**

- a. Employee Pension Fund
- b. Employer Provident Fund
- c. Employee Provident Fund
- d. Employment Protection Fund

**Answer Key:** (1-b), (2-c), (3-d), (4-c), (5-c)

**EXPLANATORY QUESTIONS**

1. What is EPF?
2. What are the benefits of having an EPF account?
3. What is UAN? Explain.
4. What all criteria that has to be satisfied for the successful registration with EPFO?
5. Explain the functions of EPF

# CHAPTER 12

## EMPLOYEES' STATE INSURANCE SCHEME OF INDIA (ESIC)

### INTRODUCTION

The Employees' State Insurance Scheme of India (ESIC) is a multi-faceted Social Security Scheme designed to provide socio-economic protection to 'employees' in the organised sector. ESIC Scheme is administered by a statutory corporate body called the Employees' State Insurance Corporation under Employees State Insurance Act, 1948.

The ESI scheme is applicable to all factories and other establishments as defined in the Act with 10 or more people employed in such establishment and the beneficiaries' monthly wage does not exceed Rs 21,000 are covered under the scheme. Whether the employer has employed 10 or more employees, all employees employed by the employer, agnostic of the salary are reckoned. It protects employees against sickness, maternity, disablement, and death as a result of a work-related injury, as well as provides medical care to insured employees and their families.

ESIC is a statutory responsibility for all the employers. All the establishments covered under the ESI Act must register with the ESIC and contribute towards the ESI scheme. Registration should be done within 15 days of applicability to them. (All the employees earning more than 21,000 per month are exempted from the ESI contribution)

The Employee State Insurance (ESI) scheme in India is a comprehensive social security and healthcare program designed to safeguard the interests of workers in the organized sector. It aims to provide financial protection and medical benefits to employees and their families in times of need. Here are the key objectives and benefits of the ESI scheme and its contribution to employee welfare

In an area notified u/s 1(3) by Central Govt. all factories where 10 or more persons are employed attract coverage under Section 2 (12) of ESI Act. Further, according to the notification issued by the appropriate Government (Central/State) under Section 1(5) of the Act, the following establishments employing 10 or more persons attract ESI coverage.

- Shops
- Hotels or restaurants not having any manufacturing activity, but only engaged in 'sales'.
- Cinemas including preview theaters;
- Road Motor Transport Establishments;

- Newspaper establishments. (that is not covered as factory under Sec.2(12));
- Private Educational Institutions (those run by individuals, trustees, societies or other organizations and Medical Institutions (including Corporate, Joint Sector, trust, charitable, and private ownership hospitals, nursing homes, diagnostic centers, pathological labs).

In some states coverage is still for 20 or more persons employed under sec 1(5). A few State Governments have not extended scheme to Medical & Educational Institutions.

**While registering with ESIC following are the benefits:**

- **Medical Benefit**
  - Benefits are in effect from the day he becomes an employee.
  - It extends to the family as well.
- **Sickness Benefit**
  - During a medical leave, 70% of their average wages during the period of sickness for a maximum of 91 days in a year.
  - The worker cannot seek this benefit if he contributes for less than 78 days out of 6 months.
- **Maternity Benefit**
  - This benefit is provided with 100 % average daily wage for a mother up to 26 weeks, for 6 weeks in case of miscarriage, 12 weeks for a commissioning mother/adopting mother.
  - (Can be extendable for one more month depending on medical advice)
- **Dependants Benefit**
  - In case of death during course of employment or occupational hazard.
  - The monthly payment is granted to dependents.
- **Disablement Benefit**
  - In case of injury during course of employment, monthly payment for temporary disablement till injury lasts.

Whereas lifelong payment in the case of permanent disablement, based on the determination of medical board.

**Other Benefits**

- Funeral Expense: It will be borne by the ESIC for the dependants.
- Vocational/ Physical Rehabilitation Expense



- Old Age Medical Care
- Unemployment Allowance – In case of involuntary loss of employment, ESIC provides for monthly cash allowance for a duration of 24 months (maximum).

The ESI scheme is a self-financing scheme. The ESI funds are primarily built out of contributions from employers and employees payable monthly at a fixed percentage of wages paid. The State Governments also bear 1/8th share of the cost of Medical Benefit.

ESI Scheme is implemented in phases in different part of the country through Gazette notification after making the infrastructure available towards dispensation of medical as well as other benefits provided under the provisions of the Act to the prospective beneficiaries.

After the signup procedure ESIC registration can be done with the created user Id and password.

### MULTIPLE CHOICE QUESTIONS (MCQS)

#### 1. Which year did the ESIC Act came into existence?

- a) 1948
- b) 1944
- c) 1960
- d) 1958

#### 2. What is the primary purpose of ESI registration?

- a) Providing unemployment benefits
- b) Promoting employee savings for retirement
- c) Offering health insurance to employees
- d) Funding employee training programs

#### 3. Expand ESIC

- a) Employees State Insurance Company
- b) Employees State Insurance Cooperation
- c) Employees State Insurance Corporation
- d) Employers State Insurance Corporation

**4. What is the slab rate of salary for registering with ESIC?**

- a) 25000/-
- b) 18000/-
- c) 20000/-
- d) 21000/-

**5. How many days can be claimed for sickness benefit?**

- a) 30
- b) 91
- c) 60
- d) 71

**Answer Key:** (1-a), (2-c), (3-c), (4-d), (5-b)

**EXPLANATORY QUESTIONS**

1. What is ESIC?
2. What are the benefits of ESIC?
3. What are the criteria for registering with ESIC?
4. Write a short note on maternity benefit under ESIC
5. What are the objectives of ESIC?

# CHAPTER 13

## EMPLOYEES' PROVIDENT FUND ORGANISATION (EPFO)/ EMPLOYEES STATE INSURANCE CORPORATION (ESIC) SIGN-UP

### LEARNING OBJECTIVES:

At the end of this chapter, you will be able to:

- ✓ Understand EPFO/ESIC basics and its' services
- ✓ Explain how EPFO/ESIC is being beneficiary to the employees as well as employer
- ✓ Sign-up with the EPFO/ESIC portal
- ✓ Generate the new user Id and password



### INTRODUCTION

**The Employees' Provident Funds and Miscellaneous Provisions Act, 1952, and the Employees' State Insurance Act, 1948** make it mandatory for companies employing 20 or more workers to register for EPF and ESI schemes. Failure to comply with these regulations can result in legal penalties, fines, and imprisonment.

EPFO is among one of the world's most important organizations that provide employees with social security. There are multiple benefits to EPF, and they are:

- **Tax saving scheme:** While an employee contributes or invests in EPF for a span of five years, the amount paid will hold no taxes. Even after withdrawing the amount after 5 years, the employee will not be liable to pay any tax. But, if an employee withdraws the contributed amount before five years, then they are liable to pay taxes according to the tax slab.
- **Capital appreciation:** The Government of India has an interest rate for the amount contributed. The regulations state that once an employee starts investing, contributions must be made every month without fail. The withdrawable amount in the end will be the invested amount and the interest calculated.

- **Retirement:** The EPF helps provide pensions to private sector employees, as they may not have an allotted pension. This scheme indeed helps people with less savings by providing them with security.
- **Financial emergency:** In the case of a financial emergency or any kind of contingency, the amount invested can be withdrawn by the employee either partially or fully. More details regarding the same are available on the official website and can be referred to accordingly.
- **Unemployment:** If an employee loses their job, the EPF scheme will provide them with compensation of kind, in which 75% of the amount invested can be withdrawn in the first month and the rest 25% can be withdrawn in the latter two months.
- **Death:** If there is a case of death, the EPF amount will be given to the dependents or the nominee of the employee, which can further help them financially.
- **Easy access:** While an EPF account is registered in an employee's name, they will receive a Universal Account Number (UAN) allotted by the EPFO which can be further used by the employee, even if there is a change in the workplace or organization, as the UAN remains.

## **TYPES OF PROVIDENT FUND**

- **Statutory provident fund (SPF):** The Statutory Provident Fund also known as Provident Fund (PF), according to 1925, helps registered employees avail benefits of the scheme. The SPF predominantly provides financial or social security to government employees.
- **Public provident fund (PPF):** According to the public provident fund Act, 1908 the employees were only required to pay a minimum of rupees 500 and a maximum of rupees 150,000 Lakhs of contribution before the withdrawal.
- **Recognized provident fund (RPF):** According to RPF, registered employees' and provident fund miscellaneous act, 1952, the employees can be registered with the EPF if a firm has more than twenty employees. And in that case, the employees must mandatorily register with EPF.
- **Unorganized provident fund:** The employees as well as the employers working in a firm can benefit from this.

## **BENEFITS OF ESIC**

The Benefits include monthly pensions in case of a deceased employee, the widow of the employee, the children, or the nominee of the employee can benefit from the same.

- **Medical Benefit**

- Benefits are in effect from the day he becomes an employee.
- It extends to the family as well.

- **Sickness Benefit**

- During a medical leave, 70% of their average wages during the period of sickness for a maximum of 91 days in a year.
- The worker cannot seek this benefit if he contributes for less than 78 days out of 6 months.

- **Maternity Benefit**

- This benefit is provided with 100 % average daily wage for a mother up to 26 weeks, for 6 weeks in case of miscarriage, 12 weeks for a commissioning mother/adopting mother.
- (Can be extendable for one more month depending on medical advice)

- **Dependents Benefit**

- In case of death during course of employment or occupational hazard.
- The monthly payment is granted to dependents.

- **Disablement Benefit**

- In case of injury during course of employment, monthly payment for temporary disablement till injury lasts.
- Whereas lifelong payment in the case of permanent disablement, based on the determination of medical board.

- **Other Benefits**

- Funeral Expense- It will be borne by the ESIC for the dependents.
- Vocational/ Physical Rehabilitation Expense

- **Old Age Medical Care**

- Unemployment Allowance- In case of involuntary loss of employment, ESIC provides for monthly cash allowance for a duration of 24 months (maximum).

By registering for the EPF and ESI schemes, companies can provide their employees with a range of social security benefits such as pensions, health insurance, and maternity benefits. This can help to attract and retain quality employees and improve employee morale and satisfaction.

For the registration of ESIC and EPFO the '**signup**' has to be completed in order to create new user Id and password

### **MULTIPLE CHOICE QUESTIONS (MCQS)**

**1. In which year did the EPF & MP Act came in to force?**

- a. 1964
- b. 1968
- c. 1958
- d. 1954

**2. At which percentage can an employee claim for their medical leave for the leave encashment?**

- a. 70%
- b. 50%
- c. 85%
- d. 100%

**3. Expand UAN**

- a. Unified Allotment Number
- b. Unique Account Number
- c. Universal Allotment Number
- d. Universal Account Number

**4. Expand SPF**

- a. State Provident Fund
- b. Statutory Provident Fund
- c. Senior Citizens' Provident Fund
- d. Stipulated Provident Fund

**5. From the following ESI benefits pick the odd one out**

- a. Maternity Benefit
- b. Dependents Benefit
- c. Marriage Benefit
- d. Sickness Benefit

**Answer Key:** (1-c), (2-a), (3-d), (4-b), (5-c)

**DEFINITIVE QUESTIONS (DESCRIPTIVE QUESTIONS)**

1. What are the benefits of ESIC? Explain.
2. What are the four types of Provident Funds?
3. What are the benefits of EPF?
4. What are the consequences that to be faced by a company who failures to comply with the rules and regulations of EPFO/ESIC?
5. What is meant by the "Tax Saving Scheme" of EPF?

# CHAPTER 14

## EMPLOYEES' PROVIDENT FUND ORGANIZATION, INDIA – PAYMENT GENERATION

### INTRODUCTION

The Employee's Provident Fund (EPF) is regulated by the Employees' Provident Funds and Miscellaneous Provisions Act of 1952, commonly known as the PF Act. Its primary objective is to encourage the accumulation of savings among both employees and employers through mandatory contributions to the provident fund.

The administration and oversight of the PF Fund are entrusted to the Employees' Provident Fund Organization (EPFO). The EPFO operates under the authority of the Central Board of Trustees, which is a statutory body established by the PF Act.

While contributions to the PF account are made by both the employer and the employee, the responsibility for making payments into the PF account lies with the employer who is registered under the PF Act. Here's how to generate an online challan with the necessary steps:

### 14.1 STEPS FOR EPF

Login to unified portal of EPFO using your Electronic Challan cum Return (ECR) portal credentials <https://unifiedportal-emp.epfindia.gov.in/epfo/>.

You already received a username and password during the establishment registration. Please enter these credentials and click the **"Submit"** button.





Fig. 1.0

Once you've entered your credentials, you will be directed to a page where you can select the payment option from the choices provided above the fields.

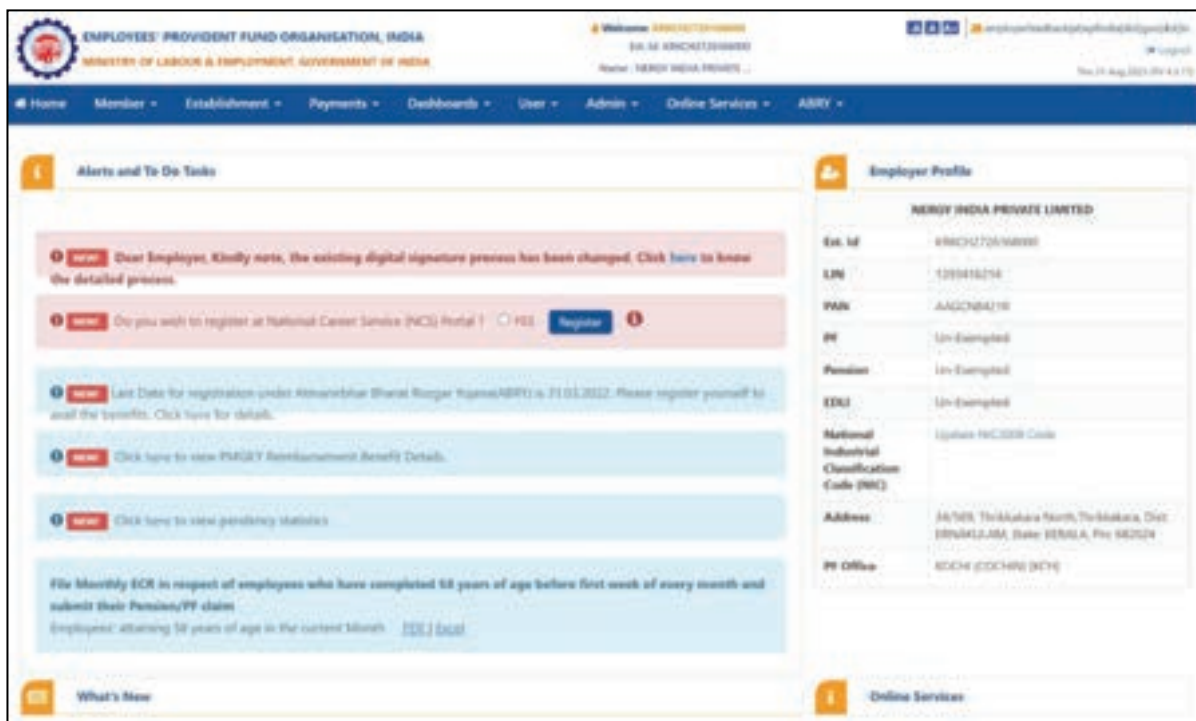


Fig. 1.1

Click on the **“Payments”** tab, and you will encounter a dropdown menu. If you are making monthly contributions, you can select **“Payment (ECR).”**

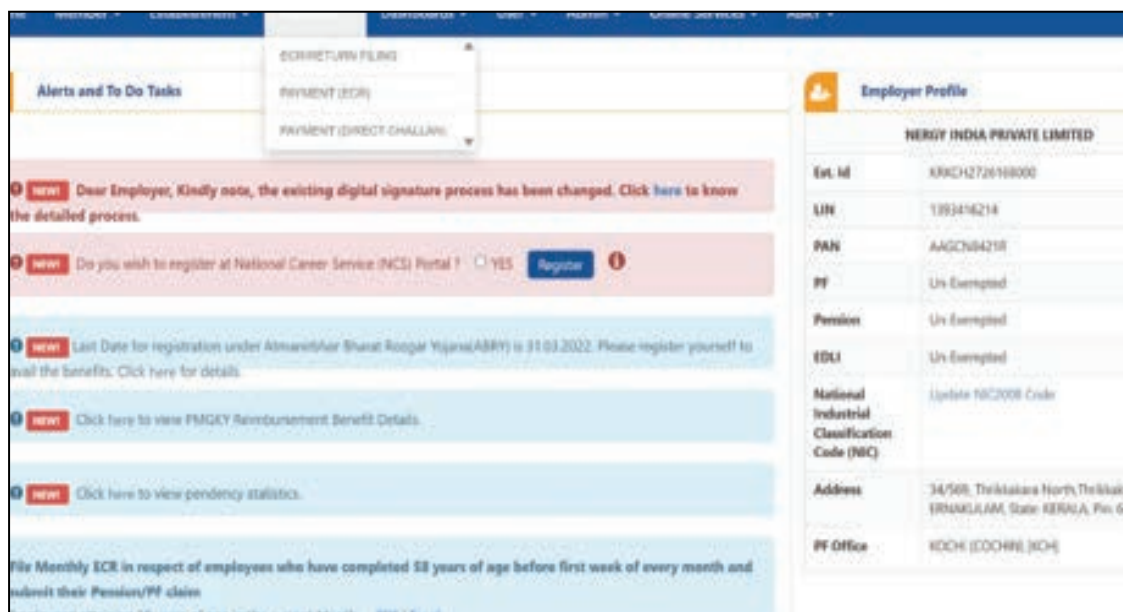


Fig. 1.2

Once you've chosen the **"Payment (ECR)"** option, you will be automatically redirected to the next tab where you can select the **"ECR Upload"** option.

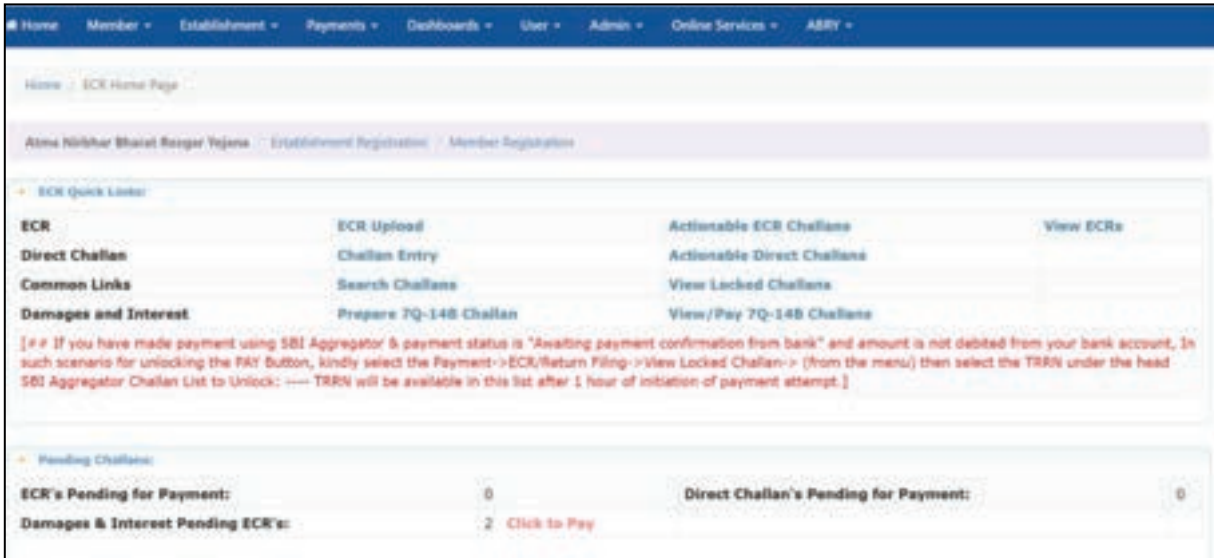


Fig. 1.3

Next, you will find the option to **"Download ECR file."** Click on it to download the file. In this file, you can review and enter the details of employees, including their UAN (Universal Account Number), member name, and other required information in the specified Excel format. This information typically includes:

- GROSS WAGES
- EPF WAGES
- EPS WAGES
- EDLI WAGES
- EPF CONTRIBUTION REMITTED
- EPS CONTRIBUTION REMITTED
- EPF EPS DIFF REMITTED
- NCP DAYS (Non-Contributory Period Days)
- REFUND OF ADVANCES

Ensure that you accurately input these details in the designated fields as per the provided Excel format.

ID No.	Name	Wage Month	ECR Type	Salary Disbursal Date	Salary Disbursal State	Salary Disbursal No	Upload Date	Status	ECR File	ECR Worksheet
1	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
2	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
3	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
4	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
5	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
6	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
7	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
8	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
9	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓
10	CHANDRASEKHAR	JULY-2023	ECR	01-07-2023	01	01-07-2023 01-01	01-07-2023 01-01	Payment Confirmed	✓	✓

Fig. 1.4

The next step involves preparing the Excel file for upload. Before proceeding, you will need to select several options:

- **Wage Month:** Choose the specific month and year for which you are making the contribution.
- **Salary Disbursal Date:** Select the date on which the salary was disbursed for that month.
- **Upload ECR Excel File:** Click the option to upload the ECR Excel file that you've prepared.
- After uploading the file, you will be prompted to take the following actions:
- Select **"ECR"** as the type of submission.
- You can see the contribution percentage, typically set at 12%.
- In the "Remarks" option, you can type a note indicating the month for which you are making the payment. Please enter this information as required.

**IMPORTANT NOTE:**

1. Click here to download [ECR Help File](#)
2. Please only use alphabets and numbers in file names. Remove special characters and spaces from the file name.
3. Max Size of File Upload is 2 MB. If text file size exceeds 2 MB, please compress it using winzip etc. Smaller files can also be uploaded in zip format.
4. Do not upload any other files like jpg, gif, doc, xls, ppt etc bundled inside the zip.
5. Only text file or xls file extension only other text file can be uploaded (file extension should be in small case).

**EMPLOYEES' PROVIDENT FUND ORGANISATION, INDIA**  
**MINISTRY OF LABOUR & EMPLOYMENT, GOVERNMENT OF INDIA**

Welcome: 9991302739 148990  
 Set. No. 9991302739 148990  
 Name: NEROT INDIA PRIVATE...  
 Thu 24-Aug-2023 07:51

Home Member Establishment Payments Dashboards User Admin Online Services ABBY

**9. available. For more information, please refer to the POHW Arrear ECR Help File.**

10. Click here to download [POHW Arrear ECR Help File](#)

Wage Month: August 2023  
 Salary Disbursal Date: 31/08/2023  
 Select File: Choose File No file chosen  
 File Type: ☒ ECR ☐ Arrear ☐ POHW Arrear  
 Contribution Rate %: 12  
 Remarks: ECR

**Upload** **Cancel**

Fig. 1.5

Upon clicking the **“Upload”** button, you should encounter a message indicating that the file validation was successful. Subsequently, you will notice a message stating that the system is currently processing the file

Home > ECR Home Page > Actionable ECR Chats > ECR Upload

**File Validation Successful** File Processing is in progress and may take more time. Please revisit after some time.

[Download ECR File](#)

**ECR File Upload:**

**Draft ECR's:**

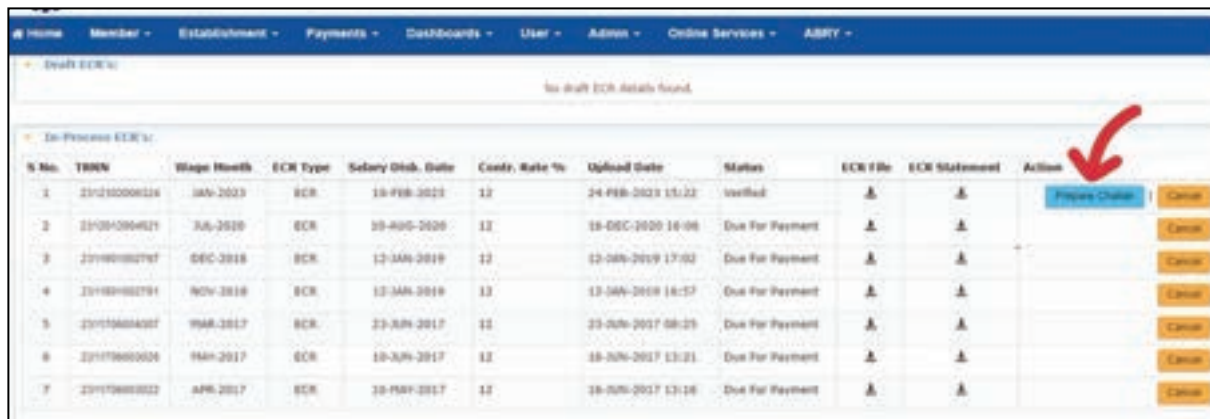
S No.	Wage Month	ECR Type	Salary Disb. Date	Contrib. Rate %	Upload Date	Status	Remarks	ECR File	ECR Statement	Error File	Action
1	JAN-2023	ECR	30-09-2023	12	24-FEB-2023 15:22	ECR Statement Generated	Jan 2023	<a href="#">Download</a>	<a href="#">Download</a>	N/A	<a href="#">View</a>

One record found

Fig. 1.6

Proceed to the **“Progress”** tab, where you can select the **“Prepare Challan”** option for each individual employee.

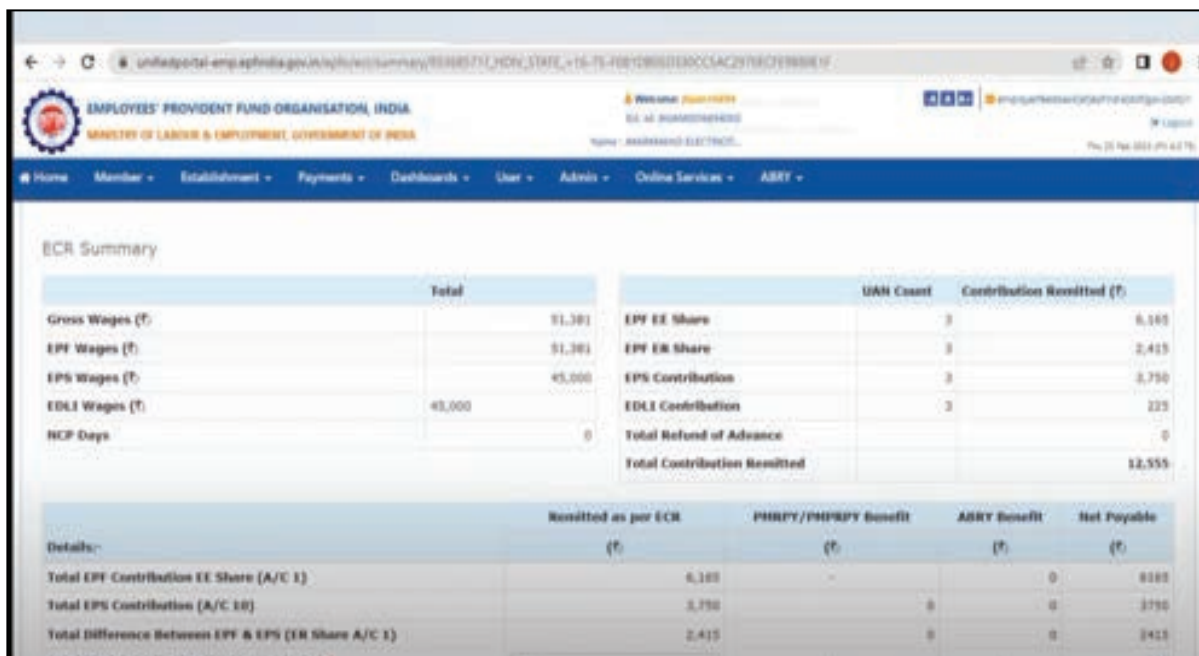
## TAX COMPLIANCES



S No.	TRSN	Wage Month	ECR Type	Salary Dtd. Date	Cont. Rate %	Upload Date	Status	ECR File	ECR Statement	Action
1	231210000124	JAN-2023	ECR	18-FEB-2023	12	24-FEB-2023 15:22	Verified			<a href="#">Generate Challan</a> <a href="#">Cancel</a>
2	2312010004321	JUL-2020	ECR	20-APR-2020	12	18-DEC-2020 16:06	Due For Payment			<a href="#">Cancel</a>
3	2311010002767	DEC-2018	ECR	12-JAN-2019	12	12-SEP-2019 17:02	Due For Payment			<a href="#">Cancel</a>
4	2311010002761	NOV-2018	ECR	12-JAN-2019	12	12-JAN-2019 16:57	Due For Payment			<a href="#">Cancel</a>
5	2311010004307	MAR-2017	ECR	23-JUN-2017	12	23-JUN-2017 08:25	Due For Payment			<a href="#">Cancel</a>
6	2311010003026	MAR-2017	ECR	18-JUN-2017	12	18-JUN-2017 13:21	Due For Payment			<a href="#">Cancel</a>
7	2311010003022	APR-2017	ECR	18-MAY-2017	12	18-JUN-2017 13:16	Due For Payment			<a href="#">Cancel</a>

Fig. 1.7

Next, you can navigate to the ECR summary section, where you will find the information, you've already entered in the Excel file.



Total		UAN Count	Contribution Resulted (₹)
Gross Wages (₹)	51,381	3	6,183
EPF Wages (₹)	51,381	3	2,415
EPS Wages (₹)	45,000	3	3,750
EDLI Wages (₹)	45,000	3	225
NCF Days	0		0
			<b>Total Contribution Resulted</b>
			12,555

Details:-	Remitted as per ECR (₹)	PHIRPY/PHIRPY Benefit (₹)	ABRY Benefit (₹)	Net Payable (₹)
Total EPF Contribution EE Share (A/C 1)	6,183	-	0	6183
Total EPS Contribution (A/C 1B)	3,750	0	0	3750
Total Difference Between EPF & EPS (EE Share A/C 1)	2,415	0	0	2415

Fig. 1.8

Please click on the option that says **“Generate Challan”** to continue.



## TAX COMPLIANCES

Details:-	Resulted as per ECR (₹)	PMEPY/PMPEPY Benefit (₹)	ABRV Benefit (₹)	Net Payable (₹)
Total EPF Contribution EE Share (A/C 1)	6,165	-	0	6165
Total EPS Contribution (A/C 10)	3,750	0	0	3750
Total Difference Between EPF & EPS (ER Share A/C 1)	2,415	0	0	2415
Total EDLI Contribution (ER Share A/C 21) *	225	-	-	225
Total EPF Charges (A/C 2)	500	-	-	500
Administration *	0	-	-	0
Inspection *	0	-	-	0
Total EDLI Charges (A/C 22)	0	-	-	0
Administration *	0	-	-	0
Inspection *	0	-	-	0
Total Refund of Advance (A/C 1)	0	-	-	0
<b>Total</b>	<b>13055</b>	<b>0</b>	<b>0</b>	<b>13055</b>

**Employer Details :-**

Total number of Employees in the month \*

Number of excluded employees \*

Gross wages of the Excluded Employees (₹) \*

Click to generate challan

Fig. 1.9

Once you have generated the challan, you will find the **TRRN** (Temporary Return Reference Number) displayed in a pop-up on the left side of the page.

✓ Challan (TRRN: 2312302006124) details saved successfully. Kindly verify & finalize the challan details for payment.

TRRN	Wage Month	ECR Type	Upload Date	Status	A/C 1	A/C 2	A/C 10	A/C 21	A/C 22	Total Amt.	Edit	Finalize
2312302006124	MAR-2023	ECR	24-FEB-2023 15:22	Draft	6,165	500	3,750	225	0	11,055		

View record found: 1

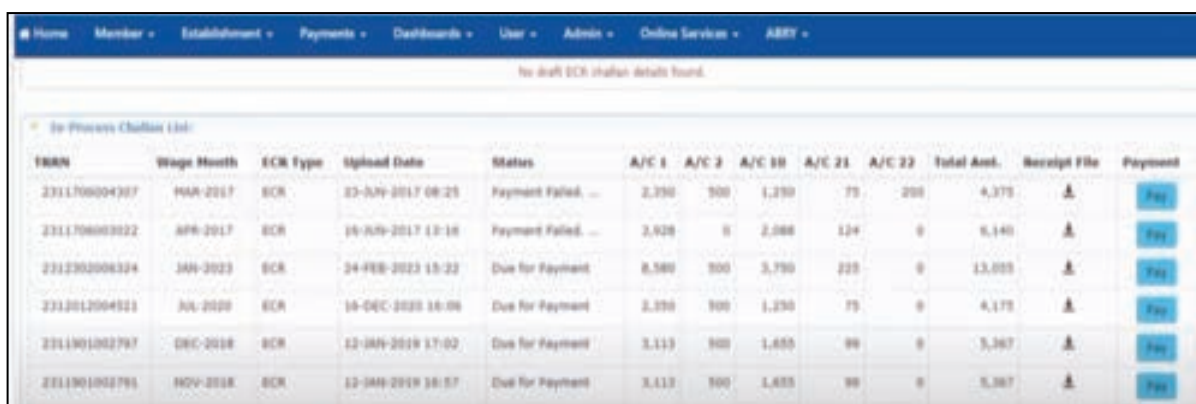
TRRN	Wage Month	ECR Type	Upload Date	Status	A/C 1	A/C 2	A/C 10	A/C 21	A/C 22	Total Amt.	Receipt File	Payment
2312706004307	MAR-2017	ECR	23-MAR-2017 08:25	Payment Failed...	2,350	500	1,250	75	300	4,375		<input type="button" value="Pay"/>

Fig. 1.10

Next, proceed to make an online payment for your employees by clicking on the **“Payment”**

## TAX COMPLIANCES

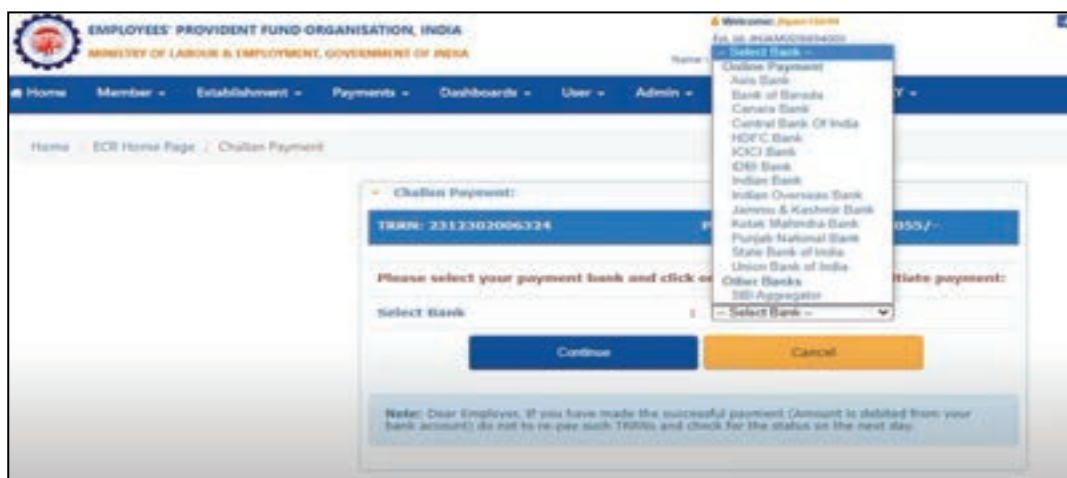
option and following the instructions to continue.



TRRN	Wage Month	ECR Type	Upload Date	Status	A/C 1	A/C 2	A/C 10	A/C 21	A/C 22	Total Amt.	Receipt File	Payment
231170004307	MAR-2017	ECR	23-JUN-2017 08:25	Payment Failed, ...	2,350	500	1,250	75	200	4,375		<a href="#">Pay</a>
231170003022	APR-2017	ECR	16-JUN-2017 13:18	Payment Failed, ...	2,920	0	2,000	124	0	5,044		<a href="#">Pay</a>
2312302006324	JAN-2023	ECR	24-FEB-2023 15:22	Due for Payment	8,580	500	5,750	225	0	13,055		<a href="#">Pay</a>
2312012004521	JUL-2020	ECR	16-DEC-2020 16:08	Due for Payment	2,350	500	1,250	75	0	4,175		<a href="#">Pay</a>
2311901002797	OCT-2018	ECR	12-JAN-2019 17:02	Due for Payment	3,113	500	1,655	90	0	5,367		<a href="#">Pay</a>
2311901002795	NOV-2018	ECR	12-JAN-2019 16:57	Due for Payment	3,113	500	1,655	90	0	5,367		<a href="#">Pay</a>

Fig. 1.11

You will be redirected to the payment page, where you can choose your bank for the online transaction.



EMPLOYEES' PROVIDENT FUND ORGANISATION, INDIA  
MINISTRY OF LABOUR & EMPLOYMENT, GOVERNMENT OF INDIA

Home | Member | Establishment | Payments | Dashboards | User | Admin | Online Services | ABEY

Home | ECR Home Page | Challan Payment

Challan Payment:

TRRN: 2312302006324

Please select your payment bank and click on the button to initiate payment:

Select Bank: -- Select Bank --

Continue Cancel

Note: Dear Employee, If you have made the successful payment (Amount is debited from your bank account), do not to re-pay such TRRN and check for the status on the next day.

Fig. 1.12

Upon completing the transaction, you will receive a message confirming that the payment has been successfully processed. The final step involves downloading the challan by selecting the "Download Challan" option from the tab. Once downloaded, you can view the details and retain them for future reference.




 <b>COMBINED CHALLAN OF A/C NO. 01, 03, 10, 21 &amp; 22 (With EMPLOYEE PROVIDENT FUND ORGANISATION)</b>		<b>TINNO : 27G200000000</b> <b>ECR No 1019A PIV</b> <b>LIN : 000000010</b> <b>Date for the wage month of : August 2022</b>	
<b>Establishment Code &amp; Name :</b> K00002101000000000000 <b>INDIAN RAILWAY PRIVATE LIMITED</b> <b>Address :</b> 34-5402, Thokkara North, Tirukottai, DISTRICT:ARUNACHAL PRADESH			
Total Subsidies:	SPF 14	SPE 14	EDLI 14
Total Slabs:	1,75,200	1,75,200	1,75,200
	A/C 01 (Rs.)	A/C 03 (Rs.)	A/C 10 (Rs.)
SL PARTICULARS			
1 Administration Charges	0	070	0
2 Employer's Share OF	4,420	0	14,580
3 Employer's Share OF	21,030	0	0
Gross Total - Fifty Three Thousand Eight Hundred Fourteen Rupees Only			43,614
(This is a system generated challan as on 25-SEP-2022 10:45, the particulars shown in this challan are calculated from the Electronic Challan-Cum Return (ECCR) uploaded by the establishment for the specified month and year.         )			
<b>Note :- The following amounts are being remitted directly by Government at India on account of PFMSY / ADITYA</b>			
	PFMSY	ADITYA	
A) A/C no 1 (Employer share) (Rs.) :-	0	0	
B) A/C no 10 (Former fund) (Rs.) :-	0	0	
C) A/C no 1 (Employee share) (Rs.) :-	0	0	
D) Total (A + B + C) (Rs.) :-	0	0	
E) Total remittance by Employer (Rs.) :-	43,614		
F) Total amount of updated ECR (D + E) :-	43,614		

Fig. 1.13

### MULTIPLE CHOICE QUESTIONS (MCQS)

## 1. Why EPF is important?

- a. To help in saving money for the retirement
- b. To help in saving money for the medical emergency
- c. For the employee/ employer benefits
- d. For the growth of the organization

## 2. EPFO Act was passed in which year?

- a. 1950
- b. 1948
- c. 1952
- d. 1960

### 3. Who is responsible for EPF?

- Employer
- Organization
- State Government
- Employee

#### 4. Who is compulsory to register with EPFO?

- Employee who receives salary  $\leq 21000$  /-
- Employee who receives salary  $> 21000$  /-
- Employee who receives salary  $\leq 15000$  /-
- Employees who receive salary  $\geq 15000$  /-

**5. What is the minimum number of employees required for a company to be eligible for EPF registration in India?**

- a. 10
- b. 15
- c. 20
- d. 25

**Answer Key:** (1-a), (2-c), (3-d), (4-d), (5-c)

### **DESCRIPTIVE QUESTIONS**

1. What is the Employees' Provident Fund (EPF)? Explain
2. Explain the contribution structure of the EPF in India. How are contributions divided between employees and employers?
3. How does EPF help employees in building a financial safety net for retirement?
4. What are the obligations of an employer regarding EPF contributions?
5. Explain the benefits of EPFO

## CHAPTER 15

# EMPLOYEES' STATE INSURANCE CORPORATION (ESIC) PAYMENT GENERATION

### INTRODUCTION

Individuals who are part of the Employees' State Insurance Corporation (ESIC) can conveniently make their ESIC e-Challan payments online. To complete an ESIC e-Challan payment, you should visit the ESIC e-Challan payment webpage and provide essential information, including your employer code. To proceed with the payment, simply click on the respective challan number link. The ESIC (Employees' State Insurance Corporation) is an autonomous organization responsible for overseeing the Employees' State Insurance program, which offers health insurance and social security benefits to Indian employees. Online payments for ESIC challans are accessible to individuals.

### 15.1 STEPS

Open the official website of ESIC: <https://www.esic.gov.in>

Upon entering the ESIC portal, you can access the Employers Login section by clicking on it.



Fig. 1.0

Enter your user ID, password, and Captcha. Then click **'Login.'**

**एम्प्लोयी स्टेट इन्सुरन्स कॉर्पोरेशन**  
Employees' State Insurance Corporation  
Ministry of Labour & Employment  
भारत सरकार (Government of India)

**Employer Login**

Username/ID  
47000754070001008

Password  
[REDACTED]

Captcha  
05b8c90a8

Sign Up      Forgot password?

**LOGIN**

Username      Check Password Policy

*No physical processing of paper is undertaken by ESIC for registration of Employer. If there is any complaint to the contrary, the same may be made on [help-shramsuvidha@gov.in](mailto:help-shramsuvidha@gov.in)*

*We Are Migrating To One Unit One Identifier:  
Government of India plans to do away with all employer codes being issued by separate labour enforcement agencies such as ESIC, EPFO, O/D CIC(C) and OGMIS etc by replacing them with new Labour Identification Number (LIN). Your unit has already been allotted a LIN and the same can be obtained online using <http://tinyurl.com/shramsuvidha>. Please verify the information associated with your LIN before the current employer codes are rendered obsolete. The procedure to verify the information is given in <http://tinyurl.com/shramsuvidhahowto>. For any support please contact [help-shramsuvidha@gov.in](mailto:help-shramsuvidha@gov.in)*

Fig. 1.1

After logging in, you will be directed to a new webpage where you'll find a comprehensive list of modules and hyperlinks.

**Select the option to access the File monthly contribution.**

**ESIC Insurance**  
Employees' State Insurance Corporation  
Last Logged In Friday, September 01, 2023 at 5:12 PM

**EMPLOYER**

- Update Employee Details
- Create Subunit Registration
- Accident Report Form (2)
- Accident Report Form (PDF Form)
- View Contribution Record
- Form for Accidents Verification
- View Subunit Details
- Update INC Code
- Change Password
- Aadhaar Seeding and AHA Generation during new IP Registration
- Aadhaar Seeding and AHA Gen. For Existing IP
- New Born Baby Registration HS to Insurance Integration
- Help for Monthly contribution and Chalan (Updated)
- Help File for Contributor/Principal Employer Mapping and Contribution
- User Manual for MobileBank update
- Consolidated MC/SH MC Help File
- Online Payment Help File
- SECURITY CERTIFICATE
- Employer and Employee Registration through Portal
- Help File for Update Particulars of Insured Person

**EMPLOYEE**

- Enrol Employee with previously allotted ESI Number
- Generate/Download Employee Card
- Update Particulars of Insured Person
- Update Mobile Number of Insured Person
- Book Upward of Insured Number
- Book Upward of Accident Number
- Upload Bank Account related Document of Insured Person
- Authenticate Card
- List of Employees
- Health Handbook
- New MC/CI Certificate
- Notification
- Employee LUN Seeding
- Edit Employee Work Book
- Aadhaar Seeding for IP and Dependents
- New Born Baby Details for Approval

**MONTHLY CONTRIBUTION**

- File Monthly Contribution
- Generate Chalan
- Monthly Chalan
- View Contribution History
- Contribution Statement
- Contribution Statement Employee Master
- IP Mapping with Contribution History Employee
- File Monthly Contribution Through Desktop
- View Contribution History/Contribution Statement Employee Master
- Self Declaration
- View ISC
- Recovery/Debit/Chalan
- Update of Insured Person Details
- Online Chalan Download/Upload
- Interest For Delay Payment
- File Contribution Monthly Contribution
- Generate Monthly Contribution Statement
- Contribution View Contribution History

Fig. 1.2

Once the page redirects you to the **“File Monthly Contribution”** tab, proceed to input the required values as per your specific requirements.

Fig. 1.3

After entering the details as the fields

Fig.1.4

- Choose the month and year from the contribution details field.
- Opt for **“Monthly Contribution”** in the Contribution Details Type dropdown menu.
- Enter the Employer Code Number.
- If you have a larger number of employees, you can opt for **“Upload Data Using an Excel File.”**
- Upon clicking the **“Submit”** button, the subsequent page will display as follows:

ESIC Employees' State Insurance Corporation

Insurance

Monthly Contribution Details

Employer's Name: ABCDEFGHIJK LIMITED  
 Employer's Code No.: 1234567890123456  
 Contribution Period: Aug 2023  
 Region Code: 0000 - Bangalore

S.No.	Insurance Number	Insured Person	No. of Days for Which Wages Paid / Payable	Total Monthly Wages	IP Contribution	Reason For Zero Working Days	Last Working Day
1	1234567890123456	ABHIJITH K	25	10000	1000	None	
2	1234567890123456	ABHIJITH K	25	10000	1000	None	

NB: Please enter ip details in all pages for filing(submitting) MC data

Back Forward Cancel

Fig. 1.5

The eligible employees' details will be displayed as follows: You should then enter the number of days for which wages are paid or payable, as well as input the total monthly wages.

Once you have inputted the employee details as per the specified requirements, the display will appear as follows:

ESIC Employees' State Insurance Corporation

Insurance

Monthly Contribution Details

Employer's Name: ABCDEFGHIJK LIMITED  
 Employer's Code No.: 1234567890123456  
 Contribution Period: Aug 2023  
 Region Code: 0000 - Bangalore

S.No.	Insurance Number	Insured Person	No. of Days for Which Wages Paid / Payable	Total Monthly Wages	IP Contribution	Reason For Zero Working Days	Last Working Day
1	1234567890123456	ABHIJITH K	25	10000	1000	None	
2	1234567890123456	ABHIJITH K	25	10000	1000	None	

NB: Please enter ip details in all pages for filing(submitting) MC data

Back Forward Cancel

Fig. 1.6

Upon clicking the **"Submit"** button, a new pop-up window titled **"Payment History"** will appear, where you will be prompted to enter values for the following categories:


- Total IP Contribution
- Total Employer Contribution
- Total Central Government Contribution
- Total Wages

[Click here to Submit and Continue](#)

[illegible]

Fig. 1.7

The page will redirect to the payment details section, where you can choose your bank for on-line transactions. You will notice that a unique challan number has already been generated for further proceedings. In the event of a connection loss, you can input the challan number and continue seamlessly.



**ESIC**  
 Employees' State Insurance Corporation

Insurance

Please note down the ChallanNumber : 04723131151631 for future reference

**Do not close or refresh the browser.**

Please select bank to transact :

and click Continue button to proceed for the payment

© 2021 ESIC, India. All Rights Reserved. Best viewed in 1024 x 768 pixels. Site maintained by: ESIC, Disputed and Downloaded by: CMC, Coimbatore, ITD-IP Address:

Fig. 1.8

Select your preferred bank for making the payment and proceed with the transaction.



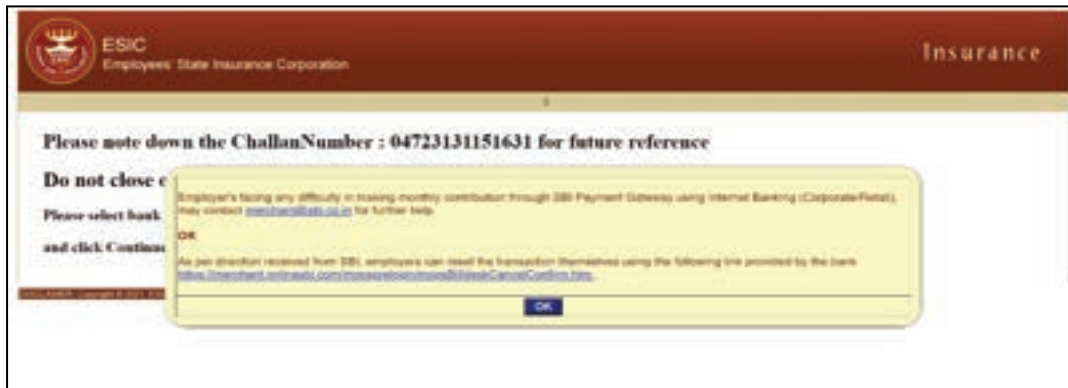


Fig. 1.9

After entering your banking details and completing the payment generation process, you will receive a message indicating that your transaction has been successfully completed.

Additionally, you will be provided with a unique transaction ID for reference.

### MULTIPLE CHOICE QUESTIONS (MCQS)

1. **ESI Act was passed in which year?**

- a) 1947
- b) 1946
- c) 1948
- d) 1950

2. **Why ESIC is needed?**

- a) For the protection of the organization
- b) For educating labours
- c) For the workers to compensate their losses of wages during the absence of labour due to the medical needs
- d) For the assurance of labours' wages

3. **Who should pay ESIC**

- a) Employer
- b) Employee
- c) Individual
- d) All of the above



**4. Who is eligible for ESIC?**

- a) Employee who receives salary  $\leq$  21000 /-
- b) Employee who receives salary  $>$  21000 /-
- c) Employee who receives salary  $\leq$  15000 /-
- d) Employees who receives salary  $>$  15000 /-

**5. What is the salary slab for disabled employees to avail ESIC benefits?**

- a)  $\leq$  21000 /-
- b)  $\leq$  25000 /-
- c)  $<$  25000 /-
- d)  $\leq$  30000 /-

**Answer Key:** (1-c), (2-c), (3-a), (4-a), (5-b)

**DESCRIPTIVE QUESTIONS**

- 1. What is the purpose of ESIC contribution?
- 2. What is ESI and its benefits?
- 3. What are the main functions of ESI?
- 4. Who is eligible for ESI? Explain with its limitations
- 5. Why is ESI required? Explain

# CHAPTER 16

## DIGITAL SIGNATURE CERTIFICATE (DSC)



### LEARNING OBJECTIVES:

**At the end of this chapter, you will be able to:**

- ✓ DSC and various services/applications.

Explain all the important aspects relating to various e-services including e-filing the e-forms etc.

### DIGITAL SIGNATURE CERTIFICATE ( DSC)

Digital Signature Certificates (DSC) are the digital equivalent (that is electronic format) of physical or paper certificates. Digital signature certificate can be presented electronically to prove one's identity, to access information, documentation purpose or services on the Internet or to sign certain documents digitally. A licensed Certifying Authority (CA) issues the digital signature. Digital Signatures are legally admissible in a Court of Law, as provided under the provisions of IT Act, 2000.

### FEATURES

- **Digital Identity:** A DSC serves as a digital representation of an individual or entity's identity. It is issued by a trusted Certifying Authority (CA) after verifying the identity of the certificate holder.
- **Authentication:** DSCs are used to verify the authenticity of the sender or signer of a document or message. When a document is digitally signed with a DSC, recipients can verify that it was indeed signed by the claimed sender.
- **Data Integrity:** Digital signatures provide a means to ensure that the content of a document has not been tampered with during transmission. Any changes to the document after it is signed will invalidate the signature.

- **Validity Period:** The different types of Digital Signature Certificates are:
  - o Class 2: Here, the identity of a person is verified against a trusted, pre-verified database.
  - o Class 3: This is the highest level where the person needs to present himself or herself in front of a Registration Authority (RA) and prove his/ her identity.
- **Revocation Checking:** Certifying Authorities maintain Certificate Revocation Lists (CRLs) and Online Certificate Status Protocol (OCSP) services to check if a DSC has been revoked. This helps ensure that expired or compromised certificates are not used.
- **Encryption:** DSCs can be used in conjunction with encryption to secure the contents of a document. This ensures that only authorized recipients can access and decrypt the information.
- **Compatibility:** DSCs are typically compatible with various software applications, operating systems, and platforms, making them versatile for a wide range of digital transactions.
- **Password Protection:** DSCs are often protected with a password or Personal Identification Number (PIN) to prevent unauthorized use. The password is required to access and use the private key associated with the certificate.
- **Multi-Purpose Use:** DSCs can be used for a variety of purposes, including signing email messages, authenticating to secure websites, and signing legal contracts.
- **Different Classes:** DSCs are issued in different classes, each with varying levels of identity verification. Higher-class certificates require more rigorous identity checks and are typically used for more sensitive transactions.

#### **APPLICATION OF DSC IN MCA WEBSITE**

The e-forms are required to be authenticated by the authorized signatories using digital signatures as defined under the Information Technology Act, 2000. A digital signature is the electronic signature duly issued by a certifying authority that shows the authority of the person signing the same. It is an electronic equivalent of a written signature.

Digital Signature Certificates (DSC) are the digital equivalent (that is electronic format) of physical or paper certificates. Few Examples of physical certificates are drivers' licenses, passports or membership cards. Certificates serve as proof of identity of an individual for a certain purpose; for example, a driver's license identifies someone who can legally drive in a particular country. Likewise, a digital certificate can be presented electronically to prove one's identity, to access information or services on the Internet or to sign certain documents digitally.

Physical documents are signed manually, similarly, electronic documents, for example e-forms are required to be signed digitally using a Digital Signature Certificate. Every user who is required to sign an e-form for submission with MCA is required to obtain a Digital Signature Certificate. For MCA-21, the following four types of users are identified as users of Digital Signatures and are required to obtain digital signature certificate:

- MCA (Government) Employees.
- Professionals (Company Secretaries, Chartered Accountants, Cost Accountants and Lawyers) who interact with MCA and companies in the context of Companies Act.
- Authorized signatories of the Company including Managing Director, Directors, Manager or Secretary.
- Representatives of Banks and Financial Institutions. A person requiring a Digital Signature Certificate can approach any of the Certifying authorities identified by the MCA, with original supporting documents and self-attested copies, for issuance of Digital Signature Certificate. DSCs can also be obtained, wherever offered by CA, using Aadhar eKYC based authentication, and herein supporting documents are not required.

## **HIGHLIGHTS**

- DSC of either Class 2 and Class 3 signing certificate category issued by a licensed Certifying Authority (CA) needs to be obtained for e-Filing on the MCA Portal.
- Director Identification Number (DIN) is not a pre-requisite to apply for DSC.
- The Certifying Authorities are authorized to issue a Digital Signature Certificate with a validity of one or two years.
- Registration of DSC is a onetime activity on the MCA portal. For registration of DSC, steps are given on the MCA Portal.
- All companies (Public Company, Private Company, Company not having share capital, Company limited by share or guarantee, Unlimited Company) must comply with this requirement of registration of DSC by the director, manager and secretary.
- Foreign directors are required to obtain Digital Signature Certificate from an Indian Certifying Authority (List of Certifying Authorities is available on the MCA portal).

- The process of registration of DSC is same as applicable to others.

### **CERTIFYING AUTHORITIES (CAS)**

A Certifying Authority is a trusted agency whose central responsibility is to issue, revoke, renew and provide directories for Digital Signature Certificates. According to Section 24 of the Information Technology Act 2000, "Certifying Authority" means a person who has been granted a license to issue Digital Signature Certificates.

The Controller of Certifying Authorities (CCA) is a Government of India undertaking that license and regulate the working of Certifying Authorities. The CCA certifies the public keys of CAs, which enables users in the cyberspace to verify that a given certificate is issued by a licensed CA. For this purpose, CCA operates, the Root Certifying Authority of India (RCAI). The CCA also maintains the National Repository of Digital Signature Certificate (NRDC), which contains all the certificates issued by all the CAs in the country.

Certifying Authority (CA) means a person who has been granted a license to issue a digital signature certificate under Section 24 of the Indian IT-Act 2000.

National Informatics Center (NIC) 	
IDRBT Certifying Authority 	
SafeScript CA Services, Sify Communications Ltd. 	
(n) Code Solutions CA 	
E-MUDHRA 	
CDAC 	
NSDL 	
Capricorn 	
Pantesign 	
IDSIGN 	
Verasys 	
XtraTrust 	

### STEPS FOR OBTAINING DSC

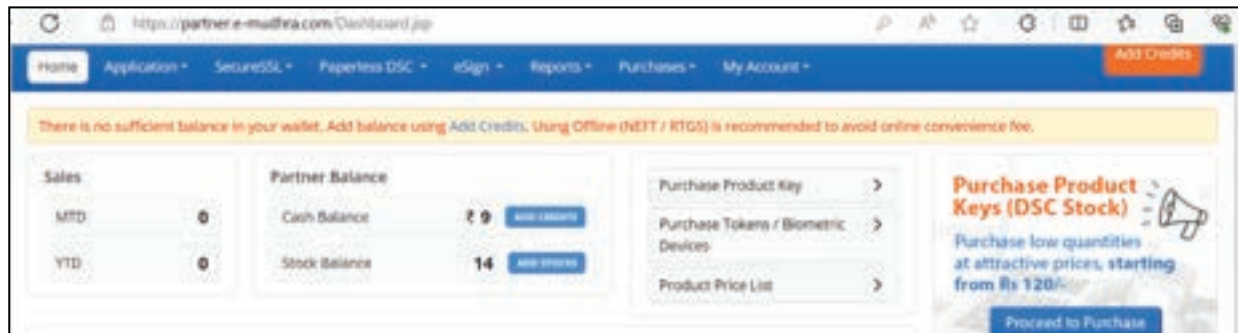
SIGN INTO E MUDRA PORTAL AND LOGIN USING THE CREDENTIALS

The screenshot shows the eMudhra Partner Portal Sign In page. The page has a header with the eMudhra logo, 'Partner Portal', and navigation links for 'English', 'About Us', and 'Branch Offices'. The main content area is divided into two sections. The left section, titled 'eMudhra Partner Program', describes the benefits of joining as a partner, including a competitive advantage, fast issuance, and a premium partner experience. It includes a 'Become a Partner' button and links for 'Know More' and 'Contact Us'. The right section, titled 'Sign In', prompts the user to log in to their partner account. It features input fields for 'Username' and 'Password', a 'SMS OTP' field with a 'Get OTP' button, and a 'Use DCM Instead' link. Below these fields are checkboxes for 'I agree to the T&C of Partner Agreement' and 'Extended Login Time (6 hrs)', and a 'Generate/Forget Password?' link. A large orange 'Submit' button is at the bottom of the sign-in section.

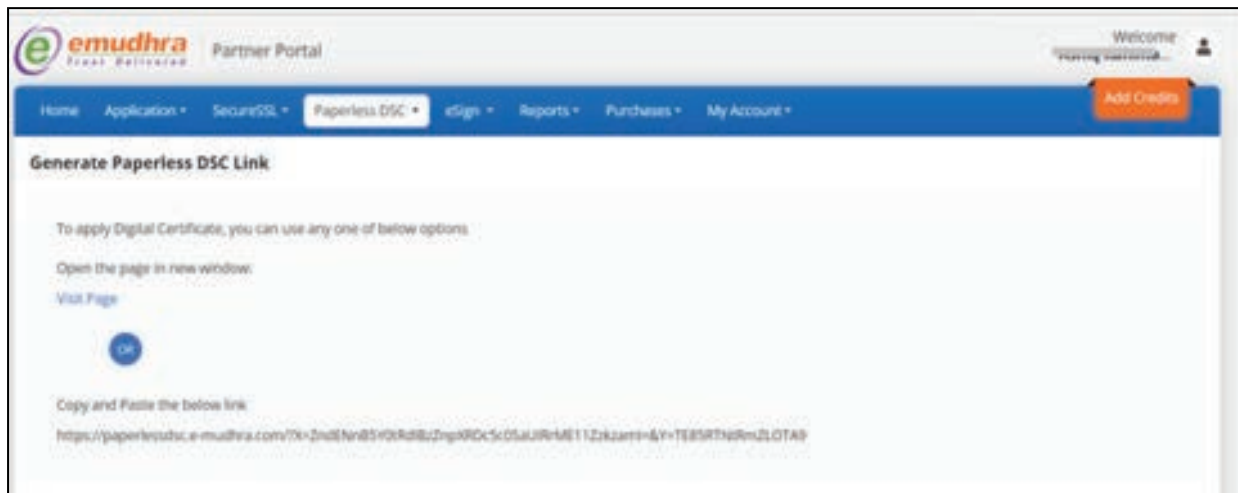
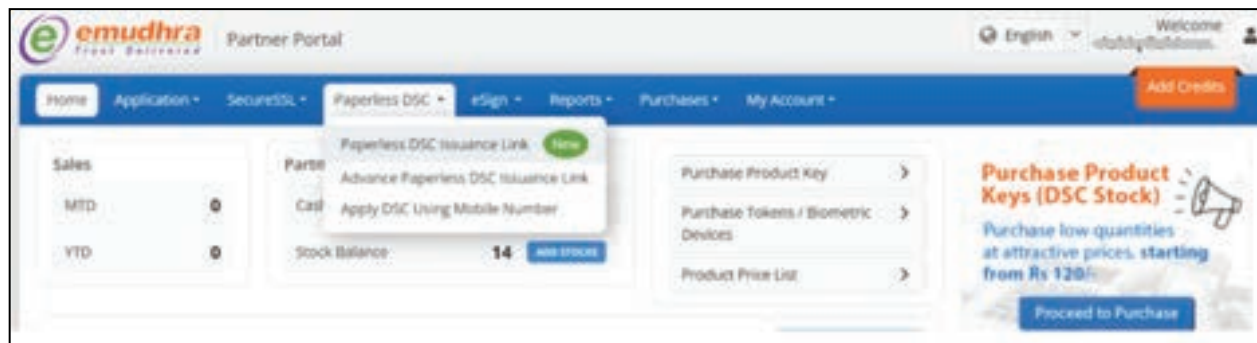
This screenshot shows the same eMudhra Partner Portal Sign In page, but with sample data entered in the form fields. The 'Username' field contains 'J888g@buddha', the 'Password' field contains '\*\*\*\*\*', and the 'Date of Birth (DDMMYYYY)' field contains '31051998'. The 'SMS OTP' field is empty, and the 'Get OTP' button is visible. The 'I agree to the T&C of Partner Agreement' checkbox is checked, and the 'Extended Login Time (6 hrs)' checkbox is unchecked. The 'Generate/Forget Password?' link is also visible. The 'Submit' button remains orange and prominent.

## TAX COMPLIANCES

### HOME PAGE



### CLICK ON PAPERLESS DSC ISSUANCE LINK > VISIT PAGE





CLICK ON QUICK INDIVIDUAL DSC

### What is Paperless DSC Issuance?

This facility is enabled for applying Digital Signature Certificates (DSC) in a paperless manner using:

- Aadhaar Biometric KYC (Individuals)
- Aadhaar OTP + Video KYC (Individuals)
- Offline Aadhaar XML + Video KYC (Individuals)
- PANs + Video/Document KYC (Individuals)
- Indian Organization Online GSTIN/Video/Document KYC
- Foreign Individual Online Video/Document KYC
- Foreign Organization Online Video/Document KYC

For Aadhaar Biometric KYC, please [Click Here](#) for list of allowed biometric devices and their contact / driver information.

For offline Aadhaar based eKYC process, [Click Here](#) to download Offline Aadhaar XML from L1 website.

### Get your Digital Signature Certificate

#### Quick Individual DSC

Authenticate with Aadhaar + OTP / Biometric by Aadhaar linked mobile.

[Apply using Aadhaar](#)

#### Quick Organization DSC

Enter your GSTIN and submit your Indian organization Application.

[Apply using GSTIN](#)

#### Enrol & Apply DSC

Apply DSC for Individuals and Organizations. You can choose this for both Indian and Foreign applicants.

**Individuals:** Apply/Renew DSC using your PAN / Aadhaar OTP / Biometric (doesn't require Video) / Aadhaar Offline eKYC. If you are an Indian national (DRI) if Foreign National, use Local Government issued ID Proof and Address Proof.

**Organizations:** Apply/Renew DSC using Organization GSTIN / Document proof, along with Applicant's ID and Authorization Proof. (This process requires Video Verification for Organization Applicants)

[Enrol & Apply DSC](#)

FILL REQUIRED FIELDS (AS PER DOCUMENTS)

### Quick Individual DSC

Fill the below form details to quickly create a new eKYC Account using Aadhaar OTP / Biometric as KYC mode and obtain Digital Signature Certificate.

#### Certificate Details

Class 3 - Individual

Certificate Type \*  
☒ Signature ☐ Encryption ☐ Both

Certificate Validity \*  
☒ 1 Year ☐ 2 Years ☐ 3 Years

Download Password  
 Define your own download password (Challenge Code) to download the certificate, once approved by eMudhra CA. The same will also be sent to you over SMS / email after approval. (Minimum 8 characters)

Challenge Code \*      Retype Challenge Code \*

Note: Please remember this password to download the certificate.

[Do you have a Product key? Click here](#)

#### Applicant Details

PAN \*

Mobile \*      GET OTP      Mobile OTP \*

Email \*      GET OTP      Email OTP \*

Aadhaar Number / VID\*      ☒ OTP      ☐ BIOMETRIC

AADHAAR OTP\*      GET OTP

Note: If you are an existing user, your credentials will remain the same for eMudhra Account. If you are a new user, the username and PIN has to be set by you, and the details for the same will be sent over your email verified above.

☐ English: I am the holder of above Aadhaar Number. I hereby agree to authenticate myself using Aadhaar through... [more](#)

[Proceed](#)

## SELECT TYPE OF DSC

### Quick Individual DSC

Fill the below form details to quickly create a new eKYC Account using Aadhaar OTP / Biometric as KYC mode and obtain Digital Signature Certificate.

#### Certificate Details

Class 3 - Individual

Certificate Type \*  
☒ Signature ☐ Encryption ☐ Both

Certificate Validity \*  
☐ 1 Year ☒ 2 Years ☐ 3 Years

#### Download Password

Define your own download password (Challenge Code) to download the certificate, once approved by eMudhra CA. The same will also be sent to you over SMS / email after approval. (Minimum 6 characters)

Challenge Code \*  
 \*\*\*\*\*

Retype Challenge Code \*  
 \*\*\*\*\*

Note: Please remember this password to download the certificate.

Do you have a Product key ? [Click here](#)

☒ English: I am the holder of above Aadhaar Number. I hereby agree to authenticate myself using Aadhaar through... more

#### Applicant Details

PAN \*  
 CRMPA8399H

NIK\*\*\* \*\*\*\*\*RAN

Mobile \*  
 9999999999

RESEND OTP

Mobile OTP\*  
 \*\*\*\*

Email \*  
 rishabh.m@govillaparam

RESEND OTP

Email OTP\*  
 \*\*\*\*

Aadhaar Number / VID\*  
 999940004500

☒ OTP ☐ BIOMETRIC

AADHAAR OTP\*  
 \*\*\*\*\*

RESEND OTP

Note: If you are an existing user, your credentials will remain the same for eMudhra Account. If you are a new user, the username and PIN has to be set by you, and the details for the same will be sent over your email verified above.

Proceed

## COMPLETE OTP VERIFICATION WITH THE MOBILE NO, EMAIL AND AADHAAR

### Certificate Details

Class 3 - Individual

Certificate Type \*  
☒ Signature ☐ Encryption ☐ Both

Certificate Validity \*  
☐ 1 Year ☒ 2 Years ☐ 3 Years

### Download Password

Define your own download password (Challenge Code) to download the certificate, once approved by eMudhra CA. The same will also be sent to you over SMS / email after approval. (Minimum 6 characters)

Challenge Code \*  
 \*\*\*\*\*

Retype Challenge Code \*  
 \*\*\*\*\*

Note: Please remember this password to download the certificate.

Do you have a Product key ? [Click here](#)

☒ English: I am the holder of above Aadhaar Number. I hereby agree to authenticate myself using Aadhaar through... more

### Applicant Details

PAN \*  
 CRMPA8399H

NIK\*\*\* \*\*\*\*\*RAN

Mobile \*  
 9999999999

RESEND OTP

Mobile OTP\*  
 \*\*\*\*

Email \*  
 rishabh.m@govillaparam

RESEND OTP

Email OTP\*  
 \*\*\*\*

Aadhaar Number / VID\*  
 999940004500

☒ OTP ☐ BIOMETRIC

AADHAAR OTP\*  
 \*\*\*\*\*

RESEND OTP

Note: If you are an existing user, your credentials will remain the same for eMudhra Account. If you are a new user, the username and PIN has to be set by you, and the details for the same will be sent over your email verified above.

Proceed

OTP has been sent to Aadhaar mobile number \*\*\*\*\*0766

OK

## TAX COMPLIANCES

TO CONFIRM AND CLICK ESIGN AND SUBMIT

### Quick Individual DSC

Verify your details to quickly create a new eKYC Account using Aadhaar OTP / Biometric as KYC mode and obtain Digital Signature Certificate.

#### DSC Application: #16279006

**Ashish Chandrasekharan**

Mobile	9846200000	Class of Certificate	Class 3
Email	ashishc@rediffmail.com	User Type	Individual
Date of Birth	29-Nov-1992	Certificate Type	Signature
Gender	Male	Certificate Validity	2 Years
Address	Surapattanam P O, Thiruvananthapuram, Kerala, India	PAN	*****



#### Authenticate & eSign -

Please verify above information and eSign this application using Aadhaar eSign.

Aadhaar: XXXX-XXXX-XXXX-XXXX  
4592

Aadhaar OTP  
XXXXX

☒ I agree to use my above information to create a KYC account with eKudhra. I will retain the above sign details confidential and do not share with anyone. I agree to the terms of [Subscriber Agreement](#), which shall be eSigned on successful account creation.

☒ English: I am the holder of above Aadhaar Number. I hereby agree to authenticate myself using Aadhaar through... more

CLICK ON APPLICATIONS> MANAGE APPLICATIONS>VIEW

The screenshot displays the emudhra Partner Portal. The header features the emudhra logo, the text 'Partner Portal', and user controls for language ('English') and a welcome message. A blue navigation bar contains links for Home, Applications, SecureSSL, Paperless OSC, eSign, Reports, Purchases, and My Account. The 'Applications' dropdown menu is expanded, showing 'Manage Applications', 'Apply for Certificate', and 'Generate Payment Link'. The main content area is divided into sections. On the left, a 'Sales' table shows data for 'MTD' and 'YTD' with columns for 'Cash-Balance' (₹ 409) and 'Stock Balance' (14), each with an 'Add Stock' button. On the right, a 'Purchase Product Key' section lists options: 'Purchase Product Key', 'Purchase Tokens / Biometric Devices', and 'Product Price List'. A promotional banner on the far right encourages purchasing 'Product Keys (DSC Stock)' at low prices, starting from ₹ 120, with a 'Proceed to Purchase' button.

## TAX COMPLIANCES

**emudhra** Trust Believed Partner Portal

Welcome [User Name]

Home Application SecureSSL Paperless DSC eSign Reports Purchases My Account Add Credits

**Manage Applications** [Advance Search](#)

Search Application No. [ ] Search Reset

**Pending for Partner Approval**

Regn Date/ Appl. No.	Name	Email ID/ Mobile	Product Description/ Type	Scheme	Action
06-Sep-2023 16279006	Nimmagondra Praveen Praveen	nimm*****@gmail.com 9*****8330	Class 3 Platinum Individual 2 years Signature	KYC	<a href="#">View</a>

**APPROVE**

**emudhra** Trust Believed Partner Portal

Welcome [User Name]

Home Application SecureSSL Paperless DSC eSign Reports Purchases My Account Add Credits

**Payment & Certificate Details Confirmation**

**Certificate Details**

User Type: Individual

Certificate Class: Class 3 - 2 Year

Certificate Type: Signature

Validity: 2 Years

Common Name: Nimmagondra Praveen Praveen

Email ID: nimm\*\*\*\*\*@gmail.com

Organization: PERSONAL

Organization Unit: N/A

Postal Code: 680007

Locality: Thirussur

State: Kerala

Country: India

PAN: XXXXX8747X

Audhaar Number: XXXX-XXXX-4592

**Billing Details**

Applicant Name: Nimmagondra Praveen Praveen

Applicant Organization: PERSONAL

Address: Nimmagondra Praveen Praveen, Nimmagondra Praveen Praveen, S.O.

PIN Code: 680007

State: KERALA

Locality: THIRUSSUR

GSTIN: [ ]

**Payment Details**

☐ User Account Balance ☒ Use Product Key

Product Key: 1124-3838-0905-0144-2833 [Pick Product Key](#)

Technical Service Fee (TSF): Rs. 300 plus 18% GST (Rs. 354)

Remarks: Dsc approved

I have verified the certificate details ☒ YES ☐ NO

[Approve](#) [Cancel](#)

**CERTIFICATE CAN BE DOWNLOAD**

Enrolment Information

Name

sun\*\*\*\*@\*\*\*\*.com

Email

sun\*\*\*\*@\*\*\*\*.com

Mobile

+91 964\*\*\*\*220

KYC Type

ONLINE AADHAAR OTP

PAN

AYU\*\*\*\*13D

Certificate

Class 3 - 2 Year

Approved

List of Actions

#	Actions	Status
1	Enrolment Information	Completed
2	Applicant Mobile Verification	Completed
3	Applicant Email Verification	Completed
4	Applicant Video Recording	Completed
5	Applicant Photograph	Completed
6	Applicant Credential Setup	Completed
7	Applicant eSign	Completed
8	eMudhra Approval of Application	Completed
9	DSP Approval	Completed



## SUMMARY

A Digital Signature Certificate (DSC) is an electronic identity proof issued by trusted Certifying Authorities (CAs) that validates a person or entity's identity for secure online transactions, document signing, and authentication. DSCs ensure data integrity, authenticity, and legal validity, with different classes of certificates requiring varying levels of identity verification. They are widely used, including on government websites like India's Ministry of Corporate Affairs (MCA) for e-form authentication. CAs, regulated by the Controller of Certifying Authorities (CCA), are responsible for issuing and managing DSCs. These certificates are pivotal in maintaining the security and legality of digital transactions and interactions.

## MULTIPLE CHOICE QUESTIONS (MCQS)

### 1. What is the primary purpose of a Digital Signature Certificate (DSC) in India?

- a) To encrypt emails
- b) To verify the authenticity of digital documents and e-filing
- c) To provide access to government websites
- d) To make online payments

**2. Which government body in India is responsible for regulating and certifying Digital Signature Certificates?**

- a) RBI (Reserve Bank of India)
- b) UIDAI (Unique Identification Authority of India)
- c) CCA (Controller of Certifying Authorities)
- d) TRAI (Telecom Regulatory Authority of India)

**3. Which law in India governs the use and legality of Digital Signature Certificates?**

- a) IT Act, 2000
- b) IPC (Indian Penal Code)
- c) RTI Act (Right to Information Act)
- d) Consumer Protection Act

**4. Which of the following documents is NOT typically required as part of the application process for obtaining a Digital Signature Certificate in India?**

- a) Proof of identity
- b) Proof of address
- c) Income tax returns
- d) Passport-sized photograph

**5. To sign a PDF document digitally using a Digital Signature Certificate in India, which software tool or application is commonly used?**

- a) Adobe Acrobat Reader
- b) Microsoft Word
- c) Google Docs
- d) Notepad

**Answers**

1. B    2. C    3. A    4. C    5. A

# CHAPTER 17

## IEC (IMPORT EXPORT CODE)

### LEARNING OBJECTIVES:



#### At the end of the chapter, you will be able to:

- ✓ Acquire knowledge about the Importer Exporter Code (IEC) and become familiar with the services provided by the Directorate General of Foreign Trade (DGFT) in association with IEC.
- ✓ Comprehend the significance of IEC and its pivotal role in facilitating import and export activities.
- ✓ Familiarize yourself with the established guidelines for the application and obtaining of an IEC.
- ✓ Gain an understanding of how to leverage specified services and technologies associated with IEC.
- ✓ Encourage students to explore further details on IEC and related services by visiting the official website of DGFT at [www.dgft.gov.in](http://www.dgft.gov.in).

### INTRODUCTION TO DGFT

The Directorate General of Foreign Trade (DGFT) is the agency of the Ministry of Commerce and Industry of the Government of India responsible for administering laws regarding foreign trade.

It implements the foreign trade policy or the EXIM (export-import) policy of the government and it mandates is to promote exports from India.

In accordance with the principles of liberalization and globalization and the overall objective of increasing exports, DGFT has since been assigned the role of 'Facilitator'.

The DGFT is the licensing authority for export/import businesses in India.

DGFT offers online services and platforms to facilitate trade-related activities, including the issuance of licenses and certificates, filing applications, and tracking the status of trade-related matters and grievance Redressal mechanism for resolving disputes and grievances related to foreign trade.

The India's foreign trade legislation is controlled by the Foreign Trade (Development and



Regulation) Act, 1992. Through this policy, the Indian government permits the imports into India and encourages exports from India.

### IMPORTER-EXPORTER CODE

The Importer-Exporter Code (IEC) is a business identification number that is mandatory for all imports and exports. No person shall engage in any import or export activities without an IEC number granted by the Directorate General of Foreign Trade (DGFT). The IEC is required for various purposes, including import and export processes, shipment and customs clearance, and making payments in relation to both exports and imports. It is also a fundamental document for accessing various benefits related to customs, DGFT, and Export Promotion Councils, among others.

The ITC (HS) Code, known as the Indian Trade Classification (Harmonized System) Code, has been adopted in India for managing and regulating export and import operations. The Indian customs use an 8-digit ITC (HS) Code to fulfill national trade requirements

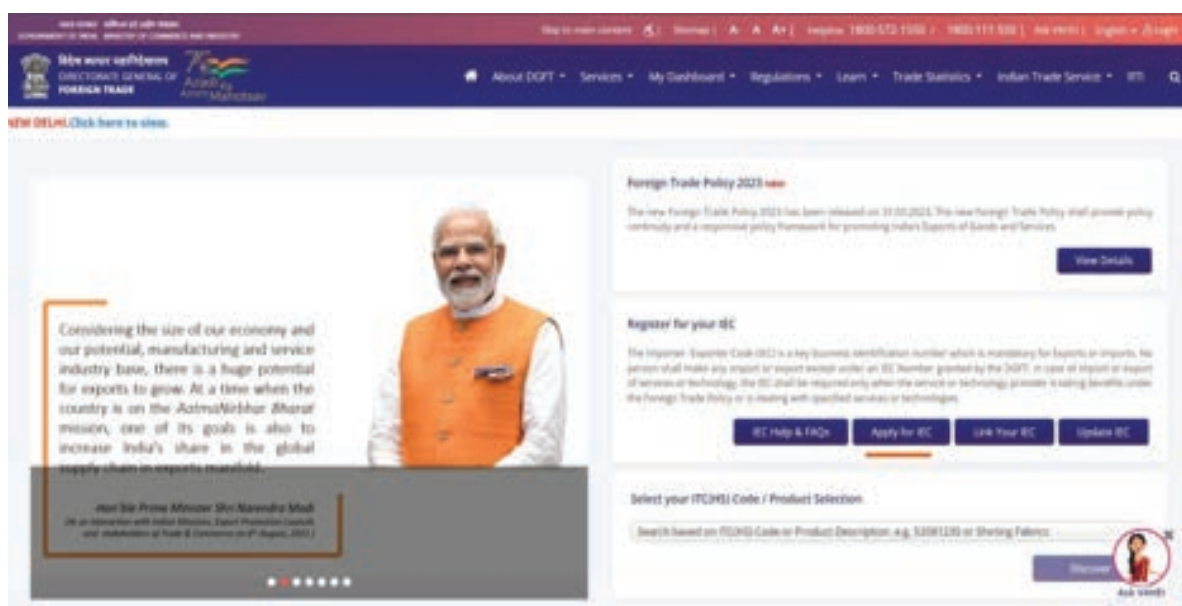
### 17.1. HOW TO OBTAIN IEC?

**Detailed steps to obtain an IEC Certificate through online are given below:**

To obtain the IEC, visit the DGFT official website at **[www.dgft.gov.in](http://www.dgft.gov.in)**.

You have an option to obtain IEC either as an individual/ on behalf of a firm.

**For that, click on 'Apply for IEC.'**







REGISTER

First Name \*

Last Name \*

Email ID \*

Mobile No. \*

Password \*

Confirm Password \*

City \*

State \*

Country \*

Send OTP

Then, Enter the Email OTP and Mobile OTP & Then click 'Register'

OTP SAFE successfully

REGISTER

First Name \*

Last Name \*

Email ID \*

Mobile No. \*

Password \*

Confirm Password \*

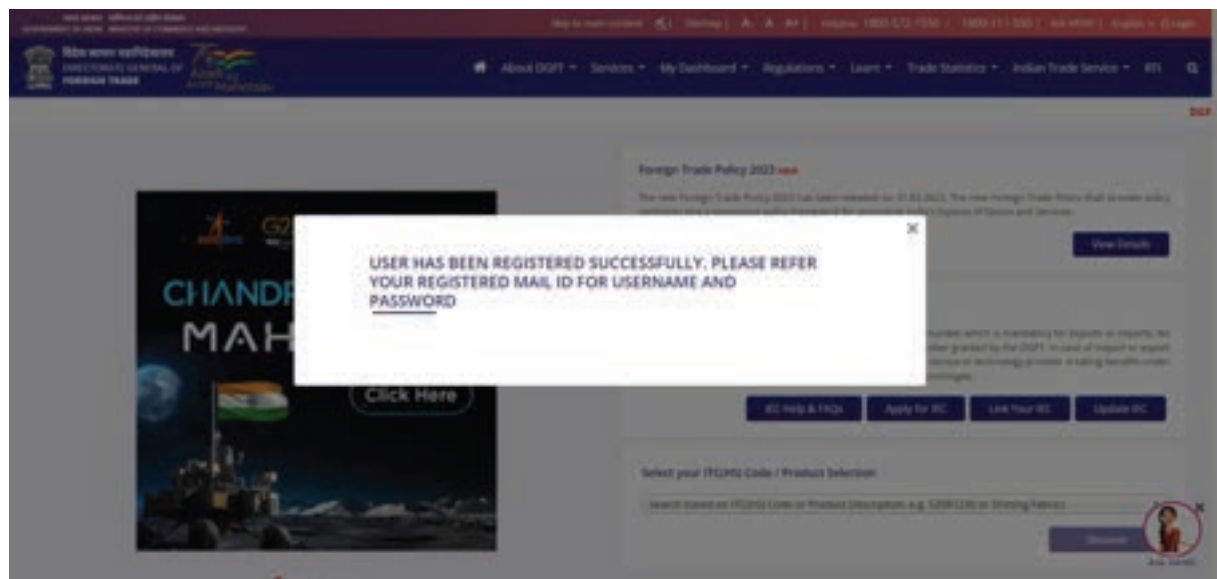
City \*

State \*

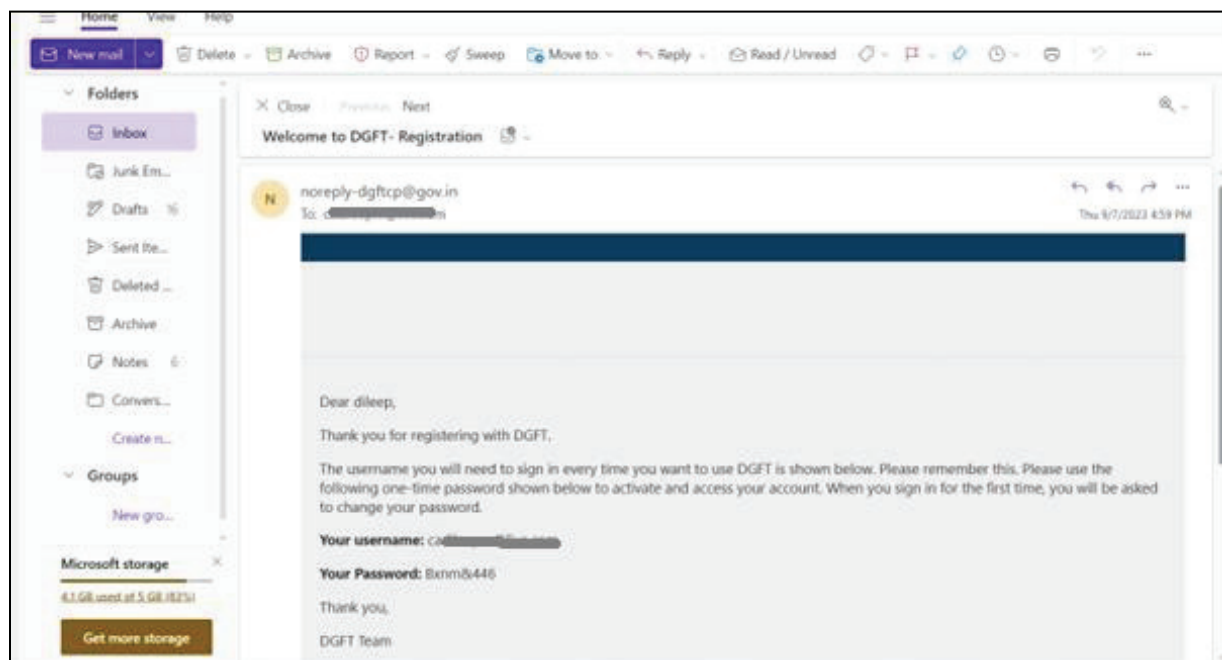
Country \*

Register

Now a popup message will appear on the screen, notifying you that the registration process been successfully completed & a username and password will be sent to your Email address

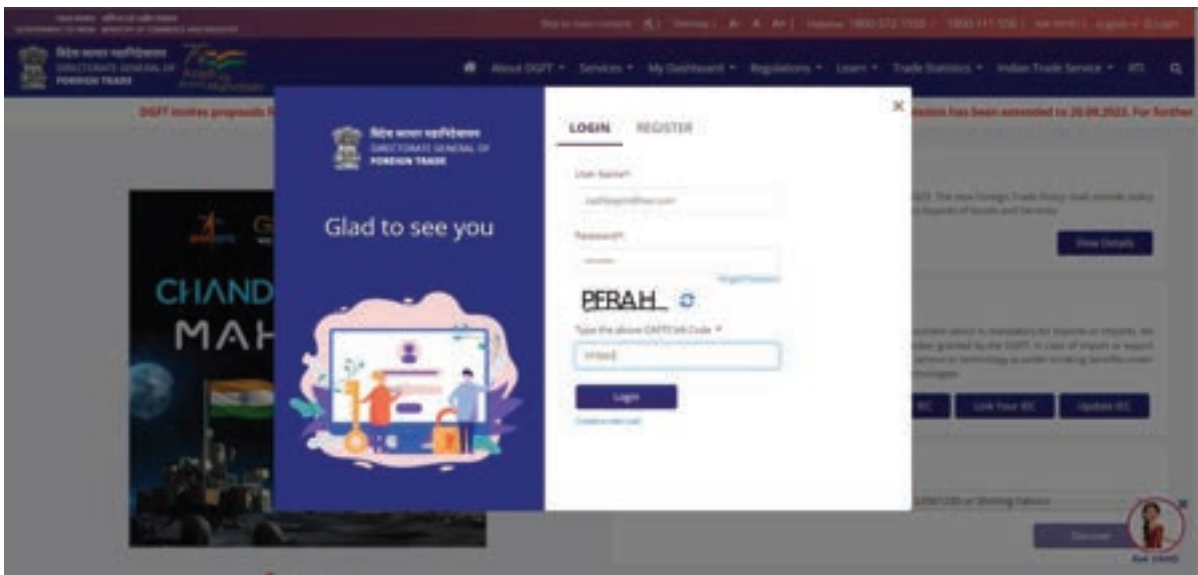


The Authority will send a Username & Password to your E-mail address for Login.



‘Login’ to the website using the provided Username & Password received via E-mail

## TAX COMPLIANCES



Once logged in, an option to set a New Password will be appear

Welcome Dileep Mohan

Change Password

You can change your password here. Please keep your password safe.  
**All fields are mandatory.**

Current Password\*

New Password\*

Confirm Password\*

Password rules:

- Password should have minimum 8 characters & maximum 32 characters
- Password should have at least one upper case [A-Z]
- Password should have at least one lower case [a-z]
- Password should have at least one number [0-9]
- Password should have at least one special character out of these acceptable characters: !@#\$%^&\*()-\_+=~`|}{~[];:,./?<>~
- A password may contain a space but this cannot be as the start or the end
- There do not use any other special characters not included in this list, for example, " " & so on also please make sure you don't accidentally leave a space at the beginning or end of the password

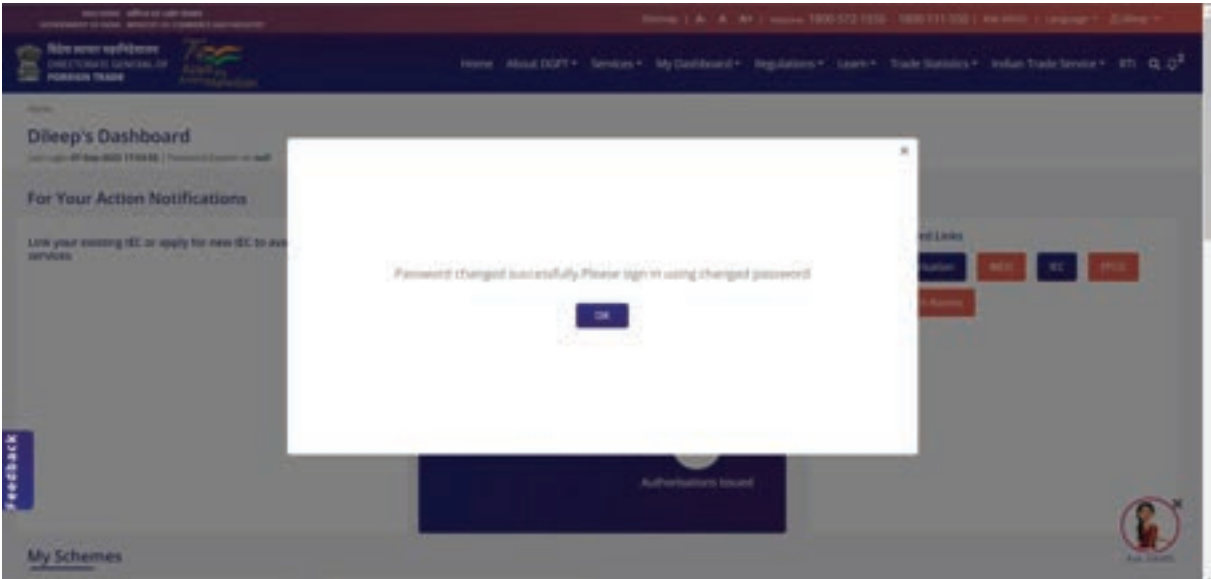
Submit

After changing the Password, click on 'Submit'

## TAX COMPLIANCES

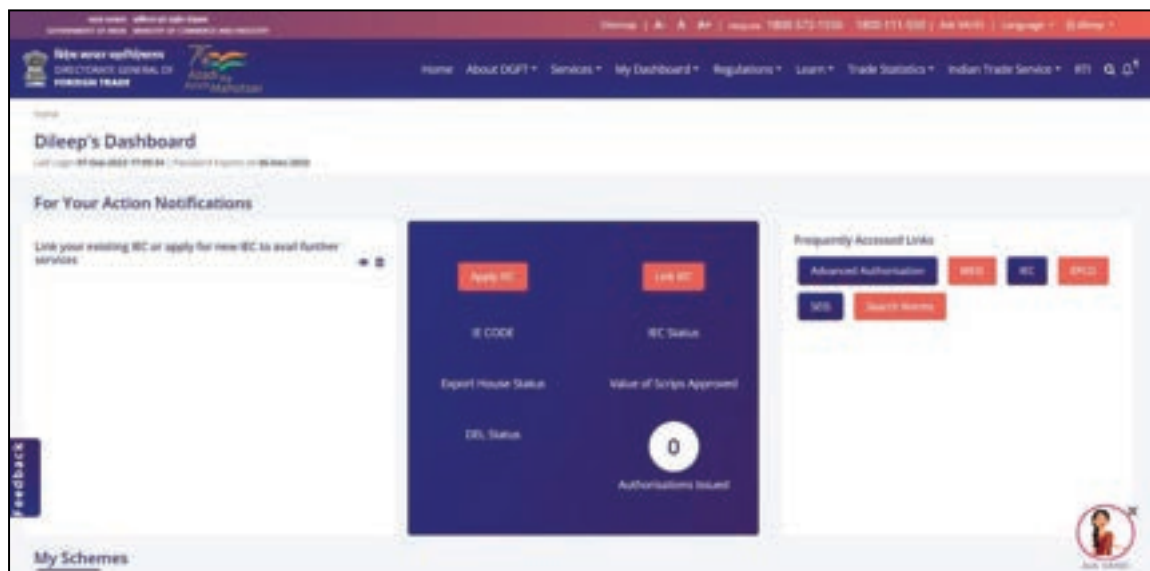
[illegible]

Subsequently, a message will be displayed, advising you to Sign in again, using the changed Password

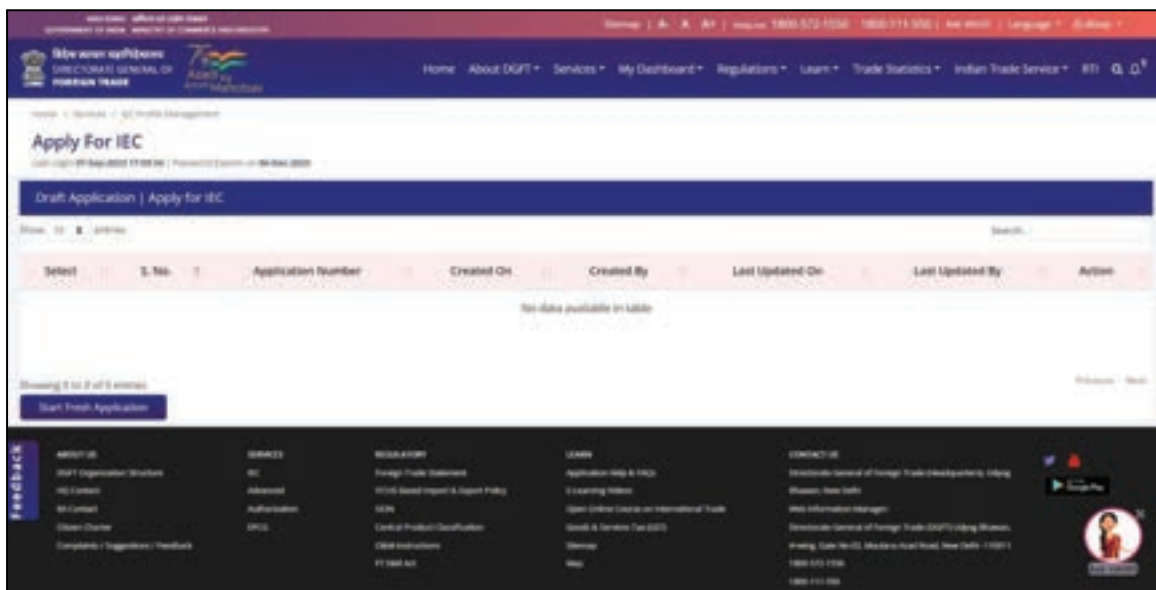


On the following page, proceed to 'Apply IEC'

## TAX COMPLIANCES



After that, Click on 'Start fresh application' located below



Next, navigate to the 'Nature/Concern of firm' under 'Basic Details' & select the nature of your firm.



## TAX COMPLIANCES

**Apply For IEC**  
Last login: 07-Sep-2023 10:05:04 | Password Expires on: 06-Sep-2023

General Information | Details of Proprietor/Partner/Direct... | Bank Information | Other Details (Preferred sectors of operations) | Declaration | Application Summary

**Basic Details**

Nature of concern: **Partnership**

Firm Name: **XXXXX XXXXX XXXXX**

Name as per PAN database: **XXXXX XXXXX XXXXX**

Date of Birth / Date of Incorporation: **XXXX/XX/XXXX**

Whether the Firm is located in Special Economic Zone (SEZ): **NO**

Whether the Firm is located in Export Oriented Zone (EOZ): **NO**

GSTIN Number: **XXXXXX**

Firm Email: **XXXX@XXXX.com**

**Save & Next**

Enter the firm's details including PAN, GSTIN & other required information specified on the portal. After uploading the necessary information, click on 'Save & Next'

**Dileep's Dashboard**  
Last login: 07-Sep-2023 10:05:04 | Password Expires on: 06-Sep-2023

General Information | Details of Proprietor/Partner/Direct... | Bank Information | Other Details (Preferred sectors of operations) | Declaration | Application Summary

**Basic Details**

Nature of concern: **Partnership**

Firm Name: **XXXXX XXXXX XXXXX**

Name as per PAN database: **XXXXX XXXXX XXXXX**

Date of Birth / Date of Incorporation: **XXXX/XX/XXXX**

Whether the Firm is located in Special Economic Zone (SEZ): **NO**

Whether the Firm is located in Export Oriented Zone (EOZ): **NO**

GSTIN Number: **XXXXXX**

Firm Email: **XXXX@XXXX.com**

**Save & Next**

Then go for 'Firm Address Details'

Once all information has been provided & documents are uploaded, click on 'Save & Next'

Sr. No.	File Name	Action
1	Eandrew DUEEP.pdf	

Afterwards, fill out the 'Branch details' and click 'Save & Next'



## TAX COMPLIANCES

Then, move onto the 'Details of Proprietor/Partner/Director/Karta/Managing Trustee' & Provide necessary information

After giving the required information, a brief of your details will be appear in a box. Then, click on 'Save & Next'.

Sl. No.	IDN	Is the Director a Foreign National?	Passport Number	Name as per PAN database	Permanent Account Number(PAN)	Date of Birth as per PAN	Title	Name	Father Name	Address Line 1	Address Line 2	City	PIN Code	Edit / Delete
1		No		SLEEP SACHAN	SCSPM4598E	22/02/1986	Mr.	SLEEP SACHAN	R Mohan	Karolide	New Delhi	New Delhi	110005	<a href="#">Edit</a> <a href="#">Delete</a>

The next step is to provide 'Bank Account Details.'

Once you are provided the required information, there is a need to upload a cancelled cheque in the appropriate format.

If you are applying for an IEC as an individual, upload the cancelled cheque belonging to that individual.

If the IEC application is being submitted for a firm, it is essential to upload a cancelled cheque of that particular firm.

## TAX COMPLIANCES

**Bleep's Dashboard**  
Last login: 01 Sep 2022 17:27:45 | Password Expires on: 04 Dec 2022

Progress bar: General Information (✓), Details of Proprietor/Partner/Shareholder (✓), Bank Information (○), Other Details (Preferred sectors of operations) (○), Declaration (○), Application Summary (○).

**Bank Account Details**

Account Number \*  
XXXXXXXXXXXX

Branch Name \*  
XXXXXXXXXXXX

IFSC Code \*  
XXXXXXXXXX

Cancel Cheque

Feedback

Choose file to upload \*

Upload

After updating the bank account details, go for 'Other details.'

Choose the sector of operation that corresponds to the intended-business dealings.

**Bleep's Dashboard**  
Last login: 01 Sep 2022 17:27:45 | Password Expires on: 04 Dec 2022

Progress bar: General Information (✓), Details of Proprietor/Partner/Shareholder (✓), Bank Information (✓), Other Details (Preferred sectors of operations) (○), Declaration (○), Application Summary (○).

**Success Message**  
Draft Application Number: XXXXXXXXXX has been successfully saved.

**Other Details (Preferred sectors of operations)**

Import Export Others

Clear All Save & Next

And then, choose the sector of your business under 'Import' and 'Export'

Dashboard
  
Last login: 27-Sep-2022 11:45:42 | Password expired on: 26-Sep-2022

General Information

Details of Proprietor/Partner/Shareholder

Bank Information

Other Details (Preferred sectors of operations)

Declaration

Application Summary

Other Details (Preferred sectors of operations)

Import
Export
Others

☐ Goods

☒ Services

☐ Information Technology (IT) & ITCs services

☐ Accounting, auditing and bookkeeping services

☐ Advertising services

☐ Construction and related engineering services

☐ Consulting services

☐ Distribution services

☐ Education services

☐ Entertainment services including theatre, music, sports, etc.

☐ Environmental services

☐ Financial and related services

☐ Health care services including services by nurses, physiotherapists and para-medical personnel

☐ Loading or unloading services without operation

☐ Legal services

☐ Leasing services for the right to use immovable property and movable property

☐ Maintenance, repair and installation services

☐ Marketing, research and public opinion polling services and management services

☐ Printing and publishing services

☐ Real estate services

☐ Research and development (R&D) services

☐ Retail trade services

☐ Scientific and other technical services

☐ Telecommunication services

☐ Tourism and hospitality services

☐ Transport and logistics services

☐ Wholesale trade services

☐ Other services

Feedback

Other 40

Save & Next

**Dileep's Dashboard**  
Last Login: 07-Sep-2022 11:27:45 | Password Expiry on: 06-Dec-2022

General Information

Details of Proprietor/Partner/Direct...

Bank Information

Other Details (Preferred sectors of operations)

Declaration

Application Summary

**Other Details (Preferred sectors of operations)**

☒ Import
 ☒ Export
 ☐ Others

☐ Goods
 ☒ Services

☐ Information Technology (IT & ITeS) services

☐ Accounting, auditing and bookkeeping services

☐ Advertising services

☐ Construction and related engineering services

☐ Consultancy services

☐ Distribution services

☐ Education services

☐ Entertainment services including Audiovisual services

☐ Environmental services

☐ Financial and related services

☐ Healthcare services including services for fertility, physiotherapy and paramedical personnel

☐ Leasing or rental services without registration

☐ Legal services

☐ Lodging services for the right to use immovable property and similar products

☐ Maintenance, Repair and production services

☐ Marketing Research and Public Opinion Polling services/Management services

☐ Printing and Publishing services

☐ Real estate services

☐ Research and Development (R&D) services

☐ Scientific services

☐ Scientific and other technical services

☐ Telecommunication services

☐ Tourism and recreation services

☐ Transport with passengers/ vehicle

☐ Wholesale trade services

☐ Other services

If you have any business other than the mentioned ones, then specify the business in the given box.

Then, Click on 'Save & Next'

## TAX COMPLIANCES

**Dileep's Dashboard**  
Last Login: 07-Sep-2023 11:07:45 | Password Expires on: 06-Dec-2023

General Information | Details of Proprietor/Partner/Direct... | Bank Information | **Other Details (Preferred sectors of operations)** | Declaration | Application Summary

**Other Details (Preferred sectors of operations)**

☒ Import ☒ Export ☒ Others

Import Export **Others**

Please Specify \*

Clear All Save & Next

Next, move onto the 'Declaration' part.

Afterwards, fill out the date and place column, then click 'Save & Next'.

**Dileep's Dashboard**  
Last Login: 07-Sep-2023 11:07:45 | Password Expires on: 06-Dec-2023

General Information | Details of Proprietor/Partner/Direct... | Bank Information | Other Details (Preferred sectors of operations) | **Declaration** | Application Summary

**Declaration**

I/We hereby certify that:

A. The entry for whom the application has been made has not been penalized under any of the following Acts (as amended from time to time):

- The Customs Act, 1962,
- The Central Excise Act 1944,
- Foreign Trade (Development & Regulation) Act, 1992, and
- The Foreign Exchange Management Act, 1999
- The Conservation of Foreign Exchange, Prevention of Smuggling Activities Act, 1974

B. Name of the Director(s) / Partners / Proprietor / Karta / Trustees of the company (firm/HUF/Trust, as the case may be), before a Director(s) / Partner(s) / Proprietor / Karta / Trustees of any other Company/ Firm / entity which is on the Revised Entry List (REL) of DGFT:

C. Whether the Registered Office of the company / Head Office of the firm / or any of its Branch / Office(s) / Location(s) has been declared a defaulter and has otherwise been made ineligible for undertaking Import/Export under any of the provisions of the Policy:

- we have not obtained nor applied for issuance of an Importer / Exporter Code Number in the name of our Registered / Head Office to any other Licensing Authority
- we undertake to abide by the provisions of the Foreign Trade (Development and Regulation) Act, 1992, as amended from time to time, the Rules and Orders framed there under, the Foreign Trade Policy, the Handbook of Procedures and the HS / HSN Classification of Export & Import items.
- we fully understand that if any information furnished in the application is found incorrect or false will render us liable for any penal action or other consequences as may be prescribed in law or otherwise as may be.
- I/We hereby declare that the particulars and the statements made in this application are true and correct to the best of my/our knowledge and belief and nothing has been concealed or withheld there from,
- I hereby certify that I am authorized to verify and sign this declaration as per Paragraph 9.04 of the Foreign Trade Policy.

☒ Tick this box as acceptance of declaration understanding that (B) is the default below.

Place \*

Date

Clear All Save & Next

## TAX COMPLIANCES

Then, make a tick on the given box, as an acceptance of declaration.

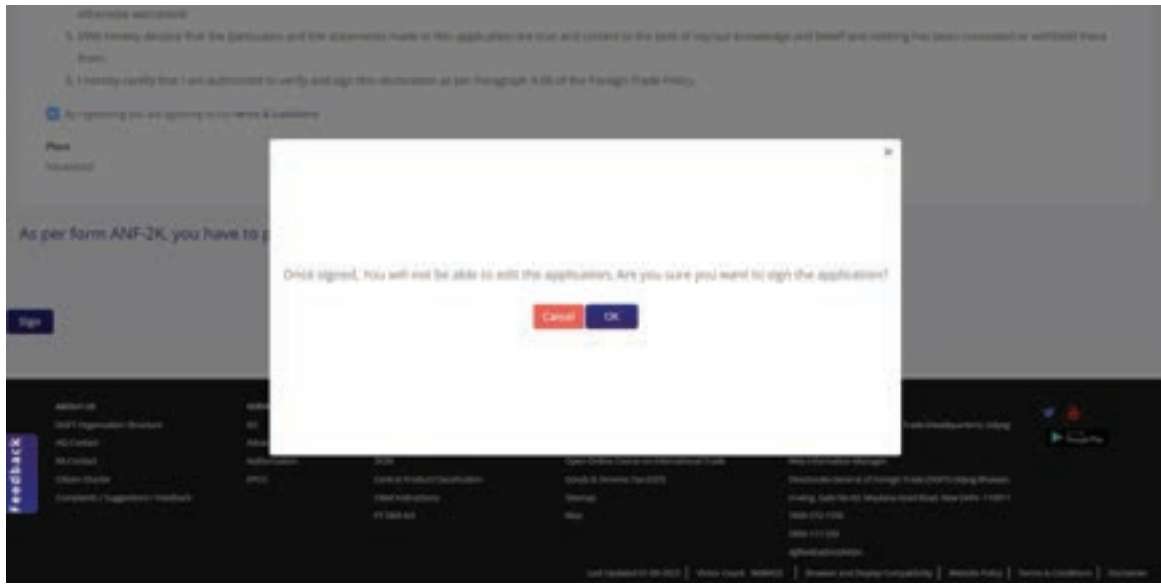
[illegible]

Then, Click to the 'Sign' tab given below.

There you will be able to see a message about payment details.

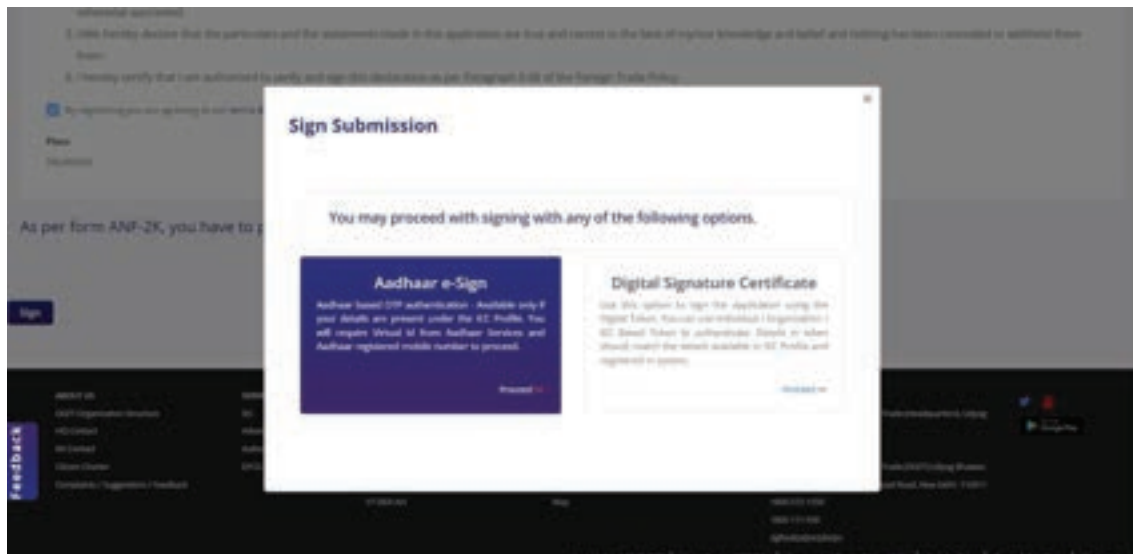
Once you signed, a notification will pop up on the screen.

Click 'ok' to move on or click 'cancel' to edit any information.



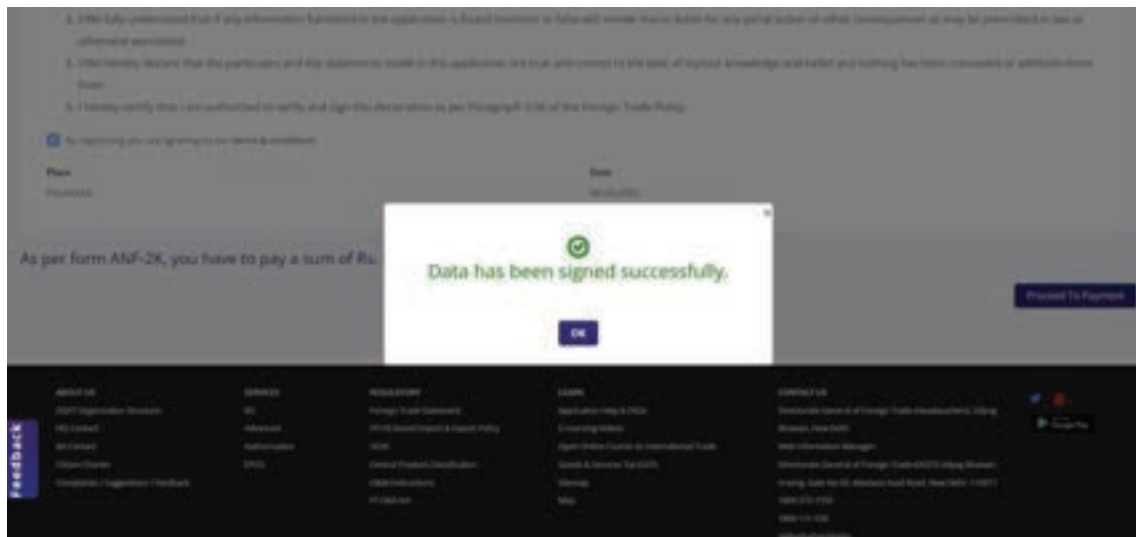
Thereafter, proceeds with the signing submission.

You are able to sign either with your DSC or with the Aadhaar.





After completing the process, you will receive a message confirming that, the signing has been successfully done



Next, a summary of given details will be appear.

Indicate your agreement with the terms & conditions, by ticking the box below.

Then, Click on the tab of 'Proceeds to Payment'.

## TAX COMPLIANCES

[illegible]

Following that, you will see an option to give your payment details. After entering the relevant details, click 'Submit'.

### Payment Details

**!** Payments made from corporate accounts require additional approval from bank portal. It may take 1 - 7 days to reflect in the system based on when approval is given from the merchant account.

<b>Applicant Name</b> <input type="text"/>	<b>Applicant Email</b> <input type="text"/>	<b>Applicant Address</b> <input type="text"/>
<b>Application Type</b> <input type="text"/>	<b>Service Type</b> <input type="text"/>	<b>Application Number</b> <input type="text"/>

Service Description	Fees Amount (€)
Apply for fee:	<input type="text"/>

Have you already paid in Legacy Management Payment System (LMPIS) / Legacy Draft Application?

Yes No

**Submit**

Once you have done with submitting your details, you will be eligible to view an online payment information in the form of a challan.

Click on 'Confirm' to initiate the payment process.



**Bharatkosh**  
Government of India Receipts Portal

Controller General of Accounts  
Dept. of Expenditure, Ministry of Finance

[Home](#) [About Us](#) [User Guide](#) [Contact Us](#) [FAQs](#) [Terms And Conditions](#) [Charge back and Refund Policy](#)



## विदेश व्यापार महानिदेशालय DIRECTORATE GENERAL OF FOREIGN TRADE

Payment Request
Depositor's Details
3
Pay

Payment Mode Online

Depositor's Details

Name:		Bharatkosh	
Address 1:	Bharatkosh India House	Address 2:	Reserve Bank
City:	New Delhi (ND)	State:	Delhi
State:	ND	Country:	INDIA
Pincode/Zipcode:	110001	Email:	customer@bharatkosh.com
Mobile No. (9-11):	9876543210		
Tax:		TIN:	

Purpose Details

Sr. No.	Category	Bill Name	Bill No.	Purpose and Payment Type	Payment Period / Frequency	Amount (in INR)
1	COMMERCE	CGAT (CGFT) New Delhi (ND)	Directorate General of Foreign Trade (DGFT), Jodhpur Branch New Delhi (ND)	Import and Export License Application Fee	One Time	100
				100 five hundred only		Total: 100

← Back
Confirm →

Then, a payment gateway will be appear.

You have to select the mode of payment & then enter the captcha.

Click on 'Pay'

The screenshot shows the Bharatkosh Payment Gateway interface. At the top, the Bharatkosh logo and the text 'Government of India Receipts Portal' are visible. To the right, it says 'Controller General of Accounts, Dept. of Expenditure, Ministry of Finance'. Below this is a navigation bar with links: Home, About Us, User Guide, Contact Us, FAQs, Terms And Conditions, and Charge back and Refund Policy. The main header features the Government of India emblem and the text 'विदेश व्यापार महानिदेशालय' and 'DIRECTORATE GENERAL OF FOREIGN TRADE'. The central section is titled 'Payment Gateway' and contains a table of payment methods with their success rates. Below the table are tabs for 'Net banking', 'Debit card', 'Credit card', and 'UPI'. A 'View User Charge' button is also present. A security verification step follows, asking the user to enter a letter shown in a captcha image. Below this, there are instructions and a disclaimer. At the bottom, there is a checkbox for 'I acknowledge and confirm that I have read and agree to the Terms And conditions.' and 'Back' and 'Pay' buttons.

Payment through RuPay C	
	Success Rate 86 %
	Success Rate 85 %
	Success Rate 84 %
	Success Rate 83 %
	Success Rate 81 %
	Success Rate 80 %
	Success Rate 79 %
	Success Rate 75 %

Note: Success Rate = No. of Successful Transactions / Total No. of Transactions in a period of 30 days.

After you click on 'Pay' button, you will be redirected to a secure gateway. After completing the payment you will be redirected back.

Note: Please Wait and do not Press Back or Refresh button of your browser while your transaction is being processed.

Disclaimer: In case you do not receive transaction status as success or failure after completing all steps in payment process, then wait for 30 minutes and check the status of the transaction using the "track your payment" link on Bharatkosh home page. If the status of your transaction is shown as Failed, then proceed to reinitiate a transaction for same purpose again. In case the amount is debited from your account for the Failed case, then you can expect the refund to be credited to your account in 3-5 working days.

☐ I acknowledge and confirm that I have read and agree to the Terms And conditions.

Back Pay

Afterwards, you will be able to view an online receipt of your payment details.

You can check the transaction status on receipt, to ensure your payment.

You could download the receipt if you want. Then click on 'Ok'.

## TAX COMPLIANCES



**Directorate General of Foreign Trade**  
DGFT, Udyog Bhawan, New Delhi

### E-PAYMENT RECEIPT

IEC	BOXPM9491R
File Number	KOCIECPAPPLY00008612AM24
Date of Submission	09/08/2023 08:36:38
IP Address	49.37.224.4
Firm Name	GREEN WINDOW SERVICES
Firm Address	Karalode Kalam House, Mangode Estate, 678686, Kannambra PO, PALAKKAD, KERALA
Service Availed	Apply for IEC
Mode of Signature	Digital Signature

### PAYMENT DETAILS

Transaction Id	3584059
Total Fee Amount (in INR)	500.00
Date of Submission	09/08/2023 08:36:38
Mode of Payment	ONLINE
Transaction Status	SUCCESS
Transaction Complete Date	09/08/2023 08:36:38

OK
Download Receipt

In the subsequent step, a pop-up message will be shown on your screen, indicating that your application has been subjected to further proceedings by the DGFT.

Date of Submission	09/08/2023 08:36:38
IP Address	49.37.224.4
Firm Name	GREEN WINDOW SERVICES
Firm Address	Karalode Kalam House, Mangode Estate, 678686, Kannambra PO, PALAKKAD, KERALA
Service Availed	Apply for IEC
Mode of Signature	Digital Signature

Transaction Id	3584059
Total Fee Amount	500.00
Date of Submission	09/08/2023 08:36:38
Mode of Payment	ONLINE
Transaction Status	SUCCESS
Transaction Complete Date	09/08/2023 08:36:38

Your application for **Apply for IEC** with file number **KOCIECPAPPLY00008612AM24** has been successfully submitted to DGFT for further processing.

OK

**Left Sidebar:**

- Home
- My Profile
- My Application
- My Transaction
- My Receipt
- My Document
- My Account
- My Settings
- My Help
- My Logout

**Main Content Area:**

Transaction Details

Transaction Id: 3584059

Total Fee Amount: 500.00

Date of Submission: 09/08/2023 08:36:38

Mode of Payment: ONLINE

Transaction Status: SUCCESS

Transaction Complete Date: 09/08/2023 08:36:38

## TAX COMPLIANCES

After that, an instant page will open up to show your application status.

Under the head of 'File Status', you will be able to see your application status.

Track Application Status

Type of scheme \*  
Please Select

Type of sub scheme \*  
Please Select

Status  
Please Select

From Date  
To Date

File Number  
Application Number

RA Office  
Please Select

Branch code  
Please Select

Clear All Search Q

Showing result for : Application process -> Importer-Exporter Code(IEC) Application Sub process -> Apply for IEC File Number - KOCIECPAPPLY00008612AM24

Search

S.No.	Application Number	File Number	File Date	Entity Name	Branch	RA Office	File Status	Action
1	ARNECPAPPLY000438AM24	KOCIECPAPPLY00008612AM24	08/09/2023	GREEN WINDOW SERVICES		RA KOOH	Approved	Action

Showing 1 to 1 of 1 entries

Previous Next

Then return to the dashboard, go for 'Services' & select 'View and Register Digital Signature Token' to Complete the Procedure.

Directorate General of Foreign Trade  
75th Anniversary

Home About DGFT Services My Dashboard Regulations Learn Trade Statistics Indian Trade Service ITC

Home

**Dileep's Dashboard**  
Last login: 04-Sep-2023 11:57:48 | Registered Exporter on: 04-Sep-2022

**For Your Action Notifications**  
Link your existing IEC or apply for new IEC to avail further services

Submit Applications  
Draft Applications  
Online Proceedings  
View and Register Digital Signature Token  
My Authorizations  
Reports/Status  
Inhouse Service

BOXPM9491R  
IE CODE

Valid  
IEC Status

NA  
Export House Status

0  
Value of Schemes Approved

N  
DEL Status

0  
Authorizations Issued

Frequently Accessed Links  
Advanced Authorization MER IEC ITIS  
MER Search Results

My Schemes

Subsequently, you can provide your details & sign in with either using DSC or your E-Aadhaar.

**View and Register Digital Signature Token**  
Last Login: 07-Sep-2023 10:07:46 | Password Expires on: 06-Dec-2023

**Information**  
You need to register your Digital Signature Certificate (DSC) before using the same in system. DSC should be of Class II or III only issued by CCA approved certifying agencies in India. Please refer <http://www.cca.gov.in> for the list of licensed DSC providers. User must have a valid DSC, that is, the validity period of DSC should not be expired.  
To use digital signatures, you need to have the following pre-requisites:  
1. Install drivers from USB Token - Install the drivers available in your digital signature token drive so that your machine can read the token.  
2. Install Digital Signature Utility - Download and install the utility's utility [andridge.amsuonline.com](http://andridge.amsuonline.com) on your local machine.

**User Details**

User Name:  Email ID:   
Password:

**Register For Aadhaar E-sign**

MSP\*:  Name As Per PAN\*:   
Please Enter MSP:  Please Enter Name As Per PAN:   
Please Enter DSC:

[Feedback](#)

In the next step, you will be able to see a notification to indicate that, your IEC Certificate has been registered successfully.

**Dileep's Dashboard**  
Last Login: 07-Sep-2023 10:07:46 | Password Expires on: 06-Dec-2023

**Information**  
You need to register your Digital Signature Certificate (DSC) before using the same in system. DSC should be of Class II or III only issued by CCA approved certifying agencies in India. Please refer <http://www.cca.gov.in> for the list of licensed DSC providers. User must have a valid DSC, that is, the validity period of DSC should not be expired.  
To use digital signatures, you need to have the following pre-requisites:  
1. Install drivers from USB Token - Install the drivers available in your digital signature token drive so that your machine can read the token.  
2. Install Digital Signature Utility - Download and install the utility's utility [andridge.amsuonline.com](http://andridge.amsuonline.com) on your local machine.

**User Details**

User Name:  Email:   
Password:

**Register For Aadhaar E-sign**

[back](#)

**Certificate has been registered successfully**

Finally, you can view your IEC Certificate online.





**Government of India / भारत सरकार**  
**Ministry of Commerce and Industry / वाणिज्य और उद्योग मंत्रालय**  
**Directorate General of Foreign Trade / विदेश व्यापार महानिदेशालय**  
**Office of the Joint Director General of Foreign Trade, Kochi / सुपुस्त महानिदेशक, विदेश व्यापार का कार्यालय, कोच्चि**  
**5th Floor, A-Block, Kendriya Bhawan, Kakkanad, ERNAKULAM, KERALA, 682037 / 5वीं मंजिल, ए-ब्लॉक, केन्द्रीय भवन, कक्कनाड, कोच्चि, एर्नाकुलम, केरल, 682037**

**Importer-Exporter Code**

This is to certify that **GREEN WINDOW SERVICES** is issued an Importer-Exporter Code (IEC) **BOXPM9491R** with details as follows -

<b>IEC</b>	<b>BOXPM9491R</b>
<b>स्थाई खाता सं.(पैन) /PAN</b>	<b>BOXPM9491R</b>
<b>फर्म का नाम/Firm Name</b>	<b>GREEN WINDOW SERVICES</b>
<b>निगम की प्रकृति /Nature of Concern</b>	<b>Proprietorship</b>
<b>जारी करने की तारीख/Date of Issue</b>	<b>08/09/2023</b>
<b>पता/Registered Address</b>	<b>Karalode Kalam House, Mangode Estate, Kannambra PO, PALAKKAD, KERALA, 678686</b>
<b>धारक का नाम / Name of the Signatory</b>	<b>DILEEP M</b>
<b>Director / Partner Details</b>	Refer online at <a href="https://dgft.gov.in">https://dgft.gov.in</a> or scan the QR Code
<b>शाखा/इकाई /Branch Details</b>	Refer online at <a href="https://dgft.gov.in">https://dgft.gov.in</a> or scan the QR Code

**Last Modified : 08/09/2023**  
**File Number : KOCIECPAPPLY00008612AM24**



**Note :** This is a system-generated certificate. Authenticity / Updated details of the IEC can be verified at official DGFT website <https://dgft.gov.in> by entering the IEC and Firm Name under Services > View Any IEC Details. You can also authenticate the certificate by scanning the QR code.

**17.2 ADVANTAGES OF TAKING THE BENEFITS OF IEC**

- **Lifetime Validity:**
  - Once the IEC is granted, there is no need of any renewal. It is valid until lifetime.
- **Preventing illegal transactions:**
  - IEC helps the Government to keep an eye on cross-border transactions & reduce the risks of illegal transactions.
- **No additional cost required:**
  - Since the IEC is granted for lifetime, there is no need of any additional maintenance cost.
- **Easy registration:**
  - IEC registration can be easily done through online.
- **Quick process:**
  - After submitting the online application, IEC registration certificate can be obtained within 2 weeks period, usually.
- **Helps to claim Export incentives:**
  - IEC Registration helps to get various types of export incentives like Duty Draw Back (DDB), Refund of goods exported, Merchandise Export from India Scheme (MEIS), etc.
- **Easy access on global markets:**
  - People who complete IEC Registration have a competitive advantage over the local dealers.
- **No requirement of any compliance:**
  - IEC holder does not have to fulfil the requirements of return filing.

**SUMMARY**

This chapter provides an overview of the importance of IEC, how to obtain it through the DGFT website, and the advantages it offers to businesses engaged in import and export activities. It encourages learners to explore further details on IEC and related services by visiting the official DGFT website at [www.dgft.gov.in](http://www.dgft.gov.in).

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What does 'IEC' stand for?**

- a) Importer- Exporter Certificate
- b) International Export Certificate
- c) Importer-Exporter Code
- d) Import-Export Credentials

**2. Who has the authority to grant an IEC?**

- a) Directorate General of Foreign Trade
- b) Department General of Foreign Trade
- c) Ministry of Corporate Affairs
- d) Ministry of Skills & Development

**3. What role has DGFT been assigned in accordance with New Economic Policy?**

- a) Regulator
- b) Facilitator
- c) Enforcer
- d) Auditor

**4. What is the validity of an IEC?**

- a) 1 year
- b) 5 years
- c) 10 years
- d) Lifetime

**5. How does IEC help to prevent illegal transactions?**

- a) By reducing tax liability
- b) By increasing tariffs
- c) By monitoring cross-border transactions
- d) By promoting tax evasions

**6. Which one is an advantage of IEC Registration?**

- a) Helps to claim export incentives
- b) Helps to explore global markets
- c) No need of return filing
- d) All of the above

**7. Where we can apply for an IEC certificate online?**

- a) [www.iec.gov.in](http://www.iec.gov.in)
- b) [www.dgft.org.in](http://www.dgft.org.in)
- c) [www.dgft.gov.in](http://www.dgft.gov.in)
- d) [www.iecgov.ac.in](http://www.iecgov.ac.in)

**8. What is the cost of IEC registration for a company?**

- a) Rs.250
- b) Rs.500
- c) Rs.1000
- d) Rs.1500

**9. How long does it typically take to get an IEC Certificate once we applied?**

- a) 2 weeks
- b) 3 weeks
- c) 30 days
- d) 2 months

**10. IEC is primarily used for \_\_\_\_\_?**

- a) Tax computation
- b) Foreign Trade calculation
- c) Employee Identification
- d) Business Identification

**TASK**

1. C
2. A
3. B
4. D
5. C
6. D
7. C
8. B
9. A
10. D

# CHAPTER 18

## MICRO, SMALL AND MEDIUM ENTERPRISES



### LEARNING OBJECTIVES:

- ✓ Definition of MSME and the Advantages of MSME Registration.
- ✓ The formal procedure for obtaining MSME registration.

### INTRODUCTION

#### WHAT IS MSME

The Micro, Small, and Medium Enterprises Development (MSMED) Act was enforced in 2006 to tackle concerns impacting MSMEs, alongside revising sector coverage and investment limits. This legislation aims to foster these enterprises' growth while boosting their competitiveness. It introduces the initial legal structure acknowledging the "enterprise" concept, encompassing manufacturing and service entities. The Act establishes a formal advisory mechanism encompassing a broad array of functions. Furthermore, it sets up dedicated funds, introduces competitive enhancement strategies, announces schemes/programs, implements progressive credit policies, and offers preferential treatment in Government procurement for micro and small enterprises. Additionally, it enhances mechanisms for tackling delayed payments and assures a scheme for streamlining business closures among these enterprises.

CLASSIFICATION	MICRO	SMALL	MEDIUM
<b>MANUFACTURING ENTERPRISES</b>  & <b>ENTERPRISES RENDERING SERVICES</b>	Investment in plant and machinery-  • NOT MORE THAN 1 CRORES  Annual Turnover-  • NOT MORE THAN 5 CRORES.	Investment in plant and machinery-  • NOT MORE THAN 10 CRORES.  Annual Turnover-  • NOT MORE THAN 50 CRORES.	Investment in plant and machinery-  • NOT MORE THAN 50 CRORES  Annual Turnover-  • NOT MORE THAN 250 CRORES.

### **FEATURES OF MSME**

The apex authority responsible for MSME policy formulation is the Central Government.

The classification of MSMEs is determined by their investment in plant and machinery, as well as their turnover and MSME actively promote entrepreneurship and skill development through specialized training centers.

Ministry of MSME has launched E-book on schemes and benefits on MSME ( <https://www.msme.gov.in/e-book-schemes-msme> )

That all companies, who get supplies of goods or services from MSME and whose payments to MSME suppliers exceed forty-five days from the date of acceptance or the date of deemed acceptance of the goods or services shall submit a half yearly return to the MCA (Form: MSME 1)

The National Board for MSME (NBMSME) was established by the Government under the Micro, Small and Medium Enterprises Development Act, 2006 and Rules made thereunder, assesses factors influencing the advancement of MSME. It evaluates current policies and initiatives and advises the government on shaping policies and programs to foster MSME growth.

Initiatives like the “Make in India” and “Startup India” campaigns aim to boost the growth and competitiveness of MSMEs

### **BENEFITS OF MSME**

**(DETAILS OF SCHEMES CAN BE ACCESSED FROM [HTTPS://MSME.GOV.IN/SCHEMES](https://msme.gov.in/schemes))**

**Collateral-free loans:** – There is a Scheme called CGTMSE (Credit Guarantee FUND Trust for Micro and Small Enterprises). Under this scheme, MSME’s can avail credit-free loans up to 200 lakhs from eligible enterprises.

**Reimbursement of ISO certification expenses:** – Those expenses incurred by MSME’s while taking ISO certification can apply for reimbursement of ISO expenses if applied to respective authorities.

**Electricity bill concession:** – MSME’s can apply for concession on their electricity bills if applied to respective Electricity boards.

**Subsidy on Industrial Promotion Subsidy (IPS) & Patent Registration:** –As a part of industrial promotion, MSME’s applying for patent registration and IPS would get a 50% subsidy.

**Protection against delayed payments:** – At the time of credit supplies, the buyer is expected to pay within the time period specified in the agreement, which in no case shall not exceed 45 days (about 1 and a half months). If the buyer has exceeded the limit, he is liable to pay compound interest with monthly rest at three times the rate notified by the RBI.

**Credit Linked Capital Subsidy Scheme:** – This is applicable for new and existing Micro and small enterprises where the government provide 15%CLCSS in order to promote technology upgrades.

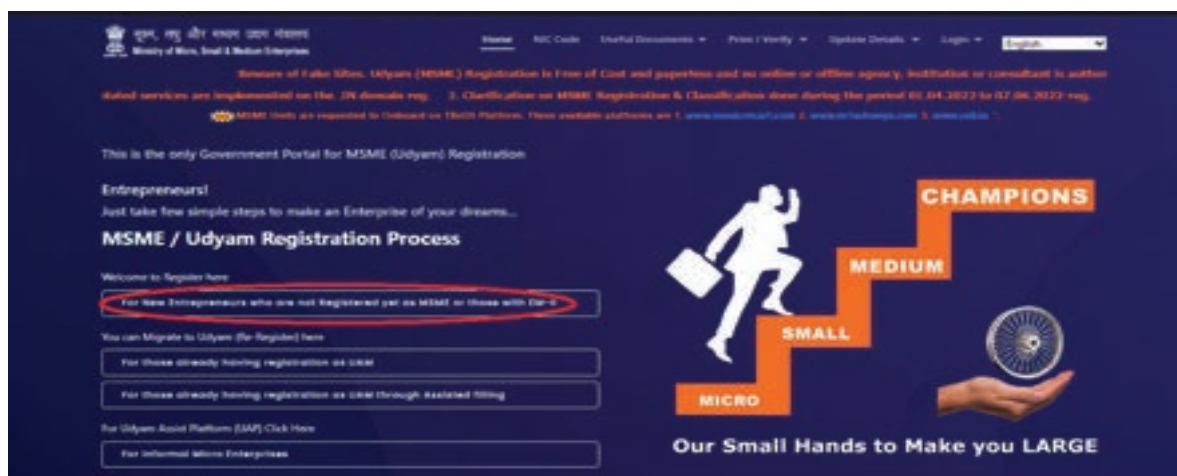
**Government Tenders:** – Registered MSME's can participate in government tenders without paying any security/bid money.

**Technological and Quality support:** – The government supports MSMEs with excellent technology in order to motivate them to adopt energy-efficient technologies that lower production costs and lower greenhouse gas emissions. Subsidies for the purchase of assets will be given to MSMEs.

### 18.1 PROCEDURE FOR MSME REGISTRATION

Access the page <http://udyamregistration.gov.in/UdyamRegistration.aspx>

Udyam Registration portal would appear. From the portal, select **“For New Entrepreneurs who are not Registered yet as MSME or those with EM-II”**, as shown in the figure below.



Provide **AADHAR NO., Name of the Entrepreneur** in the specified boxes, tick the checkbox agreeing to the terms and conditions, then click on **“validate and Generate OTP”**. An OTP would be sent to the AADHAR linked mobile number. Insert the OTP in the specified box and click on **“Validate”** as shown in the figure below.



**Aadhaar Verification With OTP**

1. Aadhaar Number / आधार संख्या

2. Name of Entrepreneur / उद्यमी का नाम

- Aadhaar number shall be required for Udyam Registration.
- The Aadhaar number shall be of the proprietor in the case of a proprietorship firm, of the managing partner in the case of a partnership firm and of a karta in the case of a Hindu Undivided Family (HUF).
- In case of a Company or a Limited Liability Partnership or a Cooperative Society or a Society or a Trust, the organisation or its authorised signatory shall provide its GSTIN/As per applicability of CGST Act 2017 and as notified by the ministry of MSME vide S.O. 1055(E) dated 05th March 2021) and PAN along with its Aadhaar number.

☒ I, the holder of the above Aadhaar, hereby give my consent to Ministry of MSME, Government of India, for using my Aadhaar number as allotted by UIDAI for Udyam Registration. I/C / Ministry of MSME, Government of India, have informed me that my aadhaar data will not be stored/shared. / मैं, आधार धारक, इस प्रकार उद्यम पंजीकरण के लिए यूआईडीएआई के साथ अपने आधार संख्या का उपयोग करने के लिए सुलभ/उपलब्ध, भारत सरकार की अपनी सहमति देता हूँ। एनआईसी / सुलभ/उपलब्ध, भारत सरकार ने मुझे सूचित किया है कि मेरा आधार डेटा संग्रहीत / साझा नहीं किया जाएगा।

**\*Enter One Time Password(OTP) Code**

123456

OTP has been sent to \*\*\*\*\*3494

**Validate**

In the PAN verification section, you will see a dropdown menu. Choose the “PROPRIETOR” option from the dropdown menu under the “**Type of organization.**” Enter the proprietor’s PAN and click on the “**PAN validate**” button. If the PAN is successfully validated, a confirmation message will appear. Afterward, click on “CONTINUE,” as illustrated in the figure below.

**PAN Verification**

3. Type of Organisation / संगठन के प्रकार

4.1 PAN / पैन

1. Proprietary / एकल स्वामित्व

☒ I, the holder of the above PAN, hereby give my consent to Ministry of MSME, Government of India, for using my data/ information available in the income Tax Returns filed by me, and also the same available in the GST Returns and also from other Government organizations, for MSME classification and other official purposes, in pursuance of the MSME Act, 2006.

Your PAN has been successfully verified. Some fields of the form will be disabled. Disabled fields will be automatically filled after verification from PAN data. GSTIN (As per applicability of CGST Act 2017 and as notified by the ministry of MSME vide S.O. 1055(E) dated 05th March 2021) is required for Udyam Registration w.e.f. 01.04.2021. You are advised to apply for GSTIN suitably to avoid any inconvenience.

**Continue**

A binary option would appear, asking if the person has filed an **ITR** or possesses a **GSTIN** in his/ her name. Choose the appropriate response, either “Yes” or “No” as shown in the figure below.

## TAX COMPLIANCES

Have you filed the ITR for Previous Year(PY) (2021-22) ITR ?

☐ Yes ☒ No

4.3 Do you have GSTIN ?

☐ Yes ☒ No ☐ Exempted / छूट प्राप्त

Note: If ITR has not been filed for PY (2021-22) for some reason or it has been filed in ITR-4 form, all the data below will have to be filled in on self-declaration basis.

In case of option (No) in respect of GSTIN, same would be verified from GSTN.

5. Name of Entrepreneur as per PAN(Aadhaar)(If enterprise has shared name PAN)

6. Mobile Number / मोबाइल नंबर +91

2329796045

7. Email / ईमेल

Categorization of ownership of the MSMEs on the basis of %age Share/Member/Contribution of amount

Sl. No.	Hindu Undivided Family (HUF)	Partnership (By Share)	Co-Operative (By Member)	Private Limited Company (By Share)	Public Limited Company (By Share)	Self Help Group (By Contribution)	Society (By Member)	Trust (By Contribution)
OBC	As per the category	51%	51%	51%	51%	51%	51%	51%
SC	As per the category	51%	51%	51%	51%	51%	51%	51%
ST	As per the category	51%	51%	51%	51%	51%	51%	51%
Women	If she is Karta	51%	51%	51%	51%	51%	51%	51%

In Case of proprietorship enterprise, the category of the unit would be the social category of the owner.

8. Social Category / सामाजिक वर्ग

☒ General / सामान्य ☐ SC / अनुसूचित जाति ☐ ST / अनुसूचित जनजाति ☐ OBC / अन्य पिछड़ा वर्ग

9. Gender / लिंग

☒ Male / पुरुष ☐ Female / स्त्री ☐ Others / अन्य

10. Specially Abled(DIVYANG) / दिव्यांग

☐ Yes / हाँ ☒ No / नहीं

Under Udyam registration, **Name, as per the PAN**, will be automatically populated. You'll need to input the **mobile number** and **email address**. Additionally, you will have the option to select a **special category**, specify the **gender**, and indicate whether the person is **specialty abled** or not.

Enter the **Name of the Enterprise** and the **plant/unit's name**, then click on **"Add."** After clicking "Add," choose the plant you just added from the dropdown menu located under "Location of the Plant", **Unit name**. Enter details such as **flat number, premises name, village/town, block, road/street/lane, city, PIN code, state, district** (selected from the dropdown), and click on "Add."

**11. Name of Enterprise / उद्यम का नाम**

Data in field 12 to be filled on self declaration basis.

**Plant/Unit Name / इकाई का नाम**

Unit Name

SN      Unit Name

SN	Unit Name	Delete
1		✖

Add More

**12. Location of Plant(s)/Unit(s)**

**Unit Name / इकाई का नाम**

**Flat/Door/Block No./फ्लैट / द्वार / ब्लॉक सं.**

5

**Block / खंड**

1

**Pin/पिन**

**Name of Premises/ Building / परिसर/ भवन का नाम**

**Road/ Street/ Lane/सड़क/ मार्ग / गली**

**State/राज्य**

16. KERALA / केरल

**Village/Town / ग्राम/बहर**

**City/नगर**

kochi

**District/जिला**

2. ERNAKULAM / एरनाकुलम

In the official address section of the enterprise, please input details such as **flat/door/block number, premises/building name, block, road/street/lane, city, PIN code, state, and district**. After entering these details, click on **“Get latitude and longitude”** to pinpoint the office location on the map. Additionally, if applicable, provide any **Previous EM-II/UAM Registration Number**.

**13. Official Address of Enterprise / कार्यालय का पता**

**Flat/ Door/ Block No. / फ्लैट / द्वार / ब्लॉक सं.**

1

**Block / खंड**

1

**Pin/पिन**

**Latitude**

**Name of Premises/ Building / परिसर/ भवन का नाम**

**Road/ Street/ Lane/सड़क/ मार्ग / गली**

**State / राज्य**

16. KERALA / केरल

**Longitude**

**Village/Town / ग्राम/बहर**

**City/नगर**

kochi

**District / जिला**

2. ERNAKULAM / एरनाकुलम

Get Latitude & Longitude

**14. Previous EM-II/UAM Registration Number, If Any / पिछले EM-II/UAM पंजीकरण संख्या, यदि कोई है**

☒ N/A  
 ☐ EM-II  
 ☐ Previous UAM

Regarding the **status of the enterprise**, please furnish the **Date of Incorporation/registration**, specify **date of Incorporation**, and provide the **Date of commencement**. In the **bank details** section, input the **Bank Name**, **IFS Code**, and **Bank Account Number**. Also, indicate the primary activity of the unit, whether it's in manufacturing or service. If "service" is selected, please specify whether it pertains to **trading** or **non-trading** activities.

<b>15. Status of Enterprise</b>		
<b>a. Date of Incorporation/registration</b> <input style="width: 90%;" type="text" value="16/08/2023"/>	<b>b. Whether production/business commenced</b> <input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Date of commencement</b> <input style="width: 90%;" type="text" value="05/08/2023"/>
<b>16. Bank Details / बैंक विवरण</b>		
<b>Bank Name / बैंक विवरण</b> <input style="width: 90%;" type="text" value="STATE BANK OF INDIA"/>	<b>IFS Code / आईएफएस कोड</b> <input style="width: 90%;" type="text" value="SBIN0008618"/>	<b>Bank Account Number / बैंक खाता संख्या</b> <input style="width: 90%;" type="text" value=""/>
<b>17. Major Activity of Unit / इकाई की प्रमुख गतिविधि</b> <input type="radio"/> Manufacturing / विनिर्माण <input checked="" type="radio"/> Services / सेवा		
<b>17.1 Major Activity Under Services / सेवा के तहत प्रमुख गतिविधि</b> <input type="radio"/> Non-Trading / गैर-व्यापारिक <input checked="" type="radio"/> Trading / व्यापारिक		

Explore the **National Industrial Classification (NIC) Code**. It assigns codes to different activities. Find the NIC codes matching your business activities. If the proprietor engages in more activities, click "**Add More Activities**" and include them. Additionally, input the number of **male**, **female**, or **other** employees working in the business.

**18. National Industrial Classification (NIC) Code for Activities** (One or more activities can be added)

Search NIC Code in Lesser Steps (To Avoid 3 Step Selection of NIC Activities)

6920-Accounting, bookkeeping and auditing activities; tax consultancy

☐ Manufacturing / विनिर्माण
☒ Services / सेवा
☐ Trading / व्यापारिक

**NIC 2 Digit Code**

69-Legal and accounting activities

**NIC 4 Digit Code**

6920-Accounting, bookkeeping and auditing :

**NIC 5 Digit Code**

69201-Accounting, bookkeeping and auditing

Add More Activities

SN	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity Type	Delete
1	69-Legal and accounting activities	6920-Accounting, bookkeeping and auditing activities; tax consultancy	69201-Accounting, bookkeeping and auditing activities	Services	✕

**19. Number of persons employed / नियोजित व्यक्तियों की संख्या**

Male / पुरुष

20

Female / स्त्री

5

Others / अन्य

1

Total / संपूर्ण

26

Check the box to confirm compliance with the provisions of the **Child & Adolescent Labour (Prohibition and Regulation) Act, 1986**. In the following section, input the **Written Down Value (WDV) as of March 31st of the Previous Year 2021-22, exclusion of costs of Pollution Control, Research & Development, and Industrial Safety Devices for 2021-22 (to be provided based on self-declaration)**. The **Net Investment in Plant and Machinery OR Equipment** will be automatically populated by the website. Enter the Total Turnover (A) for the year 2021-22.

- You will find “Yes” or “No” options for the following. Select as per necessary: -
- Are you interested in registering on the Government e-Market (GeM) Portal?
- Are you interested in registering on TReDS Portals (one or more)?
- Are you interested in registering on the National Career Service (NCS) Portal?
- Are you interested in registering on the NSIC B2B Portal?
- Are you interested in availing a Free .IN Domain and a business email ID?

The District Industries Center will be automatically selected from the dropdown menu.

Mark the checkbox to confirm that the information provided is accurate to the best of your knowledge. Then, click **“Submit and get final OTP”**.

**National Career Service (NCS) Portal Click here**

<p>Written Down Value (WDV) as on 31st March of the Previous Year 2021-22 (A)</p> <input style="width: 90%;" type="text" value="250000"/>	<p>Exclusion of cost of Pollution Control, Research &amp; Development and Industrial Safety Devices during 2021-22 (To be filled in an self-declaration basis) (B)</p> <input style="width: 90%;" type="text" value="200000"/>	<p>Net Investment in Plant and Machinery OR Equipment [(A)-(B)]</p> <input style="width: 90%;" type="text" value="50000"/>
<p><b>21. Turnover (in Rs.)</b> Ref. OM dated 06/09/2020</p>		
<p>Total Turnover (A) during 2021-22</p> <input style="width: 90%;" type="text" value="200000"/>	<p>Export Turnover (B) during 2021-22</p> <input style="width: 90%;" type="text" value="0"/>	<p>Net Turnover [(A)-(B)]</p> <input style="width: 90%;" type="text" value="200000"/>
<p>22. Are you interested in getting registered on Government e-Market (GeM) Portal <sup>1</sup></p> <p style="text-align: right;"><input type="radio"/> Yes / हाँ <input checked="" type="radio"/> No / नहीं</p>		
<p>23. Are you interested in getting registered on TReDS Portals(one or more) <sup>1</sup></p> <p style="text-align: right;"><input type="radio"/> Yes / हाँ <input checked="" type="radio"/> No / नहीं</p>		
<p>24. Are you interested in getting registered on National Career Service(NCS) Portal <sup>1</sup></p> <p style="text-align: right;"><input type="radio"/> Yes / हाँ <input checked="" type="radio"/> No / नहीं</p>		
<p>25. Are you interested in getting registered on NSIC B2B Portal <sup>1</sup></p> <p style="text-align: right;"><input type="radio"/> Yes / हाँ <input checked="" type="radio"/> No / नहीं</p>		
<p>26. Are you interested in availing Free .IN Domain and a business email ID <sup>1</sup></p> <p style="text-align: right;"><input type="radio"/> Yes / हाँ <input checked="" type="radio"/> No / नहीं</p>		
<p>27. District Industries Centre / जिला उद्योग कार्यालय</p> <div style="border: 1px solid #ccc; padding: 2px;"> <p>1. ERNAKULAM / एरनाकुलम</p> </div>		
<p><input checked="" type="checkbox"/> I hereby declare that information given above are true to the best of my knowledge. For any information, that may be required to be verified, proof/evidence shall be produced immediately before the concerned authority. / मैं एरनाकुलम घोषणा करता हूँ कि उपर्युक्त सूचना मेरी जानकारी में सही है। कोई सूचना जिसकी सत्यापित किया जाना अपेक्षित हो, उसे संबंधित प्राधिकारी के समक्ष तत्काल उपलब्ध कराया जाएगा।</p>		
<p><a href="#" style="background-color: #007bff; color: white; padding: 5px 15px; text-decoration: none; border-radius: 3px;">Submit &amp; Get Final OTP</a></p>		

Upon clicking the **“Submit and Get Final OTP”** button, a pop-up message will appear, inquiring about the accuracy of the entered data and confirming the correctness of the provided mobile number. Press **“ok”**.



## TAX COMPLIANCES

The screenshot shows the udyamregistration.gov.in portal. A modal dialog box is displayed in the center with the title "udyamregistration.gov.in says" and the message: "Are you sure that you have entered correct data. Please check your mobile number is correct?". The dialog has "OK" and "Cancel" buttons. In the background, the registration form is visible, showing fields for "Written Down Value (WDV) as on March of the Previous Year 2022 (A)", "Total Turnover (A) during 2021-22", "Export Turnover (B) during 2021-22", and "Net Turnover (A)-(B)". There are also checkboxes for interest in getting registered on various portals (e-Gate, TRIS, NCS, etc.) and a dropdown for "District Industries Centre / जिला उद्योग कार्यालय". At the bottom, there is a "Submit & Set Final OTP" button.

After selecting "OK," a section for entering the OTP and verification code will be displayed. Input the OTP sent to your mobile number and the verification code in the designated fields, then click **"FINAL SUBMIT."**

The screenshot shows the OTP and verification code entry section. It includes a declaration statement: "I hereby declare that information given above are true to the best of my knowledge. For any information, that may be required to be verified, proof/evidence shall be produced immediately before the concerned authority." Below this, there are two input fields: "\*Enter One Time Password(OTP) Code" with the value "792224" and "\*Verification Code / सत्यापन कोड" with the value "KYYY7J". A blue button labeled "KYYY7J" is also visible. At the bottom, there are "Final Submit" and "Resend OTP" buttons. A green message at the bottom states: "One Time Password (OTP) code has been sent to your mobile".

An alert message will appear at the top, indicating that the information provided is unalterable. Click **"OK"** to proceed.

## TAX COMPLIANCES

The screenshot shows the Udyam registration portal. At the top, there is a header with the Ministry of Micro, Small & Medium Enterprises logo and name in Hindi and English. A black pop-up message at the top center asks: "Are you sure that you have entered correct data. After submit you will not able to change data?" with "OK" and "Cancel" buttons. Below the pop-up, the form contains the following elements:

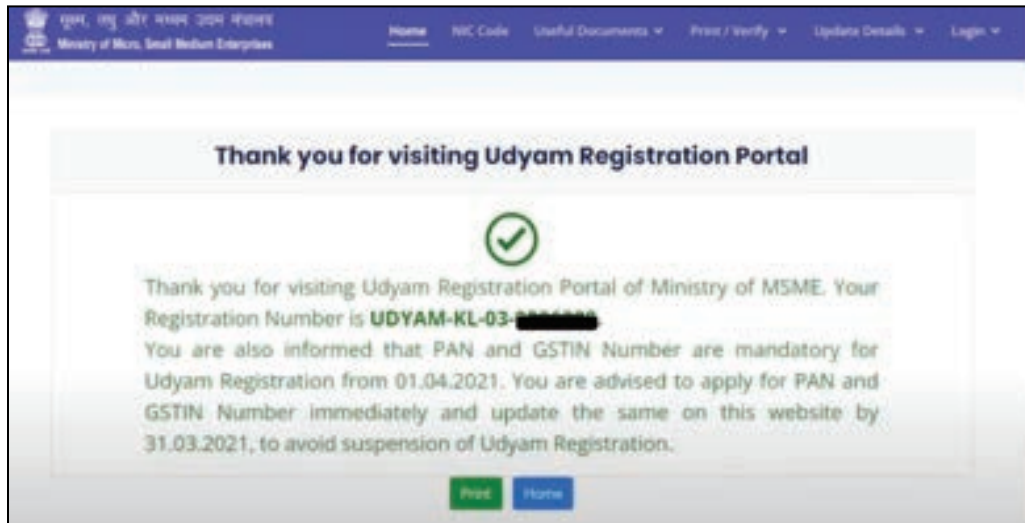
- Question 23: "Are you interested in getting registered on" with a dropdown menu.
- Question 24: "District Industries Centre / जिला उद्योग कार्यालय" with a dropdown menu.
- A declaration checkbox: "I hereby declare that information given above are true to the best of my knowledge. For any information, that may be required to be verified, proof/evidence shall be produced immediately before the concerned authority. / मैं एतद्वारा घोषणा करता हूँ कि उपर्युक्त सूचना मेरी जानकारी में सही है। कोई सूचना जिसको सत्यापित किया जाना आवश्यक हो, उसे संबंधित अधिकारी के समक्ष तत्काल उपलब्ध कराया जाएगा।"
- OTP field: "Enter One Time Password(OTP) Code" with a text input field containing "792224".
- Verification Code field: "Verification Code / साधन कोड" with a text input field containing "KYYY7J".
- A blue box displaying the verification code "KYYY7J" with a refresh icon and the text "[Code is case sensitive]".
- Buttons: "Final Submit" and "Resend OTP".
- Message: "One Time Password (OTP) code has been sent to your mobile".

A subsequent pop-up message will confirm the successful completion of the Udyam registration. Click "OK" to acknowledge this achievement.

This screenshot is identical to the one above, but the black pop-up message at the top now displays a green checkmark and the text: "Udyam registration successfully submitted. Your Udyam Registration number is UCHAM-XXXXXX". The "OK" button remains visible.

A message will be displayed on the screen with a checkmark, indicating the Udyam registration number.





### SUMMARY

MSMEs are vital to India's economic fabric, contributing significantly to employment generation, technological advancement, production, and innovation. Government support and digital transformation are key factors in their growth and sustainability. Despite challenges, MSMEs are poised to play a crucial role in India's economic future.

### MULTIPLE CHOICE QUESTIONS (MCQS)

#### 1. What is the primary aim of the MSMED Act?

- a) Promote large-scale industries
- b) Foster the growth of MSMEs and enhance their competitiveness
- c) Regulate the export sector
- d) Promote foreign investments

**2. Which government authority is responsible for policy formulation for MSMEs?**

- a) State Government
- b) District Industries Center
- c) Central Government
- d) Local Municipal Corporation

**3. How are MSMEs classified based on their size?**

- a) By the number of employees
- b) By their annual profit
- c) By their investment in plant and machinery and turnover
- d) By their location

**4. What kind of loans are available to MSMEs under the CGTMSE scheme?**

- a) Collateral-free loans
- b) Long-term loans
- c) Personal loans
- d) Mortgage loans

**5. What is the purpose of the CGTMSE scheme?**

- a) To promote export-oriented businesses
- b) To provide subsidies to large-scale industries
- c) To offer collateral-free loans to MSMEs
- d) To regulate labor practices in MSMEs.

**6. Which act requires companies to include information about delayed payments to MSME units in their annual reports?**

- a) Child & Adolescent Labour (Prohibition and Regulation) Act, 1986
- b) Companies Act, 2013
- c) Income Tax Act, 1961
- d) Foreign Exchange Management Act (FEMA)

**7. What is the full form of “NIC” in the context of MSMEs?**

- a) National Investment Corporation
- b) National Infrastructure Committee
- c) National Industrial Classification
- d) New Industry Consortium

**8. MSMEs are encouraged to adopt energy-efficient technologies that lower production costs and greenhouse gas emissions. Which subsidy is provided to support the purchase of such assets?**

- a) Technological Advancement Subsidy
- b) Green Manufacturing Subsidy
- c) Energy Efficiency Subsidy
- d) Credit Linked Capital Subsidy Scheme (CLCSS).

**9. What does the term “CGTMSE” stand for?**

- a) Central Government Trust for Micro and Small Enterprises
- b) Credit Guarantee FUND Trust for Micro and Small Enterprises
- c) Comprehensive Guarantee Fund for Technical Enterprises
- d) Common Gateway for Trade and Small Enterprises.

**10. If a unit possesses an investment in plant and equipment totaling ₹55 crore and a turnover of ₹300 crore, how would it be classified?**

- a) Micro
- b) Small
- c) Medium
- d) None of the options above

**Answers**

1. B    2. C    3. C    4. A    5. A  
6. B    7. C    8. D    9. B    10. D

# CHAPTER 19

## MCA 21 E- FILING



### LEARNING OUTCOMES

**At the end of this chapter, you will be able to:**

- ✓ MCA 21 and various services.
- ✓ Explain all the important aspects relating to various e-services including e-stamping, e-inspection, all about filling and filing the e-forms etc.
- ✓ Guidelines for filling and filing e- forms and description of e-forms.
- ✓ Know about E-governance in corporate sector, Various forms and filings related to company administration

The students may refer to [www.mca.gov.in](http://www.mca.gov.in) for the format of various e-Form and further details.

### 19.1. INTRODUCTION TO MCA

Ministry of Corporate Affairs (MCA), Govt. of India ministry primarily concerned with administration of the Companies Act 2013, the Companies Act 1956, the Limited Liability Partnership Act, 2008, and the Insolvency and Bankruptcy Code, 2016 and also responsible for the regulation of industrial and services sector in India. MCA also exercises supervision over the three professional bodies, namely, Institute of Chartered Accountants of India (ICAI), Institute of Company Secretaries of India (ICSI) and the Institute of Cost Accountants of India (ICAI) which are constituted under three separate Acts of the Parliament. The Ministry also has the responsibility of carrying out the functions of the Central Government relating to administration of Partnership Act, 1932, the Companies (Donations to National Funds) Act, 1951 and Societies Registration Act, 1980.

### 19.2.E -GOVERNANCE AND MCA 21

E-Governance is the use of information and communication technology (ICT) to provide government services, exchange information, conduct transactions, and integrate previously existing services and information portals. The “e” in “e-Governance” refers for “electronic.” MCA-21 is an ambitious e-governance initiative of Government of India that builds on the Government’s

vision of National e-governance in the country The Government of India's Mission e-Governance, in combination with Digital India, has undergone a paradigm shift. This E-governance initiative, a flagship program executed by MCA in partnership with Private Player, is a fine example of public private partnership, and is built on a BOOT (Built, Operate, Own and Transfer) model. MCA has initiated the MCA-21 project in the year 2006, to enable an easy and secure access to MCA services in a manner that best suits the corporate entities and professionals and the public. MCA services are made available at the place of their choice, be it their homes or offices. MCA-21 project introduced in the process of E-filing, storage of records, electronic repository and inspection of records of registered companies and LLP. Electronic Governance is the application of Information Technology to the Government functioning in order to bring about Simple, Moral, Accountable, Responsive and Transparent (SMART) Governance. E-governance is a highly complex process requiring provision of hardware, software, networking and re-engineering of the procedures for better delivery of services.

### **19.3.MCA- 21 AND ITS LEGAL VALIDITY**

**Section 398 of the Companies Act, 2013** has provision related to filing of applications, documents, inspections in electronic form.

**Section 398(1)** provides that notwithstanding anything to the contrary contained in this Act, and without prejudice to the provisions contained in section 6 of the Information Technology Act, 2000, the Central Government may make rules so as to require from such date as may be prescribed in the rules that –

- (a) Such applications, balance sheet, prospectus, return, declaration, memorandum, articles, particulars of charges, or any other particulars or document as may be required to be filed or delivered under this Act or the rules made thereunder, shall be filed in the electronic form and authenticated in such manner as may be prescribed;
- (b) Such document, notice, any communication or intimation, as may be required to be served or delivered under this Act, in the electronic form and authenticated in such manner as may be prescribed;
- (c) Such inspection of the memorandum, articles, register, index, balance sheet, return or any other particulars or document maintained in the electronic form, as is otherwise available for inspection under this Act or the rules made thereunder, may be made by any person through the electronic form in such manner as may be prescribed;
- (d) Such fees, charges or other sums payable under this Act or the rules made thereunder shall be paid through the electronic form and in such manner as may be prescribed; and The Central Government has provided all the e-forms as an annexure to the relevant Rules.

Rule 7 of Companies (Registration offices and fees) Rules, 2014 relates to manner and conditions of filing provides that Every application, financial statement, prospectus, return, declaration , memorandum, articles, particulars of charges, or any other particulars or documents or any notice , or any communication or intimation required to be filed or delivered or served under the Act and rules made there under , shall be filed or delivered or served in computer readable electronic form , in portable document format (pdf) or in such other format as has been specified in any rule or form in respect of such application or form or document or declaration to the Registrar through the portal maintained by the Central Government on its web-site or through any other website notified by the Central Government

#### **19.4. ORGANIZATION OF ROC OFFICE UNDER MCA**

The Registrar of Companies (ROC) as defined under Sub-Section 75 of Section 2 of the Companies Act, 2013, is an appointment of the Ministry of Corporate Affairs vested with the primary duty of registering companies and LLPs floated in the respective states and the Union Territories and ensuring that such companies and LLPs comply with statutory requirements under the Act. These offices function as registry of records, relating to the companies registered with them, which are available for inspection by members of public on payment of the prescribed fee. The Central Government exercises administrative control over these offices through the respective Regional Directors.

##### **FRONT OFFICE**

The major components involved in this comprehensive e-governance project are front office and back office.

Front Office represents the interface of the corporate and public users with the MCA-21 system. This comprises of Virtual Front Office and Registrar's Front Office.

##### **VIRTUAL FRONT OFFICE**

Virtual front office is one of the various channels available to stakeholders (companies and the professionals) to enable them to do the statutory filing with ROC Offices across the country. It merely represents a computer facility for filing of digitally signed e-forms by accessing the MCA portal through internet ([www.mca.gov.in](http://www.mca.gov.in)). It also presupposes availability of related facilities to convert documents into PDF format and scanning of documents wherever required.

##### **REGISTRAR'S FRONT OFFICE (RFO)**

To facilitate the change over from Physical Document Filing to Digital Document Filing, the Ministry started offices known as the Registrar Front Office. It is one of the various channels available to stakeholders to enable them to do the statutory filing with ROC Offices across the country.

### BACK OFFICE

Back Office represents the offices of Registrar of Companies, Regional Directors and Headquarters and takes care of internal processing of the forms filed by the corporate user as per MCA norms and guidelines. The e-forms are routed dynamically to the concerned authority for processing depending upon the assigned role. All the e-forms along with attachments are stored in the electronic depository, which the staff of MCA can view depending upon the access rights.

### Central Registration Centre (CRC)

The Central Registration Centre (CRC) is an initiative of Ministry of Corporate Affairs (MCA) in Government Process Re-engineering (GPR) with the specific objective of providing speedy incorporation related services in line with global best practices.

### 19.5. MCA SERVICES

MCA-21 is providing wide variety of services to its users for facilitating different compliance activities. MCA Services are broadly classified as follows:

#### 19.5.1. DSC SERVICES

A user can acquire Digital Signature Certificate (DSC), register DSC and update particulars of the DSC through the MCA Portal.

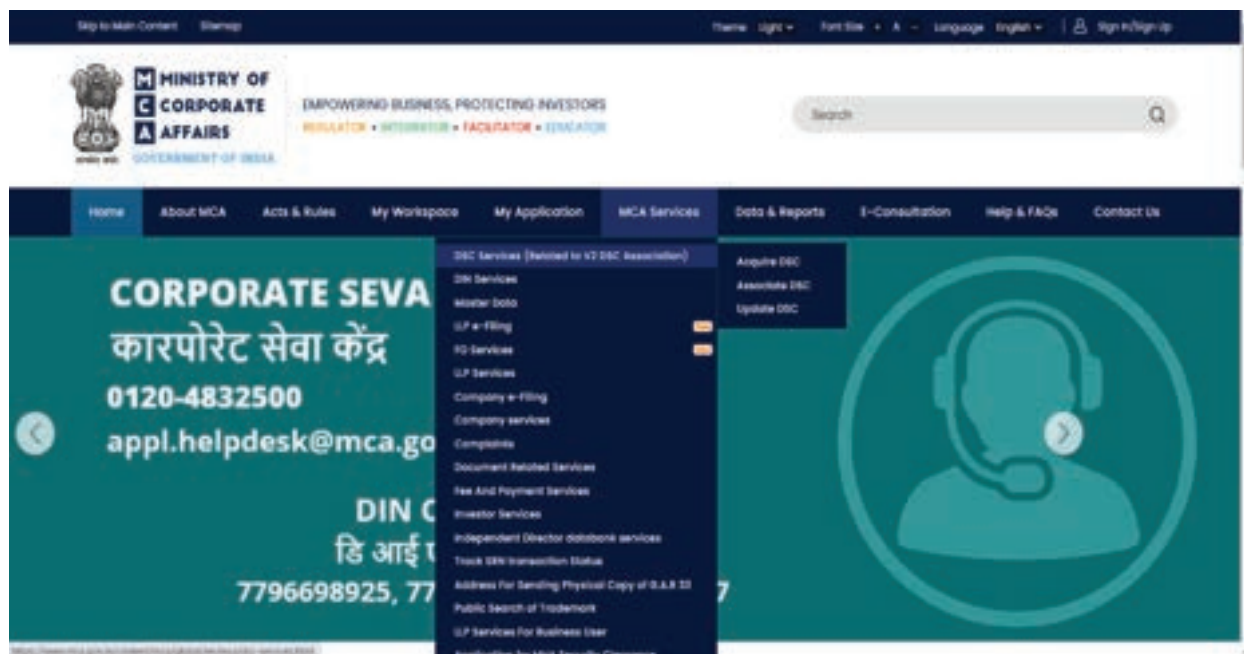


Fig 1.1

## STEPS

Visit [www.mca.gov.in](http://www.mca.gov.in)

## MCA SERVICES -----DSC SERVICES

- a) **Acquire DSC**– To obtain DSC and MCA provide related links and artefacts related to certifying authorities and important notice on DSC
- b) **Associate DSC**– Directors, Manager, Practicing professionals, Authorized officer and MCA officers can register their DSC with MCA 21 portal for certifying and signing of various forms
- c) **Update DSC** – If DSC is expired the registered users can update their DSC in MCA portal

## 19.5.2. DIN SERVICES

A user can enquire about the DIN status and verify DIN and PAN details of Director of the company.

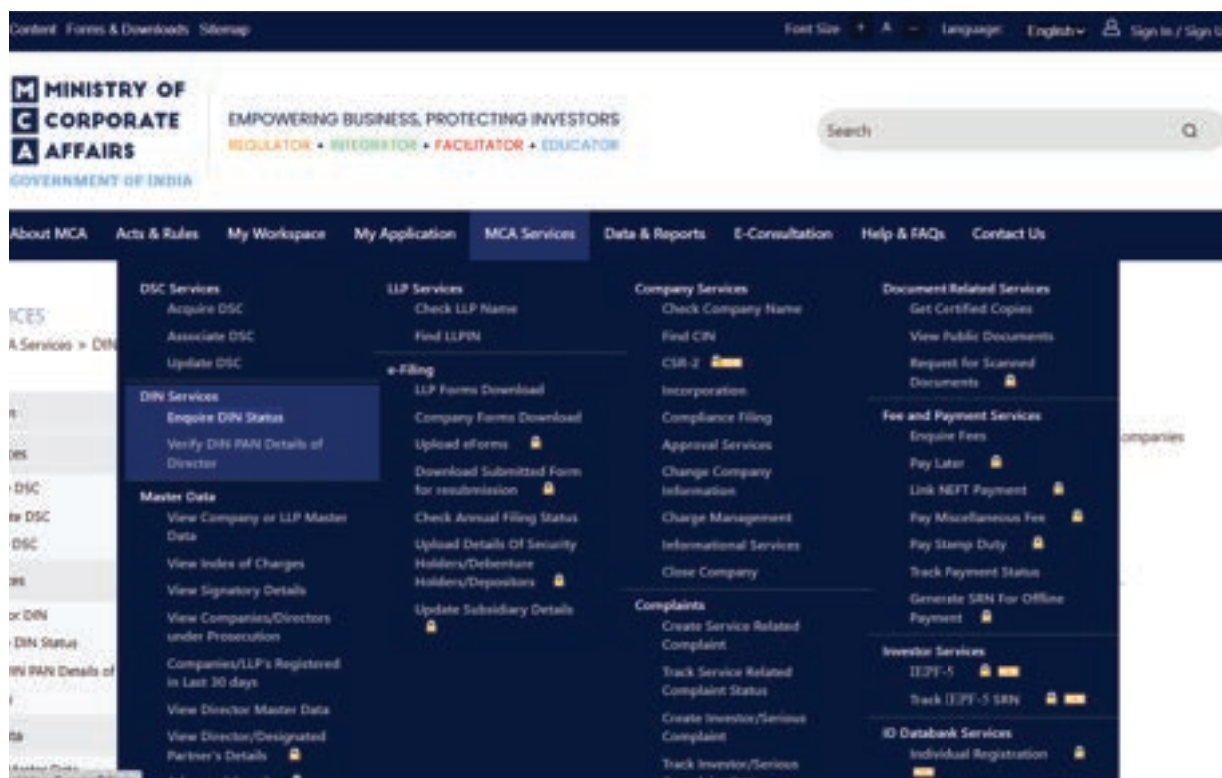


Fig 2.1



### STEPS

Visit [www.mca.gov.in](http://www.mca.gov.in)

### MCA SERVICES

#### a) Apply for DIN:

- DIN is an 8-digit unique identification number and every individual, who is director of the company or wants to be director in a company needs to obtain DIN
- DIN can be applied by filing Form DIR 3
- Fees for obtaining DIN is 500 Rs
- PAN Card copy, ID Proof, DSC, digitally signed by existing CS/director and such other documents required for obtaining DIN

#### b) Enquire DIN Status

The screenshot shows the MCA21 website interface. The top navigation bar includes links for 'Web User: Guest', 'Forms & Downloads', 'Tutorials', 'Font Size', and 'Sign In / Sign Up'. The main header features the Ministry of Corporate Affairs logo and the tagline 'EMPOWERING BUSINESS, PROTECTING INVESTORS'. Below the header, a navigation menu lists various services. The 'MCA Services' section is expanded, showing 'DIN Services' with options to 'Apply for DIN', 'Enquire DIN Status', and 'Verify DINs Held Details of Director'. The 'Enquire DIN Status' page displays a search form with a 'DIN' field and a 'Mandatory field' label. Below the form, a table titled 'DIN Details' shows the following information:

DIN Details	
DIN	XXXXXXXX
Director Name	XXXXXXXXXXXX XXXX JOSEPH
DIN Status	Approved
Director of Active non-compliant company	
Date of Approval (if DIN status is active)	06/01/2019

Fig 2.2

The existing DIN and its approval status can be checked to find its active or inactive. DIN may be inactive due to various reasons including non-filing of DIR-3 KYC or disqualification of directors under section 164 of companies act 2013

c) By using DIN and PAN card number, the user can verify the details in respective database is same or not.

### 19.5.3. MASTER DATA

A user can view Master Data of a Company or an LLP, Index of Charges of the company, signatory details of a particular company, details of companies and directors under prosecution, details of Companies and LLP's registered in the last 30 days, master data of directors specifying the name of Companies/LLP's they are director/ partner in, director/designated partner's details, etc.

### STEPS

Visit [www.mca.gov.in](http://www.mca.gov.in)

#### a) VIEW COMPANY MASTER DATA:

- MCA Services---View company master data---Either mention company CIN/Search CIN by indicates first word of name of company
- Master data/Index of charges/Signatory details of the company is available of all companies and LLP registered in India to the public without payment of any fees/registration or login in MCA portal



Fig 3.1

## b) INDEX OF CHARGES

- According to section 2(16) of the Companies act 2013, charge means an interest or lien created on the property or assets of a Company or any of its undertakings or both as security and includes a mortgage.
- When company repays its secured loan fully to the lender or when property or asset charged has been released from charge then it is known as satisfaction of charges.
- MCA Home> MCA Services> View Index of charges> Search company name/CIN and submit.

The screenshot shows the MCA21 'Index Of Charges' page. The search criteria are:

- Company / LLP Name: ASTON CONSTRUCTIONS AND PROPERTIES PRIVATE LIMITED
- Company CIN/LLP Number: U72900DL2012PTC00004

The search results show 2 charges registered for this company. The table below summarizes the data from the screenshot:

Sl. No.	CIN	Charge ID	Charge Holder Name	Date of Creation	Date of Modification	Date of Satisfaction	Amount	Address
1.	U72900DL2012PTC00004	CHARGE BANK	CHARGE BANK	2012-01-01	2012-01-01		1000000.00	100, ANAND VIHAR, NEW DELHI
2.	U72900DL2012PTC00004	CHARGE BANK	CHARGE BANK	2012-01-01	2012-01-01		1000000.00	100, ANAND VIHAR, NEW DELHI

Fig 3.2

## c) SIGNATORY DETAILS:

- The details of existing directors of the company can be availed
- MCA Home> MCA Services> View Signatory details> Search company name/CIN and submit

**View Signatory Details**

Company / LLP Name:

CIN / LLPIN\*:

Enter Characters shown below:

**List of Signatories**

DIN/CIN/PA	Full Name	Designation	Date of Appointment	Whether DSC Registered	Expiry Date of DSC	Surrendered DIN
0000020	SANJIV KISHORE SHARMA	Director	15/01/2020	Yes	03/03/2024	
0700066	SUDHAKAR PRASAD	Director	15/01/2020	Expired	21/08/2022	
0000096	ADARSH KUMAR	Managing Director	15/01/2020	Yes	12/10/2023	
0000009	KONJUSUMATHATH	Director	15/01/2020	Expired	15/01/2022	
0000019	SHYAM SUNDAR	Director	16/01/2021	Expired	02/10/2022	

Fig 3.3

## d) VIEW DIRECTOR MASTER DATA/PARTNERS DETAILS:

- This service is available only after login with MCA portal
- The details of existing directorship in companies and LLP of a directors /designated partners can be availed by indicate the DIN
- MCA Home> MCA Services> View Directors master data> Search company name/CIN and submit

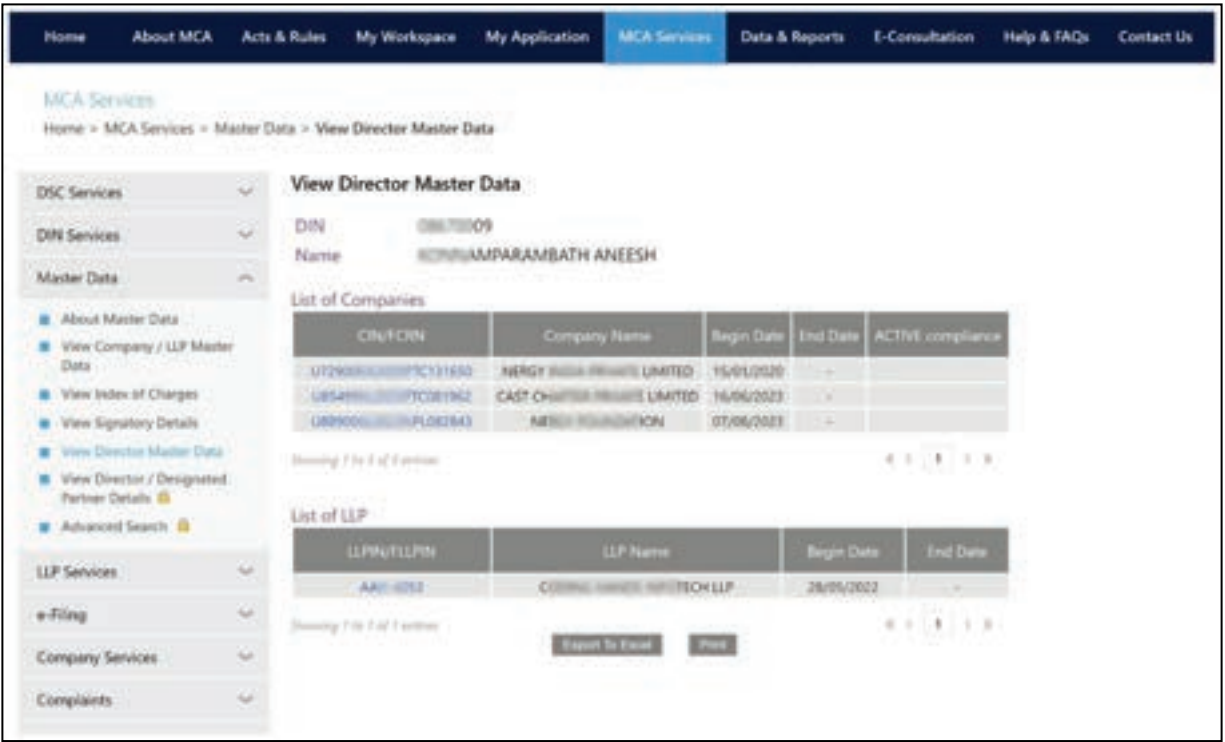


Fig 3.4

#### 19.5.4. LLP SERVICES

A user can check LLP name, find LLPIN (Limited Liability Partnership Identification Number), avail services related to incorporation of an LLP, services related to annual e-Filing for an LLP, services related to change in LLP information and services related to closure of an LLP.

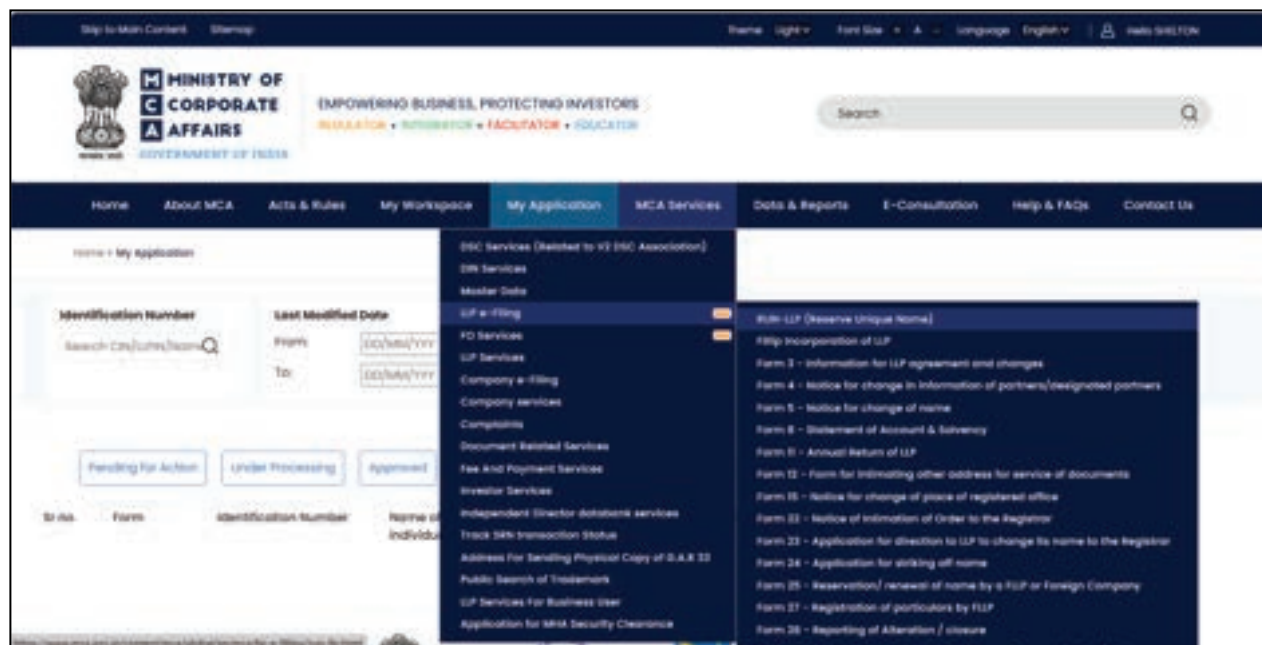


Fig 4.1

Visit [www.mca.gov.in](http://www.mca.gov.in)

a) MCA Services--- LLP E Filing---Select forms

- This service is available to users only after registration and login with MCA V3 portal
- Registration in MCA V3 portal can be done in registered user or business user category

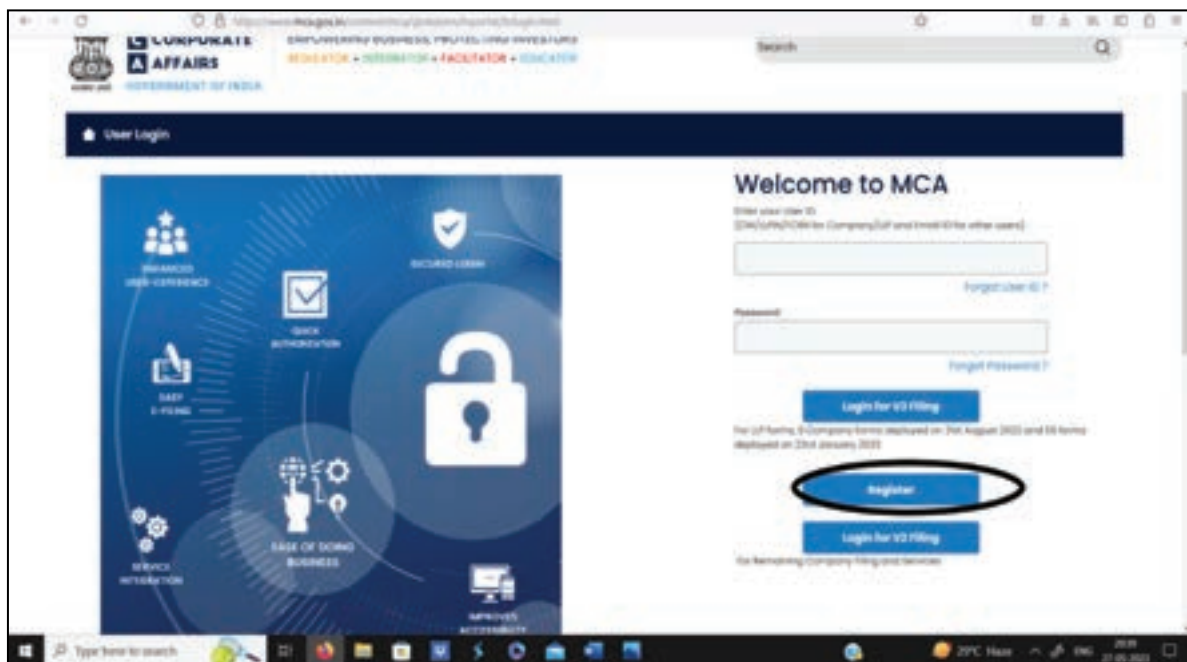


Fig 4.2

Any individual can register under Registered user can be done by using the PAN and business user registration is mandatory for e filing services in LLP forms and mostly all forms in company services too. Registration is completed only after verifying OTP in Email and Phone.



Fig 4.3



## 19.5.5. E-FILING

A user can download LLP Forms or Company Forms from the Portal, submit application for PAN and TAN, upload e-forms, download Submitted Form for resubmission, check annual filing status of the company, upload details of security holders or debenture holders or depositors.

E filing can be done only after registration and login with MCA portal.

All forms of LLP and mostly all forms of company services is integrated to MCA V3 portal.

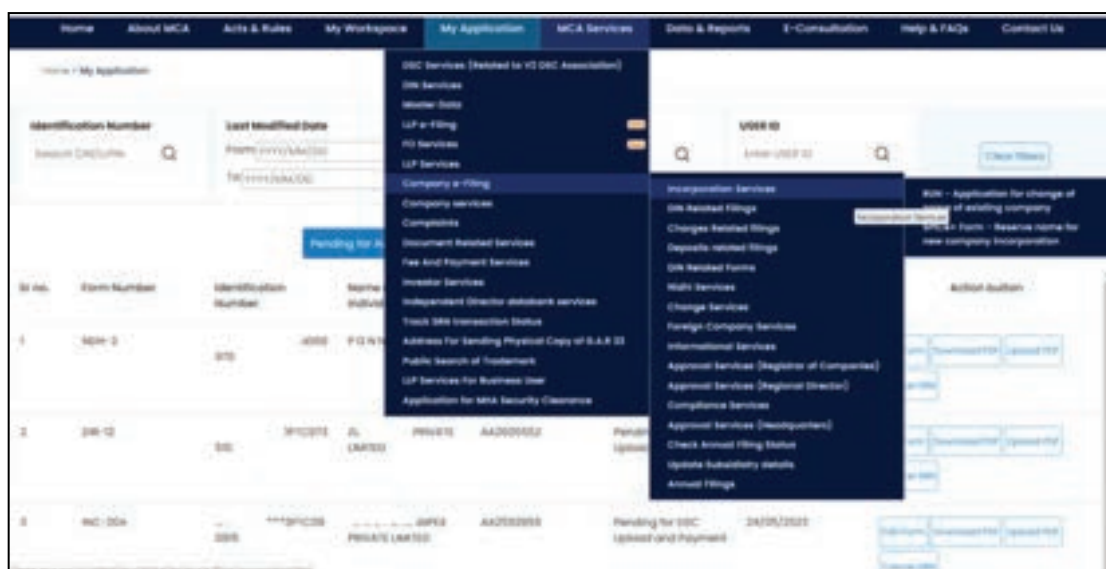


Fig 5.1

## 19.5.6. COMPANY SERVICES

A user can check company name, find CIN (Corporate Identity Number), services related to incorporation of a company, avail services related to compliance filing of a company, services related to change in company information, services related to charge management, informational services and services related to closure of a company.

Company E filing services includes Incorporation services, DIN related services, Charges related filings, Deposit related filings, DIN related forms, Nidhi services, change services, foreign company services, Informational services, Approval services (ROC, RD and headquarters), compliance services, Check annual filing status, update subsidiary details and annual filings.



### 19.5.7. COMPLAINTS

A user can raise service-related complaints, track the complaints created, create investor/serious complaint, track the status of complaints created as 'investor/serious complaint', give feedback or suggestions to MCA-21 and raise employee grievances.

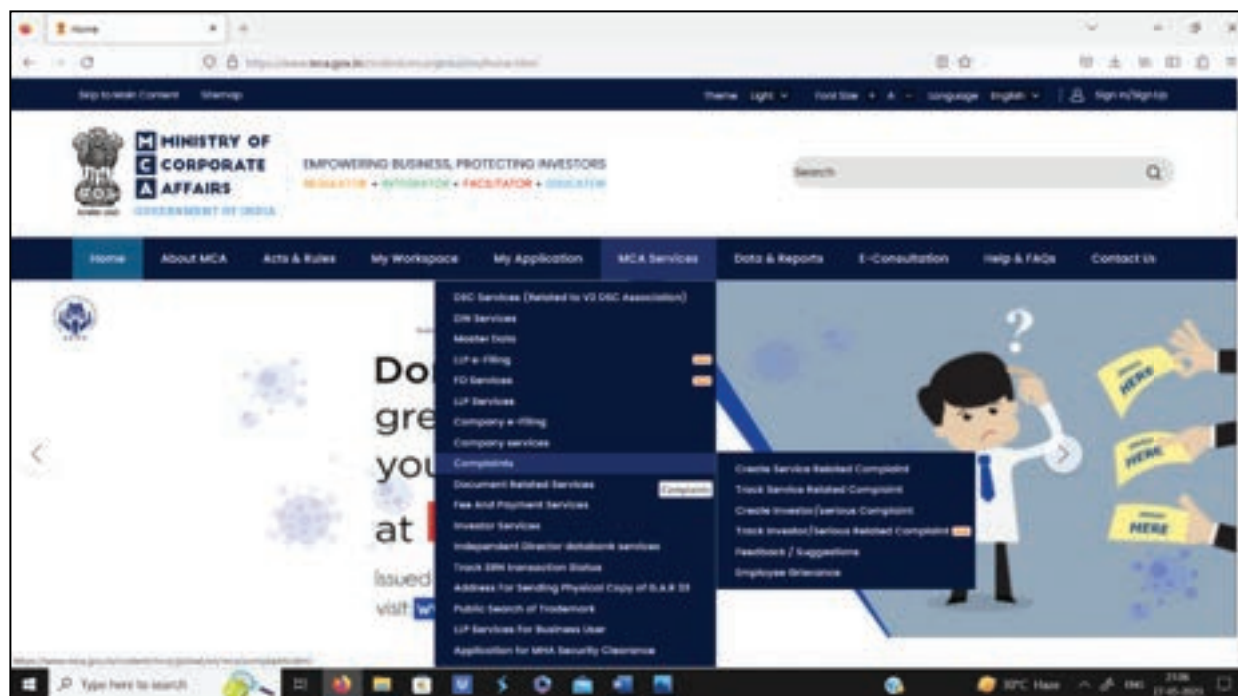


Fig 7.1

The complaint service is available only after login with MCA portal

Once a complaint is registered the users can track the status of their complaint by using the acknowledgement number and also can give their feedback and suggestions

The details of issue, form SRN, contact details and other such information can be given along with complaint.

**Create Service Related Complaint**

To view the step-by-step video of filing related forms, click [here](#)

Register Your Complaint with MCA21 Helpdesk

If you're facing any issues in downloading an e-form, signing the e-form or uploading the e-form click [here](#) to learn to troubleshoot the error.

**Details**

Name of Person:

City:

Country:

Mobile Number:

Email ID:

Type:

Severity:

For MCA Office:

**Details**

Description of Problem:

Supporting Documents (if any):

Company Name:

CIN / LLPIN:

SIN Number (if applicable):

Form ID:

SIN Number (if not applicable enter NA):

To enable us to serve you better with quick resolution, please mention the SIN number above

☐ I have attached the supporting documents for the above form

☐ I have attached the supporting documents for the above form

Fig 7.2

### 19.5.8. DOCUMENT RELATED SERVICES

A user can get certified copies of Forms and documents of a company, view forms and documents online etc.

#### ONLINE INSPECTION OF DOCUMENTS

The documents filed online, once taken on record by ROC Offices are available for public viewing on payment of requisite fees. These documents, which are in domain of public documents, include documents relating to incorporation, charges, annual returns and balance sheets and change in directors. A certified copy of the documents can also be obtained by anyone so interested. For this purpose there is also an option to mention the number of pages in the document for which a certified copy is required as well as the number of copies required.

Inspection, production and evidence of documents kept by Registrar – Rule 14 of Companies (Registration offices and fees) Rules, 2014

The inspection of the documents maintained in the electronic registry so set up by MCA and which are otherwise available for inspection under the Act or rules made thereunder, shall be made by any person in electronic form.

Inspection of documents – [Rule 15 of Companies (Registration offices and fees) Rules, 2014]

Any person may –

Inspect any document kept by the Registrar, being documents filed or registered by him in pursuance of this Act or the Companies Act 1956 or making a record of any fact required or authorized to be recorded or registered in pursuance of this Act, on payment for each inspection of fee.

Require a certificate of incorporation of any company, or a copy or extract of any other document or any part of any other document to be certified by the Registrar, on payment of fee.

No person shall be entitled under section 399 to inspect or obtain copies of resolutions referred to in clause (g) of sub- section (3) of section 117 of the Act.

This service is available only after logging with MCA V2 portal

If user has to only view the Public Documents, then the logging in on the MCA Portal is not required, however if user wants to download the Public Documents, then he has to log in on the MCA Portal before following this process

After login- Type company name/ search CIN and then submit

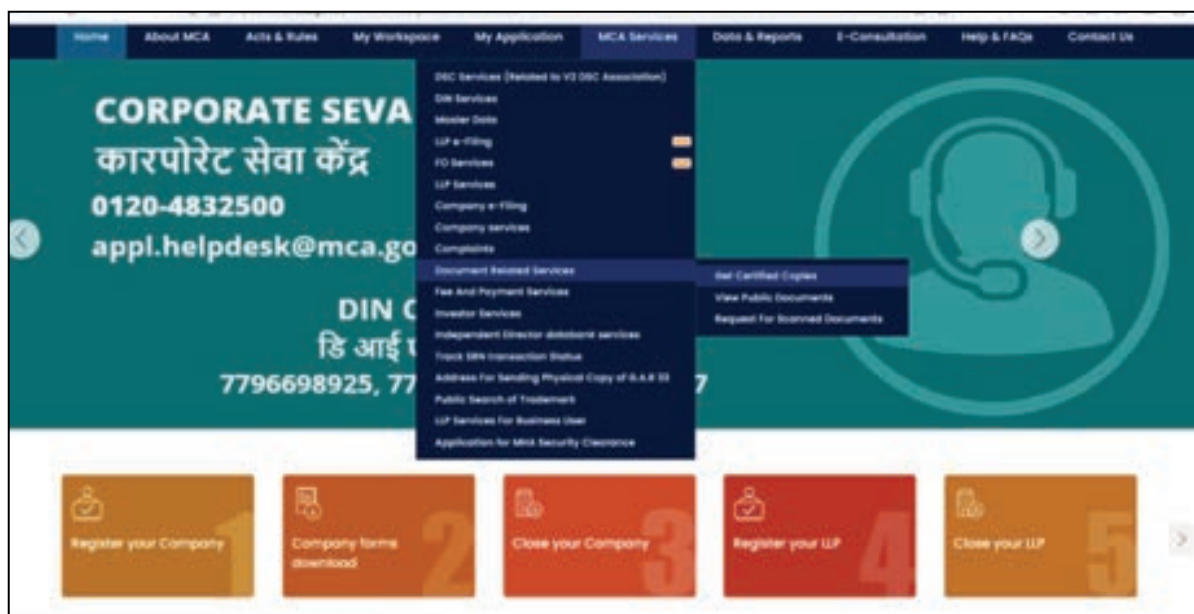


Fig 8.1



Fig 8.2

Select the document of the company to be downloaded and select the year and later add to the card and pay fees either by electronic means



Fig 8.3

Once the appropriate Document Category and Year of Filing is selected user can view the documents, forms filed during that year. Facility to download the documents is also available on the MCA Portal. \*For only viewing the “Public Documents” user is not required to log on to the MCA Portal. Log in is mandatory only in case the user is required to download the documents by paying fees of Rs. 100/-

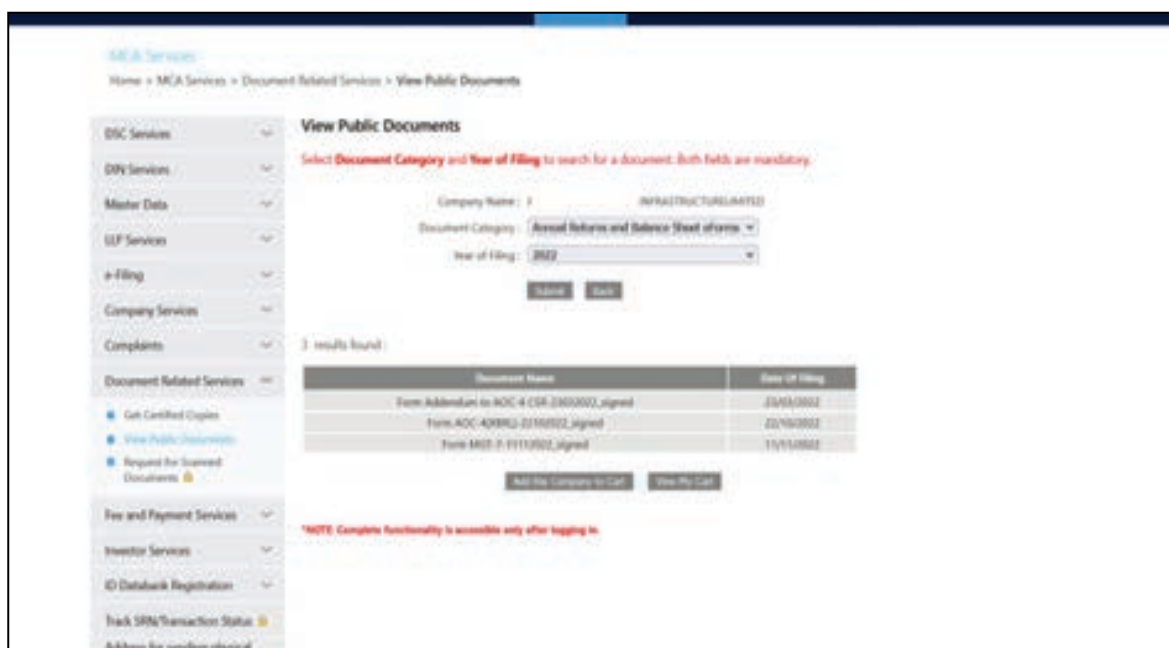


Fig 8.4

Once the payment is made user will be able to download the documents, forms. Company for which the payment is made will be reflected in “My Workspace” under “Documents” tab.

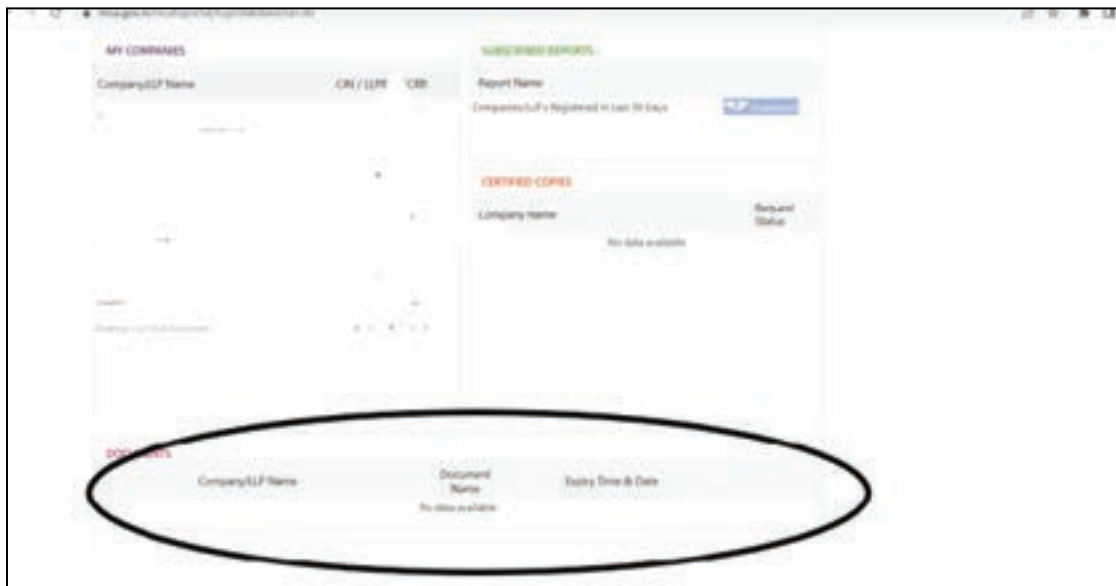


Fig 8.5

### 19.5.9. FEE AND PAYMENT SERVICES

A user can avail services through Enquire Fees, pay later, link NEFT payment, pay miscellaneous fee, pay stamp duty and track the payment status.

#### Enquire Fees

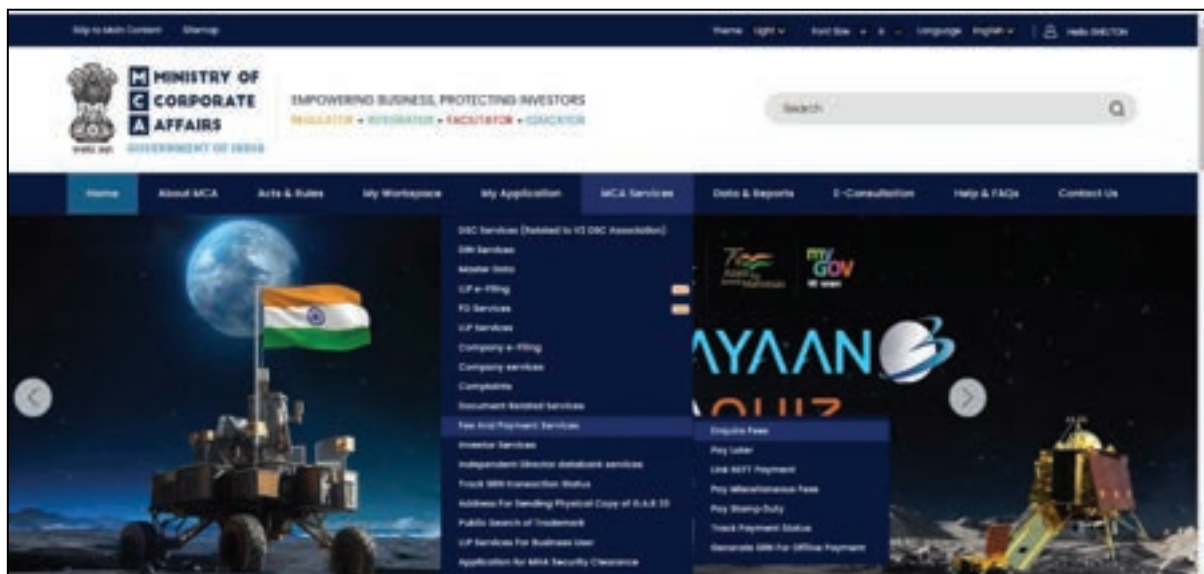


Fig 9.1



**MCA Services**  
Home > MCA Services > Fee And Payment Services > Fee Calculator

**Fee Calculator**

Inspection of Company / LLP Documents	
Viewing Company Documents on Portal	Rs. 100.00 per Company
Viewing LLP Documents on Portal	Rs. 50.00 per LLP

Certified Copy of Company / LLP Documents	
Certificate of Incorporation	Rs. 100.00 per copy
Certificate of Incorporation / Conversion for LLP	Rs. 50.00 per copy
Any other public document	Rs. 25.00 per page per document
Any other LLP document	Rs. 5.00 per page per document

Transfer Deeds	
Nominal Face value of shares is upto Rs. 1000	Rs. 50.00 per deed
Nominal Face value of shares is more than Rs. 1000	Rs. 100.00 per deed

Calculate Fee: ☒ Company ☐ LLP

\* Mandatory Field

**Calculate Fee**

Fig 9.2

**Enquire Fee**

Inspection of Company / LLP Documents	
Viewing Company Documents on Portal	Rs. 100.00 per Company
Viewing LLP Documents on Portal	Rs. 50.00 per LLP

Certified Copy of Company / LLP Documents	
Certificate of Incorporation	Rs. 100.00 per copy
Certificate of Incorporation / Conversion for LLP	Rs. 50.00 per copy
Any other public document	Rs. 25.00 per page per document
Any other LLP document	Rs. 5.00 per page per document

Transfer Deeds	
Nominal Face value of shares is upto Rs. 1000	Rs. 50.00 per deed
Nominal Face value of shares is more than Rs. 1000	Rs. 100.00 per deed

Select the Company Form:

Purpose For Filing:

\* Mandatory Field

**Calculate Fee** **Clear All** **Back**

**Rates of Stamp Duty**

Kindly note that in case of change of cost auditor caused by the death of existing cost auditor, companies are allowed to file fresh e-form 23C, without any additional fee, within 90 days of the date of death.

Fig 9.3

- DSC Services ▾
- DIN Services ▾
- Master Data ▾
- LLP Services ▾
- e-Filing ▾
- Company Services ▾
- Complaints ▾
- Document Related Services ▾
- Fee and Payment Services ▾

- Enquire Fees
- Pay Later
- Link NEFT Payment
- Pay Miscellaneous Fee
- Pay Stamp Duty
- Track Payment Status
- Generate SRN For Offline Payment

- Investor Services ▾
- ID Databank Registration ▾
- Track SRN/Transaction Status
- Address for sending physical copy of G.A.B. 33

### Enquire Fee

Inspection of Company / LLP Documents	
Viewing Company Documents on Portal	Rs 100.00 per Company
Viewing LLP Documents on Portal	Rs 50.00 per LLP

Certified Copy of Company / LLP Documents	
Certificate of Incorporation	Rs 100.00 per copy
Certificate of Incorporation / Conversion for LLP	Rs 50.00 per copy
Any other public document	Rs 25.00 per page per document
Any other LLP document	Rs 5.00 per page per document

Transfer Deeds	
Nominal Face value of shares is upto Rs. 5000	Rs 50.00; per deed
Nominal Face value of shares is more than Rs. 5000	Rs 100.00; per deed

#### eFiling

**Select the Company Form** SPICe+(INC-32) ▾

**Purpose For Filing** \*

Incorporation of a company other than OPC/Small company

Incorporation of a OPC/Small company

Company with Authorised Capital \* ☒ Yes ☐ No

Authorised Capital(in Rs.) \*

Number of Members:

SECTION-8 Company \* ☐ Yes ☒ No

State \* Tamil Nadu ▾

\* Mandatory Field

Calculate Fee
Clear All
Back

Fig 9.4



**Enquire Fee**

**Enter Form Details**

Select the Company Form: SPICe+(INC-32)

Purpose For Filing: Incorporation of a company other than OPC/Small company - Incorporation of a OPC/Small company

Company with Authorized Capital: ☒ Yes ☐ No

Authorized Capital(In Rs.): 100000

Number of Members:

SECTION-8 Company: ☐ Yes ☒ No

State: Tamil Nadu

\* Mandatory Field

Calculate Fee Clear All

Type of Document	Type Of Fee	Amount(Rs)
Form Filing of SPICe+(INC-32)	Normal	00.00
	Stamp Duty	20.00
	Stamp Duty AOA	300.00
	Stamp Duty MOA	200.00
<b>Total</b>		<b>520.00</b>

**Rates of Stamp Duty**

Fig 9.5

## 19.5.10. PUBLIC SEARCH OF TRADEMARK

A user can search whether trademark has been registered or applied for a particular name by a company.

Trademarks are regulated under the Trademarks Act, 1999 ('Act') and Trade Marks Rules, 2017 ('Rules'). When a trademark is registered under the Act, it is protected from infringement which means that a third party cannot use the registered trademark for their products or services without authorized permission.

A name that violates section 4 or any other provision of the Trademark Act,1999 . The similarity or resemblance of trade mark is not allowed while applying the name of the company or later ( Under Incorporation rules and naming guidelines under companies act 2013)

Before application or alteration of name of the company , TM can be search from the public portal to check any similarity or resemblance of any existing TM

Go to [www.mca.gov.in](http://www.mca.gov.in)

## TAX COMPLIANCES



Fig 10.1

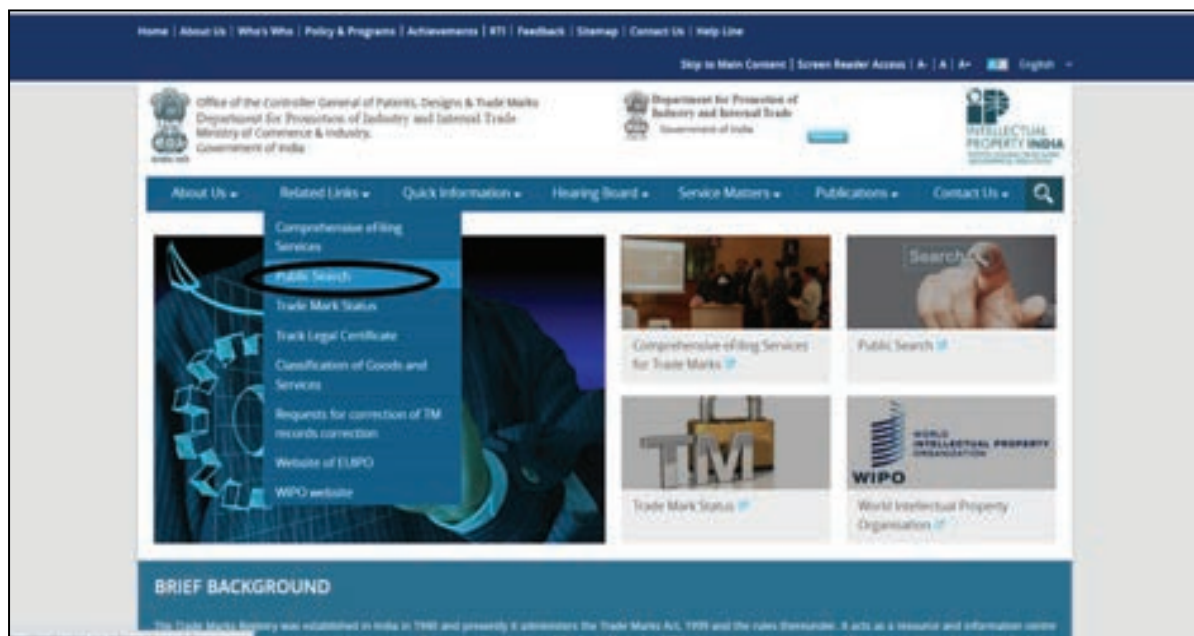


Fig 10.2

Website shall proceed to external website by clicking

The screenshot shows the official website for the Public Search of Trade Marks in India. The header includes the Government of India logo and the Ministry of Commerce & Industry, Department of Industrial Policy & Promotion, Controller General of Patents Design & Trade Marks. The main navigation bar contains links: Class Details, Well Known Marks, Prohibited Marks, Vienna Code Classification, International Non-Proprietary Names(INN), and Help. The search interface features a 'Search Type' dropdown set to 'Wordmark'. Below this is a table with three rows: 'Wordmark' with a 'Start With' dropdown and a text input containing 'SUN'; 'Class' with a text input containing '05' and a note '\*Enter one class at a time'; and 'Goods Description' with a text input and a note '\*Will be available soon'. A 'Search' button is located at the bottom right of the form.

Key Word	Value
Wordmark	Start With: SUN
Class	05
Goods Description	

Fig 10.3

The details of class can be availed from the website itself.

### 19.5.11. INVESTOR SERVICES

A user can search amount unclaimed/unpaid amount due to be transferred to the Investor Education and Protection Fund (IEPF), upload investor details, confirm uploaded files.

### 19.5.12. TRACK SRN/TRANSACTION STATUS

A user can track the transaction status of the uploaded forms i.e., whether they are approved or pending for approval or required for resubmission or are rejected.

### 19.5.13. MCA E BOOK

MCA has launched E-Book for 10 acts and applicable Rules and Regulations for companies and LLPs administered by it.




Fig 13.1

**19.6. PREREQUISITES FOR E-FILING ON MCA- 21**

**Prerequisite Software For E-Filing**


If you are facing any issues in downloading an eform, signing the eform or uploading the eform click [here to learn to troubleshoot the error.](#)


For e-Filing on MCA21 your Computer must have the following components installed:


Windows 2000 or later 


All users using below mentioned services on MCA21 are required to have Windows or later and JRE (Java Runtime Environment) installed on their machine -

- Any user logging on MCA21 using a DSC
- Any existing user registering/updating a DSC
- Any new user registering using a DSC

Internet Explorer 10+ / Chrome 49+ or Firefox 45+ 

Adobe Reader from Version XI or later 

JDK/JRE - Java version 8 Update 92 is suggested. 

Click on the Explorer, Adobe Reader and JRE icons to download these now. 

**Important Note :** Kindly ensure that

- The pop-ups are enabled in your machine so that any message generated by the application gets displayed.

**19.7. STAMP DUTY**

Stamp duty is a state subject. It is payable on Memorandum and Articles of Association of every Company. In some states, duty is also payable on the authorized capital mentioned in the Memorandum of Association of the Company. States have authorized MCA to collect the stamp duty on their behalf and to remit the same to them.

( [https://www.mca.gov.in/MCA21/dca/efiling/eStamp\\_rate.pdf](https://www.mca.gov.in/MCA21/dca/efiling/eStamp_rate.pdf) )

Introduction of e-stamping facility by MCA and dispensation of physical submission thereof for the purpose of making all transactions faster, improving service delivery and making office of the Registrar paperless, the process of physical submission of documents has been dispensed with. The Central Government shall initially collect the stamp duty on behalf of State Governments and Union Territories for specific purpose of e-filing of documents under the provisions of the

Companies Act, 2013 and to remit the same directly to their accounts in accordance with the approved payment and accounting procedures.

### 19.8. HIGHLIGHTS

Stamp Duty applicable on filing of e-form SPICe (including MOA & AOA), SH-7 and FC-1 shall be electronically paid through MCA21 system. A person applying for certified true copy is also required to pay stamp duty through MCA21 portal.

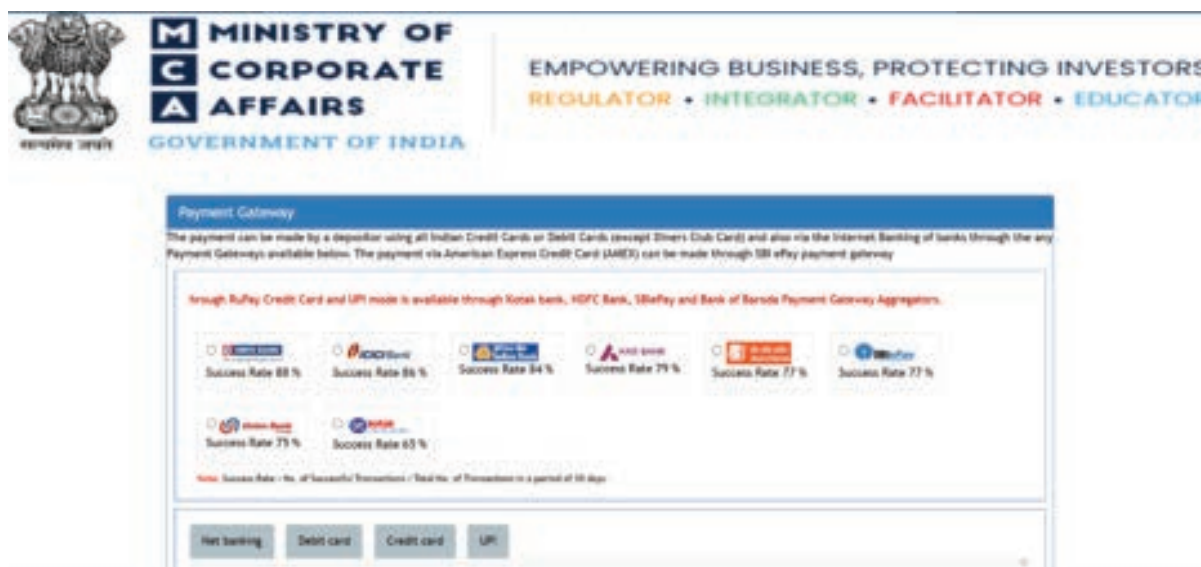
With effect from 1st April, 2010, stamp duty shall have to be paid only through electronic mode for the states which have agreed for e-stamping.

Stamp duty can be paid through MCA21 system with any of the option such as net banking, credit card, debit card, NEFT or offline with banks.

Stamp duty can be paid immediately or stamp duty can be paid later on also, using “Pay Stamp Duty Fees” facility.

If user pays stamp duty through MCA21 system, there is no need to visit stamping authorities.

The rates of stamp duty in the respective states may be revised through finance bill.



### 19.8.MCA V2, V3 PORTALS AND VARIOUS FORMS

#### STP FORMS

STP stands for “Straight Through Process”. Some e-forms are identified as informative in nature. These forms are filed under Straight through process may be examined by the Registrar at any

time on Suo- moto or on receipt of any information or complaint from any source at any time after its filing. It means the information given in the e-forms is being taken on file maintained by the Registrar of Companies through electronic mode on the basis of statement of correctness given by the filing Company and further verification by the practicing professionals.

### MCA V3

MCA21 V3 Project is a technology driven project, envisioned to strengthen enforcement, promote ease of Doing Business, enhance user experience, facilitate seamless integration and data exchange among various regulators in India. The project will have Micro-services architecture with high scalability and capabilities for advanced analytics.

### MCA V2

V2 portal is Version 2 of the MCA portal which was used to file various forms relating to Companies and LLP's. LLP Services have been discontinued on V2 portal and have been migrated to V3 portal.

### MCA V3 FORMS

FORM	PURPOSE	FORM	PURPOSE
<b>RUN</b>	Change of Name of Existing company	<b>NDH 1</b>	Return of statutory compliances
<b>SPICE +</b>	Application for change of new company and Incorporation	<b>NDH 2</b>	Application for extension of time
<b>DIR 3-KYC</b>	KYC of directors	<b>NDH 3</b>	Return of Nidhi company
<b>DIR 3 KYC -WEB</b>	Verify directors KYC details	<b>NDH 4</b>	Declaration as Nidhi company
<b>CHG-9</b>	Registration/modification of charge for debentures	<b>INC 4</b>	OPC-Change in member/Nominee
<b>CHG-8</b>	RD approval for delay in creation/modification/satisfaction of charge	<b>INC 22</b>	Notice of situation of registered office
<b>CHG-6</b>	Appointment/cessation of receiver/manager	<b>INC 27</b>	Conversion of company
<b>CHG-4</b>	Satisfaction of charge	<b>SH 7</b>	Alteration of share capital
<b>CHG-1</b>	Creation or modification of charge	<b>MR 1</b>	Appointment of MD/WTD/Manager



## TAX COMPLIANCES

<b>DPT 4</b>	Statement regarding deposit existing on the commencement of the act	<b>FC 1</b>	Information by foreign company
<b>DPT 3</b>	Return of deposits	<b>FC 2</b>	Alteration in the documents of foreign company
<b>DIR 3</b>	Application for allotment of DIN	<b>FC 3</b>	Annual accounts by foreign company
<b>DIR 3C</b>	Intimation of DIN by the company	<b>FC 4</b>	Annual return by foreign company
<b>DIR 6</b>	Changes in particulars of directors	<b>GNL 4</b>	Addendum to form
<b>DIR 12</b>	Appointment of directors and KMP	<b>MGT 3</b>	Notice of situation where foreign register is kept
<b>DIR 11</b>	Resignation of director	<b>INC 28</b>	Notice of order of the court/competent authority
<b>DIR 5</b>	Surrender of DIN	<b>PAS 2</b>	Information memorandum
<b>DIR 10</b>	Removal of disqualification of directors	<b>INC 20</b>	Intimation of revocation of license issued u/s 8
<b>DIR 9</b>	Disqualification of directors	<b>INC 20A</b>	Declaration of commencement of business
<b>MSC 4</b>	Application for obtaining active status	<b>INC 23</b>	Application for shift registered office
<b>INC 24</b>	Application for change of name	<b>INC 18</b>	Conversion of section 8 companies
<b>INC 12</b>	Application for license to an existing company u/s 8	<b>RD 1</b>	Filing application to RD
<b>INC 6</b>	OPC- conversion form	<b>MR 2</b>	CG approval for appointment/reappointment of director
<b>MSC 1</b>	Application for obtaining status of dormant company	<b>AOC 5</b>	Notice of address at which books of accounts are maintained
<b>STK 2</b>	Removal of name from registrar of companies	<b>SH 11</b>	Buy back of securities
<b>PAS 3</b>	Return of allotment	<b>MSC 3</b>	Return of dormant companies
<b>SH 9</b>	Declaration of solvency	<b>MGT 14</b>	Resolutions and agreement u/s 117
<b>GNL 2</b>	Submission of documents with registrar	<b>PAS 6</b>	Reconciliation of share capital audit report
<b>GNL 3</b>	Particulars of person(s) of clause 60 of section 2	<b>REFUND</b>	For refund



**MCA V2 FORMS**

<b>FORM</b>	<b>PURPOSE</b>	<b>FORM</b>	<b>PURPOSE</b>
<b>CRL 1</b>	Information to the Registrar by company regarding the number of layers of subsidiaries	<b>CRA 4</b>	Form for filing Cost Audit Report with the Central Government.
<b>CRA 2</b>	Form of intimation of appointment of cost auditor by the company to Central Government.	<b>ADT 1</b>	Information to the Registrar by Company for appointment of Auditor
<b>ADT 2</b>	Application for removal of auditor(s) from his/their office before expiry of term	<b>ADT 3</b>	Notice of Resignation by the Auditor
<b>ADJ</b>	Memorandum of Appeal	<b>MGT 6</b>	Persons not holding beneficial interest in shares
<b>RD GNL 5</b>	Form for filing Addendum for Rectification of Defects or Incompleteness	<b>MGT 15</b>	Form for filing Report on Annual General Meeting
<b>GNL 1</b>	Applications made to Registrar of Companies	<b>CFI</b>	Reply To Call for Information on CSR
<b>FTE</b>	Application for striking off the name of company under the Fast Track Exit (FTE) Mode	<b>ICP</b>	Investor Complaint Form
<b>INC 3</b>	One Person Company- Nominee consent form	<b>SCP</b>	Serious Complaint Form
<b>CSR 1</b>	Registration of Entities for undertaking CSR Activities	<b>AOC 4 CFS</b>	Form for filing consolidated financial statements and other documents with the Registrar.
<b>INC 22A</b>	Active Company Tagging Identities and Verification (ACTIVE)	<b>AOC 4 (XBRL)</b>	Form for filing XBRL document in respect of financial statement and other documents with the Registrar
<b>BEN 2</b>	Return to the Registrar in respect of declaration under section 90	<b>MGT 7</b>	Form for filing annual return by a company.
<b>MSME</b>	Form for furnishing half yearly return with the registrar in respect of outstanding payments to Micro or Small Enterprise.	<b>MGT 7A</b>	Form for filing annual return by OPCs and Small company.
<b>AOC 4</b>	Form for filing financial statement and other documents with the Registrar	<b>AOC 4 NBFC</b>	Form for filing financial statement and other documents with the Registrar for NBFCs

<b>PAS 4</b>	Private Placement Offer Letter	<b>23C</b>	Form of application to the Central Government for appointment of cost auditor.
<b>I-XBRL</b>	Form for filing XBRL document in respect of cost audit report and other documents with the Central Government	<b>23D</b>	Information by cost auditor to Central Government
<b>A-XBRL</b>	Form for filing XBRL document in respect of compliance report and other documents with the Central Government	<b>DPT-1</b>	Circular or circular in the form of advertisement inviting deposits

**MCA V3- LLP FORMS**

<b>FORM</b>	<b>PURPOSE</b>	<b>FORM</b>	<b>PURPOSE</b>
<b>RUN-LLP</b>	Reserve Unique name	<b>15</b>	Notice for change of place of registered office
<b>Fillip</b>	Incorporation of LLP	<b>22</b>	Notice of intimation of order to the registrar
<b>3</b>	Information of LLP agreement and changes	<b>23</b>	Application for direction to LLP to change its name to the registrar
<b>4</b>	Notice for change in information of partners/designated partners	<b>24</b>	Application for striking off name
<b>5</b>	Notice of change of name	<b>25</b>	Reservation/renewal of name by a FLLP or foreign company
<b>8</b>	Statement of account and solvency	<b>27</b>	Registration of particulars by FLLP
<b>11</b>	Annual return of LLP	<b>28</b>	Reporting of alteration/closure
<b>12</b>	Form for intimating other address for service of documents	<b>31</b>	Application for compounding for an offence under the act
<b>32</b>	Filing addendum for rectification of defects or incompleteness		

**19.9. REGISTRATION**
**INFORMATION REQUIRED FOR REGISTRATION**

The following will be needed for registration based on category of the user. Some requirements are generic across all categories, there are special data requirements for other categories and a few are illustrated below

- E Mail Id / Phone Number / Address are required for both Registered and Business Users)
- PAN is non mandatory for registered users but compulsory for business users
- Company/LLP User – CIN /LLPIN /FLLPIN / FCRN
- Director/Designated Partner – DIN / DPIN
- Manager/Secretary/Authorized Representative – General inputs only
- Officer in Default – General inputs only
- Professional – Professional Membership Number / Professional Institute

#### **19.10. ASSOCIATE THE DSC**

This is a process by which a DSC (or a unique signature) is mapped to a user id. This is required because the forms are filled and submitted online rather than in physical mode.

#### **STEPS**

**Associating the DSC is done in the following manner. For this purpose,**

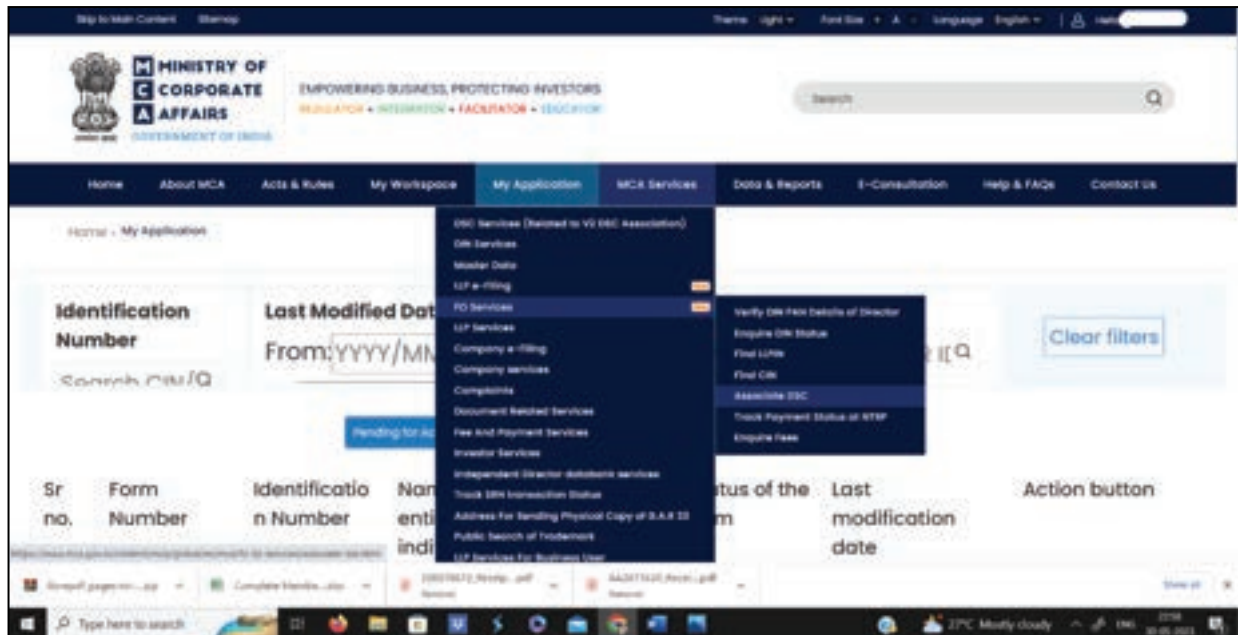
- Go to mca.gov.in
- Log in to the portal as if you are filing an LLP form ( V3 )
- Go to MCA Services
- Go to FO Services
- Go to Associate DSC

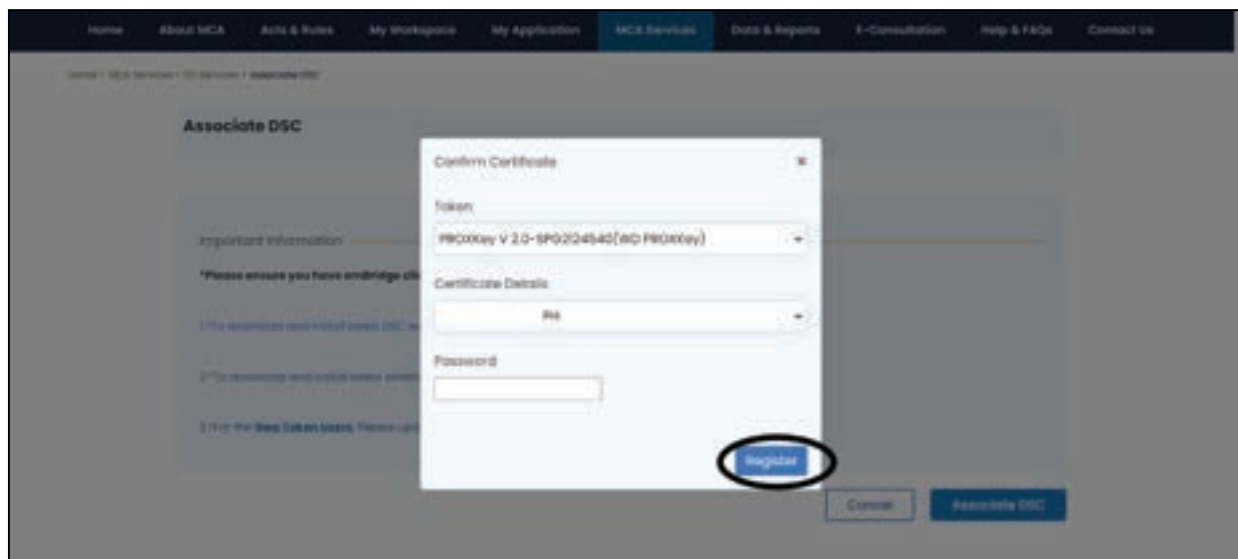
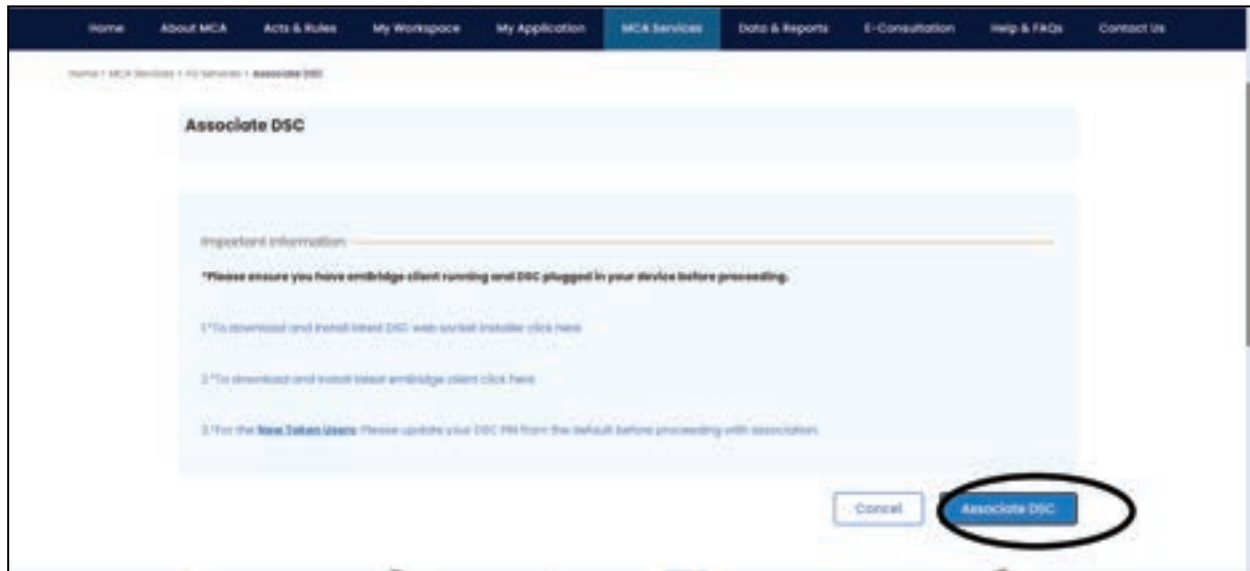
#### **SYSTEM SPECIFICATIONS**

**You can associate your DSC only as a Business user in V3.**

- Login using your credentials
- Go to MCA services-> FO LLP Services-> Associate DSC
- Download & run emBridge- 2nd option provided on the screen
- Latest Version of emBridge should be installed in user's system for DSC to work
- emBridge Client must be running in the background

- For Associate DSC Service – The DSC user is using must be of Class 2 or higher Class
- Change the DSC password/PIN (for 1st time users on V3)
- In the token field, select ePass option from the available drop downs.
- Select Certificate details from the drop down and enter the DSC password.
- Click on Register.
- You will receive confirmation message on portal





### HIGHLIGHTS

In the version 2, forms are required to be filled and uploaded in the portal while in V3 the forms are to be filled online. This enables user convenience including the ability to save a half-filled form and file it later. When a user logs in to V3, the login is through the email id whereas in V2 it was possible with the user id

When a business user logs in to the MCA system, an OTP will be sent to your mobile and e mail address to ensure the authenticity of the user

**A USER CAN BE A REGISTERED USER OR A BUSINESS USER.**

DSC is mandatory only for those forms which are required to be digitally signed. For example, for RUN LLP/SPICE +A there is no requirement to affix DSC

Registered users comprise of any individuals. Such users can only perform 2 functions in the LLP module – RUN Form and fillip form (Log in functions)

A business user can be any of the following and they can access and file all the forms. There is no change in the naming or position of a Business user between V2 and V3. The most suitable category may be selected

- Company/LLP
- Director/Designated Partner
- Manager/Secretary/Authorized Representative
- Officer in Default
- Professional

**19.11.E FILING AND GUIDELINES FOR FILING**

**PRE-CERTIFICATION OF CERTAIN E-FORMS [RULE 8(12)]**

(Chapter XXIV The Companies (The Registration Offices and Fees) Rules, 2014)

The authentication of e-forms by authorized signatories using digital signatures, some e-forms are also required to be pre-certified by practicing professionals. Pre-certification means certification of correctness of any document by a professional before the same is filed with the Registrar.

Ministry of Corporate Affairs has entrusted practicing professionals registered as Members of professional bodies namely ICAI, ICSI and ICAI-CMA with the responsibility of ensuring integrity of documents filed by them with MCA in electronic mode including filing of financial statements in XBRL mode. This pre-certification is to be carried out by inter-alia, Company Secretaries or chartered accountant or as the case may be the Cost Accountant in whole-time practice. The forms filled by companies, other than OPC and small companies which has to be pre-certified by practicing professionals

Section 2(85) of CA, 2013 which reads as under- “(85) “small company” means a company, other than a public company-

- a) paid-up share capital of which does not exceed Four crores rupees or such higher amount as may be prescribed which shall not be more than ten crore rupees; and
- b) turnover of which as per profit and loss account for the immediately preceding financial year does not exceed Forty crore rupees or such higher amount as may be prescribed which shall not be more than one hundred crore rupees. ( w.e.f 15th September 2022)

**Provided that nothing in this clause shall apply to—**

- a) a holding company or a subsidiary company.
- b) a company registered under section 8; or
- c) a company or body corporate governed by any special Act;”

#### **CONDONATION OF DELAY**

**According to Section 460, Notwithstanding anything contained in this Act, –**

- a) where any application required to be made to the Central Government under any provision of this Act in respect of any matter is not made within the time specified therein, that Government may, for reasons to be recorded in writing, condone the delay; and
- b) where any document required to be filed with the Registrar under any provision of this Act is not filed within the time specified therein, the Central Government may, for reasons to be recorded in writing, condone the delay.

#### **PENALTY FOR FILING FALSE DOCUMENTS/STATEMENTS WITH THE REGISTRAR**

According to Section 448 of the Companies Act 2013, if in any return, report, certificate, financial statement, prospectus, statement or other document required by, or for, the purposes of any of the provisions of this Act or the rules made thereunder, any person makes a statement, –

- 1. which is false in any material particulars, knowing it to be false; or
- 2. which omits any material fact, knowing it to be material, he shall be liable under section 447.

Further Section 447, Without prejudice to any liability including repayment of any debt under this Act or any other law for the time being in force, any person involving an amount of at least ten lakh rupees or one percent. of the turnover of the company, whichever is lower shall be punishable with imprisonment for a term which shall not be less than six months, but which

may extend to ten years and shall also be liable to fine which shall not be less than the amount involved in the fraud, but which may extend to three times the amount involved in the fraud:

Provided that where the fraud in question involves public interest, the term of imprisonment shall not be less than three years.

“Provided further that where the fraud involves an amount less than ten lakh rupees or one per cent. of the turnover of the company, whichever is lower, and does not involve public interest, any person guilty of such fraud shall be punishable with imprisonment for a term which may extend to five years or with fine which may extend to twenty lakh rupees or with both.”.

The screenshot shows a web form titled "Certificate by practicing professional". It contains a declaration text, three radio button options for professional roles, a section for "Whether associate or fellow" with two radio buttons, and three input fields for digital signature, membership number, and certificate of practice number. A note at the bottom references Sections 448 and 449 of the Companies Act, 2013.

**Certificate by practicing professional**

I declare that I have been duly engaged for the purpose of certification of this form, it is hereby certified that I have gone through the provisions of the Companies Act, 2013 and Rules thereunder relevant to this form and I have verified the above particulars (including attachment(s)) from the original records maintained by the Company/Applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed.

☐ Chartered accountant (in whole-time practice)  
☐ Cost accountant (in whole-time practice)  
☐ Company secretary (in whole-time practice)

\*Whether associate or fellow:  
☐ Associate ☐ Fellow

\*To be digitally signed by:       \*Membership number:       \*Certificate of practice number:

\*Note: Attention is drawn to provisions of Section 448 and 449 of the Companies Act, 2013 which provide for punishment for false statement / certificate and punishment for false evidence respectively.

### IMPORTANT TERMS USED IN E-FILING- MCA V3

#### Pre-fill

Pre-fill is functionality in an e-Form that is used for filling automatically, the requisite data from the system without repeatedly entering the same. For example, by entering the CIN of the company, the name and registered office address of the company shall automatically be pre-filled by the system without any fresh entry.



## Attachment

An attachment refers to a document that is sent as an enclosure with an e-Form by means of an attached file.

The objective of the attachment is to provide details relevant to the e-Form for processing. While some attachments are optional, some are mandatory in nature.

The attachments to an e-Form have to be in Adobe PDF format only (certain forms attachments may be in Excel/Jpeg mode too)

### Submit

The online filled form can be submitted after filling all required fields along with necessary attachments.

suppressed.

☐ Chartered accountant (in whole-time practice)  
☐ Cost accountant (in whole-time practice)  
☒ Company secretary (in whole-time practice)

\*Whether associate or fellow:  
☐ Associate ☒ Fellow

\*To be digitally signed by:

\*Membership number:

\*Certificate of practice number:

\*Note: Attention is drawn to provisions of Section 448 and 449 of the Companies Act, 2013 which provide for punishment for false statement / certificate and punishment for false evidence respectively.

[Previous](#) [Save](#) [Submit](#)

### Upload

Once the form is submitted then SRN (Service request Number) shall be generated and can proceed with payment of fees.

Company Details    Other Details    Attachments & Declaration    Review & Submit

**You have successfully submitted the form. Your Service Request Number is AA272.**

To proceed further with the process you need to affix the DSC of the authorized Company representative on the pdf of the generated form. To download the pdf, click [Download PDF](#)

**Upload the DSC affixed pdf document**

[Choose File](#) [Upload](#)

[Cancel](#) [Proceed to Payment](#)

## Service Request Number (SRN)

Each transaction under e-filing is uniquely identified by a Service Request Number (SRN). On filing of an e-form, the system generates and provides a nine-character alphanumeric string starting with an alphabet (A-Z), called a Service Request Number (SRN). A user can check the status of the document/transaction, by entering the SRN.

## Status of application

Status of the filed forms can be tracked from 'My application' after login with MCA V3 portal (only filed from respective login ID can be tracked)

The screenshot shows the 'My Application' page on the MCA V3 portal. The page has a navigation bar with links: Home, About MCA, Acts & Rules, My Workspace, My Application (active), MCA Services, Data & Reports, E-Consultation, Help & FAQs, and Contact Us. Below the navigation bar, there's a section titled 'Application History' with search filters for Identification Number, Last Modified Date, SRN of e-Form, and USER ID. A 'Clear Filters' button is also present. Below the filters, there are tabs for 'Under Processing', 'Approved', 'Not/Rejected', and 'Cancelled'. The main table displays application history with columns: Sr No., Form Number, Identification Number, Name of the entity / individual, SRN of e-Form, Status of the form, Last modification date, and Action Buttons. The table contains three rows of data.

Sr No.	Form Number	Identification Number	Name of the entity / individual	SRN of e-Form	Status of the form	Last modification date	Action Buttons
1	INC-204	484	AT 92895 PRIVATE LIMITED		Draft/Pending Submission	20/06/2023	Get Form, Cancel Form
2	INC-2	181, 572	PICD45 PR LIMITED	28303	Pending for DSC Upload and Payment	20/06/2023	Get Form, Download PDF, Approve PD, Cancel Form
3	Spice+ Part A	181, 572	PRIVATE	AAB	Approved	20/06/2023	Download PDF, Cancel Form

## Auto check/Save and Submit

While applying for the name of the company/LLP form, after entering the proposed name (Maximum 2 names) along with relevant NIC code, it must be auto checked to find out any company is existing with similar name or resemblance with any registered trade mark. Thereafter the form is required to be saved and submit and later pay fees.

Attachment

Optional attachment(s) - if any

Max: 2 file

Choose file

Form of Director ATTACHED DOCUMENT.pdf

Form of Director ATTACHED DOCUMENT.pdf

RESUBMISSION FORM.pdf

Attach Cancel Submit

Ministry of Corporate Affairs

SFIO

IEPF

IICA

Reserve Bank of India

### Resubmission of forms

Forms submitted to the MCA may require resubmission for various reasons, including incorrect information, missing documents, non-compliance with regulatory requirements, or errors in the initial submission. To initiate the resubmission process, the applicant must identify and rectify the errors or deficiencies in the original submission. The corrected or amended forms must be resubmitted to the MCA within specified timeline stated in resubmission remarks/relevant rules of companies Act 2013. Failure to adhere to this timeline may result in penalties or other regulatory actions including rejection of forms.

### ANNUAL FILING

As a part of Annual Filing, Companies incorporated under the Companies Act 1956 or Companies Act 2013, are required to file the following e-Forms with the Registrar of Companies (ROC)

**Form AOC-4:** For filing financial statement and other documents (For FY start on or after 01.04.2014)

**Form AOC4- CFS:** Form for filing statement containing salient features of consolidated financial statement of a group (For FY start on or after 01.04.2014)

**Form AOC4-XBRL:** For filing XBRL document in respect of financial statement and other documents (For FY start on or after 01.04.2014)

**Form MGT-7:** Form for filing Annual Return by Companies having share capital other than small company (For FY ending on or after 01.04.2014)

**Form MGT-7A:** Form for filing Annual Return by Companies having share capital by small company (For FY ending on or after 01.04.2014)

### **XBRL Filing**

XBRL (Extensible Business Reporting Language) is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. It helps in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data.

The following class of companies shall file their financial statements and other documents under section 137 of the Act with the Registrar in e-form AOC-4 XBRL as per Annexure-I:-

- companies listed with stock exchanges in India and their Indian subsidiaries;
- 
- companies having paid up capital of five crore rupees or above;
- 
- companies having turnover of one hundred crore rupees or above;

all companies which are required to prepare their financial statements in accordance with Companies (Indian Accounting Standards) Rules, 2015

Provided that the companies preparing their financial statements under the Companies (Accounting Standards) Rules, 2006 shall file the statements using the Taxonomy provided in Annexure-II and companies preparing their financial statements under Companies (Indian Accounting Standards) Rules, 2015, shall file the statements using the Taxonomy provided in Annexure-II A: Provided further that non-banking financial companies, housing finance companies and companies engaged in the business of banking and insurance sector are exempted from filing of financial statements under these rules."

However, the companies in banking, insurance, power sector, non-banking financial companies and housing finance companies are exempted from XBRL filing till further orders.

### **Key benefits of XBRL filing are as under:**

Relevant data has tags and selective information can be fetched for specific purposes by various government and regulatory agencies. It is in conformity with Global Reporting Standards, which helps in improved data mining and relevant information search.

### 19.12. TASK BASED PRACTICALS

#### 19.12.1. BUSINESS USER REGISTRATION PROCESS

A Business User has access to certain specific functionalities, in addition to all the basic e-Services of MCA which are available to a Registered User. Business users can be companies, Limited Liability Partnerships (LLPs), Professionals, government officials etc. They typically use the MCA portal to file various statutory documents, such as annual returns, financial statements, and other compliance-related filings. Business users may have the option to appoint individuals within their organization as authorized representatives or directors who can access and interact with the MCA portal on their behalf.

Fig. 1.a

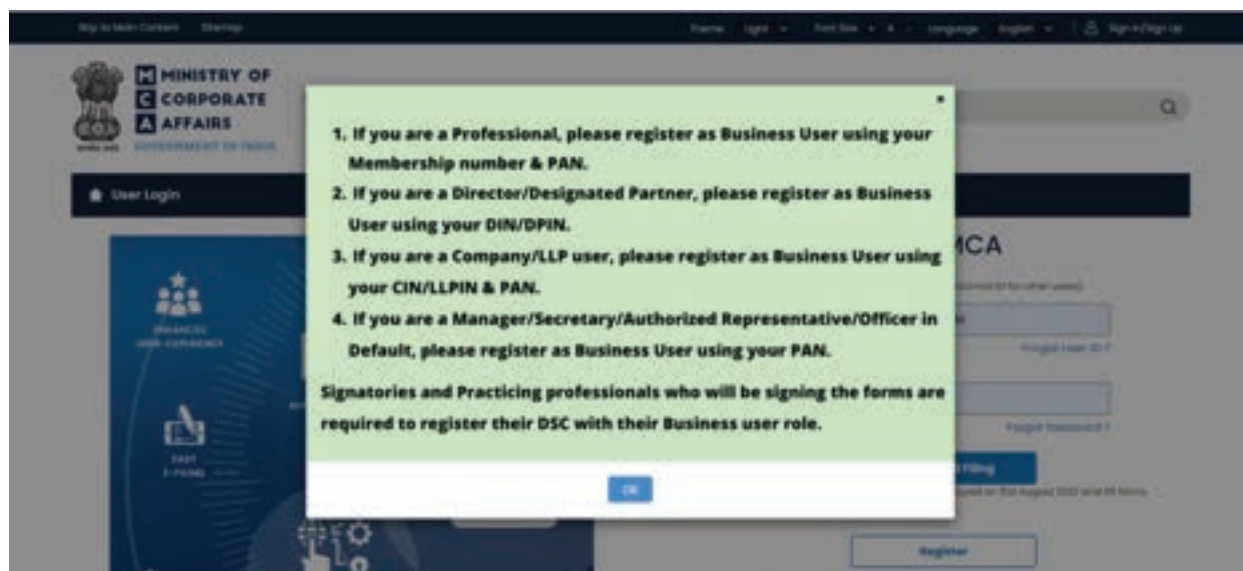


Fig. 1.b

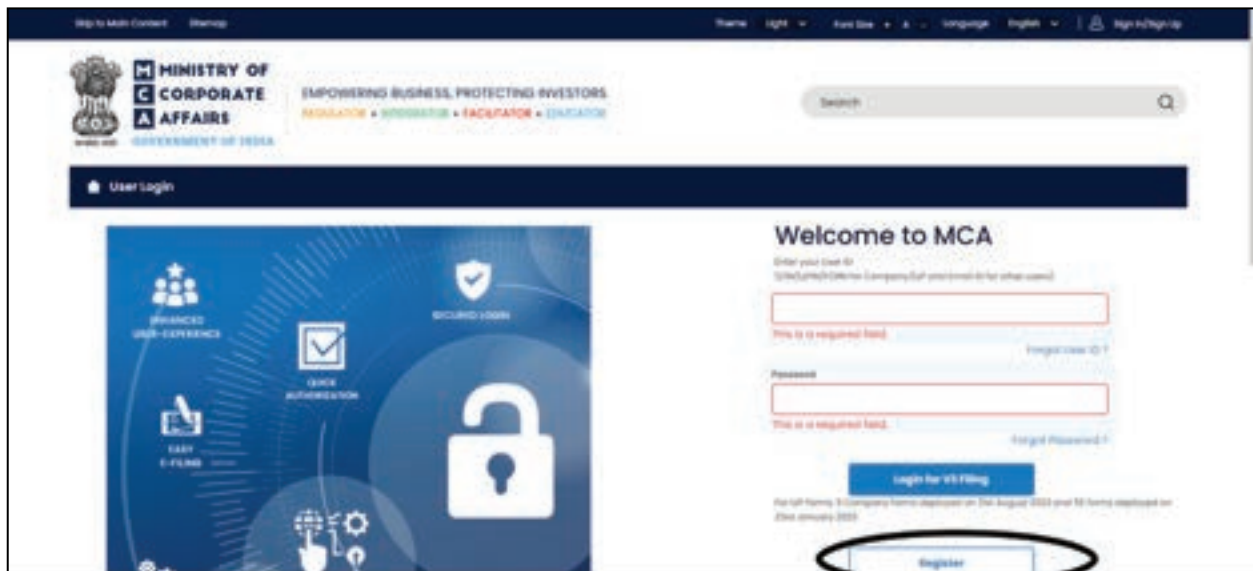


Fig. 1.c



Fig. 1.d

The user roll can be any of above. The required fields will be slightly differed accordingly. Ex : If director role is selected , DIN is required to be specified for further proceeds instead of PAN details.

The user role registration as a 'Professional staff member' is as follows:

Fig. 1. e

The screenshot displays the 'User Registration' form, which is part of a four-step process: User Category, Personal Details, Contact Details, and Login Details. The 'User Category' step is currently active. The form includes a progress bar at the top with four steps: 'User Category' (active), 'Personal Details', 'Contact Details', and 'Login Details'. Below the progress bar, the 'User Details' section contains the following fields:

- User Category \***: Radio buttons for 'Registered User' (selected) and 'Business User'.
- User Role \***: A dropdown menu showing 'Professional Staff Member'.
- Income Tax PAN**: A text input field with the placeholder 'Enter Pan no.'.
- Membership Type (This field is required to be filled by ICSI & ICAI members)**: Radio buttons for 'Associate' and 'Fellow' (selected).
- Professional Membership Institute \***: A dropdown menu showing 'ICSI'.
- Professional Membership Number \***: A text input field with the placeholder 'ICSIID'.
- Professional Name**: A text input field with the placeholder 'Shri. Mohan Singh JOSHI'.
- Professional Email id**: A text input field with the placeholder 'Cshankarshankar77@gmail.com'.
- Professional Phone Number**: A text input field with the placeholder '805247788'.

A 'Next' button is located at the bottom right of the form.

Fig. 1.f



**MINISTRY OF CORPORATE AFFAIRS**  
GOVERNMENT OF INDIA

EMPOWERING BUSINESS, PROTECTING INVESTORS  
REGULATOR • PROMOTER • FACILITATOR • EDUCATOR

Search

Home | Register

**User Registration**

1. User Category 2. Personal Details 3. Contact Details 4. Login Details

**Personal Details**

**First Name \***  
Name entered should be as per the PAN card  
MOHAMED

**Middle Name \***  
Enter Here

**Last Name \***  
VIJAY

**Date of Birth \***  
25/01/1984

**Gender \***  
☒ Male ☐ Female

Back Next

Fig. 1.g

**User Registration**

1. User Category 2. Personal Details 3. Contact Details 4. Login Details

**Contact Details**

**Address Line 1 \***  
abc

**Address Line 2 \***  
abc

**Country \***  
India

**Pincode \***  
680005

**State \***  
Kerala

**City \***  
Thiruvananthapuram

**Area/Locality \***  
Thiruvananthapuram

**Telephone Number - Residence (including STD code) \***  
Enter Here

**Telephone Number - Office (including STD code) \***  
Enter Here

**Mobile \***  
9800000000

**Email ID \***  
abc@gmail.com

Back Next

Fig. 1.h

[Home](#)
[About MCA](#)
[Acts & Rules](#)
[My Workspace](#)
[My Application](#)
[MCA Services](#)
[Data & Reports](#)
[E-Consultation](#)
[Help & FAQs](#)
[Contact Us](#)

[Home](#) > [Register](#)

### User Registration

User Registration

Personal Details

Address Details

Login Details

#### Login Details

**Password \***

**Confirm Password \***

**Password Policy**

- a. It should be alphanumeric;
- b. minimum 8 characters and maximum 16 characters;
- c. at least one special character ( @, #, %, &, ^, \*, !, \$, ~ )
- d. case sensitive i.e. "A" Capital is different from "a" (Lower Case).

---

**Password Recovery Question**

**Hint Questions \***

**Hint Answer \***

**Whether you wish to avail SMS alert Facility:**

☒ Yes
 ☐ No

This facility is complimentary for

- a. companies availing all forms
- b. Registration start
- c. login alerts
- d. Account details related updates
- e. all updates

By clicking on Create My Account, you agree to our [Terms and Conditions](#)

Back

Clear All

Create My Account

Fig. 1.j

The screenshot displays the MCA (Ministry of Corporate Affairs) User Registration page. A modal window is open, prompting the user to enter an OTP (One-Time Password) sent to their mobile, email, and professional ID. The modal contains three input fields with labels: "Please enter the OTP sent on your mobile:", "Please enter the OTP sent on your email:", and "Please enter the OTP sent to Professional:". Each field has a "SEND" button next to it. Below these fields is a "Submit" button. The background shows the registration form with sections for "Login Details", "Password", "Password Recovery Question", "What Questions", and "Whether you wish to avail SMS alert Facility". At the bottom of the modal, there are "Back", "Clear All", and "Create My Account" buttons.

After submitting the OTP the user ID will be created and the same will be displayed

Note : If a user ID is created as the authorized representative of a company, then the said company's forms can only be filed through the respective ID.

### DIR 3 KYC AND KYC WEB

Any DIN holder who is filing his KYC details for the first time with MCA, must file all KYC details only through eForm DIR-3 KYC. There is no option for such a person to access the web-service for his KYC.

Further, any DIN holder who wants to update any information of his KYC details must update the same through filing of eForm DIR-3 KYC only. Please note that no update in details can be made by accessing the web-service for DIR-3 KYC.

Any DIN holder who has already submitted eForm DIR-3 KYC in any of the previous financial years and who does not require update in any of his KYC details as submitted, may perform his

annual KYC by accessing DIR-3 KYC web service. No fee is payable up to the due date of each financial year. After the due date, a fee of Rs.5000 shall be payable.

As per the provisions of Rule 12A of the Companies (Appointment and Qualification of Directors) Rules, 2014, every individual who is allotted DIN as on 31st March of a financial year must submit his KYC on or before 30th September of the immediately next financial year.

If the DIN holder does not file his annual KYC within the due date of each financial year, such DIN shall be marked as 'Deactivated due to non-filing of DIR-3 KYC' and shall remain in such Deactivated status until KYC is done with a fee of Rs.5000.

Any person who has been allotted DIN and where the status of such DIN is 'Approved', is required to file form DIR-3 KYC. Hence, disqualified directors are also required to file form DIR-3 KYC

**Relevant Sections:** Section 153 of companies Act 2013 and Rule 9A, 12A, 11, 12 of the Companies (Appointment and Qualification of Directors) Rules, 2014 and Companies (Appointment and Qualification of Directors) Fifth Amendment Rules, 2019 along with MCA circulars and notifications.

### STEPS

- Login to MCA V-3
- Click of My Application, Company e-filing, Din Related Filing
- Click on DIR-3 KYC Web
- Mention DIN and Click on send OTP (DG)
- Mention the OTP received on Mobile No. & Email ID of DIN Holder
- After mention OTP proceed on next slide

## 19.12.2.DIR 3 KYC WEB

Fig 2.a



The screenshot displays the "User Verification" form on the MCA website. The form is titled "User Verification" and includes a note: "All fields marked in \* are mandatory". The form is divided into two main sections: "User Verification" and "Other Details". The "User Verification" section contains the following fields: "Name of director" (with a dropdown menu), "Personal Mobile Number" (with a "Send OTP" button), "Personal Email ID" (with a "Send OTP" button), "Enter OTP for Mobile Number" (with a "Verify OTP" button), and "Enter OTP for email ID" (with a "Verify OTP" button). The "Other Details" section is currently empty. At the bottom of the form are "Back" and "Next" buttons.

Fig 2.b

## 19.12.3. DIR 3 KYC

Fig 3.a



Fig 3. B



**Form No. DIR-3-KYC**

**KYC of Directors**  
[Pursuant to Rule 12A of the Companies (Appointment and Qualification of Directors) Rules, 2014]

Form language

☒ English ☐ Hindi

*All fields marked in \* are mandatory*

*In case of Indian nationals, Income-tax Permanent Account Number (Income-tax PAN) is mandatory in all cases even if there is no change in Income-tax PAN. In such cases, director details should be as per Income-tax PAN. In case the details as per Income-tax PAN are incorrect, director/designated partner is advised to first correct the details in Income-tax PAN*

*Refer instruction kit for filing the form*

---

**Director related information**

1 (a) \*Director Identification Number (DIN)

(b) \*Name

2 Director's Name (Enter full name and do not use abbreviations)

(a) First name

(b) Last name

(c) Middle name

3 Father's Name (Married woman shall also give father's name)

(a) First name

(b) Last name

(c) Middle name

4 \*Whether a citizen of India ☒ Yes ☐ No

5 \*Nationality

6 \*Whether resident in India ☐ Yes ☒ No

7 \*Date of birth(dd/mm/yyyy)

8 \*Gender ☐ Male ☒ Female ☐ Transgender

Page 1 of 7

Fig 3.c

9 Income tax PAN	AKUPJ4408B
10 *Do you have Aadhaar	<input checked="" type="radio"/> Yes <input type="radio"/> No
Aadhaar number	3 88 88 88 88 31
11 Voter's Identity card number	
12 *Do you have a valid passport	<input checked="" type="radio"/> Yes <input type="radio"/> No
Passport number	2 888888 89
13 Driving license number	
14 *Personal Mobile Number	+91 8888888888 77
15 *Enter OTP for Mobile Number	4204
16 *Personal Email ID	sh*****il.co m
17 *Enter OTP for e-mail ID	4317
18 Permanent residential address	
Do you have permanent address outside India	<input type="radio"/> Yes <input type="radio"/> No
*Address Line 1	KUNJATHUR HOUSE
Address Line 2	ERODE
*Country	India
*Pin Code/Zip Code	625 034
*Area/Locality	Eravathur
*City	Melavayaluram
District	The Nilgiris
*State/UT	Kerala
*Jurisdiction of police station	MDA

Page 2 of 7

Fig 3.d



Phone	<input type="text"/>
Fax	<input type="text"/>
19 *Whether present residential address is same as permanent residential address	<input type="radio"/> Yes <input checked="" type="radio"/> No
20 Present residential address:	
*Address Line 1	VILLA 3, GROUND FLOOR YABOOR
Address Line 2	STREET 30
*Country	United Arab Emirates
*Pin Code/Zip Code	37661
*Area/Locality	DEIRA
*City	DEIRA
District	<input type="text"/>
*State/UT	DEIRA
*Jurisdiction of police station	DEIRA
Phone	<input type="text"/>
Fax	<input type="text"/>
<b>Attachments</b>	
(a) *Proof of permanent address	eulher-shylaja geegikumar.pdf
(b) Copy of Aadhaar Card	PP- Mrs. Shylaja.pdf
(c) Copy of Passport	PP- Mrs. Shylaja.pdf
(d) Proof of present address	eulher-shylaja geegikumar.pdf
(e) Optional attachment(s) -if any	<input type="text"/>
<b>Verification</b>	

Fig 3.e

I, hereby confirm and verify that the particulars given in the Form herein above are true and also are in agreement with the documents being attached to this form.

(i) The documents being attached to the Form DIR-3KYC belong to me. I further confirm that all required documents have been duly issued by the respective government authority and are attached to the Form DIR-3 KYC;

(ii) I further confirm that the Mobile No and email ID belong personally to me.

(iii) I have not been declared as a proclaimed offender by any court of Economic Offences or court of Judicial Magistrate or High Court or any other Court;

(iv) I have no other allotted DIN other than DIN in which changes are intimated under section 154 of the Companies Act, 2013 or a Designated Partner Identification Number under section 7 of the Limited Liability Partnership Act, 2008; and

(v) I shall be liable under section 447 read with section 448 of the Companies Act, 2013 and under relevant provisions of the Indian Penal Code, 1860 and any other law as applicable, if any statement in this application is found to be false or any material fact is found to be have been omitted.

**\*To be digitally signed by DIN holder**

---

**Certificate by practicing professional**

I declare that I have been duly engaged for the purpose of certification/verification of this form. It is hereby certified that:

☒ \*I have satisfied myself about the identity of the DIN holder and his address based on the perusal of the original of the attached document. Note: In case where the DIN holder is residing outside India the particulars have to be verified from the documents duly attested by the attesting authority as prescribed.

☒ \*I have verified and attested the documents of the DIN holder based on the Originals documents produced before me.

☒ \*All required attachments have been completely attached to this application.

☒ \*I have gone through the provisions of The Companies Act, 2013 and rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars (including attachment(s)) from the original records maintained by the Company/DIN holder which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed.

\*I further certify that:

☒ \*Mobile No and email ID belong to the Director signing the form.

☒ \*All the required attachments have been completely and legibly attached to this

☒ \*I have kept a copy of this form and attachments thereto, in my records for further reference.

☒ \*It is understood that I shall be liable for action under section 477 read with section 448 of The Companies Act, 2013 for wrong certifications, if any found at any stage.

**\*To be digitally signed by**

**\*Category**  
(Chartered accountant (in whole-time practice),  
Cost accountant (in whole-time practice), Secretary (in whole-time practice)

Fig 3.f

\*Whether associate or fellow

☐ Associate ☒ Fellow

Membership number

Certificate of Practice number

**Note:** Attention is drawn to provisions of Section 447 read with section 448 and 449 of the Companies Act, 2013 which provide for punishment for false statement / certificate and punishment for false evidence respectively.

*For office use only:*

eForm Service request number (SRN)

eForm filing date(dd/mm/yyyy)

*This eForm has been taken on file maintained by the registrar of companies through electronic mode and on the basis of statement of correctness given by the director and professional.*

## 19.12.4. OBTAIN DIN

DIN is a unique, 8-digit alphanumeric number assigned to each director and Under Section 153 of the Companies Act, 2013, it is mandatory for every individual intending to be appointed as a director of a company to obtain a DIN before their appointment.

DIN is valid for a director's lifetime, unless it is surrendered, canceled, or deactivated by the regulatory authorities due to non-compliance or other reasons and DIN KYC must be filed in every year within specified timeline.

Directors can apply for DIN online through the MCA portal by submitting Form DIR-3 along with the necessary documents and fees and the form shall be certified/signed by the director/KMP of the company which he proposed to be appointed.

Relevant section: Section 153, 154 and 155 of the companies Act 2013 and Rule 9, 10, 11,12, 13, 14 of the Companies (Appointment and Qualification of Directors) Rules, 2014 along with MCA circulars and notifications.

Fig 4.a

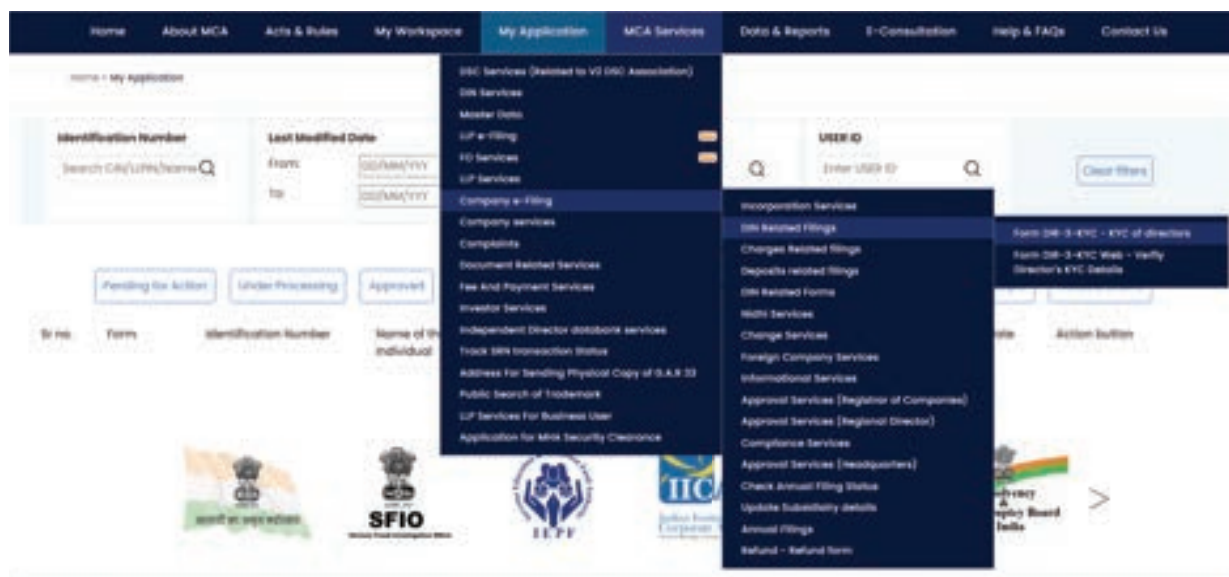


Fig 4.b

Form No. DIR-3

Application for allotment of Director Identification Number before appointment in an existing company or LLP

[Pursuant to section 153 of The Companies Act, 2013 & Rule 9(1) of The Companies (Appointment and Qualification of Directors) Rules, 2014 & Rule 10 of Limited Liability Partnership Rules, 2009]

Refer instruction kit for filing the form


All fields marked in \* are mandatory

Income-tax Permanent Account Number (Income-tax PAN) is mandatory in case of Indian Nationals and in such case applicant details should be as per Income-tax PAN. In case the details as per Income-tax PAN are incorrect, applicant is advised to first correct the details in Income-tax PAN

In case of foreign national, Passport number is mandatory

Form language

☒ English
 ☐ Hindi



Digilocker

1 Fetch from Digilocker

Applicant's Details

2 \*Photograph

(Attach a latest passport size photograph by clicking on the alongside box)

3 \*Whether a citizen of India

☒ Yes
 ☐ No

4 Applicant's Name (Enter full name and do not use abbreviations)

(a) First name

(b) Middle name

(c) Last name

AKH JINDAL PH

5 Father's Name (Even married women must also give father's name)

(a) First name

JINDAL

(b) Middle name

Fig 4.c

(c) Last name	<input type="text" value="Bhalla"/>
6* Nationality	<input type="text" value="India"/>
7* Whether resident in India	<input checked="" type="radio"/> Yes <input type="radio"/> No
8 (a) *Occupation type	<input checked="" type="radio"/> Self Employed <input type="radio"/> Professional <input type="radio"/> Homemaker <input type="radio"/> Student <input type="radio"/> Serviceman
(b) Area of occupation <small>(Government/ Teaching/ Business/ Professional/ Government Employment/ Private Employment / Housewife/ Student/ Others)</small>	<input type="text" value="Business"/>
(c) If 'others' selected, please specify	<input type="text"/>
9(a) *Educational qualification <small>(Primary education/ Secondary education/ Vocational qualification/ Bachelor's degree/ Master's degree/ Doctorate or higher/ Professional diploma/ Others)</small>	<input type="text" value="Bachelor's degree"/>
(b) If 'others' selected, please specify	<input type="text"/>
10* Date of birth (DD/MM/YYYY)	<input type="text" value="02/12/1991"/>
11* Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female <input type="radio"/> Transgender
12 Income-tax permanent account number	<input type="text" value="BLLPNNM"/>
Income tax PAN attachment	<input type="text" value="PAN.jpg"/>
13* Do you have Aadhaar?	<input checked="" type="radio"/> Yes <input type="radio"/> No
14 Aadhaar number	<input type="text" value="6180 0000 2302"/>
Aadhaar number attachment	<input type="text" value="Aadhaar.jpg"/>
15 Voter's identity card number	<input type="text"/>
Voter's identity card attachment	<input type="text"/>
16 Passport number	<input type="text"/>
Passport attachment	<input type="text"/>

Page 2 of 6

Fig 4.d



*City	<input type="text" value="Thrissur"/>
District	<input type="text" value="Thrissur"/>
*State/UT	<input type="text" value="Kerala"/>
*Jurisdiction of Police Station	<input type="text" value="MADHUR"/>
22 (a) *Phone	<input type="text" value="9446492331"/>
(b) Fax	<input type="text"/>

**Attachments**

(a) \*Proof of residence of applicant

(b) Optional attachment(s) - if any

**Verification**

I, \*  son/daughter of \*  born on\*  (DD/MM/YYYY) resident of \* 

POSTOFFICE  
PALLINGHATE  
WING: ALZHAKKUPURAM  
CENTRE: Madakkutti, Thrissur,  
Thrissur, Kerala, In  
pin 686012

 hereby confirm and verify

I hereby confirm and declare that:

a) The photograph and documents being attached to the Form DIR-3 belong to me. I further confirm that all required have been duly certified by the respective government authority and are being attached to the said Form DIR-3,

b) I am not restrained, disqualified, removed of , for being appointed as Director of a company under the provisions of the Companies Act, 2013 including sections 164 and 169,

c) I have not been declared as proclaimed offender by any Economic Offence Court or Judicial Magistrate Court or High Court or any other Court,

d) I also declare that:-

☒ I am not required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number;

☐ I am required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number and the same has been obtained and is

Page 4 of 6

Fig 4.e

e) I have not been already allotted a Director Identification Number (DIN) under section 154 of the Companies Act, 2013.

f) I further declare that I have read and understood the provisions of Sections 154, 155, 447 and 448 read with Sections 449, 450 and 451 of the Companies Act, 2013, and

g) I solemnly declare that the declaration given herein as stated above are true to the best of my knowledge and belief and that it conceals nothing and that no part of it is false.

**\* To be digitally signed by Applicant**

**Certification**

☒ \*I declare that I have satisfied myself about the identity of the applicant based on the perusal of the original of the attached document.  
Note: In case where the applicant is residing outside India the particulars have to be verified from the documents duly attested by the attesting authority as prescribed.

☒ \*I also declare that the company/LLP intends to appoint the applicant as a director/ designated partner after allotment of DIN

☒ \*I further certify that:

☒ \*All the required attachments have been completely and legibly attached to this form;

☒ \*I have kept a copy of this form and attachments thereto, in my records for future reference.

☒ \*It is understood that I shall be liable for action under Section 449 of the Companies Act, 2013 for wrong certification, any found at any stage.

**\* To be digitally signed by**

**\*Category** (Director/Company Secretary/Manager/CEO/CFO/Designated partner)

Director

**\*DIN/DPIN of the Director/Designated partner or PAN of the Manager or CEO or CFO; or membership number of Company Secretary**

07185966

**\*Corporate Identity Number (CIN) / FCRN/ LLPIN/ FLLPIN with which the authorised signatory is associated and in which the applicant is proposed to be a director/designated partner**

U65900ML2015PLC000023

**\*Name of Company/ foreign company/ LLP/ foreign LLP**

WELFARE STORE LIMITED

**Note: Attention is drawn to provisions of Section 448 and 449 of the Companies Act, 2013 which provide for punishment for false statement / certificate and punishment for false evidence respectively.**

---

**For Office use only:**

eForm Service request number (SRN)

AA3818518

eForm filing date (DD/MM/YYYY)

26-06/2023

Fig 4.f



## 19.12.5. APPLY FOR A NAME FOR A NEW COMPANY

The proposed company name is unique and does not resemble the name of any existing company (Name availability, Domain and Trademark resemblance can be checked in MCA Website) and should not violate any guidelines or restrictions and does not contain any prohibited or undesirable words, phrases, or terms set forth in the Companies Act, 2013 and its rules.


The reserved name is valid for 20 days from the date of approval (Form SPICE +A) and an existing company seeking to change its name shall apply for reservation by filing Form RUN (Validity period 60 days) with Central Registration Centre (CRC). Ensure that you complete the incorporation process within this period.

**Relevant section:** Section 4, 16, 20 of the companies act 2013 and Rules 8, 9, 10, 11, 12, 13, 14 of the Companies (Incorporation) Rules, 2014 along with MCA circulars and notifications.

Fig 5.a



Fig 5.b



**SPICe+ Part A**  
Name Reservation

Pursuant to section 4(4) of the Companies Act, 2013 and Pursuant to rule 8 & rule 9 of the Companies (Incorporation) Rules 2014]

Form Language

☒ English ☐ Hindi

[Refer instruction kit for filing the form](#)

All fields marked in \* are mandatory

**Company Information**

**1(a)\*Type of company**

Select Here

- Select Here
- Producer Company
- Unimad Company
- Private (OPC)
- IFSC Company
- Section 8 Company
- Nidhi Company
- New Company (Others)
- Part I Section 8 Company
- Part I LLP to Company
- Part I Firm to Company
- Part I Others

Search Here


**\*Class of the company**

Select Here

**\*Category of the company**

Select Here

Fig 5.c



**SPICe+ Part A**  
Name Reservation

Pursuant to section 4(4) of the Companies Act, 2013 and Pursuant to rule 8 & rule 9 of the Companies (Incorporation) Rules 2014]

Form Language

☒ English ☐ Hindi

[Refer instruction kit for filing the form](#)

All fields marked in \* are mandatory

**Company Information**

**1(a)\*Type of company**

New Company (Others)

**\*Class of the company**

Private

Select Here

Public

Private

**\*Category of the company**

Select Here

**Sub-category of the company**

Select Here

**Search and select industry sub-class**

Search Here

Fig 5.d

**SPICe+ Part A**  
Name Reservation

Pursuant to section 4(4) of the Companies Act, 2013 and Pursuant to rule 8 & rule 9 of the Companies (Incorporation) Rules 2014

Form Language  
☒ English ☐ Hindi  
[Refer instruction kit for filing the form](#)

All fields marked in \* are mandatory

**Company Information**

\*Type of company  
New Company (Others)

\*Class of the company  
Private

\*Category of the company  
Select Here  
Company limited by shares  
Company limited by guarantee

Sub-category of the company  
Select Here

Search and select industry sub-class  
Search Here

Fig 5.e

**SPICe+ Part A**  
Name Reservation

Pursuant to section 4(4) of the Companies Act, 2013 and Pursuant to rule 8 & rule 9 of the Companies (Incorporation) Rules 2014

Form Language  
☒ English ☐ Hindi  
[Refer instruction kit for filing the form](#)

All fields marked in \* are mandatory

**Company Information**

\*Type of company  
New Company (Others)

\*Class of the company  
Private

\*Category of the company  
Company limited by shares

Sub-category of the company  
Select Here  
Private government company  
State government company  
Non-government company  
subsidiary of company incorporated outside India

\*Main NIC Code (sub-class) of Industrial activity of the company  
Select Here

\*Description of the main sub-class  
Select Here

Fig 5.f

The screenshot shows a web application interface for searching NIC codes. The search bar contains the text 'EDUCA' and the results are displayed in a table. The table has two columns: 'Sub Class' and 'Description'. The results are filtered to show only codes under the 85400 sub-class.

Sub Class	Description
85500	Educational support services
85499	Other educational services n.e.c.
85420	Cultural education
85410	Sports and recreation education
85307	Higher education not leading to a degree or equivalent
85306	Higher education in other professional/ vocational courses leading to a degree or equivalent

Fig 5.h

**\*Particulars of the proposed or approved name**

**L**

CAST EDUCATION PRIVATE LIMITED

Enter name

**R**

[Check Domain](#)   [Check Trademark](#)

---

**Attachment**

Optional attachment(s) - If any

Max. 2 MB

Choose file

---

Errors/info
Name Similarity Alerts
Trademark Similarity Alerts

Alert Type	Propose Name	Alert Description
Info	CAST EDUCATION PRIVATE LIMITED	Please note that the proposed name is similar to the name of an existing Company / LLP CASTCO PRIVATE LIMITED as per Rule 800 / 8A(1)(a) of Companies (Incorporation) Rules, 2014. Please attach No Objection Certificate (NOC), if applicable
Info	CAST EDUCATION PRIVATE LIMITED	Proposed name is similar to the name of struck off company AASTHA EDUCATION PRIVATE LIMITED and not allowed for twenty years from the date of such striking off in accordance with proviso to Rule 8A(1)(n) of the Companies (Incorporation) Rules, 2014.
Info	CAST EDUCATION PRIVATE LIMITED	Proposed name may be similar to registered trademark and may not be allowed as per rule 8A(3)(a) of Companies (Incorporation) Rules, 2014. Please attach the No Objection Certificate, if applicable

Auto check

Save

Submit

Fig 5.i

**L**

CAST EDUCATION PRIVATE LIMITED

Enter name

**R**

[Check Domain](#)   [Check Trademark](#)

---

**Attachment**

Optional attachment(s) - If any

Max. 2 MB

Choose file

---

Errors/info
Name Similarity Alerts
Trademark Similarity Alerts

Alert Type	Propose Name	Alert Description
Info	CAST EDUCATION PRIVATE LIMITED	Please note that the proposed name is similar to the name of an existing Company / LLP CASTCO PRIVATE LIMITED as per Rule 800 / 8A(1)(a) of Companies (Incorporation) Rules, 2014. Please attach No Objection Certificate (NOC), if applicable
Info	CAST EDUCATION PRIVATE LIMITED	Proposed name is similar to the name of struck off company AASTHA EDUCATION PRIVATE LIMITED and not allowed for twenty years from the date of such striking off in accordance with proviso to Rule 8A(1)(n) of the Companies (Incorporation) Rules, 2014.
Info	CAST EDUCATION PRIVATE LIMITED	Proposed name may be similar to registered trademark and may not be allowed as per rule 8A(3)(a) of Companies (Incorporation) Rules, 2014. Please attach the No Objection Certificate, if applicable

Auto check

Save

Submit

☐ Submit application for name reservation

You will be redirected to the payment gateway

☐ Proceed for incorporation

You will be redirected to register your company incorporation

Cancel

Continue



Fig 5.1

The screenshot shows the MCA website interface. At the top, there's a header with the Ministry of Corporate Affairs logo and navigation links. Below the header, there's a search bar and a navigation menu. The main content area is titled 'Fee For Services Transaction Details'. It contains a table with the following data:

FULL PARTICULARS OF REMITTANCE		
Service type description	Type of Fee	Amount (Rs.)
Spoken Port A	Normal	1000
	Additional	0
	Relief	1000

Below the table, there is a blue button labeled 'Make Payment'.

## 19.12.6 APPOINTMENT OF DIRECTORS

Private Limited Companies must have a minimum of 2 directors, while Public Limited Companies must have at least 3 directors. One Person Companies (OPCs) must have at least 1 director. The maximum number of directors allowed is 15, and this limit can be increased by passing a special resolution during a general meeting.

Directors must provide their consent and make a declaration ( DIR 2) confirming their eligibility and willingness to act as directors and disclosure of interest in other entities must be given ( MBP 1)

**Relevant sections:** sections 7(1) (c), 149, 152, 153, 160, 161, 162, 170, 197 and Rules 8, 9, 15, 16, 17, 18 of the Companies (Appointment and Qualification of Directors) Rules, 2014 along with MCA circulars and notifications

Fig 6.a



Fig 6.b




### Form No. DIR-12

**Particulars of appointment of directors and the key managerial personnel and the changes among them**

[Pursuant to sections 7(1) (c), 168 & 170 (2) of The Companies Act, 2013 and rule 17 of the Companies (Incorporation) Rules 2014 and 8, 15 & 18 of the Companies (Appointment and Qualification of Directors) Rules, 2014]

*Refer instruction kit for filing the form*  
*All fields marked in \* are mandatory*

  
 सत्यमेव जयते

Form language

☒ English
 ☐ Hindi

---

**Company details**

1 (a) \*Corporate Identity Number (CIN) of company

(b) \*Name of the company

(c) \*Address of the registered office of the company

(d) \*E-mail ID of the company

U2/30100/2013/74721

PETRO CHEMICAL TECHNOLOGIES PRIVATE LIMITED

E/300, CHENNAI-VILLAGE P O, THIRUVATTUR, Thiruvallur, TAMIL NADU, India

petrochemicals@petrochemicals.com

---

**Particulars of Director/KMP**

2 \*Number of Managing director or director(s) for which the form is being filed

3 Details of the Managing Director or Director of the company

(a) Purpose of filing the form

☒ Appointment  
☐ Appointment due to disqualification of all the existing directors

☐ Cessation  
☐ Appointment by liquidator

☐ Change in designation

(b) Director Identification Number (DIN)

(c) Name

(d) Father's name

1

0000029

CHINPALE SURESH

CHINPALE

Fig 6.c

## TAX COMPLIANCES

(e) Present residential address	Block T, Plot - 08, Sector Subhashree, No. 40, Sector Road, Near Mahanagar Police Station, Chennai																								
(f) Nationality	India																								
(g) Date of birth (DD/MM/YYYY)	25-10-1968																								
(h) Gender	Male																								
(i) E-mail ID of director	gopalreddy@gmail.com																								
(j) Designation <small>(Director/Managing director/Alternate director/Additional director/Director appointed in casual vacancy/ Nominee director/Whole-time director)</small>	Additional Director																								
(k) Date of Appointment or change in designation (DD/MM/YYYY)	08-10-2020																								
(l) Category <small>(Promoter/Professional/Independent/Small shareholder's director)</small>	Professional																								
(m) Whether Chairman, Executive Director, Non-Executive Director	<input type="checkbox"/> Chairman <input type="checkbox"/> Executive Director <input checked="" type="checkbox"/> Non-Executive Director																								
(n) DIN of such director to whom appointee is alternate																									
(o) Name of the director to whom such appointee is alternate																									
(p) Name of the company or institution whose authorized representative or nominee the appointee is																									
(q) In case of cessation, hereby confirmed that the above- <input type="radio"/> Director <input type="radio"/> Managing Director is not associated with the company with effect from <input type="text"/> (DD/MM/YYYY) due to <input type="text"/>																									
<b>Interest in other entities</b>																									
(r) Number of such entities	2																								
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>S. No.</th> <th>CIN/LLPIN/FCRN/ Registration number</th> <th>Name</th> <th>Address</th> <th>Designation</th> <th>Percentage of Shareholding</th> <th>Amount</th> <th>Others (specify)</th> </tr> </thead> <tbody> <tr> <td></td> <td>U0704298</td> <td>Srinivas S</td> <td></td> <td>DIRECTOR</td> <td>11</td> <td>110000</td> <td></td> </tr> <tr> <td></td> <td>N070445</td> <td>Purnima S. Purnima S</td> <td></td> <td>DIRECTOR</td> <td>14</td> <td>570830</td> <td></td> </tr> </tbody> </table>		S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)		U0704298	Srinivas S		DIRECTOR	11	110000			N070445	Purnima S. Purnima S		DIRECTOR	14	570830	
S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)																		
	U0704298	Srinivas S		DIRECTOR	11	110000																			
	N070445	Purnima S. Purnima S		DIRECTOR	14	570830																			

Page 2 of 5

Fig 6.d

<p>4 *Number of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer for which the form is being filed</p>	<input style="width: 100%;" type="text" value="0"/>
<p>5 Details of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer of the company</p>	
<p>(a) Purpose of filing the form</p>	<p><input type="radio"/> Appointment</p> <p><input type="radio"/> Cessation</p>
<p>(b) Director Identification Number (DIN), if any</p>	<input style="width: 100%;" type="text"/>
<p>(c) Income Tax permanent account number (PAN)</p>	<input style="width: 100%;" type="text"/>
<p>(d) Membership number of the company secretary</p>	<input style="width: 100%;" type="text"/>
<p>(e) (i) First Name <i>(Either of applicant's First name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(ii) Middle Name</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(iii) Last Name <i>(Either of applicant's First name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p>(f) Father's name</p>	
<p style="padding-left: 20px;">(i) First Name <i>(Either of applicant's father's first name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(ii) Middle Name</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(iii) Last Name <i>(Either of applicant's father's first name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p>(g) Present residential address</p>	
<p style="padding-left: 20px;">Address Line</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Address Line</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Country</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Pin Code/Zip Code</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Area/Locality</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">City</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">District</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">State/UT</p>	<input style="width: 100%;" type="text"/>

Fig 4.f

(h) Date of birth (DD/MM/YYYY)	<input type="text"/>
(i) Designation (Manager/Company Secretary/CFO/COO)	<input type="text"/>
(j) Date of appointment or cessation (DD/MM/YYYY)	<input type="text"/>
(k) Mobile Number (with Country code)	<input type="text"/>
(l) E-mail ID	<input type="text"/>
6 SRN of form INC-28	<input type="text"/>

---

**Attachments**

7 (a) Order from court/NCLT	<input type="text"/>
(b) Notice of resignation	<input type="text"/>
(c) Evidence of cessation	<input type="text"/>
(d) Optional attachments – if any	<input type="text" value="ATTACHMENT .pdf"/>

---

**Director's Consent and Declaration**

I,  hereby give my consent to act as a director of

(name of the company), pursuant to sub-section (5) of section 152 of the companies Act, 2013 and Certify that I am not disqualified to become a director under the companies Act, 2013.

I declare that I have not been convicted of any offense in connection with the promotion, formation or management of any ☒ company or LLP and have not been found guilty of any fraud or misfeasance or of any breach of duty to any company under this Act or any previous company law in the last five year.

I further declare that if appointed my total Directorship in all the companies shall not exceed the prescribed number of ☒ companies in which a person can be appointed as a Director.

I further declare that I have not incurred disqualification under the Companies Act, 2013 in any of the above companies and ☒ that I, at present, stand free from any disqualification from being a director.

Fig 6.f

☒ I also declare that:

- ☒ I am not required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number; or
- ☐ I am required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number and the same has been obtained and is attached.

I further declare that I have not incurred disqualification under the Companies Act, 2013 in any of the above companies and  
☒ that I, at present, stand free from any disqualification from being a director.

**To be digitally signed by the Director/ Managing**

**Declaration**

I\* PO-12345678901234567890 RI authorized by the Board of Directors of the Company/ by the court or NCLT

03 number dated 08/03/2023 (DD/MM/YYYY) to sign this form and

declare that all the requirements of Companies Act, 2013 and the rules made thereunder in respect of the subject matter of this form and matters incidental thereto have been complied with. I also declare that all the information given herein above is true, correct, and complete including the attachments to this form and nothing material has been suppressed.

**\*To be digitally signed**

**\*Designation**  
(Director/Manager/Company Secretary/Chief executive officer/Chief Financial Officer/Statutory Auditor/Liquidator)

Director

**\*Director identification number of the director; or DIN or PAN of the manager or CEO or CFO or liquidator; or Membership number of the secretary or statutory auditor**

06-12345678901234567890

---

**Certificate by practicing professional**

I declare that I have been duly engaged for the purpose of certification of this form. It is hereby certified that I have gone through the provisions of the Companies Act, 2013 and Rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars [including attachment(s)] from the original/certified records maintained by the Company/applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed.

I further certify that:

☐ The said records have been properly prepared, signed by the required officers of the Company and maintained as per the relevant provisions of the Companies Act, 2013 and were found to be in order

☐ All the required attachments have been completely and legibly attached to this form;

It is understood that I shall be liable for action under Section 448 of The Companies Act, 2013 for wrong certification, if any

☐ found at any stage

Fig 6.g



<b>To be digitally signed by</b>	
Category	
<input type="radio"/> Chartered Accountant (in whole time practice)	
<input type="radio"/> Company Secretary (in whole time practice)	
<input type="radio"/> Cost Accountant (in whole time practice)	
Whether associate or fellow:	
<input type="radio"/> Associate <input type="radio"/> Fellow	
Membership number	
Certificate of practice number	
<b>For Office use only:</b>	
eForm Service request number (SRN)	AA1582480
eForm filing date (DD/MM/YYYY)	11/03/2023
Digital signature of the authorizing officer	
This eForm is hereby registered	
Date of signing (DD/MM/YYYY)	
OR	
This eForm has been taken on file maintained by the Registrar of Companies through electronic mode and on the basis of statement of correctness given by the company	

## 19.12.7. RESIGNATION/CESSATION OF DIRECTORS

Directors may resign by providing written notice to the board of directors and the resignation takes effect from the date mentioned in the notice or the date of receipt by the company, whichever is later.

The board must accept the resignation by passing a resolution at a board meeting and recording it in the minutes and the company must inform the Registrar of Companies (ROC) about the cessation of a director by filing the necessary form (DIR 12) within 30 days of the resignation.

Cessation of office of directors may be either due to resignation, disqualification of directors, vacation of office of directors, Death, Retirement, Exceeding maximum number of directorships, Removal etc.

Fig 7.a



Fig 7.b

Page 1 of 6

Fig 7.c



## TAX COMPLIANCES

(e) Present residential address	FLAT 4/A, SEVENTH FLOOR, RIVER DALE, VILLAGE P O, CHANDIGARH,																
(f) Nationality	India																
(g) Date of birth (DD/MM/YYYY)	26/09/1988																
(h) Gender	Male																
(i) E-mail ID of director	ksingh@gsi.co.in																
(j) Designation <small>(Director/Managing director/Alternate director/Additional director/Director appointed in casual vacancy/ Nominee director/Whole-time director)</small>	Director																
(k) Date of Appointment or change in designation (DD/MM/YYYY)																	
(l) Category <small>(Promoter/Professional/Independent/Small shareholder's director)</small>																	
(m) Whether Chairman, Executive Director, Non-Executive Director	<input type="checkbox"/> Chairman <input type="checkbox"/> Executive Director <input type="checkbox"/> Non-Executive Director																
(n) DIN of such director to whom appointee is alternate																	
(o) Name of the director to whom such appointee is alternate																	
(p) Name of the company or institution whose authorized representative or nominee the appointee is																	
(q) In case of cessation, hereby confirmed that the above- with the company with effect from 09/05/2023 (DD/MM/YYYY) due to Resignation u/s 168	<input checked="" type="radio"/> Director <input type="radio"/> Managing Director is not associated																
<b>Interest in other entities</b>																	
(r) Number of such entities																	
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>S. No.</th> <th>CIN/LLPIN/FCRN/ Registration number</th> <th>Name</th> <th>Address</th> <th>Designation</th> <th>Percentage of Shareholding</th> <th>Amount</th> <th>Others (specify)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)								
S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)										
4 *Number of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer for which the form is being filed																	
0																	
5 Details of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer of the company																	

Page 2 of 6

Fig 7.d

<p>(a) Purpose of filing the form</p>	<p><input type="radio"/> Appointment</p> <p><input type="radio"/> Cessation</p>
<p>(b) Director Identification Number (DIN), if any</p>	<input style="width: 100%;" type="text"/>
<p>(c) Income Tax permanent account number (PAN)</p>	<input style="width: 100%;" type="text"/>
<p>(d) Membership number of the company secretary</p>	<input style="width: 100%;" type="text"/>
<p>(e) (i) First Name <i>(Either of applicant's First name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(ii) Middle Name</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(iii) Last Name <i>(Either of applicant's First name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p>(f) Father's name</p>	
<p style="padding-left: 20px;">(i) First Name <i>(Either of applicant's father's first name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(ii) Middle Name</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">(iii) Last Name <i>(Either of applicant's father's first name or Surname shall be mandatory to enter)</i></p>	<input style="width: 100%;" type="text"/>
<p>(g) Present residential address</p>	
<p style="padding-left: 20px;">Address Line</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Address Line</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Country</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Pin Code/ Zip Code</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">Area/Locality</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">City</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">District</p>	<input style="width: 100%;" type="text"/>
<p style="padding-left: 20px;">State/UT</p>	<input style="width: 100%;" type="text"/>

Fig 7.e

(h) Date of birth (DD/MM/YYYY)	<input type="text"/>
(i) Designation (Manager/Company Secretary/CEO/CFO)	<input type="text"/>
(j) Date of appointment or cessation (DD/MM/YYYY)	<input type="text"/>
(k) Mobile Number (with Country code)	<input type="text"/>
(l) E-mail ID	<input type="text"/>
6 SRN of form INC-28	<input type="text"/>

**Attachments**

7 (a) Order from court/NCLT	<input type="text"/>
(b) Notice of resignation	RESIGNATION . pdf
(c) Evidence of cessation	ACKNOWLEDGEMENT . pdf
(d) Optional attachments – if any	RESOLUTION . pdf

**Director's Consent and Declaration**

I,  hereby give my consent to act as a director of

(name of the company), pursuant to sub-section (5) of section 152 of the companies Act, 2013 and Certify that I am not disqualified to become a director under the companies Act, 2013.

☐ I declare that I have not been convicted of any offense in connection with the promotion, formation or management of any company or LLP and have not been found guilty of any fraud or misfeasance or of any breach of duty to any company under this Act or any previous company law in the last five year.

☐ I further declare that if appointed my total Directorship in all the companies shall not exceed the prescribed number of companies in which a person can be appointed as a Director.

☐ I further declare that I have not incurred disqualification under the Companies Act, 2013 in any of the above companies and that I, at present, stand free from any disqualification from being a director.

☐ I also declare that:

- ☐ I am not required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number; or
- ☐ I am required to obtain the security clearance from the Ministry of Home Affairs, Government of India under sub-rule (1) of rule 10 before applying for director identification number and the same has been obtained and is attached.

☐ I further declare that I have not incurred disqualification under the Companies Act, 2013 in any of the above companies and that I, at present, stand free from any disqualification from being a director.

Fig 7.f

**To be digitally signed by the Director/ Managing**

---

**Declaration**

I, NAME AMMARAL JOSEPH authorized by the Board of Directors of the Company/ by the court or NCLT

03 number dated 09/05/2023 (DD/MM/YYYY) to sign this form and

declare that all the requirements of Companies Act, 2013 and the rules made thereunder in respect of the subject matter of this form and matters incidental thereto have been complied with. I also declare that all the information given herein above is true, correct, and complete including the attachments to this form and nothing material has been suppressed.

**\*To be digitally signed**

**\*Designation**  
(Director/Manager/Company Secretary/Chief executive officer/Chief Financial Officer/Statutory Auditor/Liquidator)

**\*Director identification number of the director; or DIN or PAN of the manager or CEO or CFO or liquidator; or Membership number of the secretary or statutory auditor**

---

**Certificate by practicing professional**

I declare that I have been duly engaged for the purpose of certification of this form. It is hereby certified that I have gone through the provisions of the Companies Act, 2013 and Rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars (including attachment(s)) from the original/certified records maintained by the Company/applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed.

I further certify that:

☐ The said records have been properly prepared, signed by the required officers of the Company and maintained as per the relevant provisions of the Companies Act, 2013 and were found to be in order

☐ All the required attachments have been completely and legibly attached to this form;

It is understood that I shall be liable for action under Section 448 of The Companies Act, 2013 for wrong certification, if any

☐ found at any stage

**To be digitally signed by**

**Category**

☐ Chartered Accountant (in whole time practice)

☐ Company Secretary (in whole time practice)

☐ Cost Accountant (in whole time practice)

Fig 7.g

Whether associate or fellow:

☐ Associate

☐ Fellow

Membership number

Certificate of practice number

**For Office use only:**

eForm Service request number (SRN)

AA2605552

eForm filing date (DD/MM/YYYY)

25/05/2023

Digital signature of the authorizing officer

This eForm is hereby registered

Date of signing (DD/MM/YYYY)

OR

This eForm has been taken on file maintained by the Registrar of Companies through electronic mode and on the basis of statement of correctness given by the company



## 19.12.8. CHANGE IN DESIGNATION OF DIRECTORS

Any change in the designation of directors, such as appointing a managing director or whole-time director, must be filed with the ROC within the prescribed time frame.

For regularization of additional directors to directors at AGM or change in designation of director to MD or executive director to non-executive directors etc. this form ( DIR 12) is required to be filed.

Fig 8.a




Fig 8.b

**Form No. DIR-12**

**Particulars of appointment of directors and the key managerial personnel and the changes among them**

[Pursuant to sections 7(1) (c), 168 & 170 (2) of The Companies Act, 2013 and rule 17 of the Companies (Incorporation) Rules 2014 and 8, 15 & 18 of the Companies (Appointment and Qualification of Directors) Rules, 2014]

*Refer instruction kit for filing the form*  
*All fields marked in \* are mandatory*



सत्यमेव जयते

Form language

☒ English ☐ Hindi

---

**Company details**

1 (a) \*Corporate Identity Number (CIN) of company

(b) \*Name of the company

(c) \*Address of the registered office of the company

(d) \*E-mail ID of the company

U65999DL000058923

WELFARE STORE LIMITED

WELFARE STORES (New)  
18/101, COMED  
WELFARE STORE  
FLAME MARKET P.O.  
THERIAKUR, Thiruvananthapuram,  
Kerala, 695013, India

welfarestore@gmail.com

---

**Particulars of Director/KMP**

2 \*Number of Managing director or director(s) for which the form is being filed

3 Details of the Managing Director or Director of the company

(a) Purpose of filing the form

☐ Appointment ☐ Cessation ☒ Change in designation

☐ Appointment due to disqualification of all the existing directors ☐ Appointment by liquidator

(b) Director Identification Number (DIN)

(c) Name

(d) Father's name

2

00000000

JANUARY PHARMACEUTICAL

DAVIS

Fig 8.c

(e) Present residential address	41, OPPAT PALATHEMAL WELFARE COLONY KATTOMBAKUR, Kattombar, Thiruv nar, Madhavapuram, 68070 J. Kerala, India																
(f) Nationality	India																
(g) Date of birth (DD/MM/YYYY)	30/06/1988																
(h) Gender	Male																
(i) E-mail ID of director	indiankattom@gmail.com																
(j) Designation <small>(Director/Managing director/Alternate director/Additional director/Director appointed in casual vacancy/ Nominee director/Whole-time director)</small>	Director																
(k) Date of Appointment or change in designation (DD/MM/YYYY)	27/07/2023																
(l) Category <small>(Promoter/Professional/Independent/Small shareholder's director)</small>	Promoter																
(m) Whether Chairman, Executive Director, Non-Executive Director	<input type="checkbox"/> Chairman <input type="checkbox"/> Executive Director <input checked="" type="checkbox"/> Non-Executive Director																
(n) DIN of such director to whom appointee is alternate																	
(o) Name of the director to whom such appointee is alternate																	
(p) Name of the company or institution whose authorized representative or nominee the appointee is																	
(q) In case of cessation, hereby confirmed that the above- <input type="radio"/> Director <input type="radio"/> Managing Director is not associated with the company with effect from <input type="text"/> (DD/MM/YYYY) due to <input type="text"/>																	
<b>Interest in other entities</b>																	
(r) Number of such entities																	
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>S. No.</th> <th>CIN/LLPIN/FCRN/ Registration number</th> <th>Name</th> <th>Address</th> <th>Designation</th> <th>Percentage of Shareholding</th> <th>Amount</th> <th>Others (specify)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)								
S. No.	CIN/LLPIN/FCRN/ Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)										

Fig 8.d



<b>3 Details of the Managing Director or Director of the company</b>	
<b>(a) Purpose of filing the form</b>	
<input type="radio"/> Appointment <input type="radio"/> Cessation <input checked="" type="radio"/> Change in designation	
<input type="radio"/> Appointment due to disqualification of all the existing directors <input type="radio"/> Appointment by liquidator	
<b>(b) Director Identification Number (DIN)</b>	<input type="text" value="00000000"/>
<b>(c) Name</b>	<input type="text" value="JOHN JOHNSON"/>
<b>(d) Father's name</b>	<input type="text" value="JOHNSON JOHN"/>
<b>(e) Present residential address</b>	<input type="text" value="PLOT NO. 12, PULLICHINTHUR ROAD, KUDLUKOTTA, CHENNAI - 600012, INDIA"/>
<b>(f) Nationality</b>	<input type="text" value="India"/>
<b>(g) Date of birth (DD/MM/YYYY)</b>	<input type="text" value="02/12/1985"/>
<b>(h) Gender</b>	<input type="text" value="Female"/>
<b>(i) E-mail ID of director</b>	<input type="text" value="john.johnson@gmail.com"/>
<b>(j) Designation</b> <small>(Director/Managing director/Alternate director/Additional director/Director appointed in casual vacancy/Nominee director/Whole-time director)</small>	<input type="text" value="Director"/>
<b>(k) Date of Appointment or change in designation (DD/MM/YYYY)</b>	<input type="text" value="01/01/2023"/>
<b>(l) Category</b> <small>(Promoter/Professional/Independent/Small shareholder's director)</small>	<input type="text" value="Promoter"/>
<b>(m) Whether Chairman, Executive Director, Non-Executive Director</b>	<input type="checkbox"/> Chairman <input type="checkbox"/> Executive Director <input checked="" type="checkbox"/> Non-Executive Director
<b>(n) DIN of such director to whom appointee is alternate</b>	<input type="text"/>
<b>(o) Name of the director to whom such appointee is alternate</b>	<input type="text"/>
<b>(p) Name of the company or institution whose authorized representative or nominee the appointee is</b>	<input type="text"/>

Fig 8.e

(q) In case of cessation, hereby confirmed that the above- ☐ Director ☐ Managing Director is not associated with the company with effect from  (DD/MM/YYYY) due to

**Interest in other entities**

(r) Number of such entities

S. No.	CIN/LLPIN/FCRN/Registration number	Name	Address	Designation	Percentage of Shareholding	Amount	Others (specify)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4 \*Number of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer for which the form is being filed

5 Details of manager(s), secretary(s), Chief financial Officer or Chief Executive Officer of the company

(a) Purpose of filing the form ☐ Appointment ☐ Cessation

(b) Director Identification Number (DIN), if any

(c) Income Tax permanent account number (PAN)

(d) Membership number of the company secretary

(e) (i) First Name *(Either of applicant's First name or Surname shall be mandatory to enter)*

(ii) Middle Name

(iii) Last Name *(Either of applicant's First name or Surname shall be mandatory to enter)*

(f) Father's name

(i) First Name *(Either of applicant's father's first name or Surname shall be mandatory to enter)*

(ii) Middle Name

(iii) Last Name *(Either of applicant's father's first name or Surname shall be mandatory to enter)*

(g) Present residential address

Address Line

Address Line

Country

Pin Code/Zip Code

**Fig 8.f**

Area/Locality	<input style="width: 95%;" type="text"/>
City	<input style="width: 95%;" type="text"/>
District	<input style="width: 95%;" type="text"/>
State/UT	<input style="width: 95%;" type="text"/>
(h) Date of birth (DD/MM/YYYY)	<input style="width: 95%;" type="text"/>
(i) Designation (Manager/Company Secretary/CEO/CFO)	<input style="width: 95%;" type="text"/>
(j) Date of appointment or cessation (DD/MM/YYYY)	<input style="width: 95%;" type="text"/>
(k) Mobile Number (with Country code)	<input style="width: 95%;" type="text"/>
(l) E-mail ID	<input style="width: 95%;" type="text"/>
6 SRN of form INC-28	<input style="width: 95%;" type="text"/>
<b>Attachments</b>	
7 (a) Order from court/NCLT	<input style="width: 95%;" type="text"/>
(b) Notice of resignation	<input style="width: 95%;" type="text"/>
(c) Evidence of cessation	<input style="width: 95%;" type="text"/>
(d) Optional attachments – if any	<input style="width: 95%;" type="text" value="NIDHI RESOLUTION .pdf"/>
<b>Director's Consent and Declaration</b>	
I, <input style="width: 150px;" type="text"/> hereby give my consent to act as a director of <input style="width: 150px;" type="text"/>	
(name of the company), pursuant to sub-section (5) of section 152 of the companies Act, 2013 and Certify that I am not disqualified to become a director under the companies Act, 2013.	
<input type="checkbox"/> I declare that I have not been convicted of any offense in connection with the promotion, formation or management of any company or LLP and have not been found guilty of any fraud or misfeasance or of any breach of duty to any company under this Act or any previous company law in the last five year.	
<input type="checkbox"/> I further declare that if appointed my total Directorship in all the companies shall not exceed the prescribed number of companies in which a person can be appointed as a Director.	
<input type="checkbox"/> I further declare that I have not incurred disqualification under the Companies Act, 2013 in any of the above companies and that I, at present, stand free from any disqualification from being a director.	

Fig 8.g

(e) Indicate the authority adopting the agreement

☐ Board of directors
 ☐ Shareholders
 ☐ Class of shareholders
 ☐ Creditors

10 Service request number(SRN) of Form INC-28

11 Service request number(SRN) of RUN Form

---

**Attachments**

1 Copy(s) of resolution(s) along with copy of explanatory statement under section 102

2 Copy of agreement

3 Optional attachment(s) - if any

---

**Declaration**

I am authorised by the Board of Directors of the Company vide resolution no \*  dated (DD/MM/YYYY) \*  to sign this form and declare that all the requirements of Companies Act, 2013 and the rules made thereunder in respect of the subject matter of this form and matters incidental thereto have been complied with. I further declare that:

1 Whatever is stated in this form and in the attachments thereto is true, correct and complete and no information material to the subject matter of this form has been suppressed or concealed and is as per the original records maintained by the company.

2 All the required attachments have been completely and legibly attached to this form. It is also certified that copy of the resolution(s) or agreement(s) filed herewith is or are a true copy(s) of the original.

3 Any application, writ petition or suit had not been filed regarding the matter in respect of which this petition/application has been made, before any court of law or any other authority or any other Bench or the Board and not any such application, writ petition or suit is pending before any of them.

I further declare that .....

\*The amendments done in Articles of Association (AoA) and / or Memorandum of Association (MoA) are restricted to the purpose(s) selected in the form above.

**\*To be digitally signed by**

**\*Designation**  
 (Director/ Manager/ Secretary/Company Secretary/CEO/CFO/ Insolvency Resolution professional (IRP)/ Resolution professional (RP)/Liquidator)

**\*Name of Director/ Manager/ Secretary/Company Secretary/CEO/CFO/ IRP/RP/Liquidator**

**\*Director identification number of the director; or DIN or PAN of the manager or CEO or CFO or Interim Resolution Professional (IRP) or Resolution Professional (RP) or Liquidator; or Membership number of the Company secretary**

Page 5 of 6

Fig 8.h

## Certificate by Practicing Professional

I declare that I have been duly engaged for the purpose of certification of this form, it is here by certified that I have gone through the provisions of the Companies Act, 2013 and rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars (including attachment(s)) from the original/certified records maintained by the Company/ applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed. I further verify that:

- i The said records have been properly prepared, signed by the required officers of the Company and maintained as per the relevant provisions of the Companies Act, 2013 and were found to be in order;
- ii All the required attachments have been completely and legibly attached to this form.

To be digitally signed by



- ☐ Chartered accountant (in whole-time practice) or
- ☐ Cost accountant (in whole-time practice) or
- ☒ Company secretary (in whole-time practice)

Whether associate or fellow:

- ☐ Associate
- ☒ Fellow

Membership number

Certificate of practice number

**Note:** Attention is drawn to provisions of Section 448 and 449 which provide for punishment for false statement / certificate and punishment for false evidence respectively.

This eForm has been taken on file maintained by the registrar of companies through electronic mode and on the basis of statement of correctness given by the company.

*For office use only:*

e-Form Service request number (SRN)

e-Form filing date(DD/MM/YYYY)

Digital signature of the authorising officer

This e-Form is hereby registered

Date of signing(DD/MM/YYYY)



## 19.12.9. SPECIAL RESOLUTION AND AGREEMENTS TO BE FILED

Form MGT-14 should be filed with the ROC within 30 days of the passing of the resolution or agreement by the company.

Resolutions/Agreements to be Filed Under Section 117(3)

### SPECIAL RESOLUTIONS.

Resolutions which have been agreed to be passed as special resolutions by all the members of the company.

Any resolution passed by the BOD with regard to appointment / reappointment / renewal / variation of the terms of appointment of the managing director.

Resolutions that have been agreed to be passed by a specified majority or in a particular manner by any class of members.

Resolutions requiring winding up of the company as specified under section 59 of the Insolvency and Bankruptcy Code 2016.

Resolutions passed under Section 179(3).



Fig 9.a


**Form No. MGT-14**

**Filing of Resolutions and agreements to the Registrar**

[Pursuant to 117(1) of The Companies Act, 2013 and Rule 24 of The Companies (Management and Administration) Rules, 2014]

*Refer instruction kit for filing the form*

*All fields marked in \* are mandatory*



सत्यमेव जयते

**Form language**

☒ English ☐ Hindi

---

**Company Information**

1(a) \*Corporate Identity Number (CIN) of the company

2(a) \*Name of the Company

(b) \*Address of the registered office of the company

(c) \*Email ID of the company

---

**Type and details of resolution**

3 \*Registration of

☒ Resolution(s)

☐ Agreement

☐ Postal ballot resolution(s) under Section 110

4(a) Date of dispatch of notice for passing of resolution(s) (DD/MM/YYYY)

(b) Date of passing of resolution(s) (DD/MM/YYYY)

5(a) Date of dispatch of notice for passing of postal ballot resolution(s) (DD/MM/YYYY)

(b) Date of passing of postal ballot resolution(s)

---

**Information about resolution**

6 Number of resolution(s) for which the form is being filed

Fig 9.b

<b>1 Details of the resolution</b>	
(a) (i) Purpose of passing the resolution	Resolutions passed in pursuance of exercise of powers of Board of Directors
(a) (ii) Type of allotment of securities	
<input type="radio"/> i Issue of sweat equity shares <input type="radio"/> ii Issue of further shares to employees under scheme of employees stock	
<input type="radio"/> iii Preferential or Private allotment <input type="radio"/> iv Issue of debentures with an option to convert such debentures into shares	
<input type="radio"/> v Issue of bonus shares <input type="radio"/> vi Issue of preference shares <input type="radio"/> vii Others	
(b) (i) Section of the Companies Act, 2013 under which passed	Sec 179(3)
(b) (ii) Section of the Insolvency and Bankruptcy Code, 2016 under which	
(c) (i) If others, Mention the section of the Companies Act, 2013 under which passed	
(c) (ii) If others, Mention the purpose of passing the resolution	
(d) (i) If others, Mention the section of the Insolvency and Bankruptcy Code, 2016 under which passed	
(d) (ii) If others, Mention the purpose of passing the special resolution	
(e) Subject matter of the resolution	APPROVAL OF DIRECTORS REPORT FOR FY 22-23
(f) Mention whether resolution passed by postal ballot	<input type="radio"/> Yes <input checked="" type="radio"/> No
(g) Indicate the authority passing or agreeing to the resolution	
<input checked="" type="radio"/> Board of directors <input type="radio"/> Shareholders <input type="radio"/> Class of shareholders <input type="radio"/> Creditors	
(h) Whether ordinary or special resolution or with requisite majority	
<input type="radio"/> Ordinary resolution <input type="radio"/> Special resolution <input type="radio"/> Requisite majority	
<b>2 Details of the resolution</b>	
(a) (i) Purpose of passing the resolution	Resolutions passed in pursuance of exercise of powers of Board of Directors

Fig 9.c



(a) (i) Type of allotment of securities	
<input type="radio"/> i Issue of sweat equity shares	<input type="radio"/> ii Issue of further shares to employees under scheme of employees stock
<input type="radio"/> iii Preferential or Private allotment	<input type="radio"/> iv Issue of debentures with an option to convert such debentures into shares
<input type="radio"/> v Issue of bonus shares	<input type="radio"/> vi Issue of preference shares <input type="radio"/> vii Others
(b) (i) Section of the Companies Act, 2013 under which passed	<div style="border: 1px solid black; padding: 2px;">Sec 179(3)</div>
(b) (ii) Section of the Insolvency and Bankruptcy Code, 2016 under which	<div style="border: 1px solid black; height: 20px;"></div>
(c) (i) If others, Mention the section of the Companies Act, 2013 under which passed	<div style="border: 1px solid black; height: 20px;"></div>
(c) (ii) If others, Mention the purpose of passing the resolution	<div style="border: 1px solid black; height: 20px;"></div>
(d) (i) If others, Mention the section of the Insolvency and Bankruptcy Code, 2016 under which passed	<div style="border: 1px solid black; height: 20px;"></div>
(d) (ii) If others, Mention the purpose of passing the special resolution	<div style="border: 1px solid black; height: 20px;"></div>
(e) Subject matter of the resolution	<div style="border: 1px solid black; padding: 5px; text-align: center;">APPROVAL OF ANNUAL ACCOUNTS FOR YEAR 22 - 23</div>
(f) Mention whether resolution passed by postal ballot	<input type="radio"/> Yes <input checked="" type="radio"/> No
(g) Indicate the authority passing or agreeing to the resolution	<input checked="" type="radio"/> Board of directors <input type="radio"/> Shareholders <input type="radio"/> Class of shareholders <input type="radio"/> Creditors
(h) Whether ordinary or special resolution or with requisite majority	<input type="radio"/> Ordinary resolution <input type="radio"/> Special resolution <input type="radio"/> Requisite majority
<b>Purpose of filing (Alteration in object Clause)</b>	
7(a) Is there any change in the industrial activity of the company	<input type="radio"/> Yes <input type="radio"/> No
(b) Search and select industry sub-class	
(c) Main Sub-class of industrial activity of the company	<div style="border: 1px solid black; height: 20px;"></div>
(d) Description of the main sub-class	<div style="border: 1px solid black; height: 20px;"></div>

Fig 9.d

Fig 9.e

(e) Indicate the authority adopting the agreement

☐ Board of directors
 ☐ Shareholders
 ☐ Class of shareholders
 ☐ Creditors

10 Service request number(SRN) of Form INC-28

11 Service request number(SRN) of RUN Form

---

**Attachments**

1 Copy(s) of resolution(s) along with copy of explanatory statement under section 102

2 Copy of agreement

3 Optional attachment(s) - if any

---

**Declaration**

I am authorised by the Board of Directors of the Company vide resolution no \*  dated (DD/MM/YYYY) \*  to sign this form and declare that all the requirements of Companies Act, 2013 and the rules made thereunder in respect of the subject matter of this form and matters incidental thereto have been complied with. I further declare that:

1 Whatever is stated in this form and in the attachments thereto is true, correct and complete and no information material to the subject matter of this form has been suppressed or concealed and is as per the original records maintained by the company.

2 All the required attachments have been completely and legibly attached to this form. It is also certified that copy of the resolution(s) or agreement(s) filed herewith is or are a true copy(s) of the original.

3 Any application, writ petition or suit had not been filed regarding the matter in respect of which this petition/application has been made, before any court of law or any other authority or any other Bench or the Board and not any such application, writ petition or suit is pending before any of them.

I further declare that .....

\*The amendments done in Articles of Association ('AoA') and / or Memorandum of Association ('MoA') are restricted to the purpose(s) selected in the form above.

**\*To be digitally signed by**



**\*Designation**  
(Director/ Manager/ Secretary/Company Secretary/CEO/CFO/ Insolvency Resolution professional (IRP)/ Resolution professional (RP)/Liquidator)

**\*Name of Director/ Manager/ Secretary/Company Secretary/CEO/CFO/ IRP/RP/Liquidator**

**\*Director identification number of the director; or DIN or PAN of the manager or CEO or CFO or Interim Resolution Professional (IRP) or Resolution Professional (RP) or Liquidator; or Membership number of the Company secretary**

---

Page 5 of 6

Fig 9.f

Fig 9.g

**Certificate by Practicing Professional**

I declare that I have been duly engaged for the purpose of certification of this form, it is here by certified that I have gone through the provisions of the Companies Act, 2013 and rules thereunder for the subject matter of this form and matters incidental thereto and I have verified the above particulars (including attachment(s)) from the original/certified records maintained by the Company/ applicant which is subject matter of this form and found them to be true, correct and complete and no information material to this form has been suppressed. I further verify that:

i The said records have been properly prepared, signed by the required officers of the Company and maintained as per the relevant provisions of the Companies Act, 2013 and were found to be in order;

ii All the required attachments have been completely and legibly attached to this form.

**To be digitally signed by**

☐ Chartered accountant (in whole-time practice) or

☐ Cost accountant (in whole-time practice) or

☒ Company secretary (in whole-time practice)

Whether associate or fellow:

☐ Associate ☒ Fellow

Membership number

Certificate of practice number 14240

---

**Note:** Attention is drawn to provisions of Section 448 and 449 which provide for punishment for false statement / certificate and punishment for false evidence respectively.

This eForm has been taken on file maintained by the registrar of companies through electronic mode and on the basis of statement of correctness given by the company.

---

**For office use only:**

e-Form Service request number (SRN) AA4075146

e-Form filing date(DD/MM/YYYY) 05/08/2023

**Digital signature of the authorising officer**

This e-Form is hereby registered

Date of signing(DD/MM/YYYY)



## SUMMARY

Electronic Governance is the application of Information Technology to the Government functioning in order to bring about Simple, Moral, Accountable, Responsive and Transparent (SMART) Governance. E-governance is a highly complex process requiring provision of hardware, software, networking and re-engineering of the procedures for better delivery of services.

E Filings is an important part of the Companies Act and noncompliance with such provisions will arise the liability to the company, its directors and officers.

Professionals are responsible for submitting/certifying documents (to be signed digitally by them) and the system would accept most of these documents online without approval by Registrar of Companies or other officers of the Ministry (STP). If a professional gives a false certificate or omits any material information knowingly, he is liable to punishment under section 447 and 448 of the Companies Act, 2013 besides disciplinary action by the Institute which issued the Certificate of Practice.

The Ministry of Corporate Affairs is implemented the third version of its flagship project MCA21 (NCA 21 V-3)

MCA introduced new services such as E-Book (E-Book has been revised to include e-books for all Acts administered by MCA) and E-Consultation (A new online platform wherein, stakeholders/users can submit their comments and suggestions on the proposed amendments/draft legislations that are posted by MCA)

## SELF TEST

1. Discuss E-Governance, E-Filing and MCA 21
2. Register and login as registered User.
3. Analyze the master data along with director details and index of charges.
4. Download last year filed financial statements and Annual return of a company.
5. Apply name of a company (Just submit the form without payment of fees)
6. File resolution passed for alteration of object clause (Without payment of fees)

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the primary responsibility of the Ministry of Corporate Affairs in India?**

- a) Promoting agricultural development
- b) Regulating corporate financial institutions
- c) Ensuring the welfare of small businesses
- d) Regulating corporate entities and companies

**2. Which of the following is NOT a function or responsibility of the Ministry of Corporate Affairs in India?**

- a) Regulation of corporate entities and companies
- b) Regulations of Banks and NBFC
- c) Implementation of company law and policies
- d) Ensuring transparency and good governance in corporate practices

**3. Which department under the Ministry of Corporate Affairs is primarily involved in matters related to intellectual property rights?**

- a) Department of Finance
- b) Department of Economic Affairs
- c) Department of Industrial Policy and Promotion (DIPP)
- d) Department of Commerce

**4. The National Company Law Tribunal (NCLT) and National Company Law Appellate Tribunal (NCLAT) were established to handle legal matters related to:**

- a) Criminal cases involving individuals
- b) Corporate disputes and insolvency matters
- c) Tax disputes between companies and the government
- d) Environmental violations by corporations

**5. What is the primary role of the Serious Fraud Investigation Office (SFIO), which operates under the Ministry of Corporate Affairs?**

- a) Promoting fraud in corporate entities
- b) Investigating and prosecuting cases of corporate fraud and related crimes
- c) Promoting tax evasion
- d) Regulating foreign direct investment

**6. In India, which of the following is a major initiative of the Ministry of Corporate Affairs aimed at enhancing the ease of doing business by simplifying various regulatory processes?**

- a) National Health Insurance Scheme
- b) National Skills Development Program
- c) Insolvency and Bankruptcy Code (IBC)
- d) SPICe (Simplified Proforma for Incorporating Company Electronically)

**7. The Insolvency and Bankruptcy Code (IBC) was enacted to address issues related to:**

- a) Labor disputes in the corporate sector
- b) Tax evasion by companies
- c) Corporate insolvency and bankruptcy
- d) Intellectual property infringement

**8. Which regulatory body operates under the Ministry of Corporate Affairs to oversee the functioning of corporate auditors and ensure the quality of financial reporting in India?**

- a) Securities and Exchange Board of India (SEBI)
- b) Reserve Bank of India (RBI)
- c) Institute of Chartered Accountants of India (ICAI)
- d) National Stock Exchange (NSE)

**9. The Ministry of Corporate Affairs plays a key role in regulating corporate governance. What does “good corporate governance” primarily entail?**

- a) Maximizing profits for shareholders at any cost
- b) Ensuring fair treatment of all stakeholders and transparency in decision-making

- c) Avoiding government regulation at all levels
- d) Promoting hostile takeovers in the corporate sector

**10. The term “ROC” in the context of the Ministry of Corporate Affairs stands for:**

- a) Registrar of Companies
- b) Records of Corporations
- c) Regulatory Oversight Committee
- d) Responsible Officers for Corporations

**Answers**

- 1. D
- 2. B
- 3. C
- 4. B
- 5. B
- 6. D
- 7. C
- 8. C
- 9. B
- 10. A



# CHAPTER 20

## TDS AND TCS



### LEARNING OUTCOME:

- ✓ **Understanding TDS Basics:** Define TDS and explain its fundamental concept. Differentiate between TDS and other forms of taxation.
- ✓ **Applicable Provisions and Rates:** Learn about the relevant sections of the Income Tax Act or relevant tax laws that govern TDS. Understand the rates at which TDS should be deducted for different types of payments, such as salaries, interest, rent, and professional fees.
- ✓ **TDS Deduction and Collection Process:** Describe the process of deducting and collecting TDS from payments. Understand the roles and responsibilities of deductors (those making payments) and deductees (those receiving payments) in the TDS process.
- ✓ **Understanding TCS Basics:** Define TCS and explain its fundamental concept.
- ✓ **Differentiate between TCS and other tax collection mechanisms.**
- ✓ **Applicable Provisions and Rates:** Learn about the relevant sections of the Income Tax Act or relevant tax laws that govern TCS. Understand the rates at which TCS should be collected for different types of transactions, such as sale of goods, sale of immovable property, and more.
- ✓ **TCS Collection Process:** Describe the process of collecting TCS from transactions. Understand the roles and responsibilities of collectors (those collecting TCS) and buyers/sellers in the TCS process.

### 20.1 INTRODUCTION:

Tax Collected at Source (TCS) is a tax collection mechanism used in several countries, including India. Under TCS, a person or entity collecting payments from another party is required to collect a certain percentage of the payment as tax and remit it to the government on behalf of the payee. TCS is applicable in various scenarios, typically involving the sale of goods, services, or certain specified transactions.



Tax Deducted at Source (TDS) is another tax collection mechanism used in several countries, including India. Under TDS, a person or entity making payments to another party is required to deduct a certain percentage of the payment as tax and remit it to the government on behalf of the payee. TDS is applicable to a wide range of payments, including salaries, interest, rent, professional fees, and more.

The concept of Tax Collected at Source (TCS) has been in existence for several decades and has evolved over time. In India, the initial idea behind TCS was to ensure that taxes were collected at the time of certain high-value transactions, such as the sale of goods or property, to prevent tax evasion. TCS is relevant for several reasons, TCS contributes significantly to government revenue. It allows the government to collect taxes in a phased manner, rather than waiting until the end of the financial year, thereby improving cash flow.

Tax Deducted at Source (TDS) has a long history and has been used in various forms in different countries. In India, TDS provisions were introduced under the Income Tax Act, 1961. The primary objective was to collect taxes throughout the year as and when income was earned or payments were made, rather than collecting the entire tax liability at the end of the financial year. TDS remains highly relevant for several reasons. TDS ensures a steady and regular collection of taxes by deducting a portion of the income at the source itself. This helps the government manage its finances effectively.

In summary, both TCS and TDS are tax collection mechanisms that involve the deduction or collection of tax at the source of income or transactions. They serve as tools for governments to ensure tax compliance and revenue collection. Understanding the basics of these mechanisms is essential for businesses, individuals, and professionals to meet their tax obligations and avoid legal issues.

### **TDS (TAX DEDUCTED AT SOURCE) AND TCS (TAX COLLECTED AT SOURCE)**

TDS (Tax Deducted at Source)/ TCS (Tax Collected at Source) quarterly return filing is a crucial compliance requirement for individuals and entities responsible for deducting TDS/TCS from payments made to others and depositing it with the government. TDS/TCS is a mechanism by which the government collects taxes at the source itself, ensuring a steady flow of revenue.

**Here are the key steps and guidelines for filing TDS/TCS quarterly returns in India, which is a common example of TDS return filing:**

**Determine TDS/TCS Applicability:** First, determine if TDS/TCS is applicable to you. TDS/TCS is typically applicable when making payments like salary, interest, rent, professional fees, etc., above specified thresholds.

**TAN Registration:**

You need to obtain a Tax Deduction and Collection Account Number (TAN) if you are liable to deduct TDS/TCS. This is a 10-digit alphanumeric number and is mandatory for TDS/TCS compliance.

**Deduct TDS:**

Deduct TDS/TCS from payments as per the applicable rates and rules. Ensure you collect a valid PAN (Permanent Account Number) of the payee.

**Deposit TDS:**

Deposit the TDS/TCS amount within the due dates. The due date for depositing TDS/TCS is typically the 7th of the following month (except for March when it's April 30th). You can make these deposits online through the NSDL or UTIITSL websites.

**Quarterly TDS/TCS Return Filing:**

Quarterly TDS/TCS return filing is mandatory for entities deducting TDS/TCS. These returns are filed using Form 24Q (for salaries), Form 26Q (for non-salary payments), or Form 27Q (for payments made to non-residents).

**Quarterly Return Due Dates:**

The due dates for filing TDS/TCS returns are typically as follows:

- Quarter 1 (April to June): July 31
- Quarter 2 (July to September): October 31
- Quarter 3 (October to December): January 31
- Quarter 4 (January to March): May 31

**TDS/TCS Return Preparation:**

Prepare the TDS/TCS return forms accurately, including details of TDS/TCS deductions made during the quarter. You can use return preparation utilities provided by the Income Tax Department.

**Submit TDS Return:**

Submit the TDS/TCS return online through the NSDL or UTIITSL websites or through authorized TIN-FCs (TIN Facilitation Centers).

**TDS Certificates:**

Issue TDS/TCS certificates in Form 16 (for salary) or Form 16A (for non-salary) to the deductees within due dates.

### Rectification of Errors:

If you make any errors in TDS/TCS returns, you can file corrections using the same forms with the correct details.

### TDS/TCS Payment Challans:

Keep records of TDS/TCS payment challans, return filing acknowledgments, and other relevant documents.

### Penalties and Interest:

Be aware of the penalties and interest charges for late TDS/TCS return filing or depositing TDS/TCS beyond the due dates.

It's crucial to ensure accurate and timely compliance with TDS/ regulations, as non-compliance can lead to penalties and legal issues. Additionally, the rules and forms for TDS/TCS return filing may change, so it's essential to stay updated with the latest guidelines from the Income Tax Department or consult a tax professional for assistance.

Filing TDS/TCS quarterly returns is a crucial responsibility for entities and individuals who deduct TDS from payments made to others and deposit it with the government. In India, this process is typically done through the Tax Information Network (TIN) facilitated by NSDL (National Securities Depository Limited). Below are the steps for filing TDS quarterly returns in India.

### 20.2 STEPS FOR FILING TDS QUARTERLY RETURNS IN INDIA

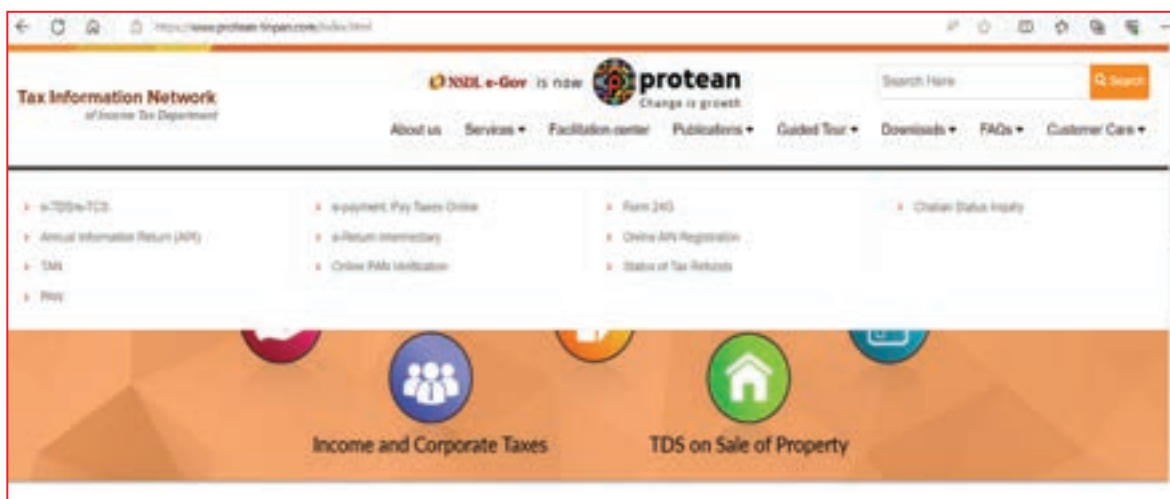
- 1) Open [www.tin-nsdl.com](http://www.tin-nsdl.com) for filing your quarterly return.



After logging in, you can access the relevant TDS/TCS return forms. The common forms are:

- Form 24Q: For TDS on salaries.
- Form 26Q: For TDS on non-salary payments made to residents.
- Form 27Q: For TDS on payments made to non-residents.
- Form 27EQ: For TCS according to Section 206C of the Income Tax Act 1961

2) Go to **“Downloads”** tab Click on it, then click on **“Quarterly Returns”** and select **“Regular”**.



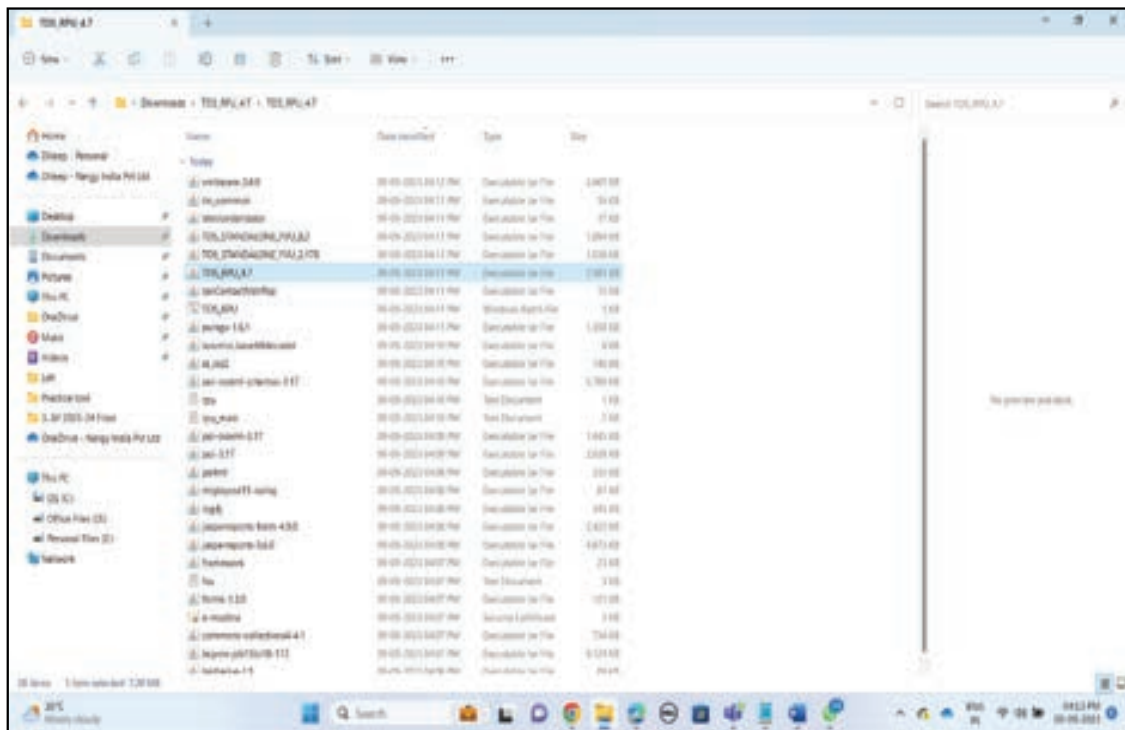
3) Click on “**e-TDS/e-TCS RPU**”.



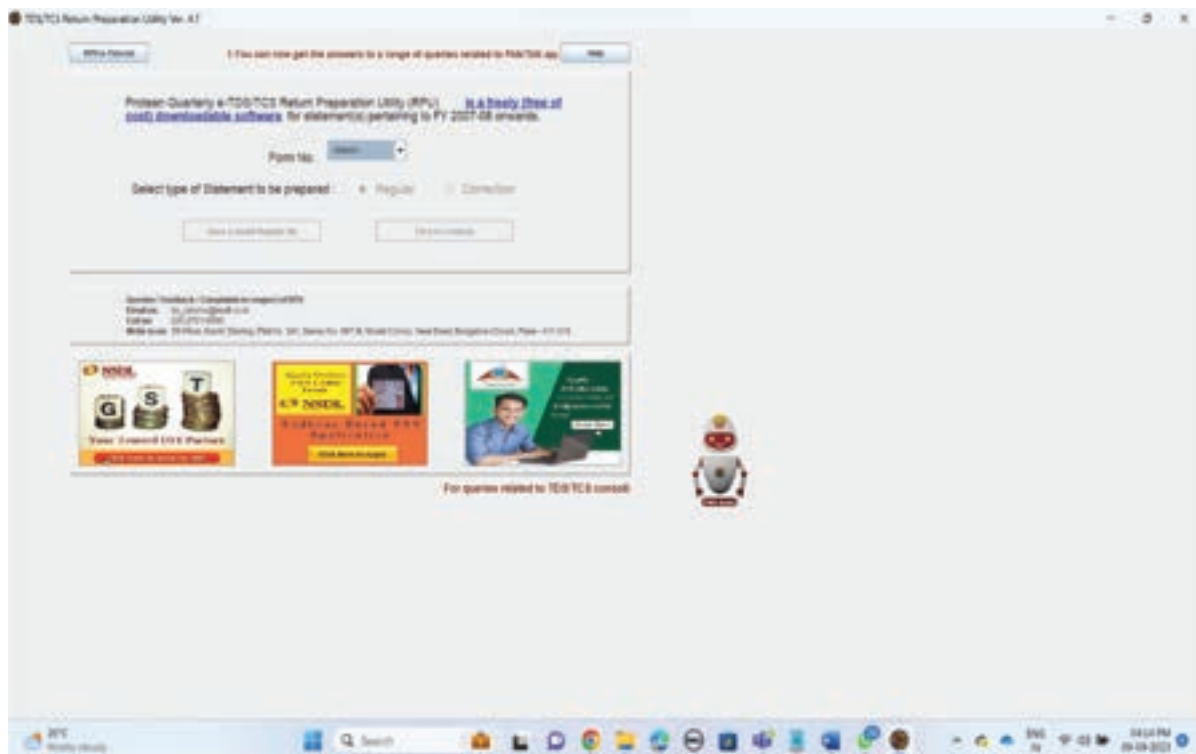
Download the applicable TDS/TCS return form for the relevant quarter.

Use appropriate software or utilities provided by NSDL or third-party vendors to fill in the TDS/TCS return form offline. Ensure that you have all the necessary details such as PAN (Permanent Account Number) of deductees, TDS/TCS amounts, etc.

4) Click on “**Download RPU version 4.7**”

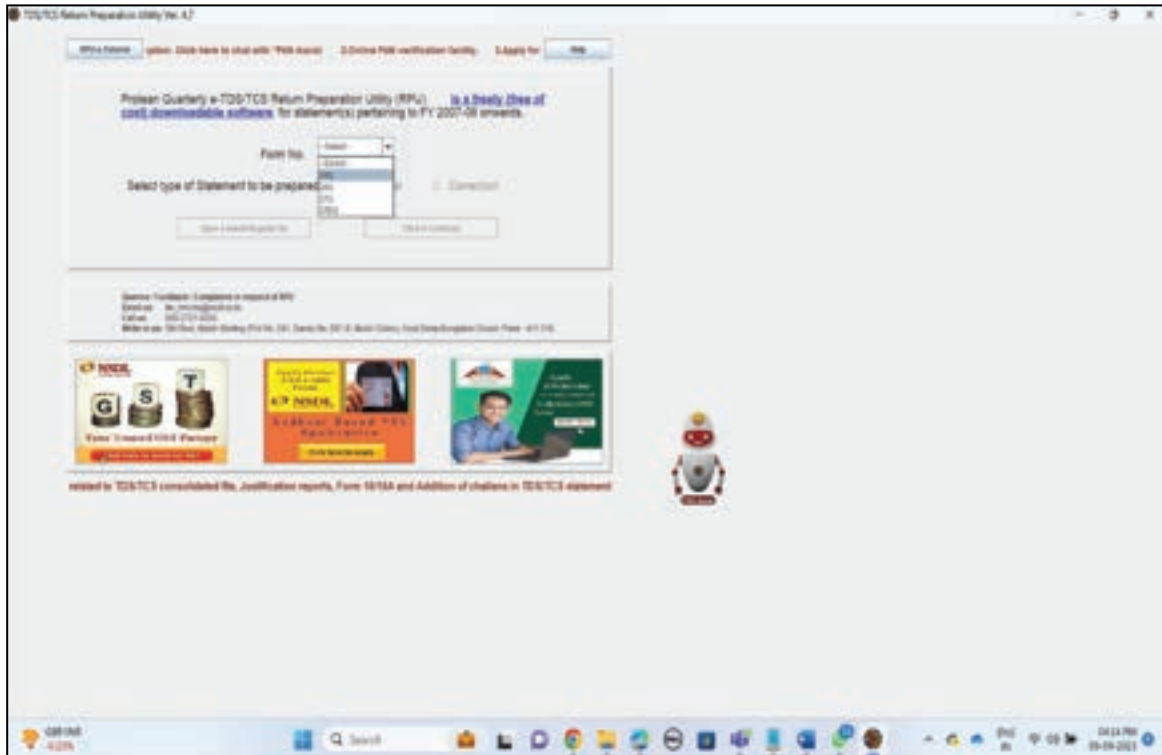


5) Go to downloads, extract and open “TDS\_RPU\_4.7”





6) Select the relevant return to be filed for the quarter from the drop down. In case of TCS quarterly filing the commonly used forms for TCS returns are Form 27EQ (for TCS on non-salary payments) and Form 27Q (for TCS on salaries). Select the appropriate form for your transactions. Before you start the filing process, gather all the relevant information and documents, including details of TDS/TCS collected during the quarter, TDS/TCS certificates issued to the payees, and any other records related to TDS/TCS transactions.



- TDS
- TCS

## TAX COMPLIANCES

**TDS/TCS Return Preparation Utility Ver. 4.7**

**RPU is Tutorial** 1. You can now get the answers to a range of queries related to P [Help](#)

Protean Quarterly e-TDS/TCS Return Preparation Utility (RPU) [is a freely \(free of cost\) downloadable software](#) for statement(s) pertaining to FY 2007-08 onwards.

Form No. 240

Select type of Statement to be prepared : ☒ Regular ☐ Correction

[Open a new/Regular file](#) [Click to Continue](#)

---

Queries / Feedback / Complaints in respect of RPU:  
 Email to: [it\\_returns@nsdl.co.in](mailto:it_returns@nsdl.co.in)  
 Call to: 822-2221-6260  
 Write to us: 15th Floor, World Sterling Plaza No. 347, Survey No. 807 & 808, 1st Stage, Bangalore-Chennai Road, Pune - 411 016





25-4814005 or write to [contactus@tdscpc.gov.in](mailto:contactus@tdscpc.gov.in), You may also visit [www.tdscpc.gov.in](http://www.tdscpc.gov.in).

**TDS/TCS Return Preparation Utility Ver. 4.7**

**RPU is Tutorial** 1. You can now get the answers to a range of queries related to P [Help](#)

Protean Quarterly e-TDS/TCS Return Preparation Utility (RPU) [is a freely \(free of cost\) downloadable software](#) for statement(s) pertaining to FY 2007-08 onwards.

Form No. 240

Select type of Statement to be prepared : ☒ Regular ☐ Correction

[Open a new/Regular file](#) [Click to Continue](#)

---

Queries / Feedback / Complaints in respect of RPU:  
 Email to: [it\\_returns@nsdl.co.in](mailto:it_returns@nsdl.co.in)  
 Call to: 822-2221-6260  
 Write to us: 15th Floor, World Sterling Plaza No. 347, Survey No. 807 & 808, 1st Stage, Bangalore-Chennai Road, Pune - 411 016





For queries related to TDS/TCS consult



## TAX COMPLIANCES

TDS/TCS Return Preparation Utility Ver. 4.7  
File Edit Help

Form Number: 242  
(See Section 192 and Rule 214.)

Quarterly statement of deduction of tax under sub-section (2) of section 201 of the Income Tax Act, 1961 in respect of Salary  
For Quarter Ended: 01-01-2024

**1. Particulars of Statement**

Tax Deduction and Collection Account No. (TAN) \*  Financial Year \*   
 Last Tax Deduction and Collection Account No.  Assessment Year \*   
 Permanent Account Number \*  Type of Deductor \*   
 Is this a Revised Return (Yes / No) :  Last Deductor Type   
 Update Deductor Details   
 (Indicate only if any change in Deductor Details)

**2. Particulars of Deductor (Employer)**

Name \*  Deductor's Name (Others)   
 Branch / Division (If any)  Deductor's Name (Others)   
 State Name  DDO Code   
 PIN Code  DDO Registration Number   
 And Registration Number  Pin No. \*   
 Name of Premises / Building  Road / Street / Lane   
 Area / Location  Town / City / District   
 Pin Code \*  State \*   
 Telephone No.  E-mail   
 Telephone No. (Alternate)  E-mail (Alternate)   
 Account Officer Identification Number (AIN) (AFN0100000000)  Has Address Changed Since Last Return?   
 Goods and Services Tax Number (GSTIN)

**3. Particulars of the Person Responsible for Deduction of Tax**

Name \*  Same as above ☐  
 Designation \*  Permanent Account Number \*   
 Name of Premises / Building  Pin No. \*   
 Road / Street / Lane  State \*

7) Fill up all the mandatory fields. Deductors details and responsible persons details should be entered for completing the process.

TDS/TCS Return Preparation Utility Ver. 4.7  
File Edit Help

Form Number: 242  
(See Section 192 and Rule 214.)

Quarterly statement of deduction of tax under sub-section (2) of section 201 of the Income Tax Act, 1961 in respect of Salary  
For Quarter Ended: 01-01-2024

**1. Particulars of Statement**

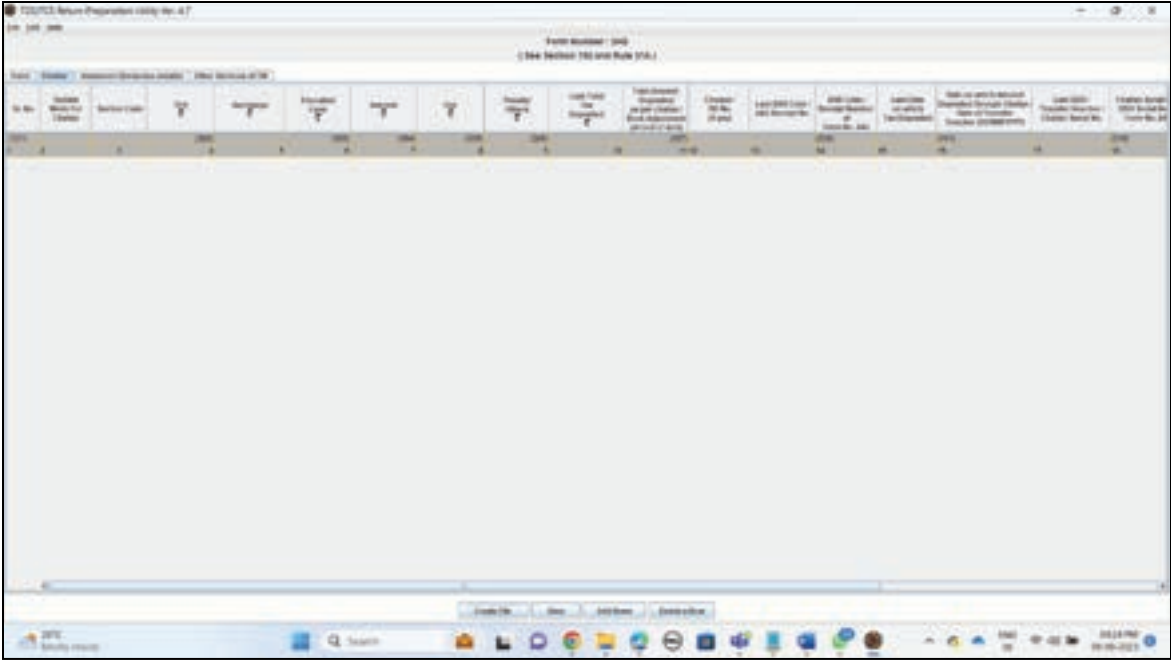
Tax Deduction and Collection Account No. (TAN) \*  Financial Year \*   
 Last Tax Deduction and Collection Account No.  Assessment Year \*   
 Permanent Account Number \*  Type of Deductor \*   
 Is this a Revised Return (Yes / No) :  Last Deductor Type   
 Update Deductor Details   
 (Indicate only if any change in Deductor Details)

**2. Particulars of Deductor (Employer)**

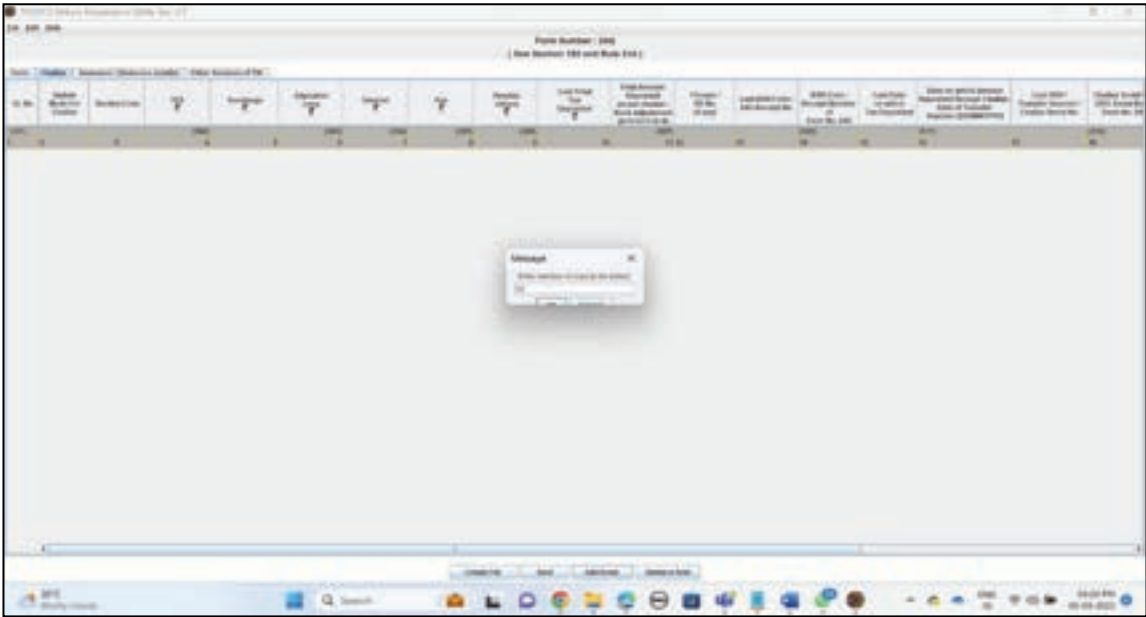
Name \*  Deductor's Name (Others)   
 Branch / Division (If any)  Deductor's Name (Others)   
 State Name  DDO Code   
 PIN Code  DDO Registration Number   
 And Registration Number  Pin No. \*   
 Name of Premises / Building  Road / Street / Lane   
 Area / Location  Town / City / District   
 Pin Code \*  State \*   
 Telephone No.  E-mail   
 Telephone No. (Alternate)  E-mail (Alternate)   
 Account Officer Identification Number (AIN) (AFN0100000000)  Has Address Changed Since Last Return?   
 Goods and Services Tax Number (GSTIN)

**3. Particulars of the Person Responsible for Deduction of Tax**

Name \*  Same as above ☐  
 Designation \*  Permanent Account Number \*   
 Name of Premises / Building  Pin No. \*   
 Road / Street / Lane  State \*



8) Click on “**Add Rows**” button and enter the total number of TDS/TCS challans paid during the previous quarter. Specify the number in the field.



## TAX COMPLIANCES

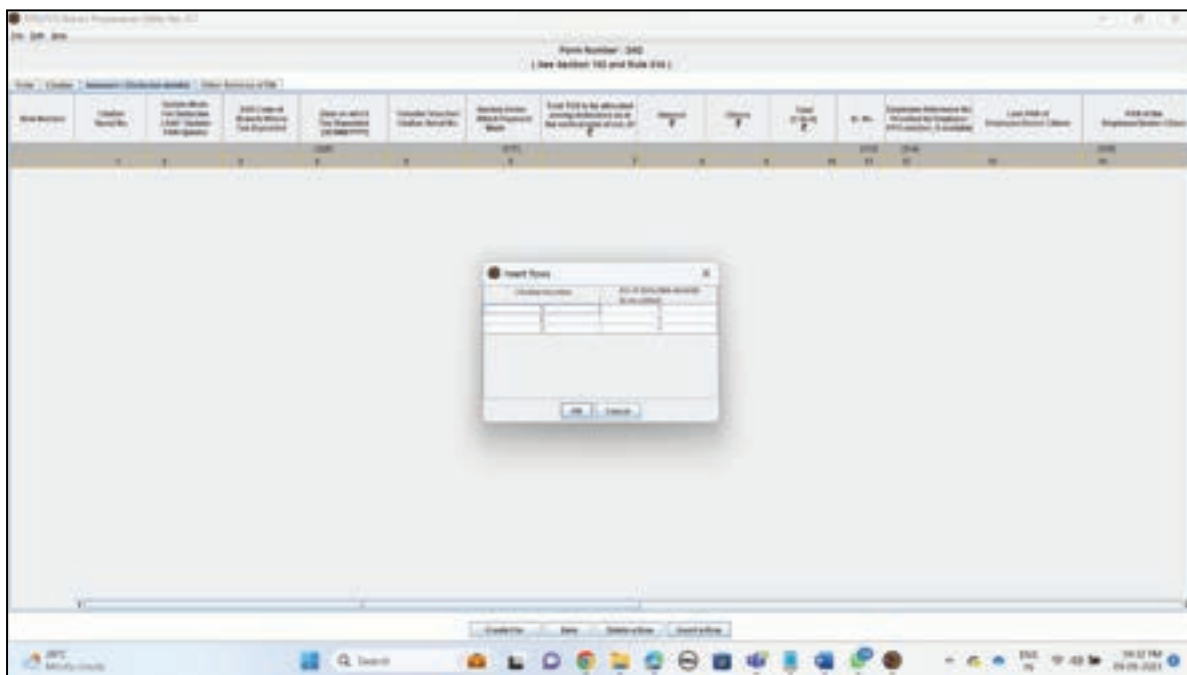
The screenshot displays the Microsoft Dynamics CRM 4.0 interface for a 'Form Number: 000' (Sales Order). The form is titled 'Sales Order' and is divided into several sections: 'Customer', 'Product', and 'Pricing'. The 'Customer' section includes fields for Name, Address, and Contact Information. The 'Product' section includes fields for Product Name, Description, and Price. The 'Pricing' section includes fields for Unit Price, Quantity, and Total Price. The form is displayed in a grid layout with multiple columns and rows. The interface is in English and shows a standard Windows XP desktop environment with a taskbar at the bottom.

9) Fill up the required fields as per the data requires by referring the payment challans of TDS/TCS.

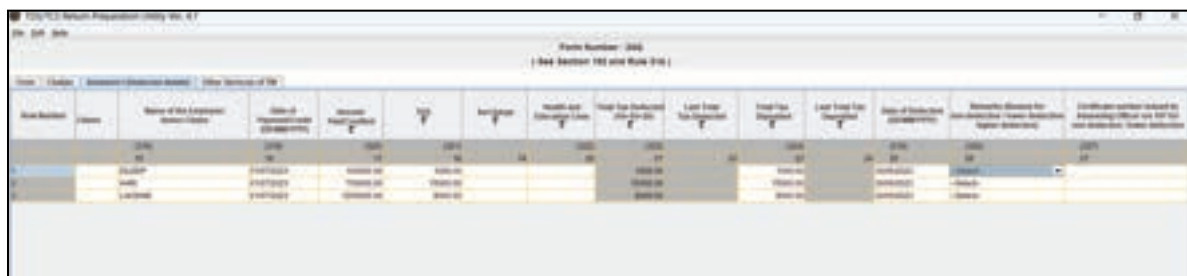
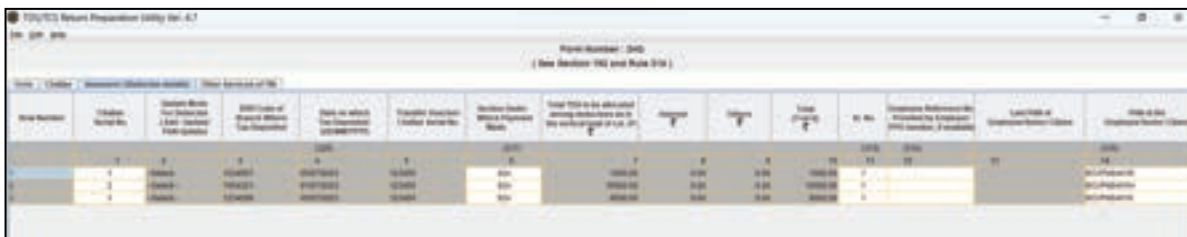
Form Number : 24Q ( See Section 182 and Rule 214 )															
<a href="#">Form</a> <a href="#">Charges</a> <a href="#">Amendments ( Deductions available )</a> <a href="#">Other Services of TRS</a>															
Sl. No.	Transferor Member / Co-Owner	Section Code	TDS ₹	Securage ₹	Education Duty ₹	Interest ₹	Tax ₹	Panalty Charges ₹	Land Total Tax Deposited ₹	Total Interest Deposited on one charges / (Bank Adjustment (0-0-0-1-0-0))	Charges / SOS No. (0 sec)	Land/SSO Code / SOS Record No.	SOS Code / Member Number of Form No. 24Q	Land State on which / Tax Deposited	Date on which Amount Dispersed through Charge Date of Transfer Number (DD/MM/YYYY)
(241)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
-Search-	-Search-		1500.00	0.00	0.00	0.00	0.00	0.00		1500.00		CT34927			10/07/2023
-Search-	-Search-		15000.00	0.00	0.00	0.00	0.00	0.00		15000.00		7914121			11/07/2023
-Search-	-Search-		8000.00	0.00	0.00	0.00	0.00	0.00		8000.00		CT34936			10/07/2023

[illegible]

## TAX COMPLIANCES



10) In this tab users need to enter details regarding each challan. Click on **“Insert a Row”**. The number of challans that you entered in the previous tab will be displayed. Here user should enter the number of parties involved in each challan.



11) Enter the required details of deductees from challan. Save the file if it has no errors and omissions. Click on **“Save”** button and save it in a folder.

The screenshot shows the Income Tax e-filing portal interface. At the top, it displays 'Form Number: 26Q' and '(See Section 192 and Rule 24)'. Below this is a table for entering deductee details. The table has columns for Deductee Name, PAN, Date of Payment, Amount, TDS, and other fields. A dialog box titled 'Provide Path for Creating File (PVC) File' is open in the center, prompting the user to provide paths for the Challan, TDS Return, and TDS File.

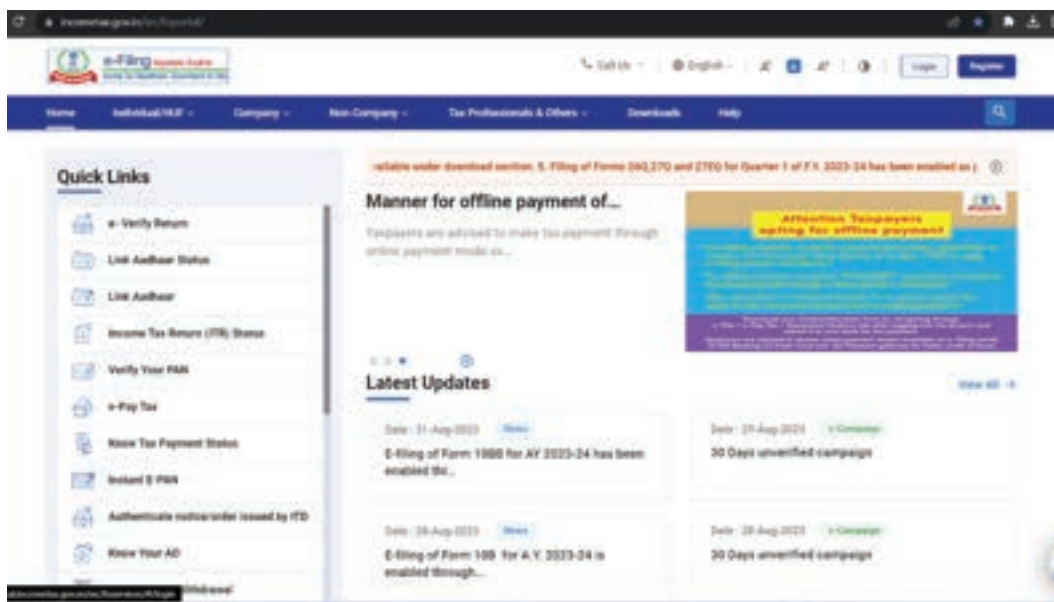
Deductee Name	PAN	Date of Payment	Amount	TDS	Other Fields
Mr. A	ABCDE1234	01/01/2023	10000.00	1000.00	
Mr. B	FGHIJ5678	01/01/2023	20000.00	2000.00	

12) Click on **“Create File”**

**“Challan Input File Name with Path”**: Browse the RPU file you saved just before this step.

In **“Error/Upload & Statistics Report File Path”** browse the folder path where you want to save this file.

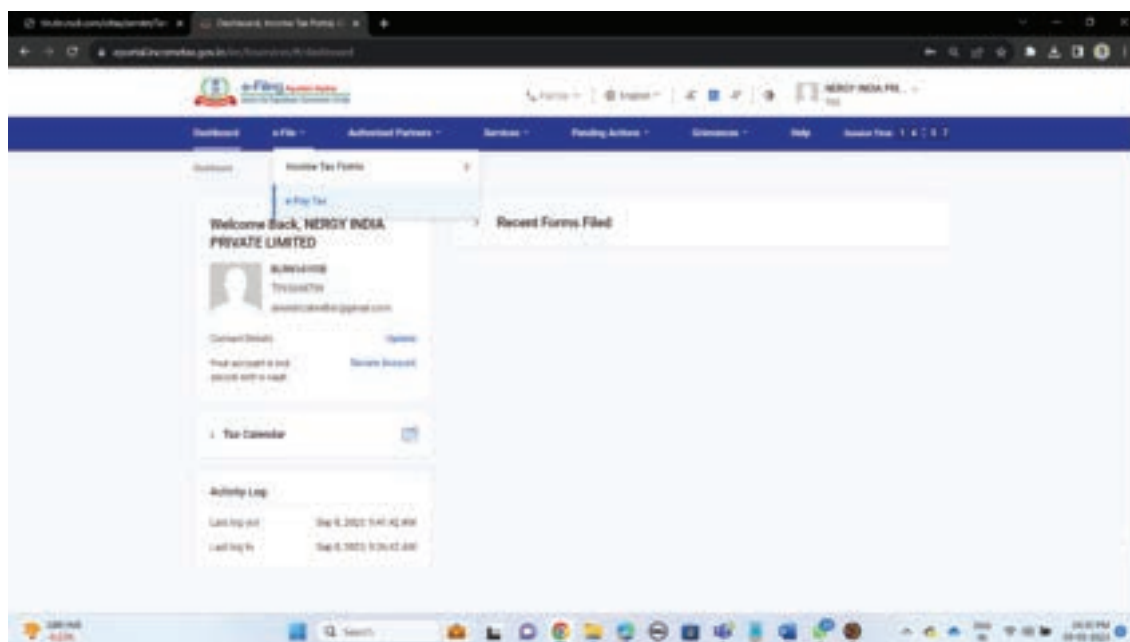
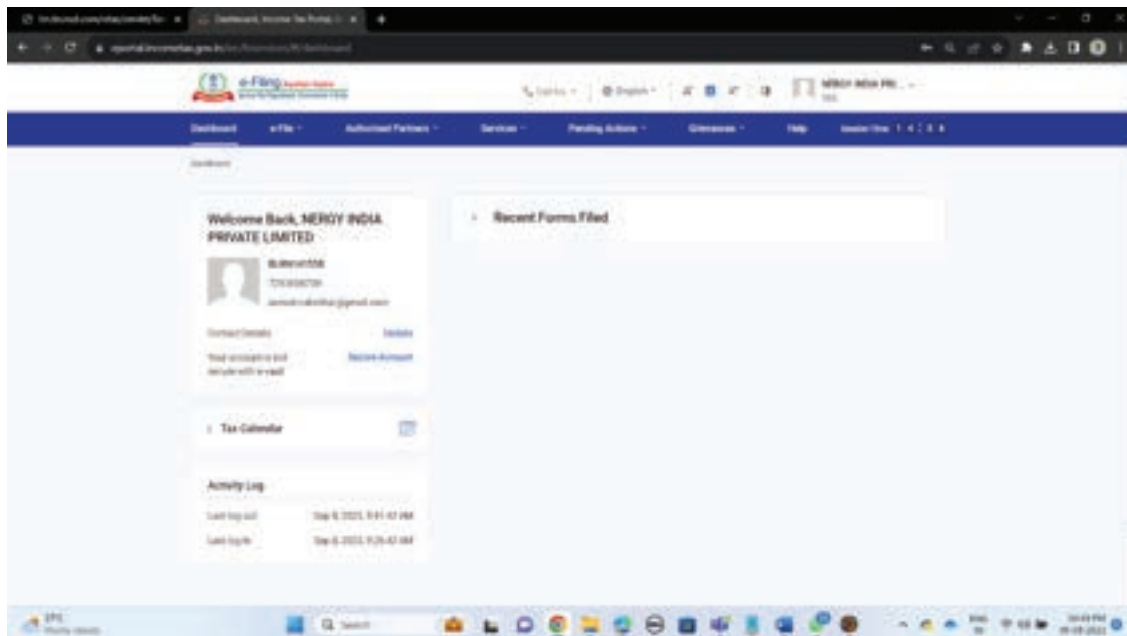
Then click **“Validate”**.



## TAX COMPLIANCES

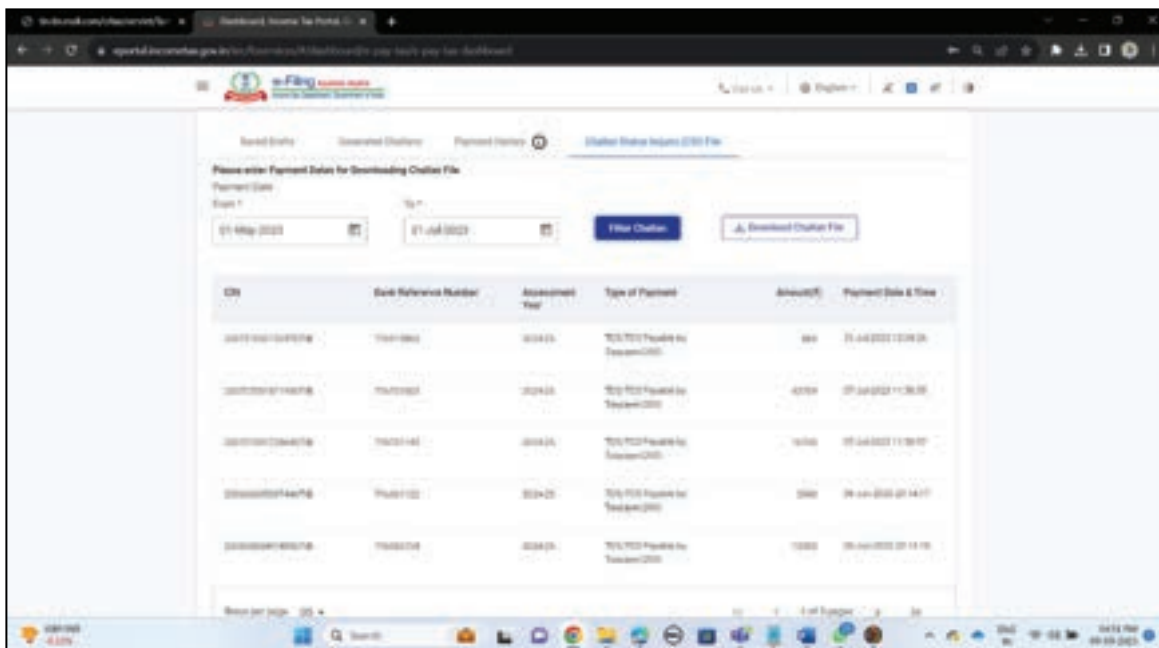
After that go to the income tax portal [www.incometax.gov.in](http://www.incometax.gov.in) for further process.

13) Click on **"Login"** and login with user TAN and password.

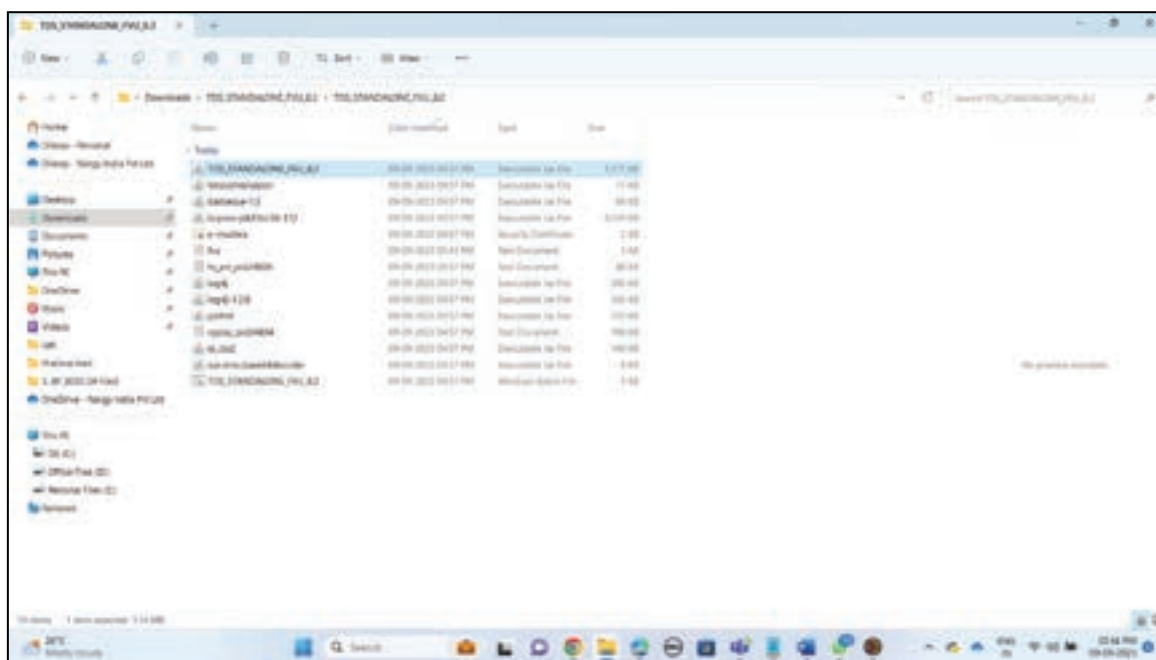




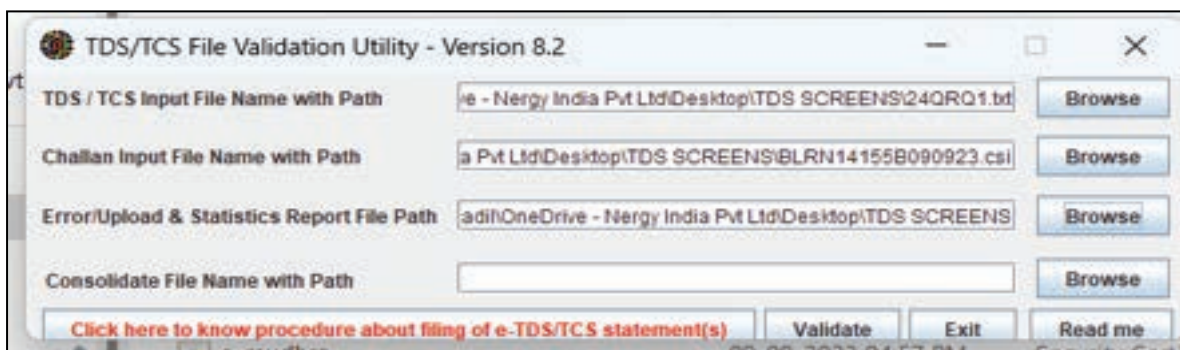
14) Click on “**e-File**” and click on e-Pay Tax.



15) Click on “**Challan Status Inquiry (CSI) File**” enter the payment date and click on “**Download Challan File**”. Extract and open the file.



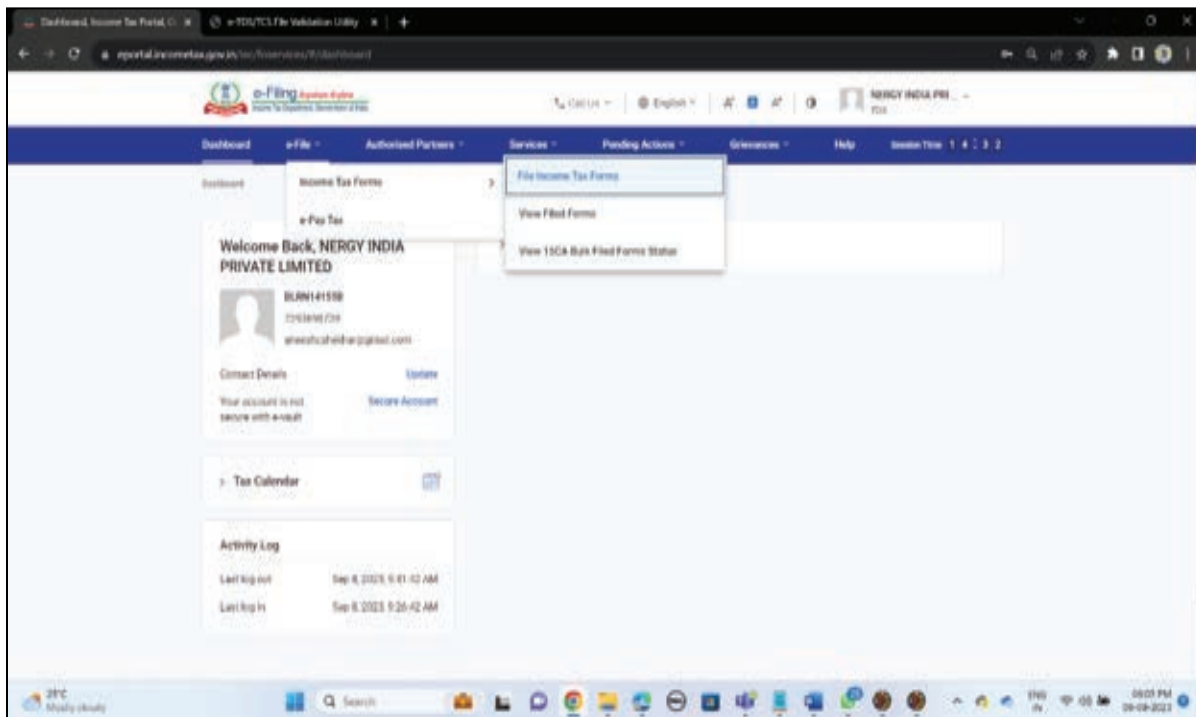
16) Open "TDS\_STANDALONE\_FVU\_8.2"



17) Browse the details needed.

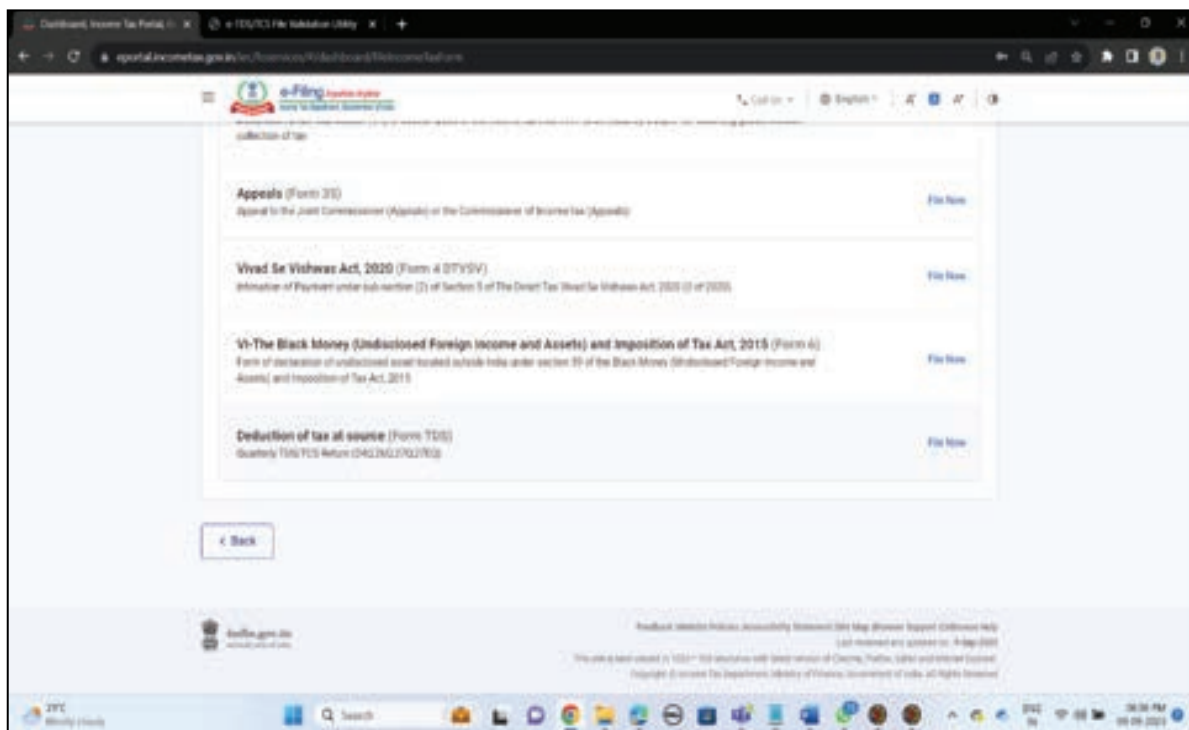
- **TDS/TCS Input File Name with Path:** Browse and select the RPU file which you have saved in the earlier step.
- **Challan Input File Name with Path:** Browse and select the .csi file which you have saved from Income tax site.
- **Error/Upload & Statistics Report File Path:** Browse and select the folder which you are going to save the .fvu file which will generate after this step.
- Then click on "**Validate**" Button. The .fvu file generated above will be downloaded. Zip the file for further upload.



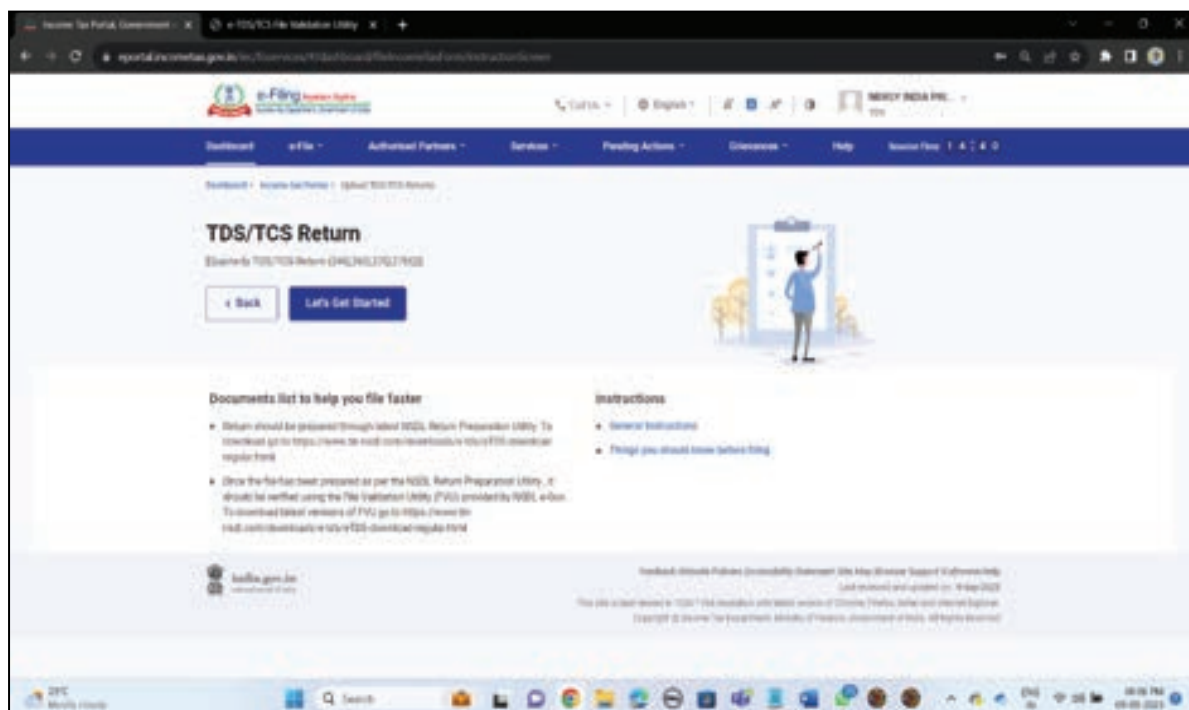


18) For the purpose of filing Quarterly return user should upload the utility file which we created in the Income Tax Portal.

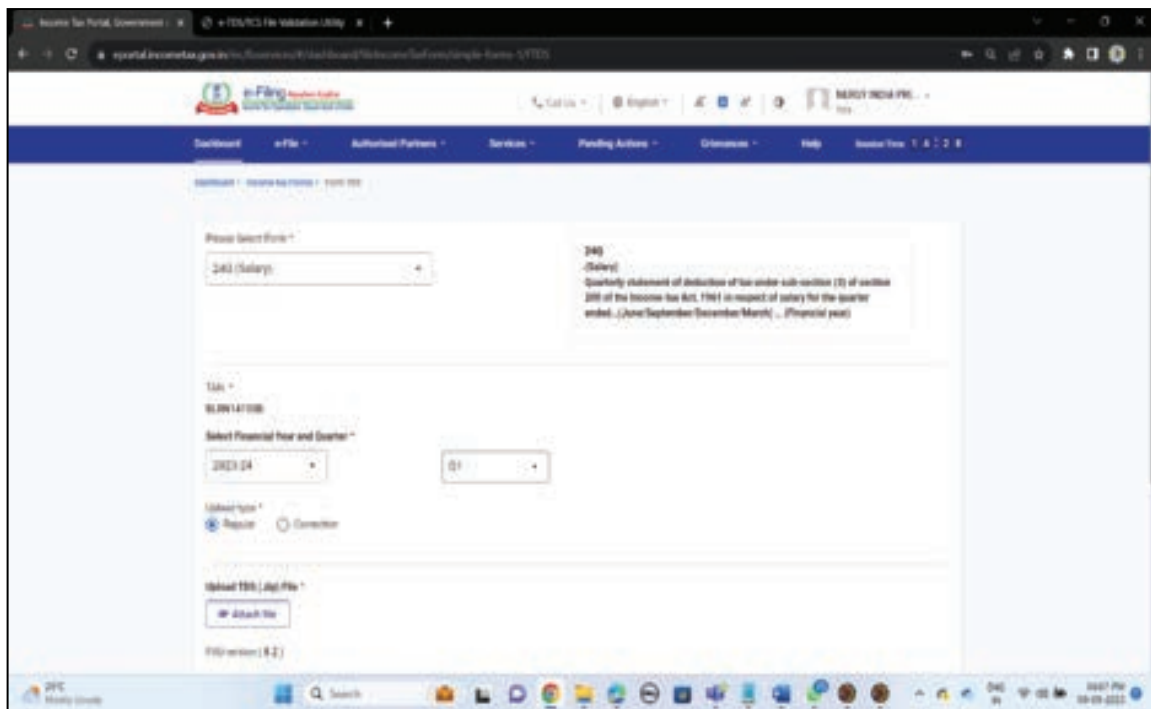
Click **"e-File"**, then click **"Income Tax Forms"** and **"File Income Tax Forms"**.



19) Click on “**Deduction of tax at source (Form TDS)**”.



20) Click on “Let’s Get Started”.



The screenshot shows the Income Tax e-Filing portal interface. The top navigation bar includes links for Dashboard, e-Filing, Authorized Partners, Services, Pending Actions, Downloads, and Help. The main content area displays the 'Let's Get Started' form. The form includes a dropdown menu for 'Please Select Form' with '24Q (Salary)' selected. To the right of this dropdown is a box containing the text: '24Q (Salary) Quarterly statement of deduction of tax under sub-section (2) of section 200 of the Income-tax Act, 1961 in respect of salary for the quarter ended: (June/September/December/March) (Financial year)'. Below this, there is a 'TAN' field with the value 'BLJN1AT1000'. The 'Select Financial Year and Quarter' section shows '2023-24' for the year and 'Q1' for the quarter. The 'Upload Type' section has radio buttons for 'Request' (selected) and 'Correction'. At the bottom, there is a 'Upload TDS (.zip file)' section with an 'Attach File' button. The footer of the page indicates 'eFiling version: 4.2'.

21) Select the form for filing from the drop down.

- Select financial year and Quarter, select upload type.
- At last, attach the zip file of utility FVU.

The screenshot displays the 'e-File' section of the Income Tax Portal. The user is logged in as 'S. Mehta' with a PAN of 'S. Mehta'. The 'Select Financial Year and Quarter' dropdowns are set to '2023-24' and 'Q1'. The 'Upload TDS (.xls/.xlsx) File' section has an 'Attach File' button. Below this, a 'Note' section provides instructions: 1) If 'Proceed to e-Verify' is not getting enabled after filing, check if the profile is completely updated. 2) After filing TDS return, check the processing status of TDS return in 'View Filed Forms' service after two days. If the TDS return gets rejected for any reason at e-File/TDS, same may be obtained then and the TDS return can be filed again. At the bottom, there are '< Back' and 'Proceed to e-Verify' buttons.

22) Then Proceed to e-Verify will be activated and the verification should be done by using Digital Signature of the Authorised person of the organisation.

- After successful validation and submission, an acknowledgment receipt will be generated.
- Print and retain this acknowledgment for your records.
- Ensure that you have paid the TDS amount on time using the appropriate TDS challans.

**MULTIPLE CHOICE QUESTIONS (MCQS)****1. What is the primary purpose of TDS in the Indian taxation system?**

- a) To collect taxes from taxpayers at the end of the financial year
- b) To encourage tax evasion
- c) To ensure a steady collection of taxes throughout the year
- d) To exempt certain individuals from paying taxes

**2. Who is responsible for deducting TDS in the case of salary payments in India?**

- a) The employee
- b) The employer
- c) The tax authorities
- d) The bank

**3. Under which section of the Income Tax Act, 1961, are TDS provisions in India outlined?**

- a) Section 80C
- b) Section 44AD
- c) Section 194C
- d) Section 192

**4. What is the consequence of not depositing TDS with the government within the due dates?**

- a) No consequences
- b) Penalty and interest on the deducted amount
- c) Tax exemption
- d) Extended due dates for deposit

**5. Which of the following types of income payments typically requires TDS deduction in India?**

- a) Payment for purchasing groceries.
- b) Rental income
- c) Pocket money given to a child.
- d) Personal gifts

**Answers:**

- 1. c) To ensure a steady collection of taxes throughout the year
- 2. b) The employer
- 3. c) Section 194C
- 4. b) Penalty and interest on the deducted amount
- 5. b) Rental income

**MULTIPLE CHOICE QUESTIONS (MCQS) - TCS****1. What is the primary objective of TCS (Tax Collected at Source)?**

- a) To encourage tax evasion
- b) To collect taxes at the source of certain transactions
- c) To provide tax refunds to taxpayers
- d) To reduce the overall tax burden on individuals

**2. Who is responsible for collecting TCS in a sale of goods transaction?**

- a) The buyer
- b) The seller
- c) The government
- d) The financial institution

**3. In which type of transaction is TCS commonly applicable in India?**

- a) Personal gifts
- b) Grocery shopping
- c) Sale of immovable property
- d) Payment of salary

**4. What happens to the TCS amount collected by the collector?**

- a) It is kept by the collector as additional income.
- b) It is refunded to the buyer.
- c) It is deposited with the government.
- d) It is given as a discount to the seller.

**5. Which of the following is a common exemption under TCS provisions?**

- a) Sale of luxury cars
- b) Sale of immovable property below a specified threshold
- c) Sale of groceries
- d) Sale of electronics

**Answers:**

- b) To collect taxes at the source of certain transactions
- b) The seller
- c) Sale of immovable property
- c) It is deposited with the government.
- b) Sale of immovable property below a specified threshold

<b>TASK STATEMENT</b>	<b>KNOWLEDGE STATEMENT</b>
Identify the softwares and prerequisites used for MCA 21 E filing	Students must understand the registration procedures of Tax, MSME and IE Code
Summarize the benefit of registration of MSME and convince the small organization to obtain the registration	Students must remember the limit and mandatory applicability of various statutory laws
Formulate a detailed plan for ITR 1 Filing and support for collecting relevant documents for filing	The learners must be able to identify the softwares used for various E filing
Recommend the tax softwares for filing IT and choose the documents mandatory required for IT registration in Income tax site	Students must be able to describe the benefits and features of various registration
Create a case study to analyze the applicability of EPF, ESI in organization by evaluate the number of employees and their salary	
Generate E-PAN using simulation (If simulation software is using)	
Obtain DSC by using simulation (If simulation software is using)	
Recommend the measures to be taken and assess the informations for obtaining GST registration	





UNIT

3

MS-Access



# CHAPTER 1

## MANAGE DATABASES



### LEARNING OBJECTIVE:

- ✓ Understand the basics of databases, including their advantages and the structure of Access databases.
- ✓ Create, navigate, and effectively use Access databases, both from scratch and using templates.
- ✓ Create, manage, and relate tables, as well as create and modify queries using SQL commands.
- ✓ Integrate Access with Outlook, Word, and Excel for data sharing and manipulation.
- ✓ Modify forms and reports, automate tasks with macros, and enhance functionality using modules.

### 1.1. INTRODUCTION:

A database is a device for gathering and arranging data. Databases can store data about people, things, orders, and other things. Many databases begin as a list in a spreadsheet or word processing program. Redundancies and inconsistencies start to show up in the data as the list gets longer. The list style makes the data difficult to grasp, and there are few options for searching or extracting specific data sets for analysis. Transferring the data to a database made by a database management system (DBMS), such as Access, is a good solution once these issues start to arise.

An object container is a computerized database. More than one table may be present in a database. For instance, a system for tracking inventory that uses three tables is made up of one database that has three tables rather than three databases. An Access database contains its tables in a single file along with additional objects like forms, reports, macros, and modules unless it has been specially created to use data or code from another source. The file extension .accdb is used for databases generated in the Access 2007 format (which is also supported by Access 2016, Access 2013, and Access 2010), while the .db file extension is used for databases created in earlier Access formats. You can use Access 2016, Access 2013, Access 2010, or Access 2007 to create files in earlier file formats (for example, Access 2000 and Access 2002–2003).

**Using Access, you can:**

- Add new data to a database, such as a new item in an inventory
- Edit existing data in the database, such as changing the current location of an item
- Delete information, perhaps if an item is sold or discarded
- Organize and view the data in different ways
- Share the data with others via reports, e-mail messages, an intranet, or the Internet

**1.2 THE PARTS OF AN ACCESS DATABASE:****Tables:**

In that rows and columns are used to organise data, database tables resemble spreadsheets in appearance. Consequently, importing a spreadsheet into a database table is frequently relatively simple. The way the data is organised determines whether you save it in a database or a spreadsheet, which is the fundamental distinction.

The data must be organised into tables in order to prevent redundancies and maximise database flexibility. When storing data about employees, for instance, each employee should only need to be entered once in a database that is specifically designed to handle employee data. Products' data will be kept in their own table, while branch offices' data will be kept in another table. The normalisation of this process is known.

Records are the individual rows in a table. Records are the places where the various bits of information are kept. One or more fields are present in every record. The table's columns and fields match up. For instance, you might have a table called "Employees" where each record (row) has details about a unique person and each field (column) provides a distinct type of information, such as first name, last name, address, and so on. Any data type, including text, dates and times, numbers, and other types, must be specified for each field.

**Forms:**

Using forms, you may design a user interface where users can enter and amend data. Forms frequently include command buttons and other controls that carry out different functions. Simply changing your data in the table datasheets will allow you to establish a database without the use of forms. The majority of database users, however, favour using forms to see, insert, and amend data in the tables.

You may programme command buttons to do a variety of things, such launch additional forms or reports, choose the data that displays on the form, and execute other actions. To use an example, suppose you have a form called "Customer Form" where you may work with client

information. A button on the customer form may open an order form, where you may enter a new order for that customer.

**Reports:**

You prepare, summarise, and present data using reports. A report typically provides an answer to a certain query, such as “What cities are our customers located in?” or “How much money did we receive from each customer this year?” Each report’s format can be adjusted to make the content as readable as feasible.

Running a report at any time will always show the most recent information in the database. The majority of the time, reports are structured to be printed, but they can also be read on a screen, exported to another programme, or sent as an attachment to an email message.

**Queries:**

In a database, queries can carry out a wide range of tasks. The majority of the time, they are used to obtain specific data from the tables. Queries enable you to view data that is typically dispersed over multiple tables in a single datasheet. Additionally, queries allow you to set criteria to “filter” the data down to just the records you want because you often don’t want to see all the records at once.

In cases where a query is “updateable,” it allows you to modify the information in the underlying tables using the query datasheet. Keep in mind that your changes are made in the tables as well as the query datasheet when working in an updateable query.

Select queries and action queries are the two fundamental types of queries. A select query only retrieves the information and makes it usable. The query’s results can be shown on the screen, printed, or copied to the clipboard. Another option is to utilise the query’s result as the record source for a form or report.

An action query, as the name implies, performs a task with the data. Action queries can be used to create new tables, add data to existing tables, update data, or delete data.

**Macros:**

Access macros can be considered of as a condensed kind of programming that you can use to enhance the functionality of your database. To make a macro run each time the button is clicked, for instance, you may connect a macro to a command button on a form. Actions that carry out activities, including opening a report, executing a query, or shutting down the database, are contained in macros. The majority of manual database procedures may be automated using macros, making them excellent time-saving tools.

**Modules:**

Like macros, modules are objects that you may employ to give your database extra capabilities.

While modules are written in the Visual Basic for Applications (VBA) programming language, macros are created in Access by selecting from a list of macro-operations. A group of declarations, statements, and methods are kept collectively as a module. A module may be a standard module or a class module. Forms or reports may have class modules attached to them, which often contain instructions particular to the form or report to which they are associated. There are general operations in standard modules that aren't connected to any other objects. Class modules are not included in the list of standard modules under Modules in the Navigation Pane.

### **1.3 HOW TO USE MICROSOFT ACCESS FOR MANAGING DATABASES:**

Microsoft Access is one of the most common programs businesses use for database management. Understanding how to use Microsoft Access can help you use all the program's features. It can also help you manage databases more efficiently and effectively. Managing databases in Microsoft Access involves various tasks, including creating, opening, designing, querying, and maintaining databases.

#### **1.3.1. Create a new Access database:**

Access includes a number of templates that you can use straight out of the box or as a jumping-off point. A database that has all the tables, queries, forms, macros, and reports necessary to complete a certain task is known as a template. A few sample records are included in several templates to help illustrate how to use them. You can build tables, forms, reports, and other database objects to establish a database if you don't want to use a template.

To create any new database in Microsoft Access, simply follow these steps. To build a blank database or web database for use with web publishing tools, follow these instructions. You can use these steps to build a database based on one of Access's pre-built templates.

#### **The steps to build a new database are as follows:**

1. Open Access.
2. If Access is already open, select File > New.
3. Select Blank database, or select a template.
4. Enter a name for the database, select a location, and then select Create.
5. If needed, select Enable content in the yellow message bar when the database opens.



*Figure 1.1. Create a new Access database*

### **1.3.2. CREATE A DATABASE BY USING A TEMPLATE:**

1. On the File tab, select New, and then select the template that you want to use. Several sets of templates are available in the “New” tab.
2. Enter a file name in the File Name box. To change the location of the file from the default, select Browse for a location to put your database, browse to the new location, then select OK.
3. Select Create.

### **1.3.2. CREATE A BLANK DATABASE:**

1. On the File tab, select New, and then select Blank Database.
2. Enter a filename in the File Name box. To change the location of the file from the default, select Browse for a location to put your database, browse to the new location, and then select OK.
3. Select “Create”. Access creates the database with an empty table named Table1 and then opens Table1 in Datasheet view. The cursor is placed in the first empty cell in the Click to Add column

4. Begin entering the data. Entering data in the Datasheet view is designed to be very similar to working in an Excel worksheet. Create the table structure automatically as you enter data. Define new fields as you add a new column to the datasheet in the table. Access automatically sets each field's data type, based on the data that you enter.



## **SUMMARY**

- A database is a structured collection of data that is organized and stored in a computer system. It serves as a repository for storing, retrieving, and managing data efficiently. Databases can store various types of information, such as customer records, product inventory, financial transactions, and more. They are essential tools for businesses and organizations to store, manipulate, and retrieve data for various purposes.
- Tables are the fundamental building blocks of a database. They resemble spreadsheets and consist of rows and columns, where each row represents a record, and each column represents a field or attribute. Tables are used to store structured data.
- Forms provide a user-friendly interface for entering, viewing, and editing data in tables. They often include controls like text boxes, buttons, and dropdown lists to facilitate data input.
- Reports are used to present data in a structured and printable format. They allow you to create formatted documents that summarize and analyze data from your tables.
- Queries are used to retrieve and manipulate data from one or more tables. They can filter, sort, and aggregate data to provide specific information based on criteria you define.
- Macros are sequences of actions that automate tasks within your database. They can be triggered by events like clicking a button on a form and can perform various operations, such as opening forms or running queries.
- Modules are used for more advanced programming and customization within Access. They contain Visual Basic for Applications (VBA) code, which allows you to create custom functions, automate complex tasks, and extend the functionality of Access beyond its built-in features.
- Microsoft Access is a versatile tool for managing databases, and it offers a range of features and components to help you organize and work with your data effectively. Understanding these components and how to use them can enhance your ability to manage and manipulate data within Access.



**MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE**

**1. What is the primary advantage of using a database over a simple data list?**

- a) Databases are more cost-effective.
- b) Databases are easier to create.
- c) Databases can handle larger amounts of data.
- d) Databases don't require any specialized software.

**2. Which of the following is not a component of an Access database?**

- a) Tables
- b) Forms
- c) Spreadsheets
- d) Macros

**3. What is the purpose of normalizing data in a database?**

- a) To make data difficult to access
- b) To maximize redundancy
- c) To minimize flexibility
- d) To prevent redundancies and maximize flexibility

**4. Which of the following is a component of a database that allows users to enter and amend data with a user-friendly interface?**

- a) Tables
- b) Forms
- c) Reports
- d) Macros

**5. What is the primary purpose of reports in a database?**

- a) To create tables
- b) To enter data
- c) To summarize and present data
- d) To write macros

**6. What type of query allows you to view data from multiple tables in a single datasheet?**

- a) Select query
- b) Action query
- c) Update query
- d) Append query

**7. What does SQL stand for in the context of databases?**

- a) Simple Query Language
- b) Structured Query Language
- c) Systematic Query Logic
- d) Structured Query Logic

**8. Which component of Access is used to automate database tasks and enhance functionality?**

- a) Forms
- b) Reports
- c) Macros
- d) Tables

**9. In Access, what is the primary purpose of modules?**

- a) To create tables
- b) To design forms
- c) To automate tasks and enhance functionality
- d) To generate reports

**10. To create a new Access database, which menu option should you choose after opening Access?**

- a) Edit
- b) Tools
- c) File
- d) View

**11. What is the file extension used for databases generated in the Access 2007 format?**

- a) .accdb
- b) .mdb
- c) .adp
- d) .dat

**12. Which type of query is used to perform actions on data, such as adding or deleting records?**

- a) Select query
- b) Action query
- c) Update query
- d) Append query

**13. Which Microsoft Office tool can you integrate with Access for sending emails from your database?**

- a) Outlook
- b) Word
- c) Excel
- d) PowerPoint

**14. In Access, what is the primary purpose of Layout view for forms and reports?**

- a) Entering data
- b) Designing tables
- c) Modifying the appearance and layout
- d) Writing macros

**15. Which component of Access can be used to add titles and logos to forms?**

- a) Queries
- b) Reports
- c) Macros
- d) Modules

**Answers:**

1. C) Databases can handle larger amounts of data.
2. C) Spreadsheets
3. D) To prevent redundancies and maximize flexibility
4. B) Forms
5. C) To summarize and present data
6. A) Select query
7. B) Structured Query Language
8. C) Macros
9. C) To automate tasks and enhance functionality
10. C) File
11. A) .accdb
12. B) Action query
13. A) Outlook
14. C) Modifying the appearance and layout
15. B) Reports

**SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

1. What is the primary purpose of a database management system (DBMS) like Access?
2. What are some of the issues that can arise when managing data in a spreadsheet or word processing program instead of a database?
3. What is an object container in the context of a database?
4. How does Access organize its tables and other objects within a database file?
5. What are the file extensions used for Access databases created in different formats?
6. What are the key functions that can be performed using Microsoft Access?
7. Explain the concept of “normalization” in the context of database organization.
8. What are the main components of an Access database, and what are their respective purposes?
9. How do forms, reports, and queries enhance the usability of a database in Microsoft Access?
10. What is the role of macros and modules in Access, and how do they differ from each other?

# CHAPTER 2

## CREATE & MANAGE TABLES, CREATE & MODIFY QUERIES, SQL COMMANDS



### LEARNING OBJECTIVE:

- ✓ How to create tables.
- ✓ Adding, importing, and managing data.
- ✓ Understand table and field properties.
- ✓ Comprehend relational databases.
- ✓ Primary and foreign keys.
- ✓ Establishing table relationships.
- ✓ Crafting select queries.
- ✓ Using SQL for query definition.
- ✓ Sorting and summarizing data.
- ✓ Basic SQL understanding.
- ✓ Writing SELECT statements.
- ✓ Utilizing SQL clauses.
- ✓ Combining query results with UNION.

### 2.1 INTRODUCTION:

A straightforward database, like a contact list, might just have one table. But many databases employ a number of tables. A new file that serves as a container for all of the objects in your database, including your tables, is created when you establish a new database on your computer.

A table can be created by making a new database, inserting an existing database with a table, or importing or connecting to a table from another data source, such as a text file, a Microsoft Excel workbook, a Microsoft Word document, or another database. A brand-new, empty table is automatically added for you when you establish a brand-new, blank database. After that, you may begin defining your fields by entering data in the table.

### **2.1.1 ADD A TABLE:**

You can add new tables to an existing database by using the commands on the Create tab in the Tables group.



*Figure 2.1. Tables group options*

### **2.1.2. CREATE A TABLE, STARTING IN DATASHEET VIEW:**

In Datasheet view, you can enter data immediately and let Access build the table structure for you. Field names are assigned numerically (Field1 and Field2, for example), and Access automatically sets each field's data type, based on the data that you enter.

1. On the Create tab, in the Tables group, select Table. Access creates the table and selects the first empty cell in the Click to Add column.
2. On the Fields tab, in the Add & Delete group, select the type of field that you want to add. If you don't find the type that you want, select More Fields.
3. You can move the field by dragging it. When you drag a field in a datasheet, a vertical insertion bar appears.
4. To add data, begin entering the information in the first empty cell.
5. To rename a column (field), select the column heading, and then enter the new name. You should give a meaningful name to each field so that you can tell what it contains when you find it in the Field List pane.

### **2.1.3. CREATE A NEW TABLE IN A NEW DATABASE:**

1. Click File > New, and then select Blank desktop database.
2. In the File Name box, type a file name for the new database.
3. To browse to a different location and save the database, click the folder icon.
4. Click Create.

#### **2.1.4. CREATE A NEW TABLE IN AN EXISTING DATABASE:**

1. Click File > Open, and click the database if it is listed under Recent. If not, select one of the browse options to locate the database.
2. In the Open dialog box, select the database that you want to open, and then click Open.
3. On the Create tab, in the Tables group, click Table.
4. A new table is inserted in the database and the table opens in Datasheet view.

#### **2.1.5. ADD DATA TO A TABLE:**

A blank table can be found in blank databases. In addition to a table, database templates also include forms, reports, and queries. The steps for adding data to a table in Access are as follows:

1. Name your columns for easy identification by double-clicking each heading and typing your preferred name. Take a new column for each new piece of information.
2. Complete the rows by clicking in a new field, then typing the relevant information into it. Each row relates to the same topic.

#### **2.1.6. COPY DATA FROM ANOTHER SOURCE:**

If your data is in another program, such as Excel, you can copy and paste it into an Access table. In general, this works best if your data is already separated into columns, as they are in an Excel worksheet. If your data is in a word-processing program file, it's best to use tabs or tables to separate the columns of data in that file before you copy the data. If your data needs editing or manipulation (for example, separating full names into first and last names), you might consider doing this before you copy the data.

When you paste data into an empty table, Access sets the data type of each field according to what kind of data it finds there. For example, if a pasted field contains nothing but date values, Access applies the Date/Time data type to that field. If the pasted field contains only the words yes and no, Access applies the Yes/No data type to the field.

If Access assigns generic field names, you should rename the fields as soon as possible to avoid confusion. Use the following procedure:

1. On the Home tab, in the Records group, select Save to save the table.
2. On the Home tab, in the View group, select Datasheet View, select each column heading, and then enter a descriptive field name for each column.
3. Save the table again. You can also rename the fields by switching to Design View and editing the field names there. To switch to Design View, on the Home tab, in the View group, select Design View.

### 2.1.7. IMPORT, APPEND, OR LINK TO DATA FROM ANOTHER SOURCE:

You might have stored data in another application, and you want to import that data into a new table or append it to an existing table in Access. Or you might collaborate with people who keep their data in other applications, and you want to work with that data in Access by linking to it. Either way, Access makes it easy to work with data from other sources. You can import data from an Excel worksheet from a table in another Access database, from a SharePoint list, or from a variety of other sources. The process that you use differs slightly depending on your source, but you can use the following procedure to get started.

1. On the External Data tab, in the Import & Link group, select New Data Source, and then select the type of file that you're importing, as depicted in the following screenshot.

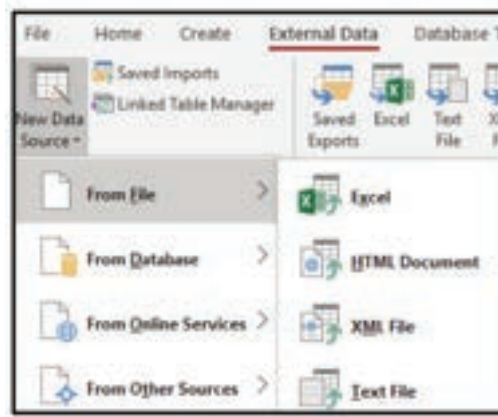


Figure 2.2. External Data options

For example, if you're importing data from an Excel worksheet, select Excel. If you don't find the application type that you need, select More.

2. In the Get External Data dialog box, select Browse to find the source data file, or type the full path of the source data file in the File name box.
3. Select the option that you want. Note that all programs let you import, and some let you append or link.
4. In the Specify section, choose how and where you want to store the data in the current database. You can create a new table that uses the imported data or, with some programs, you can append the data to an existing table or create a linked table that maintains a link to the data in the source program.
  - If a wizard starts, follow the instructions on the wizard, and on the last page of the wizard, select Finish.



- If you import objects or link tables from an Access database, either the Import Objects or Link Tables dialog box is revealed. Choose the items that you want and then select, OK.

The exact process that you use depends on whether you choose to import, append, or link data.

5. Access prompts you about whether you want to save the details of the import operation that you just completed. If you think that you'll perform this same import operation again in the future, select Save import steps, and then enter the details. You can then easily repeat the operation in the future by selecting Saved Imports on the External Data tab in the Import & Link group; if you don't want to save the details of the operation, select Close.
- If you chose to import a table, Access imports the data into a new table and then displays the table under the Tables group in the Navigation Pane.
  - If you chose to append data to an existing table, Access adds the data to that table.
  - If you chose to link to data, Access creates a linked table under the Tables group in the Navigation Pane.

## 2.2 TABLE AND FIELD PROPERTIES:

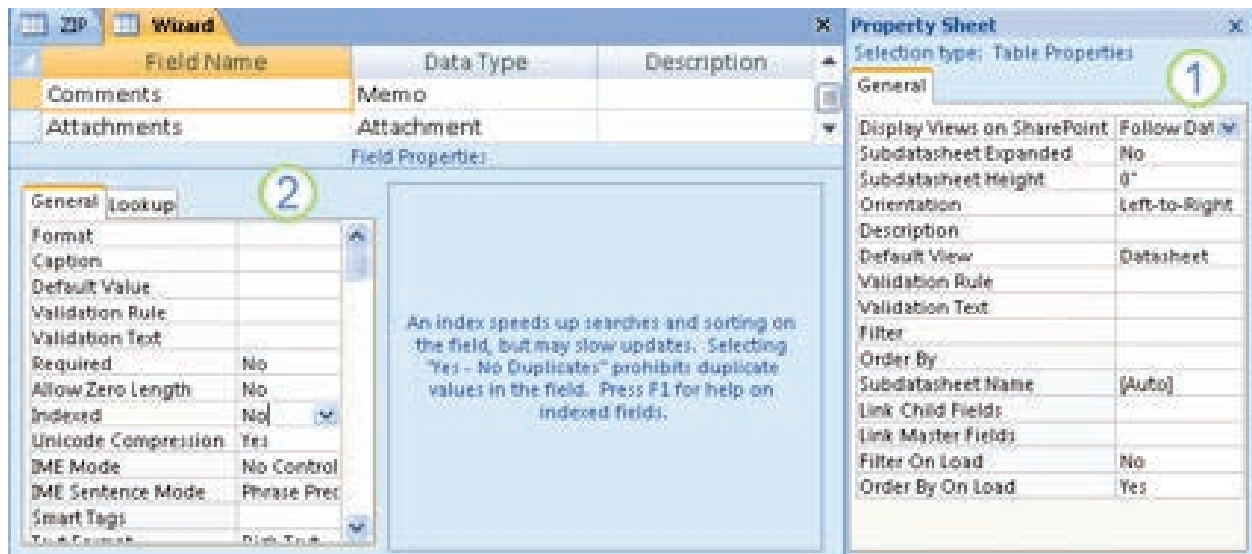


Figure 2.3. Table and Field Properties

1. Table properties
2. Field properties

Table properties in an Access database are characteristics of a table that influence the overall look or behaviour of the table. In Design view, the table's property sheet is where table properties are set. To indicate how a table is presented by default, for instance, you might set the Default View property.

A field property pertains to a specific field in a table and describes a feature or attribute of the field's behaviour. In the Datasheet view, you can modify several field properties. Using the Field Properties pane, you may change any field property in Design view as well.

There are typically multiple connected tables in a relational database like Access. Each table in a well-designed database contains information about a certain topic, such as personnel or items. Records (rows) and fields (columns) make up a table. Data can be entered in fields in a variety of formats, including text, numbers, dates, and hyperlinks.

ID	Company	First Name	Last Name
1	Company A	Anna	Bedecs
2	Company B	Antonio	Gratacos Solsona
3	Company C	Thomas	Axen

Figure 2.4. Record, Field and Field value

**A record:** Contains specific data, like information about a particular employee or a product.

**A field:** Contains data about one aspect of the table subject, such as first name or e-mail address.

**A field value:** Each record has a field value. For example, Contoso, Ltd. or someone@example.com.

### 2.2.1. DATA TYPES:

There is a data type for each field. The data type of a field describes the type of data that field stores, such as a lot of text or any connected files.

Field Name	Data Type	Description
Comments	Memo	
Attachments	Attachment	
Field Properties		

Figure 2.5. Data Type

**A data type is a field property, but it differs from other field properties as follows:**

- You set a field's data type in the table design grid, not in the Field Properties pane.
- A field's data type determines what other properties the field has.
- You must set a field's data type when you create the field.

You can create a new field in Access by entering data in a new column in Datasheet view. When you create a field by entering data in Datasheet view, Access automatically assigns a data type for the field, based on the value that you enter. If no other data type is implied by your input, Access sets the data type to Text. If needed, you can change the data type by using the Ribbon.

**2.2.2. TABLE RELATIONSHIPS:**

Although each table stores data about a different subject, tables in an Access database usually store data about subjects that are related to each other. For example, a database might contain:

- A customers table that lists your company's customers and their addresses.
- A products table that lists the products that you sell, including prices and pictures for each item.
- An orders table that tracks customer orders.

You need a mechanism to connect the data together so that you can simply integrate related data from those individual tables because you save data about various subjects in separate tables. You establish relationships to link the data kept in various tables. A relationship is a logical link between two tables that identifies the fields they share.

**2.3 KEYS:**

Fields that are part of a table relationship are called keys. A key usually consists of one field, but may consist of more than one field. There are two kinds of keys:

**1. Primary key:**

There can only be one primary key per table. One or more fields that uniquely identify each record you store in the database make up a primary key. A main key is frequently an individual identification number, such as an ID number, serial number, or code. For instance, you might have a Customers table with a unique customer ID number for each customer. The primary key of the Customers database is the customer ID field. When a primary key has many fields, they are typically already-existing fields that when combined, produce unique values.

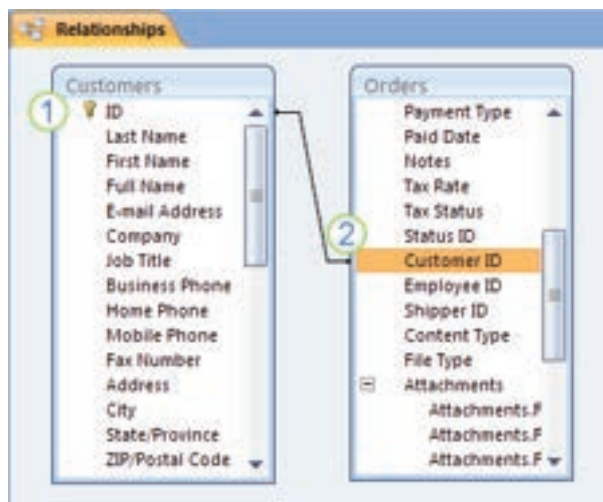
**2. Foreign key:**

Also possible are one or more foreign keys for a table. Values that match those in the primary key of another table are found in a foreign key. For instance, you might have a Customers table with a record for every order's customer ID number in the Orders table. The Orders table's foreign

key is the customer ID field.

The foundation of a table connection is the agreement of values between key fields. To merge data from related tables, you use a table connection. Consider having a Customers table and an Orders table, for instance. The main key field, ID, in your Customers table serves as the unique identifier for each record.

Create a relationship between the two keys after adding a foreign key field to the Orders database that matches the ID field of the Customers table in order to link each order to a customer. A customer ID value from the Customers dataset is used when adding a record to the Orders table. You utilise the relationship to determine which data from the Customers table relates to which records in the Orders table whenever you wish to access any information about the client who placed an order.



*Figure 2.6. Keys*

1. A primary key, identified by the key icon next to the field name.
2. A foreign key — note the absence of the key icon.

Do not add a field if you expect that each unique entity represented in the table might require more than value for the field. Continuing the preceding example, if you want to start tracking orders placed by your customers, you do not add a field to the table, because each customer will have more than one order. Instead, you create a new table to store orders, and then create a relationship between the two tables.

#### **ADD A PRIMARY KEY TO A TABLE:**

Create a primary key to associate data between multiple tables.

1. In the Navigation Pane, right click a table, and select Design View.

2. Select the field or fields you want to use as the primary key.
3. Select Design > Primary Key.

Customers		
ID	Company	First Name
1	Company A	Anna
2	Company B	Antonio
3	Company C	Thomas

Orders		
Order ID	Customer ID	Employee
44	1	Nancy Freehafer
71	1	Nancy Freehafer
36	3	Mariya Serglenko

Figure 2.7. Create a primary key to associate data between multiple tables.

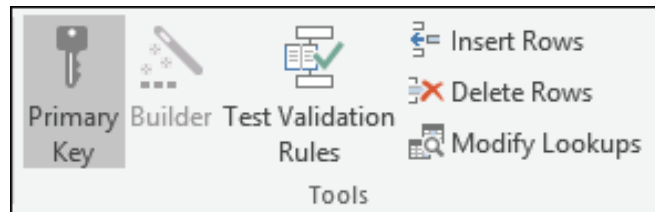


Figure 2.8. Primary Key

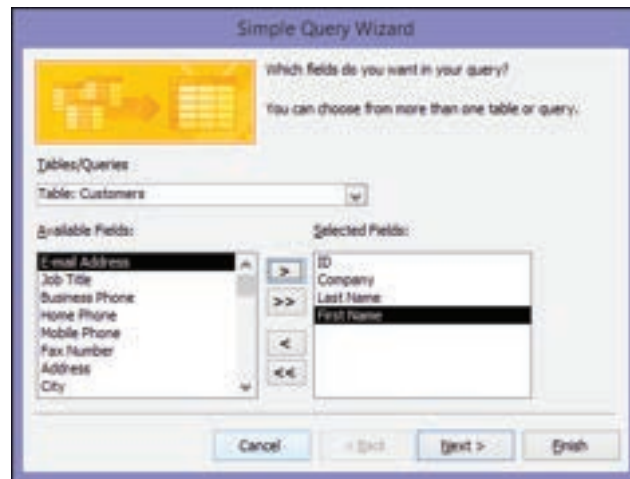
### SET RELATIONSHIPS BETWEEN TABLES:

You can establish associations between several tables once they have been created. When two fields in distinct tables display the same data, you can establish a relationship between them. For instance, you may establish a connection between fields in tables for customers and orders that display the customer ID. Your data remains constant and correct by creating the relationship. The steps for establishing associations between tables are as follows:

1. Complete one table.
2. Fill out most of another table, leaving the field you want to create a relationship with blank. Make sure the blank field has the same format as the field you're creating the relationship with.
3. Navigate to the 'Database tools' tab.
4. Click the 'Relationships' button.
5. Drag the completed relationship field to the blank field and drop it.
6. Click 'Create' to create the relationship. A line connecting the two fields shows you have successfully created the relationship.
7. Check the 'Enforce referential integrity' box to automatically update one field if the other gets updated.

## **2.4 CREATE & MODIFY QUERIES:**

A relational database's true value resides in its capacity to execute queries rapidly and retrieve and analyse your data. You can use queries to retrieve data from one or more tables based on a defined set of search criteria. You will discover how to construct a straightforward one-table query in this lesson.



*Figure 2.9. Query*

### **2.4.1 WHAT ARE QUERIES?**

Using queries, you can look up and compile information from one or more tables. A query is similar to posing a thorough inquiry to your database. To find the precise data you need, you define particular search criteria when creating a query in Access.

### **2.4.2 HOW ARE QUERIES USED?**

Using queries to find data within a database is much more effective than using straightforward searches or filters. This is so that queries can combine data from several tables. While you could, for instance, use a search in the customers database to locate the name of a single client of your company or a filter on the orders table to examine just orders made during the last week, neither would enable you to view both clients and orders simultaneously. To get the name and contact information of every consumer who has made a purchase in the last week, you may simply run a query. A well-designed query can give information you might not be able to find out just by examining the data in your tables.

When you run a query, the results are presented to you in a table, but when you design one you use a different view. This is called Query Design view, and it lets you see how your query is put together.

### 2.4.3 CREATE A SELECT QUERY:

#### Create a query to focus on specific data.

1. Select Create > Query Wizard.
2. Select Simple Query, and then OK.
3. Select the table that contains the field, add the Available Fields you want to Selected Fields, and select Next.
4. Choose whether you want to open the query in Datasheet view or modify the query in Design view, and then select Finish.

### 2.4.4. CREATE A QUERY BY USING THE DESIGN VIEW:

To create a query within a database, you can use one of two methods. The first method uses the Design view, where you can build new queries from scratch. The next topic explains the second method, which uses the Query Wizard. To display the Design view, go to the Create tab, and then in the Queries group, select Query Design, as the following screenshot depicts

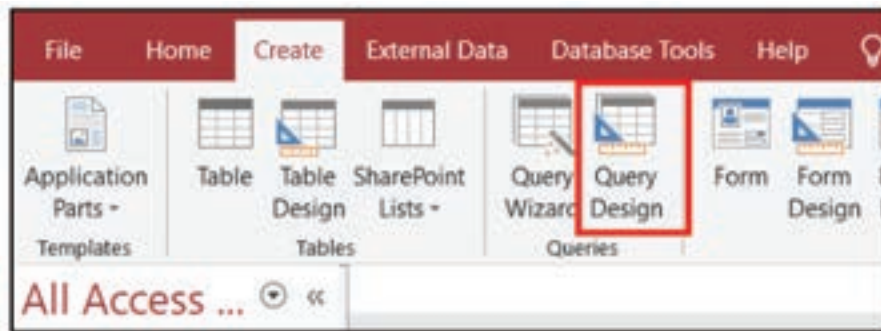


Figure 2.10. The Query Design button on the Create tab

If you want to review data from a database table but have only certain fields from that table, you can build a basic select query. At its most fundamental level, a select query selects one or more fields from a table in the database.

Field:	AddressLine1	AddressLine2	City	State	PostalCode
Table:	tblCustomers	tblCustomers	tblCustomers	tblCustomers	tblCustomers
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:					
on:					

Figure 2.11. Fields in a query

When you're building a query, the questions you ask of the database are called criteria.

Field:	LastName	FirstName			
Table:	tblCustomers	tblCustomers			
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:	Is Döyüş				
or:					

Figure 2.12. Criteria in a query

## Select source tables:

To begin creating a query, you first select one or more database objects to use as the source of your query. For most queries, you'll use existing database tables. The following screenshot depicts the list of tables that the Show Table dialog box makes available.

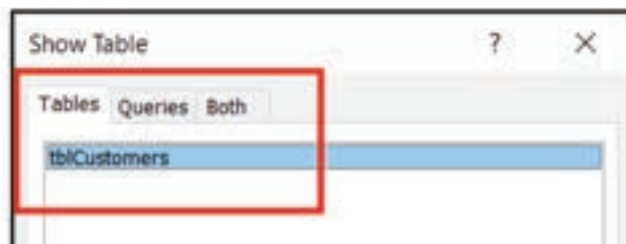


Figure 2.13. The Show Table dialog box

After you add the source tables, you'll notice that the query editor displays them. The following screenshot depicts an empty query editor that references only a single table.

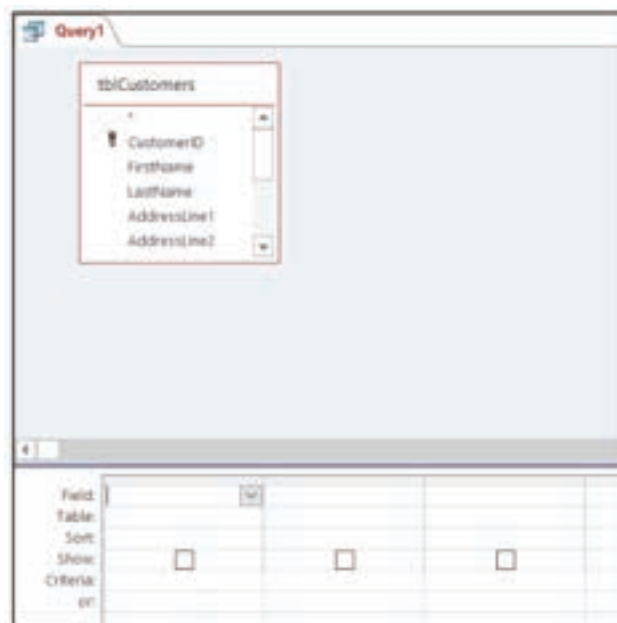


Figure 2.14. The query editor



**Select basic query fields:**

You use the table in the pane following the query editor to build your questions for the database. Each query field in this table has a particular purpose for determining the results of your query. The following table describes what each query field can do in building your query.

Query field	Options	Effect
<b>Field</b>	The fields for the currently selected table	Selects a field to use for the current query field
<b>Table</b>	The tables in the database	Selects a table to use as a source for the current query field
<b>Sort</b>	<b>Ascending</b> and <b>Descending</b>	Sorts the query results by using the current query field
<b>Show</b>	<b>True</b> and <b>False</b>	Switches the current query field in the query results
<b>Criteria</b>	Your own filter that you build by using plain text	Adds filters to limit the data that the query results return

Figure 2.15. The query field components

For example, you might create a query field that selects the CustomerID field from the tblCustomers table and sorts the IDs in descending order. The following screenshot depicts this query field.

The screenshot shows a query field configuration window with the following settings:

- Field:** CustomerID
- Table:** tblCustomers
- Sort:** Descending
- Show:** ☒
- Criteria:**
- or:**

Figure 2.16. A query field

**Sort and display query fields:**

You can add as many query fields as you need to build a comprehensive query. You can choose whether to sort each query field and whether to display it in the query results. By using a combination of these techniques, you can build sophisticated queries relatively quickly.

### Review your query results:

When your query is ready, you can review the results by running your query. To run your query, go to the Design tab, and then in the Results group, select Run, as the following screenshot depicts.

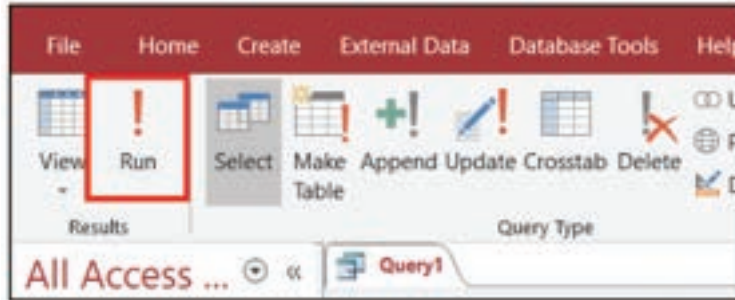


Figure 2.17. The Run button on the Design tab

When you run the query, Access switches from the Design view to the Datasheet view. The Datasheet view displays the results of the query.

### Example:

Assume that you want to anonymously list the postal code and state for each customer to find out where your customers live and plan for an expansion of the produce box program. You can build this query in the Design view by specifying two query fields, as the following table depicts.

Field	State	PostalCode
Table	tblCustomers	tblCustomers
Sort		Ascending
Show	✓	✓

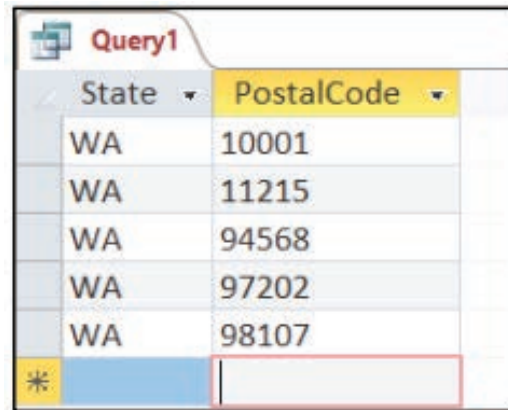
Figure 2.18. A query that lists the state and postal code for each customer

After you finish building this query in the Design view, it resembles the following screenshot.

Field:	State	PostalCode
Table:	tblCustomers	tblCustomers
Sort:		Ascending
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		
or:		

Figure 2.19. A query that returns the State and PostalCode fields from the tblCustomers

After you run the query, the Datasheet view displays the query results, as the following screenshot depicts.



State	PostalCode
WA	10001
WA	11215
WA	94568
WA	97202
WA	98107
*	

Figure 2.20. The Datasheet view

### **Create a simple query with Query Wizard:**

You can use the Query Wizard to automatically create a query. When you use the Query Wizard, you have less control over the details of the query design at first, but the process is faster than manually creating a query. The Query Wizard might also help you avoid some common mistakes you might make when manually building queries.

### **Use the Query Wizard:**

To open the Query Wizard, go to the Create tab, and then in the Queries group, select Query Wizard, as the following screenshot depicts.

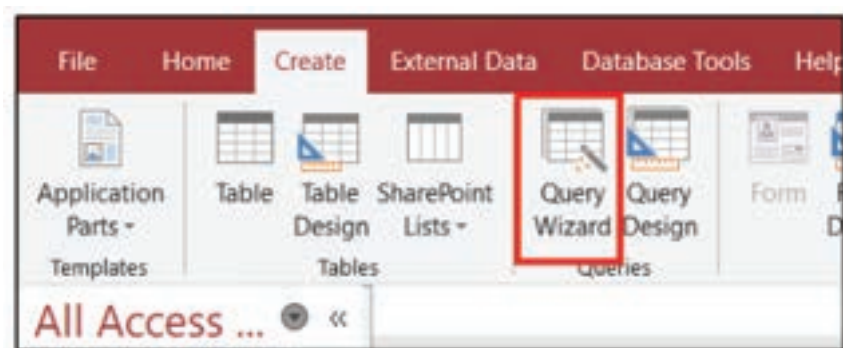


Figure 2.21. The Query Wizard button on the Create tab

The New Query dialog box displays, offering four choices for you to start building your query, as the following screenshot depicts.

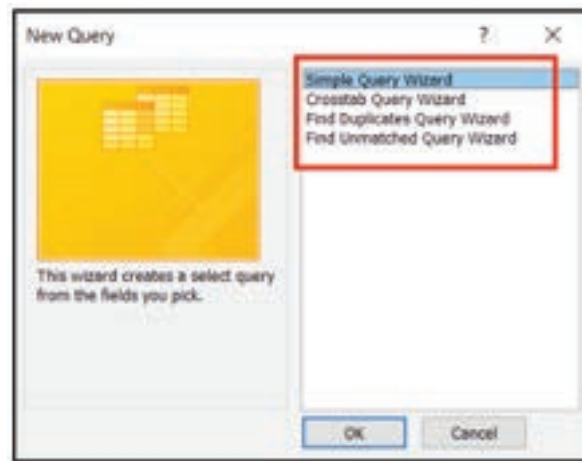


Figure 2.22. The New Query dialog box

### Use the Simple Query Wizard:

The Simple Query Wizard offers the easiest way to create a query that includes one or more fields from a single database table. To use this wizard, select Simple Query Wizard in the New Query dialog box. The Simple Query Wizard page displays and includes a list of the tables in the database. On this page, you select the table you want to include in your query. The following screenshot depicts selecting the tblCustomers table.

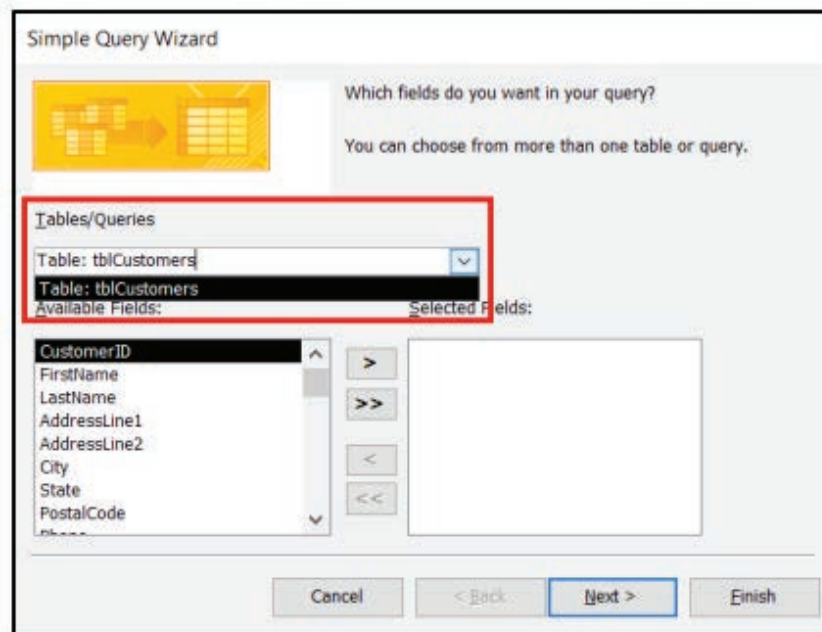


Figure 2.23. Selecting a table for your query

After you select a table, you can select one or more fields in the table to include in your query.

The following screenshot depicts selecting the CustomerID, FirstName, and LastName fields.

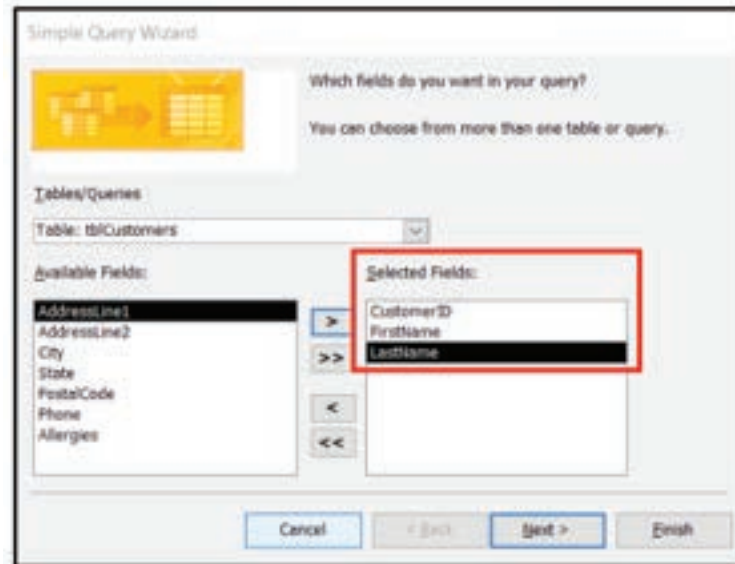


Figure 2.24.2 Selecting the CustomerID, FirstName, and LastName fields

In the final step of the wizard, you can change the title of your query and then select one of two choices: to open the query so you can review the results or to modify the query design. The following screenshot depicts this final step.

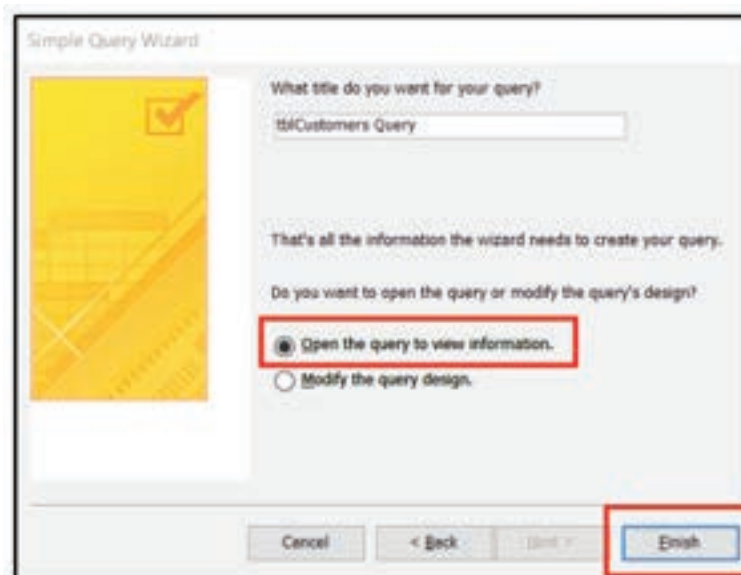


Figure 2.25. The final step of the Simple Query Wizard

### **Use the Find Duplicates Query Wizard:**

You can use the Find Duplicates Query Wizard to find data that was incorrectly entered more

than once in your database. To use this wizard, select Find Duplicates Query Wizard in the New Query dialog box.

The Find Duplicates Query Wizard displays a list of the tables in the database. Select the table you want to include in your query. The following screenshot depicts selecting the tblCustomers table.

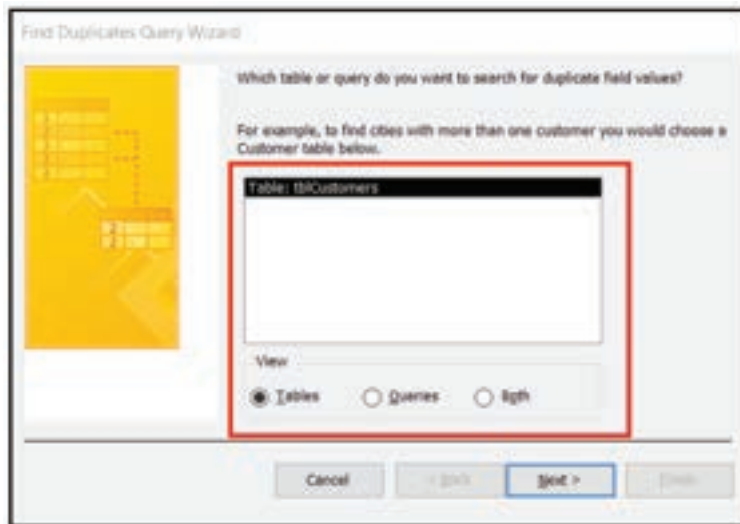


Figure 2.26. Selecting a table for your query

The next step in the Find Duplicates Query Wizard is to select the fields that you suspect contain duplicate information. The following screenshot depicts selecting the FirstName and LastName fields.

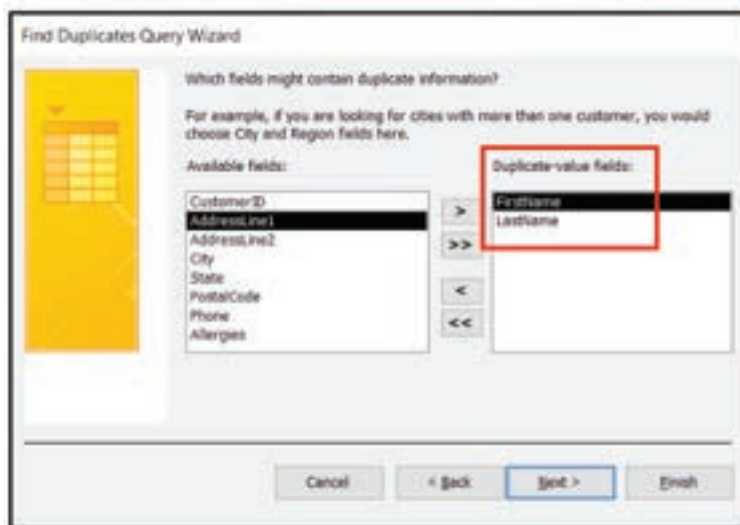


Figure 2.27. Selecting the FirstName and LastName fields

The next step in the wizard asks if you want to display additional data in the query results. The fields you selected in the previous step will already automatically display in the query results. The following screenshot depicts selecting the CustomerID field.

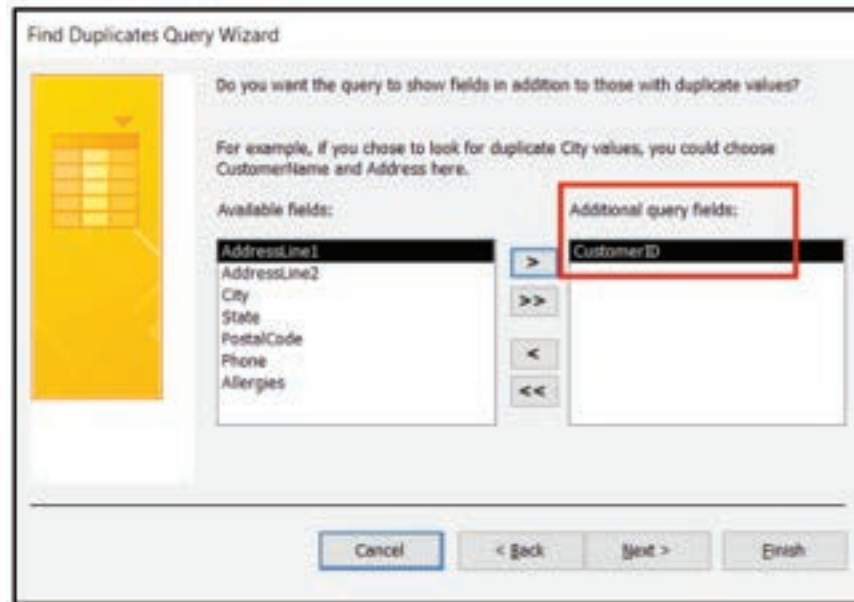


Figure 2.28. Adding the CustomerID field to the query

As in the Simple Query Wizard, the final step of the Find Duplicates Query Wizard is to change the title of your query if you want and then select one of two choices: to open the query so you can review the results or to modify the query design, as the following screenshot depicts.



Figure 2.29. The final step of the Find Duplicates Query Wizard



## **2.5 SQL COMMANDS:**

SQL, or Structured Query Language, is the language you use to request data from a database. SQL is an English-like computer language that database programmes can understand. Behind the scenes, SQL is used for each query you execute.

Knowing how SQL operates can both help you write better queries and make it simpler for you to figure out how to improve a query that isn't giving you the results you desire.

### **2.5.1 WHAT IS SQL?**

A computer language called SQL is used to manipulate fact sets and the connections between them. SQL is the language used to manipulate data in relational database programmes like Microsoft Office Access. SQL is easier to read and grasp even for a beginner than many other computer languages. SQL is a recognised international standard by organisations like ISO and ANSI, like many other computer languages.

SQL is used to define data sets that can be used to provide answers to questions. The proper syntax must be used while using SQL. The collection of guidelines known as syntax ensures that a language's constituent parts are combined correctly. Many of the components used in Visual Basic for Applications (VBA) syntax are also used in SQL syntax, which is based on English syntax.

For example, a simple SQL statement that retrieves a list of last names for contacts whose first name is Mary might resemble this:

```
SELECT Last_Name  
FROM Contacts  
WHERE First_Name = 'Mary';
```

### **2.5.2 SELECT STATEMENTS:**

To describe a set of data by using SQL, you write a SELECT statement. A SELECT statement contains a complete description of a set of data that you want to obtain from a database.

**This includes the following:**

- What tables contain the data.
- How data from different sources is related.
- Which fields or calculations will produce the data.
- Criteria that data must match to be included.
- Whether and how to sort the results.



### 2.5.3. SQL CLAUSES:

Like a sentence, a SQL statement has clauses. Each clause performs a function for the SQL statement. Some clauses are required in a SELECT statement. The following table lists the most common SQL clauses.

SQL clause	What it does	Required
SELECT	Lists the fields that contain data of interest.	Yes
FROM	Lists the tables that contain the fields listed in the SELECT clause.	Yes
WHERE	Specifies field criteria that must be met by each record to be included in the results.	No
ORDER BY	Specifies how to sort the results.	No
GROUP BY	In a SQL statement that contains aggregate functions, lists fields that are not summarized in the SELECT clause.	Only if there are such fields
HAVING	In a SQL statement that contains aggregate functions, specifies conditions that apply to fields that are summarized in the SELECT statement.	No

Figure 2.30. SQL Clauses

### 2.5.4. SQL TERMS:

Each SQL clause is composed of terms — comparable to parts of speech. The following table lists types of SQL terms.

SQL term	Comparable part of speech	Definition	Example
identifier	noun	A name that you use to identify a database object, such as the name of a field.	Customers.[Phone Number]
operator	verb or adverb	A keyword that represents an action or modifies an action.	AS
constant	noun	A value that does not change, such as a number or NULL.	42
expression	adjective	A combination of identifiers, operators, constants, and functions that evaluates to a single value.	>= Products.[Unit Price]

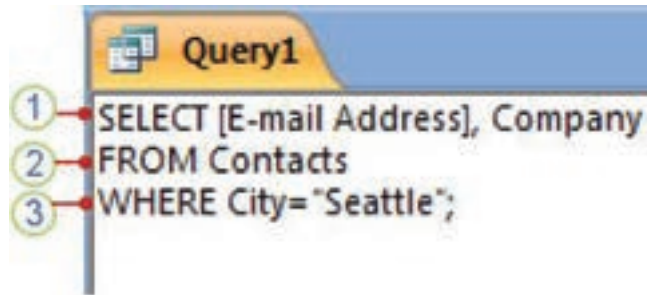
Figure 2.31 SQL terms

### 2.5.5. BASIC SQL CLAUSES: SELECT, FROM, AND WHERE:

A SQL statement takes the general form:

```
SELECT field_1  
FROM table_1  
WHERE criterion_1  
;
```

The following illustrates what a SQL statement for a simple select query might look like in Access:



*Figure 2.33. Basic SQL clauses*

1. SELECT clause
2. FROM clause
3. WHERE clause

This example SQL statement reads “Select the data that is stored in the fields named E-mail Address and Company from the table named Contacts, specifically those records in which the value of the field City is Seattle.”

Let’s look at the example, one clause at a time, to see how SQL syntax works.

#### **The SELECT clause:**

```
SELECT [E-mail Address], Company
```

This is the SELECT clause. It consists of an operator (SELECT) followed by two identifiers ([E-mail Address] and Company). If an identifier contains spaces or special characters (such as “E-mail Address”), it must be enclosed in square brackets. A SELECT clause does not have to say which tables contain the fields, and it cannot specify any conditions that must be met by the data to be included. The SELECT clause always appears in front of the FROM clause in a SELECT statement.

**The FROM clause:**

FROM Contacts

This is the FROM clause. It consists of an operator (FROM) followed by an identifier (Contacts). A FROM clause does not list the fields to be selected.

**The WHERE clause:**

WHERE City="Seattle"

This is the WHERE clause. It consists of an operator (WHERE) followed by an expression (City="Seattle"). You can accomplish many of the actions that SQL enables you to do by using SELECT, FROM, and WHERE clauses.

**Sorting the results: ORDER BY**

Access offers the same ability to sort query results in a datasheet as Microsoft Excel. By using an ORDER BY clause in the query, you can also indicate how you want the results sorted after the query is executed. The ORDER BY clause is the final clause in the SQL statement, if one is used. The fields you wish to employ for sorting are listed in an ORDER BY clause in the same order that you want to perform the sort operations.

For example, suppose that you want your results sorted first by the value of the field Company in descending order, and — if there are records with the same value for Company — sorted next by the values in the field E-mail Address in ascending order. Your ORDER BY clause would resemble the following:

ORDER BY Company DESC, [E-mail Address]

**Working with summarized data: GROUP BY and HAVING**

Sometimes you need to work with summarised data, such as the total monthly sales or the priciest stock items. Applying an aggregate function to a field in your SELECT clause will accomplish this. As an illustration, your SELECT clause would look something like this if you want your query to display the number of email addresses listed for each business:

SELECT COUNT([E-mail Address]), Company

The aggregate functions that you can use depend on the type of data that is in the field or expression that you want to use.

**Specifying fields that are not used in an aggregate function: The GROUP BY clause**

The majority of the time, a GROUP BY clause must be created when using aggregate functions.

All the fields to which you don't apply an aggregate function are listed in a GROUP BY clause. You don't need to add the GROUP BY clause if you use aggregate functions on every field in a query.

The WHERE clause, or the FROM clause if there is no WHERE clause, is followed immediately by a GROUP BY clause. The fields are listed in the SELECT clause's GROUP BY clause.

For example, continuing the previous example, if your SELECT clause applies an aggregate function to [E-mail Address] but not to Company, your GROUP BY clause would resemble the following:

```
GROUP BY Company
```

### **Limiting aggregate values by using group criteria: the HAVING clause**

If you want to use criteria to limit your results, but the field that you want to apply criteria to is used in an aggregate function, you cannot use a WHERE clause. Instead, you use a HAVING clause. A HAVING clause works like a WHERE clause, but is used for aggregated data.

For example, suppose that you use the AVG function (which calculates an average value) with the first field in your SELECT clause:

```
SELECT COUNT([E-mail Address]), Company
```

If you want the query to restrict the results based on the value of that COUNT function, you cannot use a criteria for that field in the WHERE clause. Instead, you put the criteria in a HAVING clause. For example, if you only want the query to return rows if there are more than one e-mail addresses associated with the company, the HAVING clause might resemble the following:

```
HAVING COUNT([E-mail Address])>1
```

### **Combining query results: UNION**

Use the UNION operator to examine all the data produced by a number of related select queries as a single, unified set.

You can combine two SELECT statements into one using the UNION operator. The output fields from the SELECT statements you combine must be the same number, in the same sequence, and include the same data types or ones that are compatible. Data from each set of related fields is combined into one output field during query execution, resulting in an output that has the same number of fields as the select statements.

When you use the UNION operator, you can also specify whether the query results should include duplicate rows, if any exist, by using the ALL key word.

The basic SQL syntax for a union query that combines two SELECT statements is as follows:

```
SELECT field_1
FROM table_1
UNION [ALL]
SELECT field_a
FROM table_a
;
```

Consider having a table called Products and another table called Services, for instance. The product or service name, price, warranty or guarantee, and if you offer the good or service solely are all fields in both tables. The core information—whether a certain good or service comes with a quality guarantee—is the same whether it is stored in the Products table for products or the Services table for services. The four fields from the two tables can be combined using a union query, like the one shown below:

```
SELECT name, price, warranty_available, exclusive_offer
FROM Products
UNION ALL
SELECT name, price, guarantee_available, exclusive_offer
FROM Services;
```



## SUMMARY:

### CREATING A TABLE IN ACCESS:

**You can create a table in Access in various ways:**

**Add a Table:** Use the Create tab to add a new table to an existing database.

**Datasheet View:** Enter data directly in Datasheet view, and Access will create the table structure for you.

**New Database:** Create a new blank database, and a blank table is automatically included.

**Existing Database:** Open an existing database, click Table on the Create tab to add a new table.

### Adding Data to a Table:

- Name the columns (fields) to identify them easily.
- Fill in rows with relevant data.

- You can copy data from another source, but ensure data types match and rename fields if necessary.

**Importing Data:**

- Use the External Data tab to import data from various sources, like Excel or text files.
- Follow the wizard to specify the source and mapping.

**Table and Field Properties:**

- Table properties affect table behavior, set in Design view.
- Field properties define attributes of specific fields, adjusted in Datasheet view or Design view.

**Table Relationships:**

- Tables in a relational database are often connected.
- Relationships link data between tables, ensuring data integrity.
- Primary keys uniquely identify records in a table, while foreign keys link to primary keys in other tables.

**Creating and Modifying Queries:**

- Queries retrieve and analyze data from one or more tables based on specified criteria.
- You can create queries using the Query Wizard or Design view, selecting tables, fields, and criteria.
- Sort results using ORDER BY, aggregate data with GROUP BY and HAVING clauses, and combine results with UNION.

**SQL Commands:**

- SQL (Structured Query Language) is used to request data from a database.
- SQL consists of SELECT, FROM, and WHERE clauses, which specify data sources, fields, and criteria.
- Use GROUP BY and HAVING for summarized data and UNION to combine query results.

**MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE****1. What is the purpose of a database table in Access?**

- a) To store queries
- b) To store forms
- c) To store data
- d) To store reports

**2. How can you add a new table to an existing database in Access?**

- a) Use the Create tab in the Queries group
- b) Use the Create tab in the Tables group
- c) Use the Design View tab in the Tables group
- d) Use the Add Table tab in the Database Tools group

**3. In Datasheet view, how are field names assigned when creating a table?**

- a) Manually by the user
- b) Automatically based on the data entered
- c) Numerically (e.g., Field1, Field2)
- d) Randomly generated names

**4. How can you rename a column (field) in Access?**

- a) Right-click the column and select Rename
- b) Select the column heading and press F2
- c) Double-click the column heading and enter a new name
- d) All of the above

**5. What is the first step to create a new table in a new database?**

- a) Click File > Open
- b) Click File > New and select Blank desktop database
- c) Click the Tables group in the Create tab
- d) Click the Tables tab in the Design View

**6. How can you add data to a table in Access?**

- a) By importing data only
- b) By manually entering data only
- c) By using forms only
- d) By using both importing and manually entering data

**7. When pasting data into an empty table in Access, how does Access determine the data type of each field?**

- a) It sets all fields to Text data type
- b) It uses the Date/Time data type for all fields
- c) It assigns data types based on the data being pasted
- d) It prompts the user to select data types

**8. How can you establish a relationship between tables in Access?**

- a) By adding a foreign key to one table
- b) By using the Join command in a query
- c) By creating a primary key in one table that matches a foreign key in another
- d) By sorting the tables in alphabetical order

**9. What is a primary key in a database table?**

- a) A field with unique values that identifies each record
- b) A field with the most important data
- c) A field that is used for sorting records
- d) A field with duplicate values

**10. What is a foreign key in a database table?**

- a) A field with unique values that identifies each record
- b) A field with duplicate values
- c) A field that links to another table's primary key
- d) A field that stores hyperlinks

**11. What does the SQL "SELECT" statement do in a query?**

- a) Adds a new record to the table
- b) Updates an existing record
- c) Retrieves data from one or more tables
- d) Deletes records from the table

**12. Which SQL clause is used to specify the source tables for a query?**

- a) SELECT
- b) FROM
- c) WHERE
- d) GROUP BY



**13. Which SQL clause is used to filter data in a query based on specific criteria?**

- a) SELECT
- b) FROM
- c) WHERE
- d) GROUP BY

**14. How can you sort the results of a query in SQL?**

- a) Use the GROUP BY clause
- b) Use the ORDER BY clause
- c) Use the HAVING clause
- d) Use the SELECT clause

**15. When do you use the HAVING clause in SQL?**

- a) To filter data before aggregation
- b) To specify the source tables for a query
- c) To sort the query results
- d) To filter aggregated data

**Answers:**

1. c. To store data
2. b. Use the Create tab in the Tables group
3. c. Numerically (e.g., Field1, Field2)
4. d. All of the above
5. b. Click File > New and select Blank desktop database
6. d. By using both importing and manually entering data
7. c. It assigns data types based on the data being pasted
8. c. By creating a primary key in one table that matches a foreign key in another
9. A field with unique values that identifies each record
10. A field that links to another table's primary key
11. Retrieves data from one or more tables
12. b. FROM
13. c. WHERE
14. b. Use the ORDER BY clause
15. d. To filter aggregated data

**SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

1. What is the purpose of a database in Access, and why might it contain multiple tables?
2. How can you create a new table in an existing database in Access?
3. Explain the steps to add data to a table in Access, and why is it important to give meaningful names to columns?
4. What are some methods for copying data from another source into an Access table?
5. How do you establish relationships between tables in Access, and why is this important in a relational database?
6. What is a primary key, and why is it essential in a database table?
7. Differentiate between a primary key and a foreign key in Access.
8. Describe the purpose of SQL commands in Access, and provide an example of a simple SQL SELECT statement.
9. How can you sort the results of a query in Access using SQL?
10. Explain the role of the GROUP BY and HAVING clauses in SQL when working with aggregated data in Access.

## CHAPTER 3

# INTEGRATING MS ACCESS WITH MS OUTLOOK, MS WORD, MS EXCEL:



### LEARNING OBJECTIVE

By the end of this module, you will master the integration of Microsoft Access with Microsoft Outlook, gaining the ability to:

- ✓ Export Data to Outlook: Export Access data to Outlook in various formats.
- ✓ Link Access Tables: Create linked tables to access Outlook data seamlessly.
- ✓ Send Email from Access: Automate email sending via VBA code.
- ✓ Calendar Integration: Manage Outlook calendars from within Access.

### 3.1. INTEGRATING MS ACCESS WITH MS OUTLOOK

Integrating Microsoft Access with Microsoft Outlook can be a useful way to streamline data management and communication within your organization. Here are some common ways to integrate the two applications:

#### 3.1.1. EXPORTING DATA TO OUTLOOK:

You can export data from your Access database to Outlook in various formats, such as CSV or Excel, and then import it into Outlook.

To do this, open your Access database, select the data you want to export, go to the “External Data” tab, and choose the export format. You can then follow the wizard to export the data to a file.

After exporting, you can import this file into Outlook by going to the “File” tab in Outlook, selecting “Open & Export,” and then choosing “Import/Export.” Follow the import wizard to bring the data into your Outlook contacts, calendar, or other items.

### **3.1.2. LINKING ACCESS TABLES:**

- You can create linked tables in Access that connect to Outlook data, such as your Outlook contacts or calendar.
- To link a table, open your Access database, go to the “External Data” tab, and select “More” in the “Import & Link” group. Choose “Outlook Folder” and follow the wizard to select the Outlook folder you want to link.
- Once linked, you can use Access to query and manipulate the Outlook data as if it were a regular Access table.

### **3.1.3. SENDING EMAIL FROM ACCESS:**

- You can automate the process of sending emails from Access by using VBA (Visual Basic for Applications) code.
- In Access, you can create a form or a report with a button that triggers an email to be sent through Outlook.
- You’ll need to write VBA code to open Outlook, create a new email, and populate the email fields (recipient, subject, body, attachments) with the desired information.

### **3.1.4. CALENDAR INTEGRATION:**

- You can also integrate Access with Outlook calendars to manage appointments and events.
- Use the Outlook Calendar API or VBA to create, update, or delete calendar events from within Access.

## **3.2 INTEGRATING MS ACCESS WITH MS WORD**

- Integrating Microsoft Access with Microsoft Word can be beneficial for creating customized documents based on data stored in your Access database. Here are some common ways to integrate the two applications:

### **3.2.1 MAIL MERGE:**

- One of the most common ways to integrate Access and Word is by using the Mail Merge feature in Word. You can use Access as the data source for your Word documents.
- Open Microsoft Word and create a new document.
- In the Word document, go to the “Mailings” tab and select “Start Mail Merge.”

- Choose the type of document you want to create (e.g., letters, labels, envelopes).
- Select “Select Recipients” and choose “Use an Existing List.” Browse to your Access database and select the table or query containing the data.
- Insert merge fields into your Word document where you want the data to appear.
- Complete the merge, and Word will generate individual documents with data from your Access database.

### **3.2.2. EMBEDDING ACCESS DATA:**

- You can embed Access data directly into a Word document. This is useful for creating reports or documents that include tables or charts based on Access data.
- In Word, go to the “Insert” tab and select “Object” or “Table.” Choose to insert an “Object.”
- In the “Object” dialog, select “Microsoft Office Access Database” and choose the Access database file.
- You can then select specific tables, queries, or forms to embed in the document.
- Word will display the Access data in your document, and you can format it as needed.

### **3.2.3. VBA (VISUAL BASIC FOR APPLICATIONS):**

- To create more complex integrations, you can use VBA to automate interactions between Access and Word.
- Write VBA code in Access that opens Word, creates a new document, and populates it with data from the database.
- You can also automate the creation of reports or documents based on specific criteria.

## **3.3. INTEGRATING MS ACCESS WITH MS EXCEL**

- Integrating Microsoft Access with Microsoft Excel can be useful for sharing and analyzing data between the two applications. Here are some common ways to integrate the two:

### **3.3.1. IMPORT AND EXPORT DATA:**

- One of the simplest ways to integrate Access and Excel is by importing and exporting data.
- To export data from Access to Excel, open your Access database, select the table or query you want to export, go to the “External Data” tab, and choose “Excel” as the export

format. Follow the wizard to export the data.

- To import data from Excel to Access, you can use a similar process. Open Access, go to the “External Data” tab, choose “Excel,” and follow the wizard to select the Excel file and import the data into a new or existing table.

### **3.3.2. LINKING TABLES:**

- You can link Excel tables in Access, which allows you to work with Excel data in Access without physically importing it.
- In Access, go to the “External Data” tab, choose “Excel” as the data source, and select the Excel file. Follow the wizard to link the Excel table.
- Linked tables can be used in queries, forms, and reports in Access, enabling you to combine data from both sources.

### **3.3.3. AUTOMATION WITH VBA:**

- You can use VBA (Visual Basic for Applications) to automate the transfer of data between Access and Excel.
- Write VBA code in Access to open an Excel workbook, copy data from Access, and paste it into Excel or vice versa.
- You can also automate data transformations, calculations, and reporting using VBA.

### **3.3.4. EXCEL AS A REPORTING TOOL:**

- Excel can be used as a reporting tool for Access data. You can design pivot tables, charts, and reports in Excel that update dynamically when Access data changes.

## **SUMMARY:**



### **Integrating MS Access with MS Outlook:**

- Export Data: Transfer Access data to Outlook for contacts and calendars.
- Link Tables: Create linked tables for seamless data interaction.
- Automate Emails: Use VBA to automate email sending from Access.
- Calendar Management: Integrate Access with Outlook calendars.

### **Integrating MS Access with MS Word:**

- Mail Merge: Use Access as a data source for customized Word documents.
- Embed Data: Embed Access data directly into Word documents.
- VBA Automation: Develop VBA code for complex integrations.

### **Integrating MS Access with MS Excel:**

- Import/Export Data: Easily move data between Access and Excel.
- Linked Tables: Work with Excel data in Access without importing.
- VBA Automation: Automate data transfers and calculations.
- Excel Reporting: Create dynamic Excel reports based on Access data.

## **MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE**

### **1. How can you export data from Microsoft Access to Microsoft Outlook?**

- a) Copy and paste the data
- b) Use the "Export" option in Access
- c) Use VBA to send data
- d) There is no way to export data from Access to Outlook

### **2. Which format can you use to export data from Access to Outlook?**

- a) PDF
- b) CSV
- c) HTML
- d) All of the above

### **3. What is VBA in the context of integrating Access with Outlook?**

- a) Visual Business Application
- b) Virtual Basic for Access
- c) Visual Basic for Applications
- d) Very Basic Automation

**4. How can you link Access tables to Outlook data?**

- a) Through the Access "Link Tables" feature
- b) By copying and pasting data
- c) By importing a CSV file
- d) This is not possible

**5. Which of the following can you automate using VBA when integrating Access with Outlook?**

- a) Sending emails
- b) Creating new Outlook folders
- c) Importing data from Excel
- d) All of the above

**6. What can you achieve by integrating Access with Outlook calendars?**

- a) Automatically importing Excel files
- b) Managing appointments and events
- c) Exporting data to PDF
- d) Embedding Access forms in Word documents

**7. What is a common method for integrating Microsoft Access with Microsoft Word for document creation?**

- a) Using Excel as an intermediary
- b) Sending data via email
- c) Utilizing the Mail Merge feature in Word
- d) Manually copying and pasting data

**8. What is the primary purpose of the Mail Merge feature when integrating Access and Word?**

- a) To send emails from Access
- b) To create customized documents using Access data
- c) To import Excel files into Access
- d) To link Access tables with Word documents

**9. How can you embed Access data into a Word document?**

- a) By exporting data to Excel first
- b) By using the "Insert" tab in Word
- c) By linking Access tables in Word
- d) By converting Access data to text files



**10. What role does VBA play in integrating Access with Word?**

- a) Automating data exports to PDF
- b) Creating complex database structures
- c) Automating interactions and document population
- d) Linking Access forms to Excel workbooks

**11. What is a common method for integrating Microsoft Access with Microsoft Excel for data sharing and analysis?**

- a) Exporting data to CSV
- b) Creating custom charts in Access
- c) Using Access as a pivot table tool
- d) Importing and exporting data

**12. What is the advantage of linking Excel tables in Access compared to importing Excel data?**

- a) Linked tables are read-only
- b) Linked tables are stored within Access
- c) Linked tables allow real-time updates from Excel
- d) Linked tables require manual updates

**13. How can you automate data transfer between Access and Excel?**

- a) By manually copying and pasting data
- b) By using VBA to automate the process
- c) By converting Access tables to PDF
- d) By importing/exporting data as CSV files

**14. What can Excel be used for when integrated with Access data?**

- a) Real-time data updates
- b) Creating pivot tables and charts
- c) Sending emails from Access
- d) Linking Access forms to Outlook

**15. Which of the following is NOT a method of integrating Access with Excel?**

- a) Importing and exporting data
- b) Using VBA for data transfer
- c) Creating linked tables
- d) Embedding Access forms in Excel

**ANSWERS:**

1. B) Use the "Export" option in Access
2. B) CSV
3. C) Visual Basic for Applications
4. Through the Access "Link Tables" feature
5. Sending emails
6. Managing appointments and events
7. Utilizing the Mail Merge feature in Word
8. To create customized documents using Access data
9. By using the "Insert" tab in Word
10. Automating interactions and document population
11. Importing and exporting data
12. Linked tables allow real-time updates from Excel
13. B) By using VBA to automate the process
14. B) Creating pivot tables and charts
15. D) Embedding Access forms in Excel

**SELF-EXAMINATION QUESTIONS FOR PRACTICE**

1. How can you export data from Microsoft Access to Microsoft Outlook, and what are the supported export formats?
2. Describe the process of linking Access tables to Outlook data. What benefits does this provide?
3. What is VBA, and how can it be used to automate the process of sending emails from Access via Outlook?
4. How can you integrate Access with Outlook calendars, and what are the potential applications of this integration?
5. In what scenarios would you choose to integrate Microsoft Access with Microsoft Word, and what are the benefits of doing so?

6. Explain the steps involved in using Mail Merge in Word with Access as the data source. What types of documents can you create using this method?
7. What is the purpose of embedding Access data directly into a Word document? How can this be accomplished?
8. How can VBA be utilized to create more complex integrations between Access and Word, and what are some examples of such integrations?
9. Why might you want to integrate Microsoft Access with Microsoft Excel, and what are some common methods for doing so?
10. What is the advantage of linking Excel tables in Access, and how does this differ from importing Excel data into Access?

# CHAPTER 4

## MODIFY FORMS IN LAYOUT VIEW:



### LEARNING OBJECTIVE:

- ✓ Effectively add titles and logos to Access forms.
- ✓ Differentiate Layout and Design views.
- ✓ Utilize Title and Logo options.
- ✓ Adjust logos and understand form view limitations.
- ✓ Understand title/logo importance.
- ✓ Use Title and Logo tools.
- ✓ Add, resize logos.
- ✓ Recognize form view limits.

### 4.1. ADD A TITLE TO A FORM:

You can add a title to a form in Layout view or Design view by using the Title option on the Design tab within the Form Design Tools or Form Layout Tools tab. Adding a title will add a Form Header if the form doesn't have one already. If there is a title already, the Title option will select the text in the title and allow you to edit it.

The title is really a label control that is added to the form header in a layout. The layout has two columns: the first column contains an empty cell for an image or logo, and the second column contains the title label.

Note that you can add a title to any form, including a datasheet form. However, form headers and footers are not available when the form is in Datasheet view.

#### To add a title:

1. In the Layout view of the form, go to the Design tab within the Form Layout Tools tab, and then in the Header/Footer group, select Title. Alternatively, in the Design view of the form, go to the Design tab within the Form Design Tools tab, and then in the Header/Footer group, select Title. The following screenshot highlights the Design tab within the Form Layout Tools tab and the Title option in the Header/Footer group.

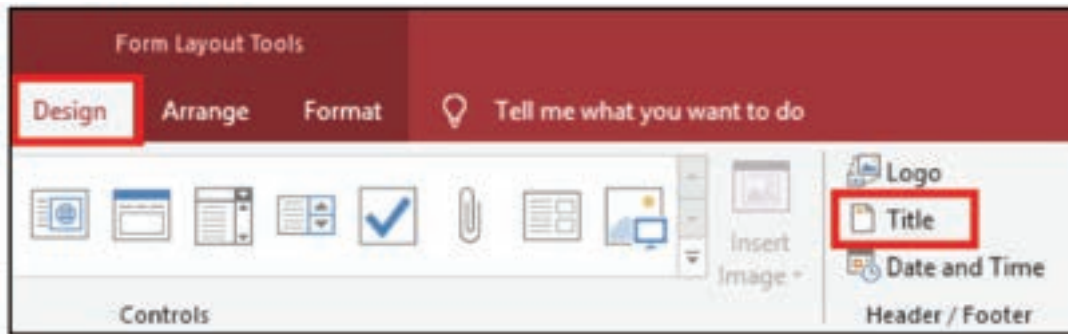


Figure 4.1. The Title option on the Design tab in the ribbon

2. Enter the title text and then select Enter.

#### 4.1.1. ADD A LOGO TO A FORM HEADER:

You can add a logo to a form in Layout view or Design view by using the Logo option on the Design tab within the Form Design Tools or Form Layout Tools tab. Adding a logo in this way will add a Form Header to the form if the form doesn't have one already. The logo is added to the form header in a layout. The layout has two columns: the first column contains the logo, and the second column contains a label in which you can add a title.

Note that you can add a logo to any form, including a datasheet form. However, form headers and footers are not available when the form is in Datasheet view.

#### To add a logo:

1. Open a form in Design view.
2. In the Layout view of the form, go to the Design tab within the Form Layout Tools tab, and then in the Header/Footer group, select Logo. Alternatively, in the Design view of the form, go to the Design tab within the Form Design Tools tab, and then in the Header/Footer group, select Logo. The following screenshot highlights the Design tab within the Form Layout Tools tab and the Logo option in the Header/Footer group.

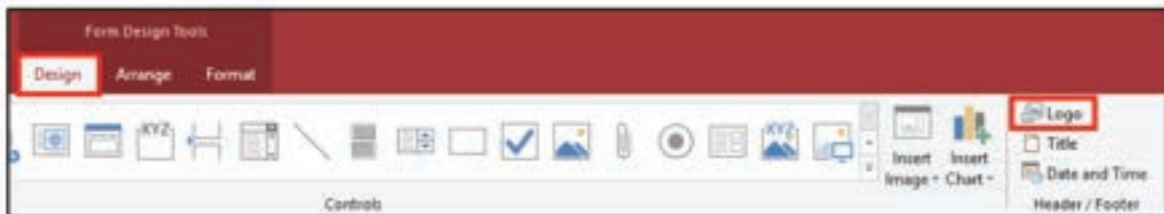


Figure 4.2. The Logo option on the Design tab

3. Browse to the picture you want to use, select it, and then select Open.
4. Optionally, resize the picture by changing the Width and Height values in the Property Sheet pane or by resizing the layout with your cursor.
5. Optionally, select Title to add a title to the same layout.



Figure 4.3. Resizing the layout for a logo image and title

## SUMMARY:



To enhance the appearance of forms in Microsoft Access in either Layout view or Design view, you can add titles and logos to form headers using the Form Design Tools or Form Layout Tools tab.

### Adding a Title to a Form:

- Go to the Design tab in Form Layout or Form Design Tools.
- In the Header/Footer group, choose "Title."
- Enter your title text and press Enter.

### Adding a Logo to a Form Header:

- Open the form in Design view.
- In Form Layout or Form Design Tools, go to the Design tab.
- In the Header/Footer group, select "Logo."
- Pick your image and click "Open."
- Optionally, adjust the image size in the Property Sheet or resize the layout.
- Optionally, add a title to the same layout by selecting "Title."

**Multiple Choice Questions (MCQ) for Practice:****1. What is the primary purpose of adding a title to an Access form?**

- a) To add a decorative element
- b) To provide a description of the form's purpose
- c) To create a header for every record
- d) To format the form background

**2. In which views can you add or edit a title in Microsoft Access?**

- a) Only in Layout view
- b) Only in Design view
- c) Both in Layout and Design views
- d) Only in Datasheet view

**3. Where can you find the Title option for adding or editing a title in Access?**

- a) In the Format tab
- b) In the Home tab
- c) In the Design tab within Form Design Tools
- d) In the Data tab

**4. How can you edit an existing title in an Access form?**

- a) Right-click and select "Edit Title"
- b) Double-click on the title text
- c) Select the title, then press the Delete key
- d) You cannot edit existing titles.

**5. What is the primary function of a title added to an Access form?**

- a) To display a company logo
- b) To provide a description of the form's purpose
- c) To sort data in the form
- d) To create a footer for every record

**6. How can you access the Logo option for adding a logo to an Access form in Design view?**

- a) By right-clicking on the form background

- b) By selecting "Insert Logo" from the Format menu
- c) In the Design tab within Form Design Tools
- d) In the Layout tab within Form Layout Tools

**7. What typically appears in the first column of the layout when a logo is added to an Access form?**

- a) The form title
- b) An empty cell for an image or logo
- c) The form footer
- d) The form record data

**8. In which form view are form headers and footers not available when adding a logo?**

- a) Only in Layout view
- b) Only in Design view
- c) Both in Layout and Design views
- d) Only in Datasheet view

**9. Why might you want to resize a logo added to an Access form?**

- a) To distort the image
- b) To fit it within the form header
- c) To change its color
- d) To remove it from the form

**10. Which tab should you select to add a logo to an Access form in Layout view?**

- a) Format tab
- b) Design tab within Form Design Tools
- c) Layout tab within Form Layout Tools
- d) Home tab

**11. When adding a title to an Access form, what is the primary benefit it provides to users?**

- a) Enhancing form aesthetics
- b) Increasing data storage capacity
- c) Improving data validation
- d) Adding extra rows to the form



**12. In Access, if there is already a title on a form, what does selecting the Title option allow you to do?**

- a) Delete the title
- b) Change the font style
- c) Select and edit the existing title text
- d) Add a second title to the form

**13. What is the main purpose of adding a logo to an Access form?**

- A) To add visual flair to the form
- B) To resize the form
- C) To create a second header
- D) To change the form's color scheme

**14. In Access, which view allows you to browse for and select an image file when adding a logo to a form?**

- a) Form view
- b) Datasheet view
- c) Layout view
- d) Design view

**15. What options are typically available for resizing a logo added to an Access form?**

- a) Width and Height values
- b) Color and background options
- c) Font style and size
- d) Sorting and filtering settings

**ANSWERS:**

1. B) To provide a description of the form's purpose
2. C) Both in Layout and Design views
3. C) In the Design tab within Form Design Tools
4. B) Double-click on the title text
5. B) To provide a description of the form's purpose
6. C) In the Design tab within Form Design Tools

- 7. B) An empty cell for an image or logo
- 8. D) Only in Datasheet view
- 9. B) To fit it within the form header
- 10. C) Layout tab within Form Layout Tools
- 11. A) Enhancing form aesthetics
- 12. C) Select and edit the existing title text
- 13. A) To add visual flair to the form
- 14. C) Layout view
- 15. A) Width and Height values



### **SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

- 1. Why is adding a title to an Access form important, and what is its purpose?
- 2. In which two views can you add a title to an Access form?
- 3. How do you access the Title option for adding or editing a form title in Microsoft Access?
- 4. Explain the procedure for editing an existing title in an Access form.
- 5. What is the primary function of a title in Access forms?
- 6. Describe the steps to add a logo to an Access form in Layout view.
- 7. How can you access the Logo option for adding a logo to an Access form in Design view?
- 8. What are the two columns typically found in the layout when a logo is added to an Access form?
- 9. Why might you want to resize a logo added to an Access form, and how can you do it?
- 10. In which form view are form headers and footers not available, and why is this important to consider when adding logos?

# CHAPTER 5

## MODIFY REPORTS IN LAYOUT VIEW:



### LEARNING OBJECTIVE:

By the end of this training module, you will be proficient in using Microsoft Access's Layout View to enhance reports. They will understand how to:

- ✓ **Navigate Layout View:** Learn the benefits of Layout View in Access, which closely resembles the printed report and is suitable for various modifications.
- ✓ **Modify Reports:** Learn to switch between Layout and Design Views, adjust column/field widths, change row/field heights, and add new fields for improved report readability.

### 5.1 INTRODUCTION:

You can organize and summarize data in reports in a variety of ways. Layout view and Design view are two views that Access offers you for editing your report. Which view you choose will depend on the exact activity you're attempting to do. However, you can utilize Layout View or Report View to assist with data locating after creating a report. For instance, you can quickly sort field data one at a time using Layout View, or you can use the Group, Sort, and Total pane to carry out more complicated sorts. Additionally, you can filter data in Layout View so that you only see the records that match the criteria you choose.

### 5.2 UNDERSTAND LAYOUT VIEW:

The easiest view to utilize for report modification is layout view, which can be used for almost all modifications you could wish to make to a report in Access. The report is actually running in Layout view, allowing you to see your data almost exactly as it will on paper. But in this view, you can also alter the report's layout. It's a very helpful view for altering column widths, adding grouping levels, or carrying out nearly any other action that impacts the layout and readability of the report because you can see the data while you are making the modifications. An example of a customer phone book report in layout view is shown in the example below.

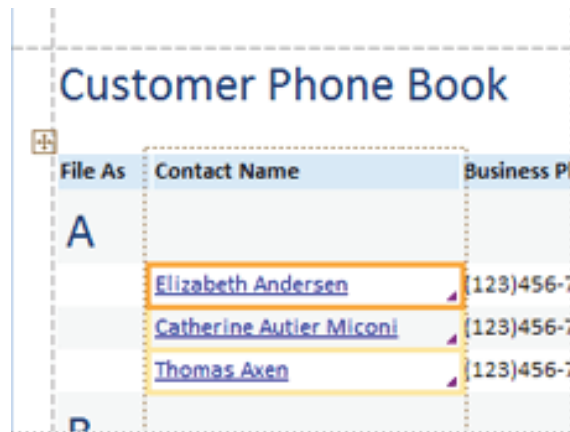


Figure 5.1. Report in Layout view

The report you see in Layout view does not look not exactly the same as the printed report. For example, there are no page breaks in Layout view. Also, if you have used Page Setup for format your report with columns, the columns are not displayed in Layout view. However, Layout view gives you a very close approximation of the printed report. If you want to see how the report will look when printed, use Print Preview.

Certain tasks cannot be performed in Layout view, and require you to switch to Design view. In certain situations, Access will display a message telling you that you must switch to Design view to make a particular change.

### 5.3 MODIFY REPORT ELEMENTS AND POSITIONING:

When creating reports, you also need to consider the report's design layout and common report modifications that you can perform in Layout view. You can use the following steps to modify some report design elements for an existing report.

1. On the Home tab, in the Views group, select View, and then select Design View.
2. **When the edit grids appear, to modify a column or field in Layout view:**
  - a. Select an item in a column that you want to adjust. A border appears around the item to indicate that the field is selected.
  - b. Drag the right or left edge of the border until the column is the width you want. Alternatively, you can adjust report property values in the Property Sheet pane. To open the Property Sheet pane, on the Design tab, in the Tools group, select Property Sheet. You can also open the Property Sheet pane by selecting Fn+F4. Make edits to the report properties by adjusting the property values for the selected item, as depicted in the following screenshot:

Property Sheet

Selection type: Report

Report

Format Data Event Other All

Caption	
Default View	Report View
Allow Report View	Yes
Allow Layout View	Yes
Picture Type	Embedded
Picture	(none)
Picture Tiling	No
Picture Alignment	Center
Picture Size Mode	Clip
Width	22"
Auto Center	No
Auto Resize	Yes
Fit to Page	Yes
Border Style	Sizable
Scroll Bars	Both
Control Box	Yes
Close Button	Yes
Min Max Buttons	Both Enabled
Moveable	No
Show Page Margins	Yes
Grid X	24
Grid Y	24
Layout for Print	Yes
Grp Keep Together	Per Column
Picture Pages	All Pages
Page Header	All Pages
Page Footer	All Pages
Orientation	Left-to-Right
Palette Source	(Default)

Figure 5.2. Property Sheet pane for a report

You can also select the Report drop-down list in the Property Sheet pane and then choose the option you want to modify, as depicted in the following screenshot.

Make the required modifications, and then save your report.

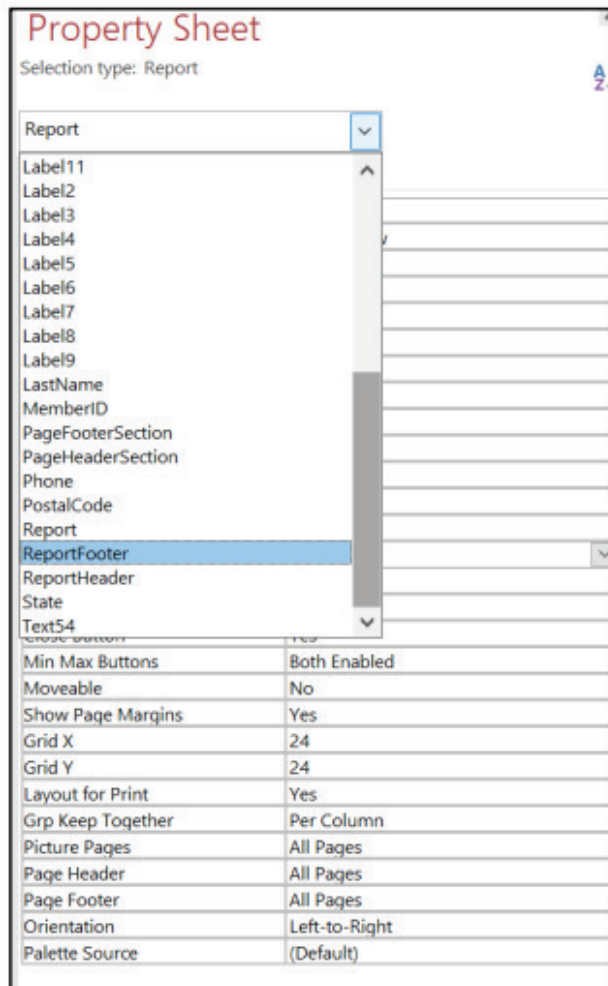


Figure 5.3. Modifying a report option in the Property Sheet pane

## 5.4 CHANGE COLUMN OR FIELD WIDTH IN LAYOUT VIEW:

- Click an item in the column that you want to adjust.  
A border is drawn around the item to indicate that the field is selected.
- Drag the right or left edge of the border until the column is the width you want.

## 5.5 CHANGE ROW OR FIELD HEIGHT IN LAYOUT VIEW:

- Click an item in the row that you want to adjust.  
A border is drawn around the item to indicate that the field is selected.
- Drag the top or bottom edge of the border until the row is the height you want.

## 5.6 ADD A FIELD IN LAYOUT VIEW:

- On the Design tab, in the Tools group, click Add Existing Fields.  
The list of available fields is displayed. If there are fields available in other tables, these will be displayed under Fields available in other tables.
- Drag a field from the Field List onto the report. As you move the field, a highlighted area will indicate where the field will be placed when you release the mouse button.

### SUMMARY:



**Access offers two report editing views: Layout View and Design View.**

- Layout View is ideal for organizing data, sorting, filtering, and basic design changes.
- Design View is for more complex tasks.
- In Layout View, you can adjust column and row widths, add fields, and use the Property Sheet pane for fine-tuning.
- Layout View provides a close approximation of the printed report's appearance.
- For complex changes, you may need to switch to Design View.

## MULTIPLE CHOICE QUESTIONS (MCQ) FOR PRACTICE

**1. What are the two primary views for editing reports in Microsoft Access?**

- a) Design View and Table View
- b) Layout View and Print View
- c) Design View and Layout View
- d) Design View and Datasheet View

**2. In which view can you see your report data almost exactly as it will appear on paper while still being able to make layout modifications?**

- a) Print View
- b) Datasheet View
- c) Design View
- d) Layout View

**3. What is the purpose of the Group, Sort, and Total pane in Layout View?**

- a) To change font styles in the report
- b) To filter data in the report
- c) To carry out complex sorts and groupings
- d) To switch between Design and Layout Views

**4. Which view gives you a very close approximation of the printed report in Microsoft Access?**

- a) Print Preview
- b) Datasheet View
- c) Design View
- d) Layout View

**5. When might Access prompt you to switch from Layout View to Design View when editing a report?**

- a) When adding a new field
- b) When adjusting column widths
- c) When applying formatting styles
- d) When saving the report

**6. To modify the width of a column or field in Layout View, what action should you take?**

- a) Double-click the column
- b) Right-click and select "Edit Width"
- c) Click and drag the border of the column
- d) Use the "Resize Column" button

**7. Which of the following is not displayed in Layout View compared to the printed report?**

- a) Page breaks
- b) Column headers
- c) Page numbers
- d) Formatting styles

**8. How can you change the height of a row or field in Layout View?**

- a) Use the "Adjust Row Height" button
- b) Double-click the row
- c) Click and drag the top or bottom border of the row
- d) Right-click and select "Resize Row"



**9. Which tab and group in Access do you need to select to open the Property Sheet pane for report modifications?**

- a) Design tab, Design group
- b) Layout tab, Format group
- c) Tools tab, Property Sheet group
- d) Home tab, Views group

**10. How can you add a new field to a report while in Layout View?**

- a) Use the "Insert Field" command
- b) Right-click and select "Add Field"
- c) Open the Property Sheet pane and choose "Add Field"
- d) Drag a field from the Field List onto the report

**11. Which view in Microsoft Access allows you to see exactly how your report will appear when printed, including page breaks and formatting?**

- a) Design View
- b) Print View
- c) Layout View
- d) Datasheet View

**12. In Layout View, how can you adjust the height of a row or field?**

- a) Right-click and select "Row Height."
- b) Use the "Resize Row" button.
- c) Double-click the row.
- d) Click and drag the left or right border of the row.

**13. What is the main advantage of using Layout View when making modifications to a report layout?**

- a) It allows you to apply formatting styles easily.
- b) It provides an exact preview of the printed report.
- c) It enables you to add new fields directly.
- d) It offers advanced filtering options.

**14. In Microsoft Access, when adding a new field in Layout View, where can you find the list of available fields to choose from?**

- a) In the Field List pane
- b) In the Group, Sort, and Total pane
- c) In the Property Sheet pane
- d) In the Navigation Pane

**15. Which view allows you to make advanced report design modifications, such as adding calculated fields or customizing the report's structure?**

- a) Print View
- b) Layout View
- c) Design View
- d) Datasheet View

**Answers:**

- 1. c. Design View and Layout View
- 2. d. Layout View
- 3. c. To carry out complex sorts and groupings
- 4. d. Layout View
- 5. a. When adding a new field
- 6. c. Click and drag the border of the column
- 7. a. Page breaks
- 8. c. Click and drag the top or bottom border of the row
- 9. c. Tools tab, Property Sheet group
- 10. d. Drag a field from the Field List onto the report
- 11. b. Print View
- 12. a. Right-click and select "Row Height."
- 13. b. It provides an exact preview of the printed report.
- 14. a. In the Field List pane
- 15. c. Design View

**SELF-EXAMINATION QUESTIONS FOR PRACTICE:**

1. What are the two primary views for editing reports in Microsoft Access?
2. When should you use Layout View, and when should you use Design View for report editing?
3. How can Layout View assist you in sorting field data in a report?
4. What is the purpose of the Group, Sort, and Total pane in Layout View?
5. In Layout View, how can you filter data to display only the records that match specific criteria?
6. What are some common modifications you can make to a report in Layout View?
7. Why does the report in Layout View not look exactly the same as the printed report?
8. When might you need to switch from Layout View to Design View when editing a report?
9. What steps can you follow to modify the width of a column or field in Layout View?
10. How can you add a new field to a report while in Layout View, and what is the process for doing so?

<b>TASK STATEMENT</b>	<b>KNOWLEDGE STATEMENT</b>
Create database , put data and make relationship	Students must understand the data , data warehouse, data mining
Create different types of query to made your database interactive	Must learn and understand query design and SQL command
Formulate reports and design forms	Must be apply to visual based coding in interactive mode
Compose a visual based coding	

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