

DIRECTORATE OF DISTANCE & CONTINUING EDUCATION

MANONMANIAM SUNDARANAR UNIVERSITY

TIRUNELVELI- 627 012



BBA Course Material

Computer Application in Management

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Computer Application in Business

Unit –I

Introduction, Menus, Shortcuts, Document Types, working with Documents-Opening – Saving – Closing - Editing Document, Using Toolbars, Rulers, Help, Formatting Documents-Setting font, paragraph, Page Style-Setting foot notes, page break, Line break, creating sections and frames, Inserting clip arts, pictures, Setting document styles, Creating Tables- Settings, borders, alignments, Merging, splitting, sorting rows and columns, Drawing-Inserting, drawing, formatting, grouping, ordering, rotating pictures, Tools- Word completion, Spell check.

Unit –II

Introduction, Spread sheet application, Tool bars and icons, Spreadsheet-Opening, saving, closing, setting margins, Converting file to different formats, spread sheet addressing, Entering And Editing Data Copy, cut, paste, undo, redo, find, search, replace, filling continuous rows and columns, inserting data cells, columns, rows and sheet, Basic formulas, Functions Types- Mathematical, Group, string, date and time, Formatting Spread Sheet- Alignment, font, border, hiding, locking, cells, Highlighting values, background color, bordering and shading, Working With Sheet-Sorting, filtering, subtotals, Charts-Selecting, formatting, labeling, scaling, spell check

Unit –III

Introduction, opening new presentation, Presentation templates, presentation layout, Creating Presentation- adding text, Formatting- Adding style, color, gradient fills, arranging objects, adding header and footer, slide background, slide layout, Slide Show, Inserting pictures, movies, Adding Effects-Setting animation and transition effects, audio and video.

Unit –IV

Database introduction Creating Database Creating Table Modifying Data in Table

Unit –V

Use Google forms to develop & share questionnaire.

Reading List

International Journal of Computer Applications in Technology

International Journal of Computer Applications – IJCA

P.Rizwan Ahmed; Computer Application in Business, Margham Publications,
2019.

Computer Application in Business (Tamil Nadu) by Dr. R.Paramaeswaran

Taxmann's Basics of Computer Applications in Business by Hem Chand Jain and
H.N. Tiwari, Taxmann Publications Private Limited .

UNIT –I

1.1 Introduction to M S Word:

One of the most widely used programs of Microsoft Office suite, MS Word is a word processor developed by Microsoft. An introduction to MS Word, its features and its uses, have all been discussed in detail, in this article. Also, a few sample questions based on this MS Office program have been given further below for the reference of candidates preparing for competitive exams. Since MS Word is one of the most used programs of the Office Suite, some basic information regarding its creation and development has been given below:

- Charles Simonyi, a developer and Richard Brodie, a software engineer, were the two creators of MSWord
- This program was initially named “Multi-Tool Word” but later, was renamed as MS Word
- It was introduced in 1983
- Word for Windows is available standalone or as a part of MS Office suite
- MS Word for Mac was introduced by Microsoft as Word 1.0 in 1985
- The extension for any word file is “.doc or .docx.”

Moving forward, details about the features and applications of Word have been discussed. To read more about the other Computer Knowledge topics, check the links given below:

Basics of MS word:

Let us first understand some basic aspects of Microsoft Word.



MS WORD

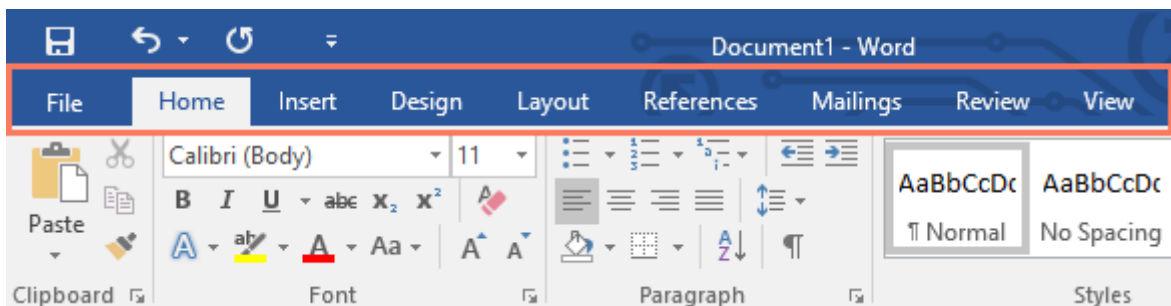
Used to make professional-quality documents, letters, reports, etc., MS Word is a word processor developed by Microsoft. It has advanced features which allow you to format and edit your files and documents in the best possible way.

To find MS Word on your personal computer

Follow these simple steps to open MS Word on your personal

Computer: Start→All Programs→MSOffice→MSWord.

Introduction of Menu:



Menus are graphical user interface (GUI) components that provide a list of options or commands for the user to choose from. In software applications, menus help users navigate through different functionalities and features. For example, a "File" menu might offer options to open, save, or print documents, while an "Edit" menu might include commands for copying, pasting, or undoing actions.

SHORTCUTS:

Shortcuts are key combinations or commands that allow users to quickly perform tasks without navigating through menus. For instance, pressing Ctrl + C copies selected text, and Ctrl + V paste it. Shortcuts streamline workflow by providing faster access to frequently used functions, enhancing productivity and efficiency.

Document Types:

Document types refer to the different formats or categories of files that can be created, edited, and saved in a software application. Common document types include word processing documents (.docx), spreadsheets (.xlsx), and presentations (.pptx). Each

document type is designed for specific purposes, such as text editing, data analysis, or creating slideshows.

Working with Documents:

Working with documents involves various tasks such as creating, editing, formatting, saving, and sharing files. This includes entering and organizing content, applying styles and formatting, using features like tables or charts, and ensuring proper file management. Effective document handling is crucial for maintaining accuracy and ensuring that documents are accessible and useful for business purposes.

OPENING DOCUMENT:

1 From a File Explorer (Windows) or Finder (Mac):

Windows:

Navigate to the location where the document is saved using File Explorer. Double-click on the file, and it will open in the default application associated with that file type.

Mac:

Use Finder to locate the document. Double-click on the file to open it in the default application.

2 Within an Application:

Microsoft Office (e.g., Word, Excel):

Open the application and go to the “File” menu, then select “Open.” Browse to the location of the document, select it, and click “Open.”

Google Workspace (e.g., Google Docs, Sheets):

Open the application and click on “File” in the menu. Select “Open” and choose whether to upload a file from your computer or open one from your Google Drive.

3 Using Shortcuts:

Windows:

Press Ctrl + O within most applications to open the “Open” dialog box where you can select the document to open.

4 From a Recent Documents List:

Microsoft Office:

Go to the “File” menu and look for “Recent” to see a list of recently opened documents. Click on the desired document to open it.

SAVING A DOCUMENT:

1 Initial Save:

Microsoft Office:

After editing, go to “File” > “Save As” to choose a location and name for your document.

2 Subsequent Saves:

Microsoft Office:

Use Ctrl + S (Windows)

a. Closing a Document:

1 Within an Application:

Microsoft Office:

Go to “File” > “Close” or click the close button (X) on the document window. Ensure all changes are saved before closing.

b. Editing a Document:

1 Basic Text Editing:

Microsoft Office/Google Docs:

Click into the document where you want to make changes and start typing. Use formatting tools (e.g., font size, bold, italics) to adjust text as needed.

Advanced Editing:

Inserting Objects:

Add images, tables, or charts by using the “Insert” menu or toolbar options.

Reviewing Changes:

Use track changes or comments features to review and collaborate on edits (available in Word and Google Docs).

c. Using the Toolbar & Button

Standard toolbar:-Standard toolbar contains the options related to file & document in the form of buttons. Ex:-new, copy, open, paste.



- **New**-To create a new file.
- **Open**-To open a created file.
- **Save**-To save the file.
- **E-Mail**- To show Current worksheet in E-Mail body.
- **Search**- To search any file] Web Pages or any outlook item.
- **Print**-To print the Document.
- **Print Preview**- Shows print preview of File.
- **Spelling**- Checks Spellings in document.
- **Cut**- To cut any text, Graphics.
- **Copy**- To copy any text, Graphics.
- **Paste**- To paste cut or copied portion at right place.
- **Format Painter**- Copies text style.
- **Undo**- Rejects previous work.
- **Redo**- Repeats previous work.
- **Insert a Hyperlink**- Adds Hyperlink.

Formatting Toolbar

Formatting tool bar contains the options related to the editing of text in document. Ex:- Alignment, bold, italic

- **Font-** To change the Font style or language.
- **Font size-** To change the font size.
- **Bold-** To make selected matter bold (Dark).
- **Italics-** This command is used to italic selected matter.
- **Underline-** To underline selected matter.
- **Alignment-**To set the alignment of text.
- **Line Spacing-** To set the space between lines.
- **Numbering-** To set numbers on various paragraphs of the document.
- **Bullets-** To set bullets on various paragraphs of the document.
- **Decrease Indent-** To decrease Paragraph Indent.
- **Increase Indent-** To increase Paragraph Indent.
- **Outside Border-** To set the Borders of table.
- **Highlight-** To highlight the text.
- **Font Color-** To set the text color.

d. Formatting Documents:

Any file or document created in ms word gives the facility of document formatting. Any kind of changes made on the text written in a file are the part of document formatting document formatting includes text formatting, paragraph formatting, page formatting etc.

Text Formatting:-

- 1. Selection of the text:-**To select whole text in a single attempt Ctrl + A shortcut key or Select all options is used. We can also use the key board, for that we use shift key with arrow keys.

To select the text with the help of mouse we place the cursor or pointer of mouse at the beginning of selecting text and drag it till the last selecting point.

- 2. Deletion of text:-**Any text in word document can we deleted by the following ways be deleted by the following ways-

- We can select the deleting text by any selection method and press Del to delete the text.
- For deleting the text from right to left direction we use back space key.
- For deleting the text in left to right direction or use Del key.

Font Formatting

- **Bold:** - Bold is used for making the text/word dark. To set font bold click the bold button from formatting tool bar.
- **Italic:**-Italic is used to change the style of text/ word in to italic. To italic font click the italic button from formatting toolbar.
- **Underline:** -This feature is used to underline the text or document. To underline click the underline button from formatting tool bar
- **Changing the font of text:-** To Change the font of text we select desired font clicking the drop-down list box of font button
- **Changing the size of font:-** To Change the size of font we select the desired font size by clicking the drop-down list box of size button
- **Change the color of text:-**To select desired color of the font click the font color drop down list box on the formatting toolbar
- **Change the border:** - Border button is used to change the border of text. To change the borders of text, click the border button from the formatting toolbar.

Moving the text: - To move the text from one place to another we have to do the following- Select the desired text

- Click the edit menu and select cut or click the cut button from the standard toolbar or press Ctrl+X from the keyboard.
- Click at the place where the text is to be moved
- Click edit menu and choose paste or click paste button from the standard toolbar or press Ctrl+V from the keyboard

Copying the text:-To copy the text we have to do the following-

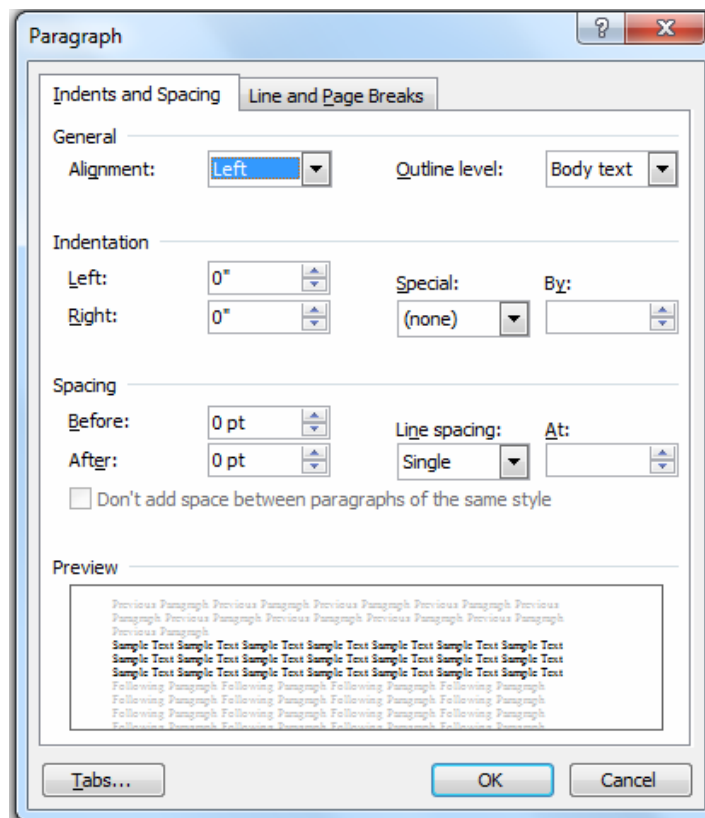
- Select the text to be copied
- Click on copy from edit menu or select copy button from the standard toolbar or press ctrl +C from the keyboard
- Click the place where it has to be copied

Click the place from edit menu or select paste button from the standard tool bar or press ctrl +V from the keyboard.

e. Paragraph Formatting:

A paragraph in Word is any text that ends with a hard return. You insert a hard return anytime you press the **Enter** key. Paragraph formatting lets you control the appearance of individual paragraphs. For example, you can change the alignment of text from left to center or the spacing between lines from single to double. You can indent paragraphs, number them, or add borders and shading to them.

Paragraph formatting is applied to an entire paragraph. All formatting for a paragraph is stored in the paragraph mark and carried to the next paragraph when you press the **Enter** key. You can copy paragraph formats from paragraph to paragraph and view formats through task panes



a. Aligning paragraph: - paragraph is by default aligned left side as we use for writing English or hindi on our copy if requested we can change if required, It can change if easily to right side or justify between both side to align in different ways the following icon are used

- Use right align button to align text or graphics in the right side
- Use Left align button to align text or graphics in the left side
- Use center align button to align text or graphics in the center

- Use justify align button to justify text or graphics at both ends

b. Spacing between two paragraphs:- in a paragraph space can be left between two lines

- Single spacing:- leaves no space between two lines
- Double spacing:-leaves one-line blank space between lines, to leave space between to paragraph does this-
- Select paragraph from format menu
- Specify spacing in points between paragraphs after and before in the spacing section
- Select paragraph from format menu
- Specify spacing in points between paragraphs after and before in the spacing section

a. Paragraph indents:-The text typed in any text document is generally divided in paragraphs after the margins of the page any space left in a paragraph from left or right direction is known as indent Apart from margins blank space on the page right or left is called indent. There are two types of indeed–

- First line indent
- Hanging indent

First line indent:- by using first line indent the space for first line is left as indent then we set first line indent we words available in first line start shifting in next line.

Hanging indent: - when we use hanging indent the space for other lines of paragraph is set whether from the left or right direction. While text with a hanging indent is frequently used for bibliographic, entries, glossary, items, resumes and bulleted and numerical lists

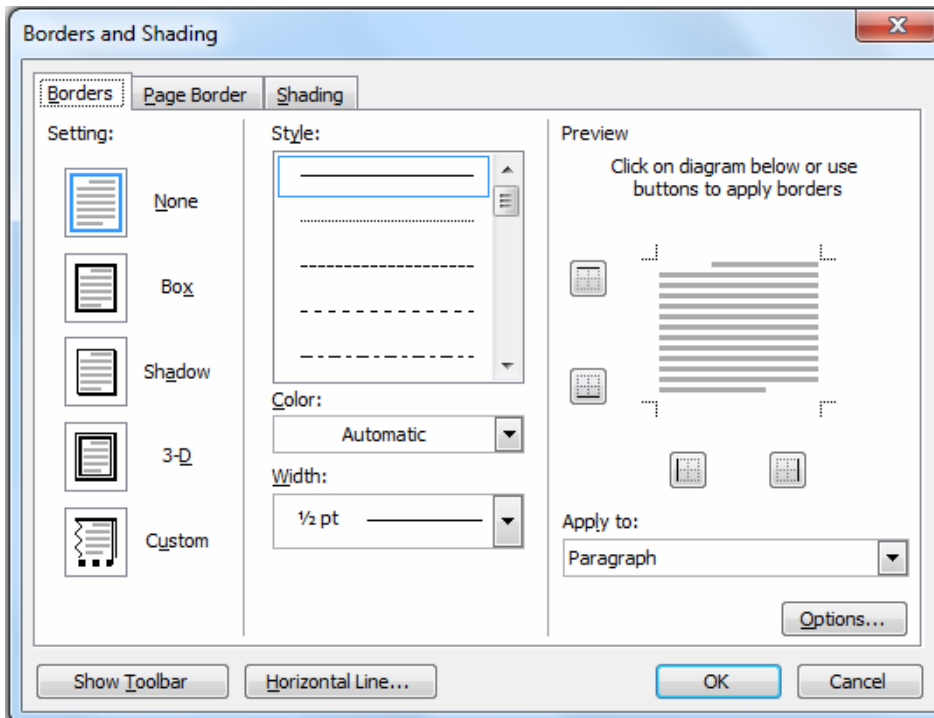
b. Setting text with first line and hanging indent:- to set text with first line and hanging indent

- Select the paragraph you want to set incantation
- Click the format menu and select paragraph
- In the special full down menu select first line and hanging as required
- click ok

Borders and Shadings

We can set any kind of borders on the text paragraph, page or character as her our requirement to set the border for the text we sell have to select border and shading dialog

box named border and shading we can choose the border for the paragraph from the available design we can also change the color of border.



To change border and shading of a paragraph or page do this-

- Select a paragraph or page
- Choose Border and Shading option from format menu.
- Click the desired border under setting section
- To add shading click shading tab and select the shading as desired
- Finally click on ok button.

f. Page Style Setting :

1. Page Orientation

The page orientation defines whether the document is displayed vertically (portrait) or horizontally (landscape).

Steps:

- Go to the **Layout** tab on the Ribbon.
- Click on **Orientation**.
- Choose either **Portrait** or **Landscape**.

2. Page Margins

Margins control the amount of space between the text and the edges of the page.

Steps:

- Go to the **Layout** tab.
- Click on **Margins**.
- Select a preset option (Normal, Narrow, Wide, etc.) or click **Custom**

Margins to set specific margin values for Top, Bottom, Left, and Right.

3. Page Size

You can select different page sizes, such as Letter, A4, A3, etc., depending on your printing or layout needs.

Steps:

- Go to the **Layout** tab.
- Click on **Size**.
- Choose a predefined size (e.g., **A4** or **Letter**) or click **More Paper Sizes** for custom dimensions.

4. Page Color

Page color can be used for designing creative documents with colored backgrounds.

Steps:

- Go to the **Design** tab.
- Click **Page Color**.
- Select a color from the palette or choose **More Colors** for custom shades.

5. Page Borders

Adding a border around the page can enhance the document's appearance for formal or creative purposes.

Steps:

- Go to the **Design** tab.
- Click **Page Borders**.
- In the **Borders and Shading** window, select the border style, color, width, and apply it to the whole document or specific sections.

6. Headers and Footers

Headers and footers are the top and bottom sections of a page where you can insert titles, dates, page numbers, or other information.

Steps:

- Go to the **Insert** tab.
- Click **Header** or **Footer**.
- Choose a design or template, and insert text, page numbers, or other elements.
- To add page numbers, click **Page Number** under the **Insert** tab, and choose where to display them (top, bottom, margins, etc.).

7. Line Numbers

Line numbering is useful for legal documents or scripts where you need to reference specific lines.

Steps:

- Go to the **Layout** tab.
- Click **Line Numbers**.
- Choose a line numbering style, such as continuous numbering, restarting on each page, or restarting in each section.

8. Columns

You can divide text into multiple columns for better readability, especially in newsletters or articles.

Steps:

- Go to the **Layout** tab.
- Click on **Columns**.
- Choose the number of columns you want (one, two, or three) or click **More Columns** to customize the layout.

9. Section Breaks

Section breaks allow you to apply different formatting (e.g., margins, headers/footers, orientation) to different parts of the document.

Steps:

- Go to the **Layout** tab.
- Click **Breaks** and choose a type of section break:
 - **Next Page**: Starts the new section on the next page.
 - **Continuous**: Starts a new section on the same page.
 - **Even/Odd Page**: Starts the new section on the next even or odd-numbered page.

10. Watermarks

Watermarks are faded text or images that appear in the background of the document, often used for branding or to mark drafts.

Steps:

- Go to the **Design** tab.
- Click **Watermark**.
- Choose a preset watermark (e.g., "Confidential," "Draft") or click **Custom Watermark** to create your own with text or an image.

g. Footnotes:

Footnotes are notes placed at the bottom of the page to provide additional information, citations, or references to content within the main body of text. They help

maintain the flow of the document without cluttering the text with explanations.

How to Insert Footnotes in MS Word

1. **Place the cursor** where you want the footnote number to appear in the text.
2. **Go to the "References" tab** on the Ribbon.
3. Click **Insert Footnote** in the Footnotes group.
4. Word automatically inserts a superscript number in the text and moves the cursor to the bottom of the page where the footnote is created.
5. **Type your footnote** text at the bottom of the page.
6. To return to the main text, click back into the body of the document.

h. Page break :

How to Insert a Page Break

1. **Place the cursor** where you want the new page to start.
2. **Go to the "Insert" tab** on the Ribbon.
3. Click **Page Break** in the Pages group, or use the shortcut **Ctrl + Enter**.

This will move the content after the cursor to the next page.

Removing a Page Break

If you want to remove a page break:

1. Click on the area directly before or after the page break.
2. Press **Delete** (for breaks after the content) or **Backspace** (for breaks before the content).

i. Line break:

A **line break** is used to move text to the next line without starting a new paragraph. It keeps the formatting of the current paragraph intact but shifts the content after the cursor

to a new line. This is useful when you want to break a line of text but maintain the paragraph's style, spacing, and formatting.

How to Insert a Line Break

1. **Place the cursor** where you want the line to break.
2. Press **Shift + Enter**.

This will insert a line break, and the text after the cursor will move to the next line without adding extra space between lines (as would happen with a new paragraph).

j. Creating Sections and Frames :

Creating Sections:

Sections allow different parts of a document to have unique layouts or formatting, such as different headers, footers, page orientation, or columns.

How to Create a Section:

1. **Place the cursor** where you want the new section to begin.
2. **Go to the "Layout" tab** on the Ribbon.
3. Click on **Breaks**, and under **Section Breaks**, choose one of the following:
 - **Next Page**: Starts a new section on the next page.
 - **Continuous**: Starts a new section on the same page.
 - **Even Page** or **Odd Page**: Starts the section on the next even or odd-numbered page.

Creating Frames:

Frames are used to place and position text, images, or objects at specific locations on a page. Frames allow you to move content freely around the page, separate from the main body text.

How to Insert a Frame:

While frames are not as directly available in the newer versions of MS Word (since text boxes have largely replaced frames), you can still use them by following these steps:

1. **Display the Developer Tab:**

- Right-click anywhere on the Ribbon, and choose **Customize the Ribbon**.
- Under **Main Tabs**, check **Developer** and click **OK**.

2. **Insert a Frame:**

- Go to the **Developer** tab.
- In the **Controls** group, click **Legacy Tools** (the small hammer and wrench icon).
- Click **Insert Frame** (under the Legacy Forms category).
- Draw the frame where you want it on the page.

3. **Adjust Frame Properties:**

- Right-click the frame border and choose **Format Frame**.
- Here, you can adjust settings such as position, text wrapping, and size.

k. **Inserting Clip Arts and Pictures :**

Inserting **clip art** and **pictures** into your Word document allows you to visually enhance your document with images, illustrations, and designs. Here's how to do it, along with tips on how to use these features effectively.

1. Inserting Clip Art

Clip Art consists of pre-made graphics, illustrations, or designs that can be used in documents for decoration or to convey a message visually. While Microsoft Word no longer includes a built-in Clip Art gallery, you can insert images from **Online Pictures** or use **icons** from its built-in collection.

How to Insert Clip Art:

1. **Go to the "Insert" tab** on the Ribbon.
2. Click on **Pictures** and select **Online Pictures**.
3. A window will appear allowing you to search for clip art images using Bing. Type in a keyword (e.g., "nature," "office," or "arrows") to search for relevant clip art.
4. Click on the image you want, then click **Insert**.

Alternative for Clip Art:

- **Icons:** MS Word provides a library of vector-based icons. To use them, go to the **Insert** tab and click **Icons**. You can search for icons or choose from categories like people, business, or education.
- You can also download and insert Clip Art from external sources like stock image websites or specialized Clip Art libraries.

2. Inserting Pictures

You can insert your own images, such as photos or graphics, into Word from your computer or the web.

How to Insert Pictures from Your Computer:

1. **Go to the "Insert" tab** on the Ribbon.
2. Click on **Pictures** and select **This Device**.
3. Navigate to the location of the image on your computer, select it, and click **Insert**.

How to Insert Pictures from Online:

1. **Go to the "Insert" tab** on the Ribbon.
2. Click on **Pictures** and select **Online Pictures**.
3. Use the search bar to find images through Bing or search the stock images provided by Microsoft.
4. Select the image and click **Insert**.

3. Editing and Formatting Pictures

Once you've inserted a clip art image or picture, you can edit and format it using Word's built-in tools.

Resize the Image:

Click on the image, and drag the corner handles to resize it proportionally. Hold **Shift** while dragging to maintain the aspect ratio.

Adjust Image Position:

Click on the image, go to the **Layout Options** icon that appears next to the image, and choose a wrapping style:

- **In Line with Text:** The image behaves like a text character.
- **Square:** Text wraps around the image in a square.
- **Tight:** Text wraps tightly around the edges of the image.
- **Behind Text:** The image appears behind the text.
- **In Front of Text:** The image appears in front of the text.

Crop the Image:

1. Select the image, and go to the **Picture Format** tab.
2. Click on **Crop**, and drag the handles to crop the image as desired.

Apply Styles:

1. Go to the **Picture Format** tab.
2. Choose from the **Picture Styles** options to add effects like shadows, borders, or 3D effects.

Change Picture Color or Effects:

1. Go to the **Picture Format** tab.
2. Use options like **Corrections**, **Color**, or **Artistic Effects** to adjust the brightness, contrast, or apply filters like grayscale or sepia.

1. Setting Document :

Setting document styles in MS Word is key to ensuring a consistent and professional appearance for your documents. Styles allow you to format text, headings, lists, and other elements systematically, so you can apply consistent formatting throughout your document with ease.

1 Using Predefined Styles

MS Word offers a variety of built-in styles that you can use to format headings, paragraphs, titles, subtitles, and more.

Applying Predefined Styles:

1. **Select the text** you want to format.
2. **Go to the "Home" tab** on the Ribbon.
3. In the **Styles** group, you'll see a variety of predefined styles (e.g., Heading 1, Heading 2, Title, Subtitle, Normal).
4. Click on a style to apply it to your selected text.

Heading Styles (Heading 1, Heading 2, etc.) are especially useful for creating structured documents like reports or academic papers. Using headings consistently also helps in generating tables of contents automatically.

2. Creating and Modifying Styles

If the predefined styles don't match your desired formatting, you can create custom styles or modify existing ones.

How to Modify an Existing Style:

1. **Right-click** on the style (e.g., Heading 1) in the **Styles** group on the Ribbon.
2. Select **Modify**.
3. In the **Modify Style** dialog box, you can change:
 - **Font** (type, size, color, etc.).
 - **Paragraph settings** (alignment, indentation, spacing).
 - **Style type** (e.g., paragraph, character, list).
4. Once you've made your changes, click **OK**.

How to Create a New Style:

1. **Go to the "Home" tab** on the Ribbon.
2. In the **Styles** group, click the small arrow in the bottom-right corner to open the **Styles Pane**.
3. At the bottom of the pane, click **New Style**.
4. In the **Create New Style** window, define the style settings:
 - **Name** your style (e.g., "Custom Heading").

- Select the style **type** (e.g., paragraph or character).
- Set the **font, size, alignment**, and other formatting options.

5. Click **OK**. Your new style will now appear in the Styles gallery.

3 Applying Styles to a Document

After defining or modifying your styles, apply them consistently throughout your document:

1. **Highlight the text** or paragraph you want to apply the style to.
2. Select the appropriate style from the **Styles** group on the Ribbon.

Using consistent styles is essential for:

- **Professional Documents:** Reports, business letters, academic papers, and manuals.
- **Generating Tables of Contents:** Heading styles (Heading 1, Heading 2, etc.) allow you to automatically generate a Table of Contents in the **References** tab.
- **Collaborative Work:** When multiple authors are working on the same document, consistent styles ensure uniform formatting.

4. Using the Style Inspector

To ensure that your document's formatting is consistent; you can use the Style Inspector to check the styles applied to each part of the document.

How to Use the Style Inspector:

1. **Go to the "Home" tab.**
2. Click the small arrow in the **Styles** group to open the Styles pane.
3. At the bottom of the Styles pane, click the **Style Inspector** (a magnifying glass icon).
4. The Style Inspector will display the style and formatting details of the selected text, allowing you to troubleshoot or adjust inconsistencies.

5. Clearing Formatting

If you have inconsistent or unwanted formatting, you can quickly clear it and apply your document styles:

1. **Select the text** where you want to remove formatting.

2. Go to the **Home** tab.
3. In the **Styles** group, click **Clear All Formatting** (the "A" with an eraser icon). This removes all direct formatting (font size, color, bold, etc.) and resets the text to the default **Normal** style.

Creating Tables:

Microsoft Word or MS-WORD is a graphical word processing program that users can type with. It allows the users to type and save documents very similar to other word processors. There are many versions of MS-word in market, which the user can install aspirate. In this will learn about the tables in MS-Word.

Tables in MS Word are made up of rows and columns with an organized arrangement of text. These tables can be used to align numbers in columns and then various operations can be performed on them. Tables can also be used to create page.

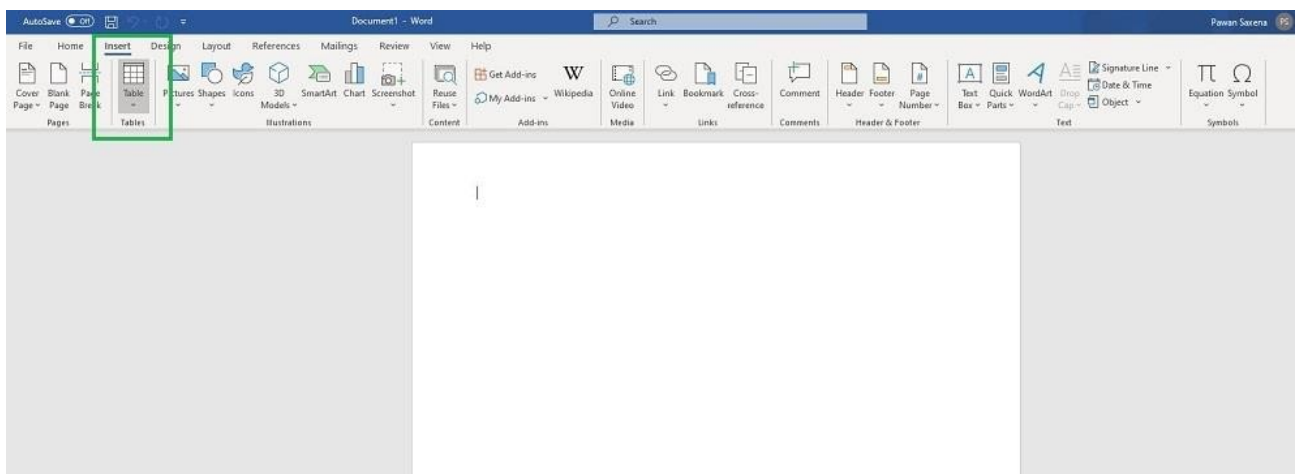
Tables in MS Word can be created in the following two ways:

1. Using the Grid
2. Using Table Dialogue Box

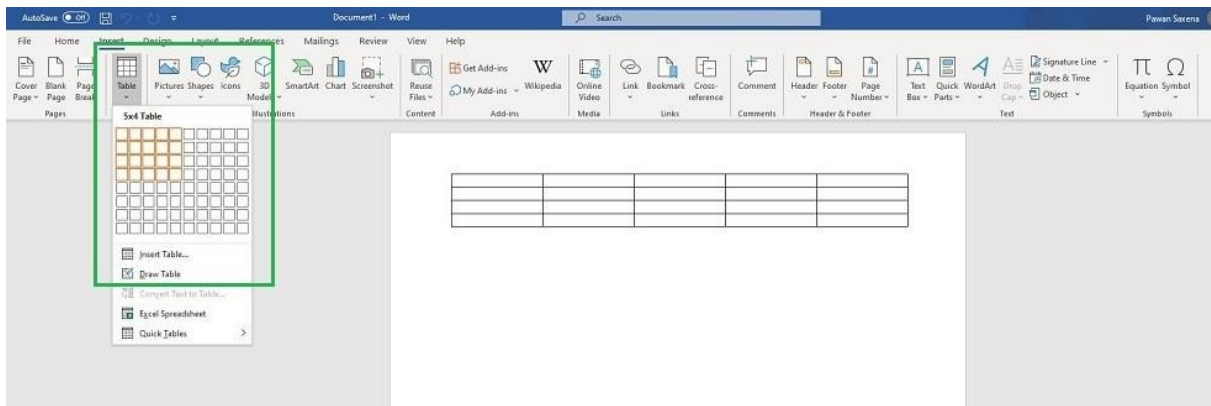
Using the Grid

Following are the steps of creating a table using the Grid provided in MS Word:

Step1: Go to the **Insert** tab and click on the **Table** button.



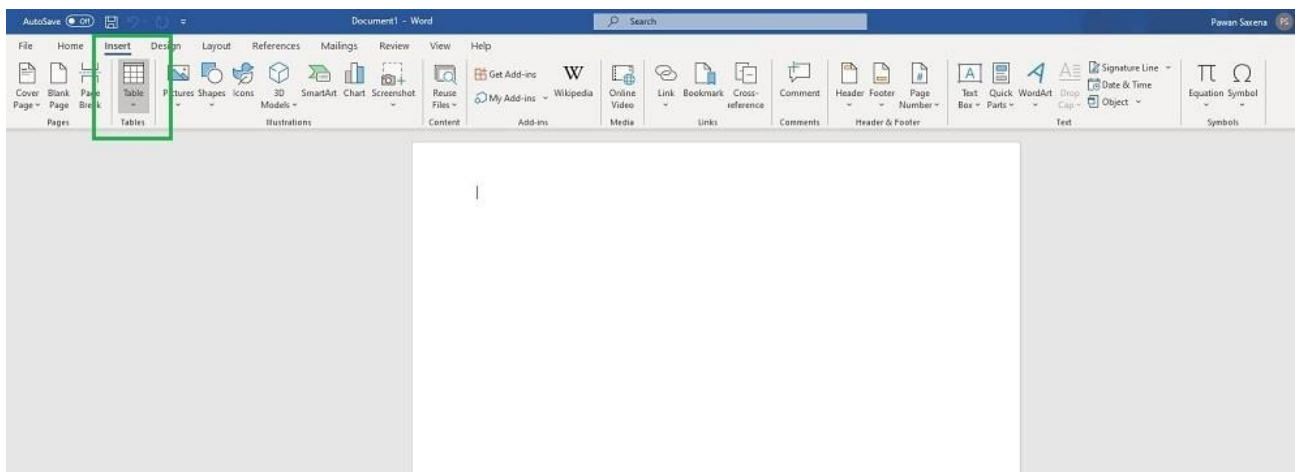
Step2: In the drop down menu, select the number of rows and columns from the Grid.



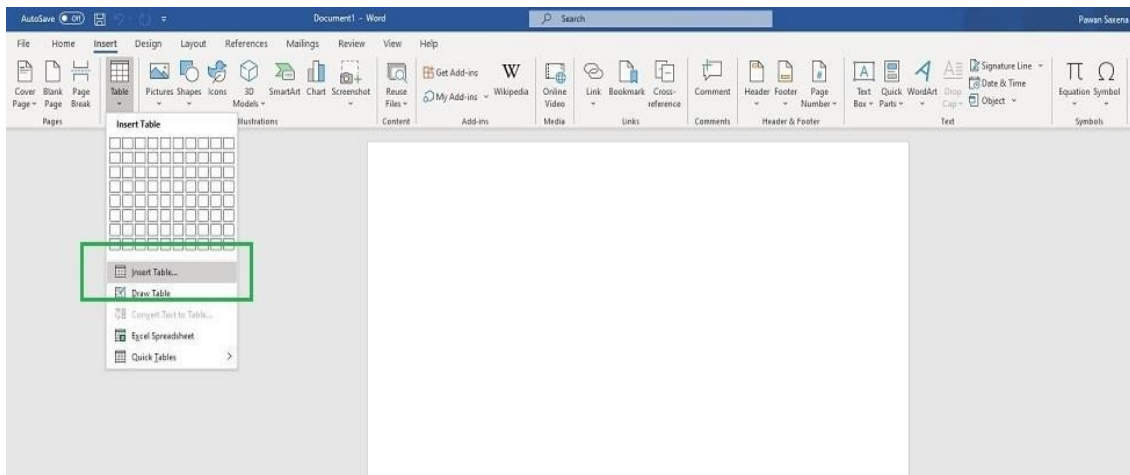
Using Table Dialogue Box

Following are the steps of creating a table using Table Dialogue Box in MS Word:

Step1: Go to the **Insert** tab and click on the **Table** button.



Step2: Under the grid, you will see an **Insert Table** button. Click on it.



Step 3:

In the Insert Table Dialogue box, mention the number of rows and number of columns as per the requirement and click on **OK** button.

How to Modify a Table?

We can also edit/modify a table to make it more creative. Multiple operations can be performed on a table like changing the layout, splitting of cells, merging the cells, applying borders, etc. Here, we will see some of the operations performed on a table in MS Word.

1.21 Borders and Alignment in Tables in MS Word:

When working with tables in Microsoft Word, you can format those using **borders** and **alignment** to enhance the presentation and organization of data. Here's how you can control both borders and alignment effectively.

1 Setting Borders in Tables

You can apply borders to an entire table, specific cells, rows, or columns to highlight or organize content.

How to Add or Modify Table Borders:

Select the table or the specific rows/columns/cells where you want to add or modify borders.

- **Go to the "Table Design" tab** that appears on the Ribbon when the table is selected.

- In the **Borders group**, you'll find options to control the borders:
- **Borders:** Click on the dropdown to choose options like:
- **All Borders:** Adds borders around all cells in the selected table.
- **Outside Borders:** Adds a border around the outer edge of the table only.
- **Inside Borders:** Adds borders only between the cells inside the table.
- **No Border:** Removes all borders from the selected area.
- **Custom Borders:** Add borders to specific sides (top, bottom, left, right) of cells or the table.
- **Line Style:** Choose different line styles, such as dashed or solid lines, from the dropdown menu.
- **Line Weight:** Change the thickness of the border lines to make them stand out.
- **Border Color:** Select a different color for the borders to suit your document's design.

Advanced Border Formatting:

To further customize borders, select the **Borders and Shading** option from the dropdown. In the dialog box, you can define borders in more detail, such as applying different styles to different parts of the table.

2. Aligning Text in Tables

You can control how text is aligned inside table cells to enhance readability and presentation.

Horizontal Text Alignment:

1. **Select the cells** where you want to adjust the alignment.
2. **Go to the "Layout" tab** under **Table Tools** (it appears when the table is selected).
3. In the **Alignment group**, you can select one of the horizontal alignment options:

Align Left: Aligns the text to the left of the cell.

Center: Centers the text in the middle of the cell.

Align Right: Aligns the text to the right of the cell.

Vertical Text Alignment:

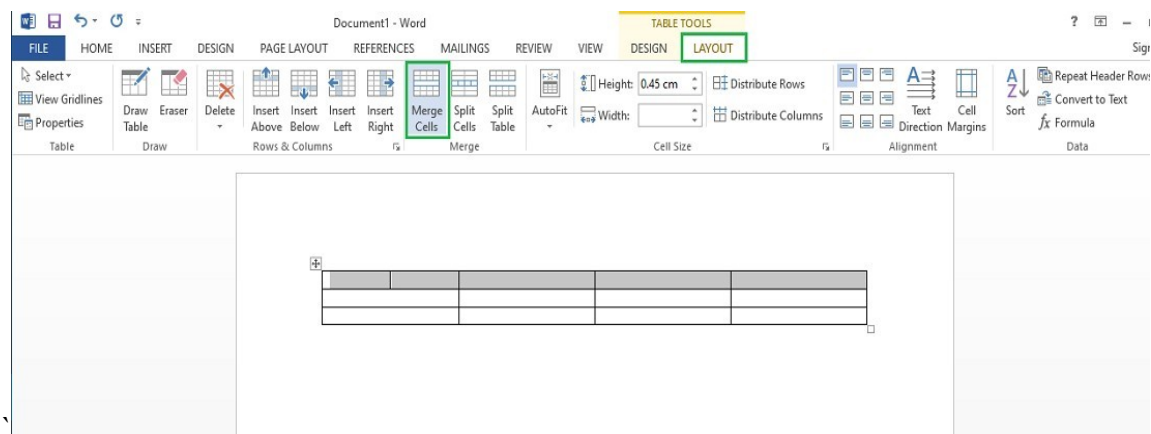
You can also align text vertically within the cell (top, center, bottom):

1. **Go to the "Layout" tab under Table Tools.**
2. **In the Alignment group, select from:**
 - **Top Align:** Aligns the text at the top of the cell.
 - **Center Align:** Aligns the text in the middle of the cell.
 - **Bottom Align:** Aligns the text at the bottom of the cell.

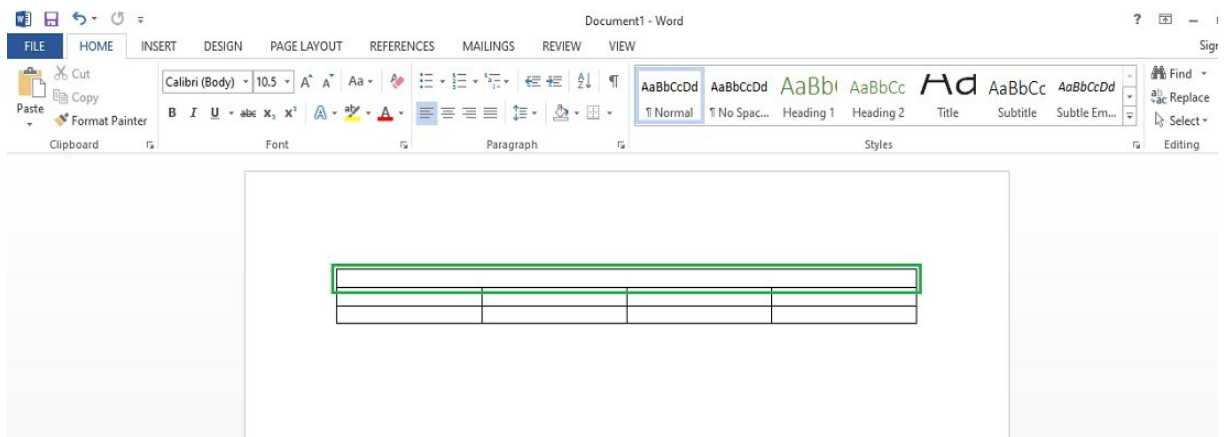
1.22 Merging the Cells

Merging of various cells can be done by the following steps:

Step1: Select all the cells that are to be merged in to a single cell. Then go over the **layout tab**, and you will see a **Merge Cell** button.



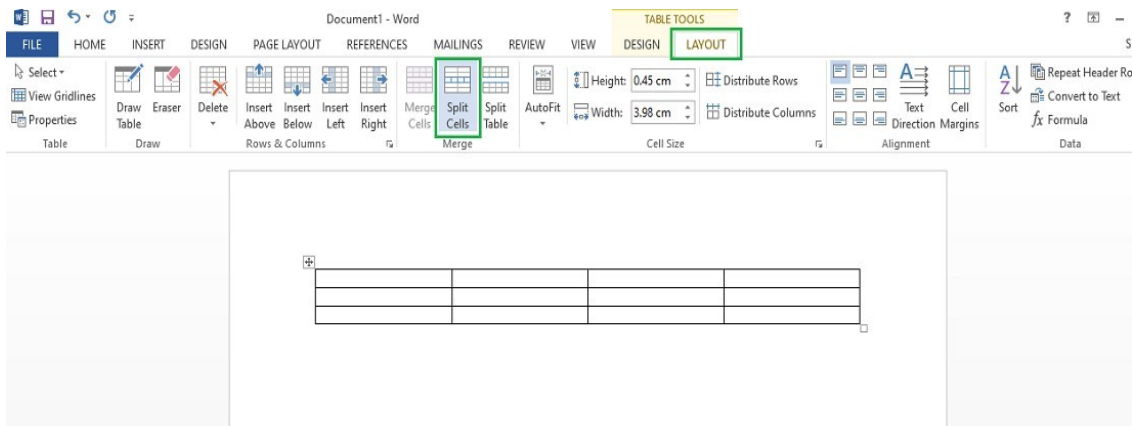
Step2: Now click on the Merge Cell button and the selected cells will be merged.



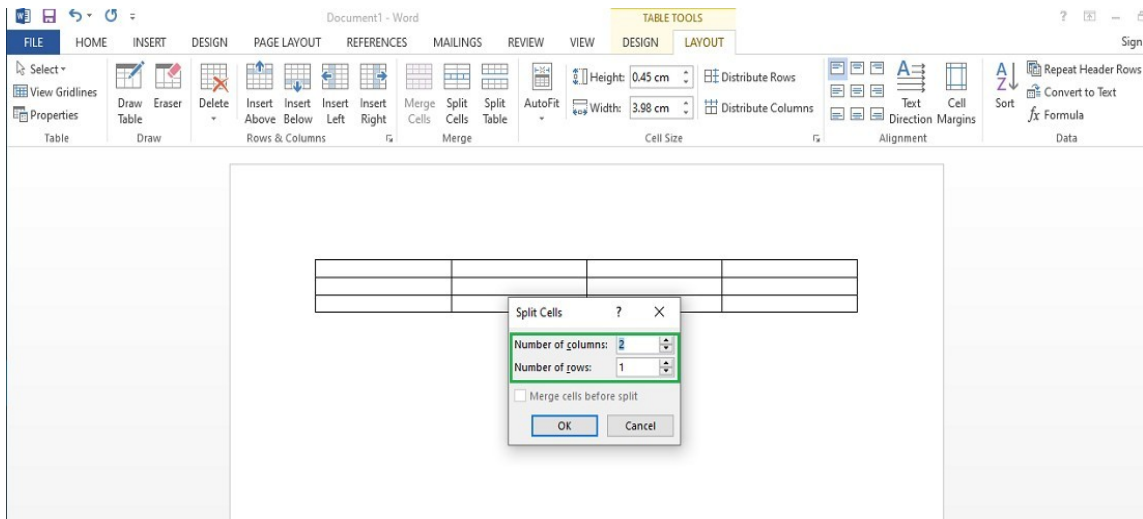
1.23 Splitting the Cell

Splitting of a cell can be done with the help of the following steps:

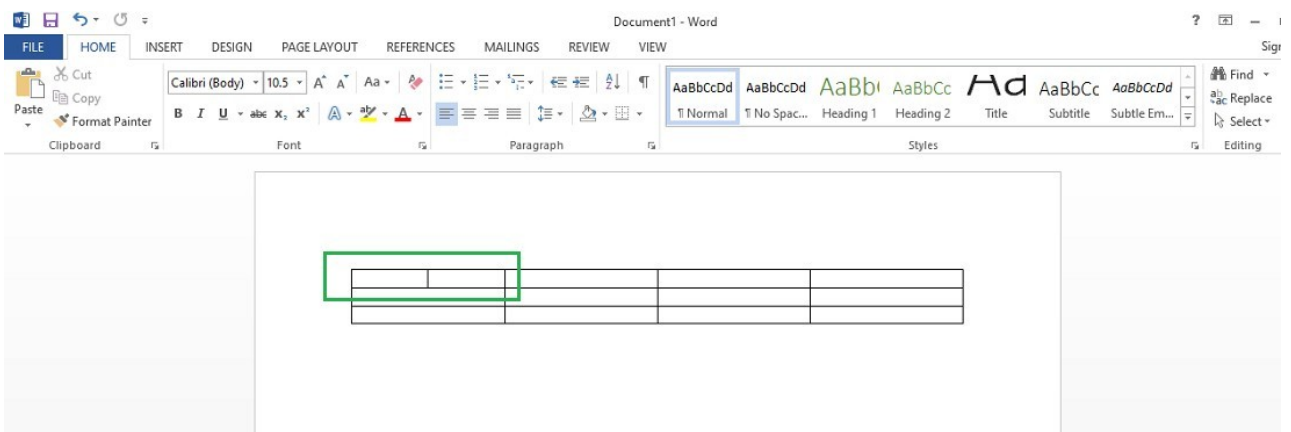
Step1: Select the cell that you want to split into multiple cells. Then go to the **Layout tab** and click on the **Split Cells** button.



Step2: In the **dialogue box**, mention the new dimensions as per the requirement.



Step3: Click on the **Ok** button.



1.24 Shorting Sorting Rows and Columns

1. Sorting Rows in a Table

You can sort rows in ascending or descending order based on the data in one or more columns.

How to Sort Rows:

1. **Click anywhere inside the table** to activate the table tools.
2. **Go to the "Layout" tab** under **Table Tools**.
3. Click **Sort** in the **Data** group. This opens the **Sort** dialog box.
4. In the **Sort** dialog box:
 - **Sort by:** Choose the column by which you want to sort the rows.
 - **Type:** Specify the type of data in the selected column (e.g., Text, Number, Date).
 - **Ascending** or **Descending:** Choose the sorting order.

If needed, you can add additional levels to sort by additional columns:

Click **Add Level** to add another column to sort by, and specify its sort order.

Click **OK** to apply the sorting.

2. Sorting Columns in a Table

Directly sorting columns (as opposed to sorting rows based on column data) is not a feature directly supported in MS Word. However, you can rearrange columns manually.

How to Rearrange Columns:

1. **Select the column** you want to move by clicking the column header or selecting the entire column.
2. **Right-click** and choose **Cut** from the context menu.
3. **Click on the column** where you want to move the cut column to be inserted.
4. **Right-click** and choose **Insert Cut Cells** from the context menu.

1.24 Inserting Picture and Shape:

Inserting Pictures:

1. **Go to the "Insert" tab** on the Ribbon.
2. Click on **Pictures** to insert images from your computer or **Online Pictures** to search for images online.
3. Navigate to your image, select it, and click **Insert**.

Inserting Shapes:

1. **Go to the "Insert" tab** on the Ribbon.
2. Click on **Shapes** in the Illustrations group.
3. Choose a shape from the dropdown menu (e.g., rectangles, circles, arrows).
4. Click and drag on the document to draw the shape.

1.25 Drawing Tool:

MS Word includes a drawing tool that allows you to create freeform shapes and annotations.

How to Use the Drawing Tool:

1. **Go to the "Draw" tab** on the Ribbon. If the Draw tab is not visible, you may need to enable it:
 - Right-click on the Ribbon and choose **Customize the Ribbon**.
 - Check the **Draw** option and click **OK**.
2. Select a drawing tool (e.g., Pencil, Highlighter) from the tools available.
3. Choose the color and thickness for your drawing.
4. Click and drag on the document to draw freeform shapes or lines.

1.26 Formatting Pictures and Shapes:

Formatting Pictures:

1. **Select the picture** by clicking on it.

2. **Go to the "Picture Format" tab** (appears when the picture is selected).
3. Use options in the **Adjust** group to:
 - **Corrections:** Adjust brightness, contrast, and sharpness.
 - **Color:** Change the picture color or apply color filters.
 - **Artistic Effects:** Apply effects like blur, paint, or sketch.
4. Use **Picture Styles** to apply predefined styles, including frames and shadows.

Formatting Shapes:

1. **Select the shape** by clicking on it.
2. **Go to the "Shape Format" tab** (appears when the shape is selected).
3. Use options in the **Shape Styles** group to:
 - **Shape Fill:** Change the color or gradient fill of the shape.
 - **Shape Outline:** Modify the color, weight, and style of the shape's border.
 - **Shape Effects:** Apply effects like shadow, glow, or reflection.

1.27 Grouping and Ungrouping Objects:

Grouping allows you to combine multiple objects (shapes, images) so you can move or format them together.

How to Group Objects:

1. **Select all objects** you want to group by holding down **Shift** and clicking each one.
2. **Go to the "Shape Format" or "Picture Format" tab** (depending on the selected objects).
3. Click **Group** in the **Arrange** group, and choose **Group** from the dropdown menu.

How to Ungroup Objects:

1. **Select the grouped object.**
2. **Go to the "Shape Format" or "Picture Format" tab.**
3. Click **Group** in the **Arrange** group, and choose **Ungroup** from the dropdown menu.

1.28 Ordering Objects:

How to Order Objects:

1. **Select the object** you want to reorder.
2. **Go to the "Shape Format" or "Picture Format" tab.**
3. In the **Arrange** group, use the **Bring Forward** or **Send Backward** options:
 - **Bring to Front:** Moves the selected object to the top layer.
 - **Send to Back:** Moves the selected object to the bottom layer.
 - **Bring Forward:** Moves the object up one layer.
 - **Send Backward:** Moves the object down one layer.

1.29 Rotating Pictures and Shapes

You can rotate objects to adjust their orientation.

How to Rotate Objects:

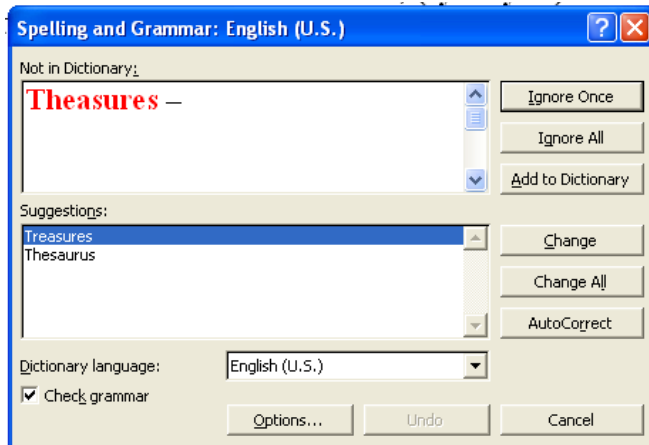
1. **Select the object** you want to rotate.
2. **Go to the "Shape Format" or "Picture Format" tab.**
3. In the **Arrange** group, click on **Rotate**. You have options like:
 - **Rotate Right 90°**
 - **Rotate Left 90°**
 - **Flip Vertical** or **Flip Horizontal**
 - **More Rotation Options:** Opens a dialog box where you can specify the exact rotation angle.

Using the Rotation Handle:

Select the object, then use the **rotation handle** (a green circle at the top of the selected object) to manually rotate the object by clicking and dragging.

1.30 Spelling Check and Grammar:

We can check spelling and grammar error and correct those according in the document it is one more how correct English in our document.



- To we spelling and grammar check, do this:
- Click tools menu and select spelling and grammar
- Select spelling button ABC from standard tools bar
- Press F7 together from the keyboard.

Change All- Click change all to change all similar text in the whole document.

Ignore- Select ignore button to make no changes

Ignore All - Select ignore all buttons to by pass on the similar words found in the document.

Add to Dictionary- Select add to dictionary button to include those very words in MS-word dictionary like Patna, Matura etc.

Cancel- click cancel button to stop the error search.

Short cut for spelling and grammar check: Right click the wary underlined word a pop-up menu box appears like on figure it displays a list of words related the very word.

Customizing spelling check:-

- Point to tools menu and select option.
- Choose spelling and grammar tab after that the spelling and grammar tab appears there are multiple options available as follow.
- Checking spelling as use type:-identifies the word not found is the dictionary by are d way lines.
- Hide spelling errors in the document:-does not high light the miss felt words with wary lines.
- Always suggest correction.

- Suggest from main dictionary only.
- Ignore word in uppercase.
- Ignore words with numbers.
- Ignore internet and file address
- Select or clear the check boxes as desired
- Click ok to close the dialog box

MCQ Questions

1. A document in word processing refers to:
 - a) Spreadsheet file
 - b) Text file created using word processor
 - c) Database file
 - d) Image file

Answer: b) Text file created using word processor
2. The shortcut key to save a document is:
 - a) Ctrl + S
 - b) Ctrl + P
 - c) Ctrl + O
 - d) Ctrl + N

Answer: a) Ctrl + S
3. Which tool is used to change the appearance of text?
 - a) Font formatting
 - b) Table tool
 - c) Chart tool
 - d) Drawing tool

Answer: a) Font formatting
4. Page break is used to:
 - a) Insert table
 - b) Move text to next page
 - c) Delete page

d) Print page

Answer: b) Move text to next page

5. Footnotes are used to:

a) Insert images

b) Provide reference notes at the bottom of the page

c) Insert tables

d) Format text

Answer: b) Provide reference notes at the bottom of the page

6. Which option helps check spelling mistakes?

a) Word completion

b) Spell check

c) Auto format

d) Find and replace

Answer: b) Spell check

7. Tables in documents are used to:

a) Organize data in rows and columns

b) Insert images

c) Format text

d) Draw diagrams

Answer: a) Organize data in rows and columns

8. Merging cells means:

a) Dividing cells

b) Combining multiple cells into one

c) Deleting cells

d) Formatting cells

Answer: b) Combining multiple cells into one

9. Clip art is used to insert:

a) Graphs

b) Images and illustrations

c) Text

d) Tables

Answer: b) Images and illustrations

10. Toolbars contain:

a) Menu options

b) Shortcuts to commands

c) Files

d) Images

Answer: b) Shortcuts to commands

Small Questions – LOCF Mapping Table

S.No	Small Question	CO	Bloom's Level	PO
1	Define a document and name any two types of documents in word processing.	CO1	Remember	PO2
2	Mention two keyboard shortcuts commonly used in document editing.	CO1	Remember	PO2
3	What is the purpose of using rulers and toolbars in a document?	CO2	Understand	PO2
4	Name two formatting features used for fonts and paragraphs.	CO2	Remember	PO2
5	What is the function of spell check and word completion tools?	CO3	Understand	PO3

Big Questions – LOCF Mapping Table

S.No	Big Question	CO	Bloom's Level	PO
1	Explain the different types of documents and the basic operations for working with documents, including opening, saving, closing, and editing.	CO1	Understand	PO2
2	Discuss the use of toolbars, rulers, and help features in document management and formatting.	CO2	Apply	PO3
3	Explain how to format a document, including setting fonts, paragraphs, page style, footnotes, page breaks, and line breaks.	CO2	Apply	PO3
4	Describe the creation and formatting of tables, including settings, borders, alignment, merging, splitting, and sorting of rows and columns.	CO3	Apply	PO3
5	Explain the tools for drawing, inserting clip arts/pictures, formatting images, grouping, ordering, rotating, and using spell check and word completion.	CO3	Analyze	PO4

UNIT –II

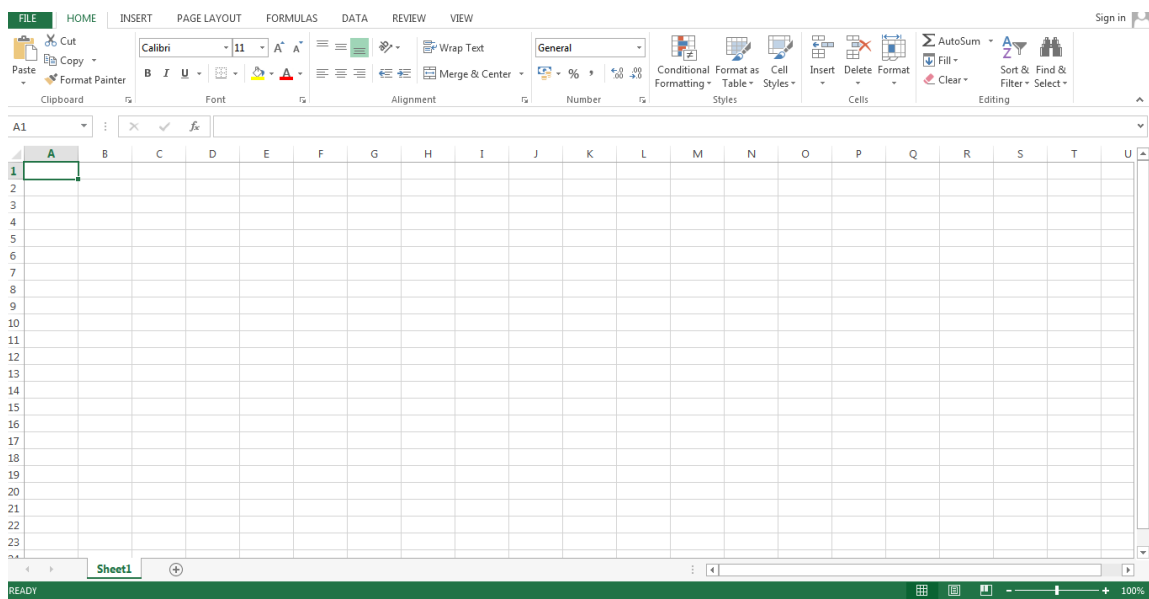
2.1 MS Excel an Introduction:

MS Excel is a commonly used Microsoft Office application. It is a spread sheet program which is used to save and analyze numerical data.

Important features of MS Excel, along with an overview of how to use the program, its benefits and other important elements. A few sample MS Excel question and answers are also given further below in this article or the reference of Government exam aspirants.

Basics of MS Excel

MS Excel is a spreadsheet program where one can record data in the form of tables. It is easy to analyse data in an Excel spreadsheet. The image given below represents how an Excel spreadsheet looks like:



To open MS Excel

To open MS Excel on your computer, follow the steps given below:

- Click on Start
- Then All Programs
- Next step is to click on MS Office

- Then finally, choose the MS-Excel option

Alternatively, you can also click on the Start button and type MS Excel in the search option available.

A Cell

A spreadsheet is in the form of a table comprising rows and columns. The rectangular box at the intersection point between rows and columns forms a cell. Given below is an image of a cell:

Cell Address

The cell address is the name by which a cell can be addressed. For example, if row 7 is interested in column G, then the cell address is G7.

2.2 Spread Sheets Application:

A spreadsheet is a computer application that is designed to add, display, analyze, organize, and manipulate data arranged in rows and columns. It is the most popular application for accounting, analytics, data presentation, etc. Or in other words, spreadsheets are scalable grid-based files that are used to organize data and perform calculations. People all across the world use spreadsheets to create tables for personal and business usage. You can also use the tool's features and formulas to help you make sense of your data. You could, for example, track data in a spreadsheet and see sums, differences, multiplication, division, and fill dates automatically, among other things. Microsoft Excel, Google sheets, Apache open office, Libre Office, etc. are some spreadsheet software. Among all these software, Microsoft Excel is the most commonly used spreadsheet tool and it is available for Windows, mac-OS, Android, etc.

2.3 Tool Bar and Icon:

Title bar

The title bar is located at the top of the window and it identifies the application on your screen. You see "Microsoft Excel - Book 1" in the title bar. The title bar also houses the standard buttons to Minimize, Maximize/Restore and Close.



Menu bar

The menu bar is located directly below the title bar, each one of which opens up a list of commands. The options available under each Menu seem to be limited at times. This feature is meant to keep track of your command-usage habits.



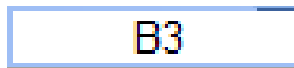
Toolbars

When you first launch Excel, two toolbars appear. The upper toolbar is the Standard toolbar and the lower toolbar is the Formatting toolbar.



Name Box

Name box is an indicator to the cell that is selected.



Formula Bar

The formula bar is located immediately below the toolbars. It displays the data and formula both you type or edit.



Worksheet Window-

The document window, usually called the worksheet window, contains the sheet you are creating, editing, or using. The worksheet includes a series of vertical columns identified by lettered column headings and a series of horizontal rows identified by numbered row headings.

Scroll bar

The vertical scroll bar (far right side of workbook window) and the horizontal scroll bar

(lower right corner of work book window) let you move quickly around the worksheet.

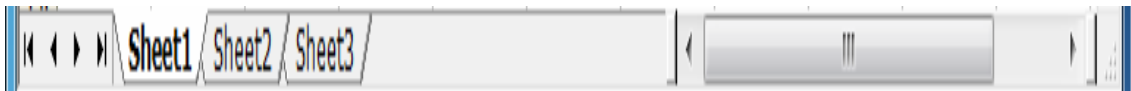
Status bar



It displays information about what is happening in your workspace.

Sheet tabs

The sheet tabs let you move quickly between sheets by simply clicking the sheet tab. You can also use the sheet tab scroll buttons to see sheet tabs hidden from view.



2.4 Spread sheet opening

- **Launch Excel:** Open Microsoft Excel on your computer.
- **Go to the "File" Tab:** Click on the **File** tab located at the top-left corner of the window.
- **Select "Open":** Choose **Open** from the menu on the left.
- **Browse to the File:**
 - ❖ Click **Browse** to navigate to the location on your computer where the workbook is saved.
 - ❖ Select the file you want to open and click **Open**.

Open Recent Workbooks: Alternatively, if you recently worked on the file, you might see it listed under **Recent**. Click on the file name to open it directly.

2.5 Saving a Work book:

Every workbook created in Excel must be saved and assigned a name to distinguish it from other the **Save As** operation. Once assigned a name, any additional changes made to the text, numbers, or formulas must be saved using the **Save** operation workbooks. The first time you save a workbook, Excel will prompt you to assign a name through the **Save As** operation. Once assigned a name, any additional changes made to the text, numbers, or



formulas must be saved using the **Save** operation.

To save a new workbook:

- Choose File Save As from the menu bar.
- **The Save As** dialog box appears.
- Click the Save In: drop down menu, and locate where the file will be saved. Local Disk (C:) to save the file to your computer.
- Type a name for your file in the File Name: box.
- Click the Save button.

2.6 Closing Work book:

Closing a Workbook without Exiting Excel

1. **Go to the "File" Tab:**

Click on the **File** tab at the top-left corner of the screen.

2. **Select "Close":**

In the dropdown menu, select **Close**. This will close the current workbook but keep Excel open.

3. **Save Changes Prompt:**

If you've made changes, Excel will prompt you to save them before closing. Choose **Save**, **Don't Save**, or **Cancel**.

Closing a Workbook Using the "X" Button

1. **Click the "X":**

In the upper-right corner of the workbook window, click the small **X** (if you have multiple workbooks open, this only closes the active workbook, not the entire application).

2. **Save Changes Prompt:**

Excel will ask if you want to save changes if any edits were made. Choose the appropriate option.

2.7 Setting Margins:

Setting margins in a spreadsheet is important for adjusting the layout when printing. Margins determine the space between the content of the spreadsheet and the edges of the paper. Here's how you can set margins in **Microsoft Excel** and **Google Sheets**

Setting Margins in Page Layout View

1. **Open Excel and Your Spreadsheet:**

➤ Start by opening your workbook in Excel.

2. **Go to the "Page Layout" Tab:**

➤ In the Ribbon at the top of Excel, click on the **Page Layout** tab.

3. **Click on "Margins":**

- In the **Page Setup** group, click on **Margins**.

4. **Choose a Preset Margin Option:**

- You'll see several preset margin options, including:
 - ❖ **Normal:** Standard margins (0.75" top/bottom, 0.7" left/right).
 - ❖ **Wide:** Larger margins (1" all around).
 - ❖ **Narrow:** Small margins (0.25" all around).

5. **Set Custom Margins:**

- To set custom margins, click on **Custom Margins** at the bottom of the Margins drop-down menu.
- In the **Page Setup** dialog box, under the **Margins** tab, you can manually set the top, bottom, left, and right margins by entering the desired values.
- Click **OK** to apply the changes.

6. **Centering on Page (Optional):**

- In the same **Margins** tab, you can choose to center the content on the page either **horizontally** or **vertically** by checking the respective boxes.

2.8 Converting a Spreadsheet File to Different Formats:

Both **Microsoft Excel** and **Google Sheets** allow you to convert your spreadsheet into various file formats for sharing, compatibility, or further use in other applications. Here's a guide to converting files into different formats from both platforms.

Saving an Excel File in Different Formats

1. **Open the File:**

Open the Excel workbook you want to convert.

2. **Go to the "File" Tab:**

Click on the **File** tab at the top-left corner of the screen.

3. **Select "Save As":**

A2.TypeMonththenpressthe down arrow key to move to cell A3 Continue to type the data. The resulting worksheet should appear like the following screen. Save your work by clicking File and then Save As. This dialog box appears. Type cash in the File Name text box and then clicks save button. Excel automatically adds the extension .xls to your filename.

2.10 Editing data:

Click File and then click Open and Click cash.xls and then click Open. Move the mouse pointer to cell D4, click and release. The cell is highlighted and 18 appear in the formula bar

	A	B	C	D	E	F	G	H
1	Expenditure							
2	Month	Jan	Feb	Mar				
3	Rent	200	200	200				
4	Electricity	20	22	18				
5	Household	150	145	150				
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Move the mouse pointer to the formula bar and click once to the right of 18. Use the Back space key to delete 8, then type 4 and press Enter. Cell D4 now contains the value 14.

Basic Edit Functions:

Copying Data

Keyboard Shortcut:

Windows: Ctrl + C

Mac: Command + C

Method:

- Select the cells you want to copy.
- Use the shortcut or right-click and select **Copy**.
- Move to the destination cell and **Paste** the copied data.

Cutting Data

Keyboard Shortcut:

Windows: Ctrl + X

Mac: Command + X

Method:

- Select the cells you want to cut (move).
- Use the shortcut or right-click and select **Cut**.
- Move to the new location and **Paste** the cut data.

Pasting Data

Keyboard Shortcut:

Windows: Ctrl + V

Mac: Command + V

Method:

- After copying or cutting, move to the destination cell, use the shortcut or right-click and select **Paste**.
- **Paste Special:**
- Right-click and choose **Paste Special** to paste specific elements (values, formulas, formats, etc.).

Undo and Redo

Undo:

Keyboard Shortcut:

❖ **Windows:** Ctrl + Z

- ❖ **Mac:** Command + Z

Method: Click the **Undo** button in the toolbar.

Redo:

Keyboard Shortcut:

- ❖ **Windows:** Ctrl + Y
- ❖ **Mac:** Command + Y

Method: Click the **Redo** button in the toolbar.

2.11 Find, Search, and Replace

Find and Search

Keyboard Shortcut:

- Windows:** Ctrl + F
- Mac:** Command + F

Method:

- Press the shortcut to open the **Find** dialog box.
- Type the text or number you want to search for in the worksheet and press **Enter**.
- Use **Find Next** to navigate through the matches.

Replace

Keyboard Shortcut:

- Windows:** Ctrl + H
- Mac:** Command + H

Method:

- Press the shortcut to open the **Find and Replace** dialog box.
- Enter the text or number you want to find and the value you want to replace it with.
- Click **Replace** to change one instance, or **Replace All** to update all occurrences.

2.12 Filling Continuous Rows and Columns

AutoFill (for Sequential Data)

1. Enter Initial Values:

- Enter starting values (e.g., "1" in **A1** and "2" in **A2** to create a sequence).

2. Drag to Fill the Series:

- Select both cells (**A1 and A2**).
- However your mouse over the small square at the bottom-right corner of the selected area (this is the **Fill Handle**).
- Click and drag the fill handle down or across to automatically fill the sequence (e.g., 3, 4, 5...).

Filling with the Same Value

1. Enter a Value:

- Type a value in a single cell (e.g., **A1**).

2. Drag to Fill:

- Select the cell, hover over the fill handle, and drag to fill multiple cells with the same value.

2.13 Inserting Data (Cells, Columns, Rows, and Sheets)

Inserting Cells

1. Select the Insertion Point:

- Right-click the cell or range where you want to insert new data.

2. Insert Cells:

- Choose **Insert>Shift cells right** or **Shift cells down** to make space for the new data.

Inserting Rows and Columns

1. Select the Row/Column:

- Click on the row number or column letter where you want to insert new rows or columns.

2. Insert Row/Column:

- Right-click and select **Insert>Entire Row** or **Entire Column**.
- Alternatively, go to the **Home** tab and click **Insert**.

Inserting a Sheet

1. Click the "+" Button:

At the bottom of the screen, next to the existing sheets, click the + button to add a new sheet

2.14 Excel Functions:

1. Mathematical Functions
2. String / Text Functions
3. Date and Time Functions

1. Mathematical Functions

The Excel Math Functions perform many of the common mathematical calculations, including basic arithmetic, conditional sums & products, exponents & logarithms, and the trigonometric ratios.

a) **SUM**- the Excel SUM function adds together a supplied set of numbers and returns the sum of these values.

The syntax of the function is:

SUM (number1, [number2],...) Where the number arguments are a set of numbers (or arrays of numbers) that you want to find the sum of.

Example– Here (Fig-1) we get sum of D2:D4 cells are 32950.

Because we write sum function on D5 cell that is shown below-

= **Sum (D2:D4)**

Sum and Product Function Example

	A	B	C	D
1	Product Name	Price	Quantity	Total Price
2	Keyboard	150	3	450
3	Mouse	500	5	2500
4	Monitor	3000	10	30000
5			Net Amount-	32950

Fig-1

b) PRODUCT-

The Excel PRODUCT function returns the product (multiplication) of a supplied set of numerical values.

The syntax of the function is:

PRODUCT (number1, [number2],...)

Where the number arguments are a set of numbers (or arrays of numbers) that you want to calculate the multiplication.

Example– Here (Fig-1) we get multiplication of B2 and C2 cell is 450, B3 and C3 cell is 25000 and B4 and C4 cell is 30000 Because we write **Product ()** function on D2, D3 and D4 cells that are shown below-

=PRODUCT (B2, C2)

=PRODUCT (B3, C3)

=PRODUCT (B4, C4)

c) POWER-

The Excel Power function calculates a given number, raised to a supplied power.

The syntax of the function is:

Syntax-POWER (number, power)

**Power, Sqrt, Abs, Fact and Pi
Function Example**

	A	B	C
1	Task	Number	Result
2	Calculate Power Of=	2	32
3	Calculate Square Root Of=	36	6
4	Calculate Absolute Value Of=	-25	25
5	Calculate Factorial Of=	6	720
6	Display Pi Constant Value=		3.141592654

Fig-2

Where the number and power arguments are numerical values. These can be supplied to the function either directly, as values returned from other functions, or as references to

cells containing numbers. Example – in fig-2 we calculate power 5 of entered number in B2 cell. We write Power () function on C2 cell for calculating power= $\text{power}(\text{b2},5)$

d) SQRT-

The Excel Sqrt function calculates the positive square root of a supplied number. The syntax of the function is:

Syntax-SQRT (number)

Where the number argument is the numeric value that you want to find the square root.

Example–in fig-2 we calculate square root of entered number in B3 cell. We write **Sqrt ()** Function on C3 cell for calculating square root-

= Sqrt (b3)

➤ **PI**-The Excel PI function returns the value of the mathematical constant (π), accurate to 15 digits (14 decimal places). I.e. the function returns the value 3.14159265358979. The Pi function takes no arguments and therefore has the simple format:

Power, Sqrt, Abs, Fact and Pi Function Example

	A	B	C
1	Task	Number	Result
2	Calculate Power Of=	2	32
3	Calculate Square Root Of=	36	6
4	Calculate Absolute Value Of=	-25	25
5	Calculate Factorial Of=	6	720
6	Display Pi Constant Value=		3.141592654

Fig-2

Syntax-PI()

Example– in fig-2 we displayed value of the mathematical constant π in C6 cell. We write **Pi ()**

Function on C6 cell for finding mathematical constant $\pi = \text{Pi}(\text{C6})$

e) ABS-the Excel ABS function returns the absolute value of any supplied number. The syntax of the function is:

Syntax- ABS (number)

Where the **number** argument is the numeric value that you want the modulus.

Example– in fig-2 we displayed absolute value of the entered number in B4 cell. We write

ABS () function on C4 cell for finding absolute value-

=ABS (B4)

f) ABS-the Excel ABS function returns the absolute value of any supplied number.

The syntax of the function is:

Syntax-ABS (number)

Where the **number** argument is the numeric value that you want the modulus.

Example– in fig-2 we displayed absolute value of the entered number in B4 cell. We write

ABS () function on C4 cell for finding absolute value-

=ABS(B4)

g) FACT- The Excel FACT function returns the factorial of a supplied number.

The syntax of the function is:

Syntax-FACT (Number)

Where the **number** argument is the positive integer that you want to calculate the factorial.

Example– in fig-2 we displayed factorial of the entered number in B5 cell. We write

Fact ()

Function on C5 cell for finding factorial-

=Fact (B5)

h) MOD-The Excel MOD function returns the remainder of a division between two supplied numbers. The format of the Syntax is:

Syntax-MOD (number, divisor)

Where the arguments are as follows:

Number- The number to be divided.

Divisor- The value that the number argument is divided by.

Example—**MOD (20,6)** result is 2 because you have 3 times 6 in 20 and the rest is 2.

i) **ROUND**-The Excel Round function rounds a supplied number up or down, to a specified number of decimal places. In otherword we can say that this function removes decimals rounding up the last decimal if the next one is 5 or over. The syntax of function is: **Syntax-ROUND (number, num_digits)**

Where the arguments are as follows:

Number- The initial number.

num_digits-The number of decimal places to round the supplied number to note that:

- A positive num_digits value specifies the number of digits to the right of the decimal point;
- A num_digits value of 0 specifies rounding to the nearest integer;
- A negative num_digits value specifies the number of digits to the left of the decimal point.

Example-So if you have 4.126 in cell A1 and use the formula= **ROUND (A1, 2)** the result will be 4.13 if the value in A1 is 4.123 the result will be 4.12.

2 Text/ String Functions

Excel has many functions to offer when it comes to manipulating text strings. The Excel String Functions perform many of the common string operations, including converting lower case to uppercase, upper case to lower case and removing extra (unwanted spaces) from strings etc.

LOWERFUNCTION-The Microsoft Excel LOWER function converts all letters in the specified string to lowercase. If there are characters in the string that are not letters, they are unaffected by this function.

Syntax- LOWER (Text)

Where the text argument is a text strings.

Example In **fig-1** To convert B1 Cell text to Lower Case. We write Lower Function in B5 cell like this= **Lower (B1)**

Example2) = LOWER ("OMEGA")

Result: omega

Upper, Lower, Proper, Len and Trim Functions Example

	A	B
1	Text-String Is=	This is OMEGA College.
2		
3	Task	Result (Operation On B1)
4	Upper Function=	THIS IS OMEGA COLLEGE.
5	Lower Function=	this is omega college.
6	Proper Function=	This Is Omega College.
7	Len Function=	41
8	Trim Function=	This is OMEGA College.

Fig-1

2 UPPERFUNCTION- The Excel Upper function converts all characters in a supplied text string to upper case.

Syntax- UPPER (text)

Where the text argument is the original text string.

Example In **fig-1** To convert B1 Cell text to Upper Case we write Upper Function in B4 cell like this- = **Upper (B1)**

Example=LOWER ("omega")

Result: OMEGA

3 LENFUNCTION- the Excel LEN function returns the length of supplied text string.

Syntax-LEN (text)

Where the **text** argument is the text string.

Upper, Lower, Proper, Len and Trim Functions Example

	A	B
1	Text-String Is=	This is OMEGA College.
2		
3	Task	Result (Operation On B1)
4	Upper Function=	THIS IS OMEGA COLLEGE.
5	Lower Function=	this is omega college.
6	Proper Function=	This Is Omega College.
7	Len Function=	41
8	Trim Function=	This is OMEGA College.

Fig-1

Example In **fig-1** to find B1 Cell text length we write Len Function in B7 cell like this-
=LEN (B1)

Example 6)= Len ("omega")

Result: 5

d) PROPER FUNCTION- The Microsoft Excel PROPER function sets the first character in each word to uppercase and the rest to lowercase.

SYNTAX-PROPER (Text)

Example In **fig-1** to show B1Cell text in proper case we write Proper Function in B6 cell like this-= **Proper** (B1)

Example= Proper ("omega and Helios")

Result: Omega And Helios

e) TRIM FUNCTION-The Excel Trim function removes extra spaces (i.e. all spaces

except for single spaces between words or characters) from supplied text string.

SYNTAX-TRIM (Text)

Where the text argument is the text string.

Example- In **fig-1** B1 Cell contain text with extra spaces to

Displaying with no extra spaces we use Trim Function in B8 cell like this-**= Trim (B1)**

f) CONCATENATE FUNCTION-The Excel CONCATENATE function joins together a series of supplied text strings or other values, into one combined text string.

Syntax-Concatenate (text1, [text2],...)

Concatenate Function

	A	B	C
17	Text1	Text2	Concatenate Function
18			
19	Omega	Helios	Omega-Helios

Fig-3

Where the text arguments are a set of one or more text strings or other values that you want to join together.

Example1)- To concatenate A19 and B19 cell text in C19 cell We use Concatenate Function like wise-

=Concatenate (A19,"-", B19) Example- = CONCATENATE ("Tech on the", "Net")

Result:"Tech on the Net"

3) Date and Time Functions

Excel has many functions to offer when it comes to manipulating Date and Time. The Excel Date and Time Functions perform many of the common date and time operations, including finding current date and time, extract date, year and month in date etc.

a) TODAYFunction-

TheExcelTODAYfunctionreturnsthecurrentdatefromthecomputers system clock.

Syntax- = TODAY() Example- =Today()

Result-12/22/2015

b) Now Function- The Excel NOW function returns the current date and time. The NOW function is only updated when the spreadsheet is calculated.

c) DATE Function- The Excel DATE function returns the sequential serial number for the specified date and formats the result as a date. The DATE function is most useful when the year, month and day arguments are formulas.

Syntax= DATE (year, month, day)

Where the function arguments are:

Argument	Purpose
Year-	The year of the specified date and can be entered using up to four digits
Month-	A positive or negative number representing the month of theyearfrom1-12. Can be used to add or subtract months to and from a date
Day-	A positive or negative number representing the day of the month from1-31

Examples of the DATE function in use can be found below-

MS-EXCELSHEET				Result													
<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Day</td> <td>Month</td> <td>Year</td> </tr> <tr> <td>2</td> <td>20</td> <td>3</td> <td>2010</td> </tr> </tbody> </table>					A	B	C	1	Day	Month	Year	2	20	3	2010	Function	Result
	A	B	C														
1	Day	Month	Year														
2	20	3	2010														
				=DATE(C2,B2,A2)	20/03/2010												
				=DATE(C2,B2,A2-10)	10/03/2010												
				=DATE(C2,B2+6,A2)	20/09/2010												

a) DAY Function- The Excel DAY function returns the day corresponding to a date represented by a number between 1 and31.

Syntax= DAY (serial_ number)

Where serial_ number is the date from which you want to extract the day.

Example= Day ("12/22/1991")

Result=22

b) MONTH Function-The Excel MONTH function returns the month corresponding to a date represented by a number between 1 and 12

Syntax= MONTH (serial_number)

Where serial_number is the date from which you want to extract the month.

Example=- Month ("12/22/1991")

Result= 12

a) YEAR Function- The Excel YEAR functions returns the year corresponding to a date represented by a number in the range 1900 to 9999.

Syntax= YEAR (serial_number)

Where serial_number is the date from which you want to extract the year.

Example=- Year("12/22/1991")

Result=1991

b) HOUR Function- The Excel, Hour function returns the hour corresponding to a time represented by a number in the range 0 to 23.

Syntax= Hour (Serial_Number)

Where serial number is the time value from which you want to extract the Hour.

Example=-HOUR ("3:35:40PM")

Result=3

c) Minute Function- The Excel, Minute function returns the minute corresponding to a time represented by a number in the range 0 to 59.

Syntax=-Minute (serial number)

Where serial number is the time value from which you want to extract the Minute.

Example=MINUTE ("3:35:40PM")

Result= 35

d) Second Function-The Excel, second function returns the second corresponding to a time represented by a number in the range 0 to 59.

Syntax=Second (serial_number)

Where serial_number is the time value from which you want to extract the Second.

Example= SECOND ("3:35:40PM")

Result= 40

2.15 Formatting Spread Sheet:

1. Alignment:

Description: Adjusting the position of text or numbers within cells.

Application:

- **Horizontal alignment:** Left, center, or right-align data for readability (e.g., center-align headings, right-align numbers).
- **Vertical alignment:** Align data at the top, middle, or bottom of the cell for consistency.
- **Wrap text:** Ensures long text fits in a cell without overflowing or cutting off

2. Font:

Description: Customizing the appearance of text for a professional look.

Application:

- **Font type and size:** Use readable fonts (e.g., Calibri or Arial) and larger sizes for headings.

- **Bold and Italics:** Bold for headings, italics for emphasis or sub-headings.
- **Font color:** Differentiate categories, highlight key information with appropriate font colors.

Example: Use bold and a larger font size for column headings and adjust the font color to highlight critical data.

3. Borders:

Description: Adding lines around cells or groups of cells to distinguish data sections.

Application:

- Apply borders to rows, columns, or entire tables for separation.
- Use thicker borders for main sections and thinner ones for details.

Example: Place thick borders around the entire table and thin lines between individual rows or columns.

4. Hiding Rows and Columns:

Description: Hiding specific rows or columns to focus on relevant data while retaining hidden information.

Application:

- Hide unnecessary data like intermediate calculations or irrelevant rows and columns.
- Easily unhide them when required for review.

Example: Hide raw data or calculations that users do not need to see in a final report.

5. Locking Cells:

Description: Protecting specific cells to prevent accidental changes.

Application:

- Lock cells that contain formulas, headings, or other critical data.
- Enable sheet protection with a password for sensitive spreadsheets.

Example: Lock cells containing formulas to ensure no one accidentally alters the calculations.

6. Highlighting Values:

Description: Emphasizing certain data points based on conditions.

Application:

- Use conditional formatting to change colors or apply styles based on cell values (e.g., highlight cells exceeding a certain number).
- Manual highlighting can be used to draw attention to key values or outliers.

Example: Automatically highlight sales figures greater than a target in green and those below in red.

7. Background Color:

Description: Shading cell backgrounds to improve readability and highlight sections.

Application:

- Use subtle background colors to separate headings, different data groups, or emphasize important cells.
- Use alternating row colors (banded rows) to make large datasets easier to read.

Example: Shade the heading row in light gray and use alternating row colors to visually separate rows in a large table.

8. Bordering and Shading:

Description: Combining borders and background shading for better structure and readability.

Application:

- Apply shading to headers and key sections.
- Use borders to define sections of data clearly, combined with shading for easy data differentiation.

Example: Apply light blue shading to header cells and outline the entire data set with a thick border.

9. Shading:

Description: Adding a fill color to cells or ranges.

Application:

- Shading certain cells helps focus on key data or differentiate sections.
- Use contrasting yet soft colors that don't strain the eyes.

Example: Use shading to highlight totals and summaries

2.16 Working with Sheet:**1 Sorting:**

Description: Sorting allows you to organize data in a specific order (ascending or descending) based on one or more columns.

Application:

Sort text alphabetically (A to Z or Z to A), numbers (smallest to largest or largest to smallest), or dates (earliest to latest or vice versa).

How to Apply:

1. Select the range of data or click inside the data table.
2. Go to the **Data** tab.
3. In the **Sort & Filter** group, click **Sort**.

4. Choose the column you want to sort by, select the sort order (e.g., A to Z, smallest to largest), and click **OK**.

Example: Sort a list of employees by their names in alphabetical order, or sort sales data by the highest to lowest sales.

2. Filtering:

Description: Filtering allows you to display only the rows that meet specific criteria while hiding the others.

Application:

- Filter by text, numbers, dates, or custom criteria.
- Helpful when dealing with large datasets and you want to view only relevant data.

How to Apply:

1. Select the data range or click inside the data table.
2. Go to the **Data** tab.
3. In the **Sort & Filter** group, click **Filter**.
4. Filter arrows will appear at the top of each column. Click the arrow on the column you want to filter.
5. Choose filter options from the dropdown (e.g., filter for specific values, date ranges, or numeric ranges).

3. Subtotals:

Description: Subtotals are used to automatically calculate and display summary statistics (sum, average, count, etc.) at the end of groups of related data.

Application:

You can add subtotals to data that's been sorted by a particular column (e.g., department, category, or region) to see summarized information.

How to Apply:

1. Ensure your data is sorted by the column you want to group by (e.g., Department).
2. Go to the **Data** tab.
3. In the **Outline** group, click **Subtotal**.
4. In the dialog box, choose:
 - **At each change in:** Select the column to subtotal by (e.g., Department).
 - **Use function:** Select a summary function (e.g., Sum, Count, and Average).
 - **Add subtotal to:** Select the column where the subtotal should be applied (e.g., Sales).
5. Click **OK**.

2.17 Chart Selecting:

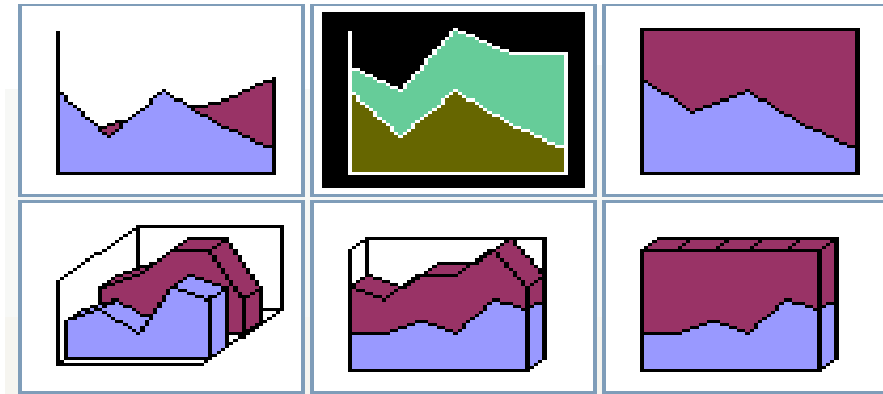
Excel includes a powerful and versatile charting engine. You can choose from a large variety of business and technical chart types. In addition, you can enhance the appearance of your charts with items such as lines, arrows, pictures, and so forth. In Excel, the chart represents one of the most widely used components for business applications. Essentially, a chart visually presents a table of numbers. Displaying data in a well thought out chart can make your data more understandable and can help you quickly get your point across during a presentation.

Because a chart is a visual representation of your data, it is particularly useful for understanding a relatively long series of numbers and their relationships. With a chart, you can identify trends and patterns that would be difficult to identify just in a series of numbers.

Excel allows you to create charts in a variety of types: Bar Charts, Column Charts, Line Charts, Area Charts, Scatter Charts, Pie Charts, and Stock Charts. You can define a chart type when creating your chart in Step 1 of the Chart Wizard, or on an existing chart using the technique described below.

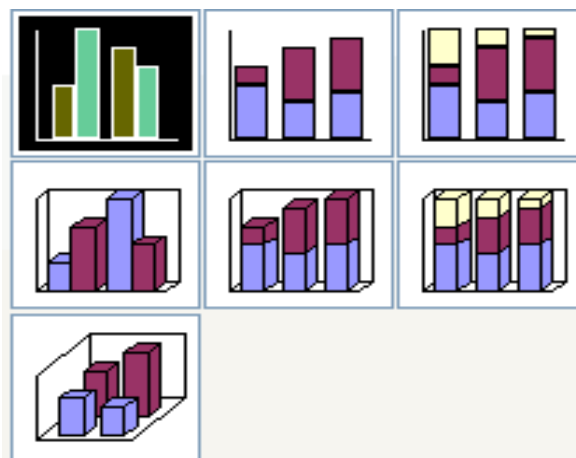
Types of Charts

Area Chart-An **area chart** emphasizes the trend of each value over time. An area chart also shows the relationship of parts to a whole.



Column Chart- A **column chart** uses vertical bars or columns to display values over different categories. They are excellent at showing variations in value overtime.

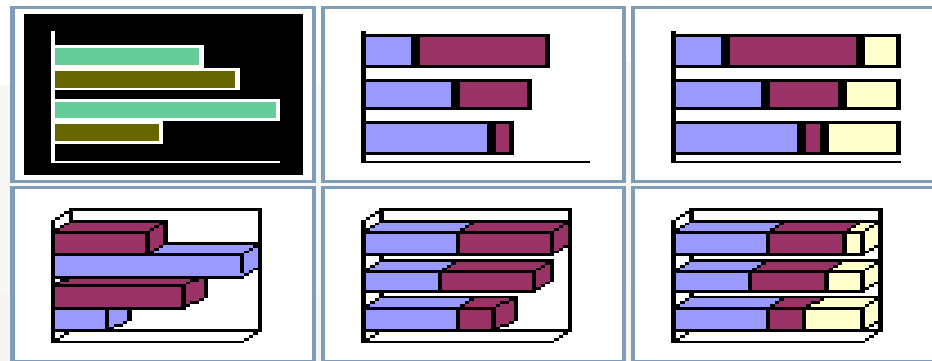
- i) One of the most common chart types.
- ii) Often used to compare discrete items.
- iii) Displays each data point as a vertical column, the height of which corresponds to the value.
- iv) The value axis (i.e., continuous axis) is displayed in the vertical axis, which is usually on the left side of the chart.
- v) Can specify any number of data series, and the corresponding data points from each series can be stacked on top of each other.
- vi) Can depict the differences between items in a series or items across multiple series.
- vii) Typically, each data series is depicted in a different color or pattern.



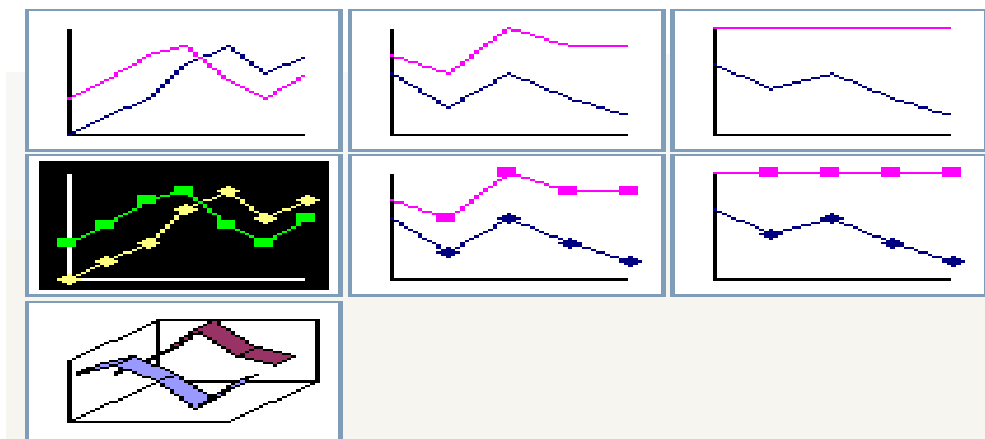
Bar Chart-A **bar chart** is similar to a column chart, except these use horizontals instead of vertical bars. Like the column chart, the bar chart shows variations in value overtime.

- a. Essentially a column chart that has been rotated 90 degrees clockwise.
- b. Advantage: the category labels may be easier to read.
- c. Like a column chart, can include any number of data series, and the bars can be 'stacked'

From left to right.



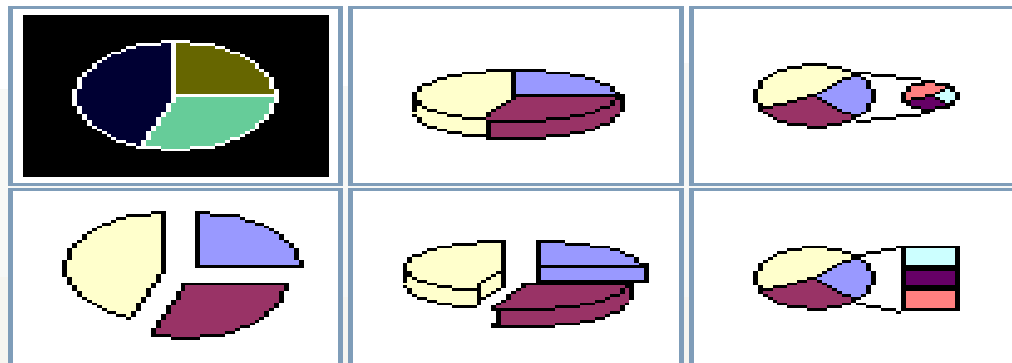
Line Chart- A **line chart** shows trends and variations in data over time. A line chart displays a series of points that are connected overtime. Often used to plot continuous data and are useful for identifying trends. Normally, the category axis displays equal intervals. Can use any number of data series; the lines are distinguished using different colors, line styles, or markers.



Pie chart- A **pie chart** displays the contribution of each value to the total. Pie charts are an effective way to display information when you want to represent different parts of the whole, or the percentages of a total.

- a. Useful when you want to show relative proportions or contributions to a whole.
- b. Can use only one data series.
- c. Most effective with a small number of data points
- d. Usually no more than five or six data points (or slices).

- e. Values used must all be positive numbers.
- f. Any negative values used will be converted to positive values, which is probably not what you intended.



Other charts-Other charts that can be created in Excel 2003 include **Doughnut**; Stock XY (scatter); Bubble; Radar; Surface; and Cone, Cylinder, and Pyramid charts.

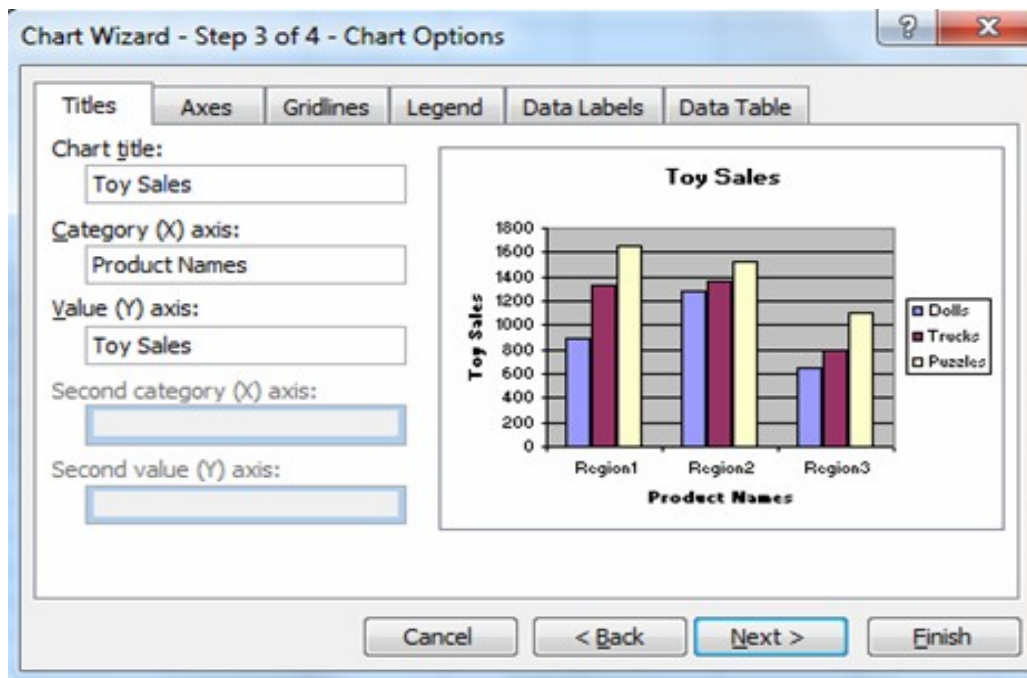
	A	B	C	D	E
1	Toy Sales				
2					
3	Products	Region 1	Region 2	Region 3	
4	Dolls	900	1275	650	
5	Trucks	1325	1370	800	
6	Puzzles	1650	1525	1100	
7					

Creating a Chart –Using Microsoft Excel, you can represent data in a chart. You can choose from a variety of chart types. And, as you change your data, your chart will automatically update. You can use Microsoft Excel's Chart Wizard to take you through the process step-by-step. After you have created the spreadsheet, you are ready to create your chart.

	A	B	C	D	E
1	Toy Sales				
2					
3	Products	Region 1	Region 2	Region 3	
4	Dolls	900	1275	650	
5	Trucks	1325	1370	800	
6	Puzzles	1650	1525	1100	
7					

- Highlights cells **A3** to **D6**. You must highlight all the cells containing the data you want in your chart. You should also include the data labels.
- Choose *Insert>Chart* from the menu.
- Click Column to select the type of chart you want to create.

- In the Chart Sub-type box, choose the Clustered Column icon to select the chart sub-type.
- Click Next
- To place the product names on the x-axis, select the Columns radio
- Button. Click Next
- Toy Sales in the Chart Title field. Toy Sales will appear as the title of your chart.
- Type Products in the Category (X) Axis field. Products will appear as your x-axis title.



- Type Units Sold in the Value (Y) Axis field. Units Sold will appear as your y-axis title.
- Choose the Data Labels tab.
- Select Value in the Labels Contain Frame to display the data labels as values.
- Choose the data table
- Show Data Table. The data table will appear below your chart.
- Click Next
- Choose as object in Sheet 1 to make your chart an embedded object and part of the work sheet.
- Click Finish
- Your chart appears on the spread Sheet

2.18 Formatting:

Description: Formatting enhances the visual presentation of your spreadsheet, making it easier to read and more professional.

Application:

- Apply formatting to numbers, dates, text, and cells (e.g., bold, font size, color, borders).
- Common formats include currency, percentages, date, and custom formats.

How to Apply:

1. Select the cells you want to format.
2. Right-click and select **Format Cells** (or go to the **Home** tab >**Number** group for number formatting).
3. Choose the format type (e.g., Number, Currency, Date, Percentage).
4. Customize as needed (e.g., specify decimal places, currency symbols).

2.19 Labeling:

Description: Labeling involves assigning appropriate titles, headers, and descriptions to your data to clarify its purpose.

Application:

- Use labels for columns, rows, charts, and data sections to make your spreadsheet understandable to others.
- Labels help identify what data represents, such as column headers or chart axes.

How to Apply:

1. Type headers at the top of each column (e.g., "Salesperson," "Sales Amount").
2. Use bold or color formatting to make headers stand out.
3. When creating charts, always include axis labels:
 - Select your chart, go to **Chart Tools>Design>Add Chart Element**, and select **Axis Titles**.

4. Add descriptive text in cells or as a text box to explain data sections or results.

2.20 Calling:

Description: Scaling is used to adjust how your spreadsheet fits onto a printed page, especially when dealing with large datasets.

Application:

- Adjust the scale of your spreadsheet for printing so that all data fits on one page or a specific number of pages.
- Scaling can be done by shrinking the content, changing margins, or adjusting the paper orientation.

How to Apply:

1. Go to the **File** tab and select **Print**.
2. In the **Settings** section, look for **Scaling Options**:
 - **Fit Sheet on One Page:** This shrinks the content to fit a single page.
 - **Fit All Columns on One Page:** Ensures all columns are printed on one page (height can spill onto multiple pages).
3. You can also adjust the scaling percentage under **Page Layout>Scale to Fit**.

2.21 Spell check:

Description: **Spell check helps you ensure that text in your spreadsheet is free of spelling errors.**

Application:

- Use spell check to review labels, descriptions, or any other text content in your spreadsheet.
- Excel will not automatically check spelling as you type, so this needs to be done manually.

How to Apply:

1. Go to the **Review** tab.
2. In the **Proofing** group, click **Spelling** (or press **F7** on your keyboard).
3. Excel will highlight any misspelled words and provide suggestions for corrections.
You can choose to **Change**, **Ignore**, or **Add** words to the dictionary.

MCQ Questions

1. Spreadsheet software is mainly used for:
 - a) Word processing
 - b) Data calculation and analysis
 - c) Presentation
 - d) Database creation

Answer: b) Data calculation and analysis

2. A cell in spreadsheet is:
 - a) Intersection of row and column
 - b) Only column
 - c) Only row
 - d) Worksheet

Answer: a) Intersection of row and column

3. Spreadsheet addressing refers to:
 - a) Cell reference
 - b) Sheet name
 - c) Column name
 - d) Row number

Answer: a) Cell reference

4. Which function performs mathematical calculations?
 - a) SUM
 - b) DATE
 - c) TEXT
 - d) TIME

Answer: a) SUM

5. Copy and paste commands are used to:
 - a) Move data

b) Duplicate data

c) Delete data

d) Format data

Answer: b) Duplicate data

6. Sorting arranges data in:

a) Random order

b) Ascending or descending order

c) Horizontal order

d) Vertical order

Answer: b) Ascending or descending order

7. Filtering is used to:

a) Delete data

b) Display selected data

c) Highlight data

d) Print data

Answer: b) Display selected data

8. Charts are used to:

a) Represent data graphically

b) Store data

c) Format cells

d) Insert formulas

Answer: a) Represent data graphically

9. Which option highlights important values?

a) Conditional formatting

b) Filtering

c) Sorting

d) Spell check

Answer: a) Conditional formatting

10. Spreadsheet functions include:

a) Mathematical functions

b) String functions

c) Date functions

d) All of the above

Answer: d) All of the above

Small Questions – LOCF Mapping Table

S.No	Small Question	CO	Bloom's Level	PO
1	Define a spreadsheet and name two common spreadsheet applications.	CO1	Remember	PO2
2	Mention two basic operations you can perform on a spreadsheet file.	CO1	Remember	PO2
3	What are spreadsheet cell references and why are they important?	CO2	Understand	PO2
4	Name two basic formulas or functions commonly used in spreadsheets.	CO2	Remember	PO2
5	State two formatting features you can apply to cells or ranges in a spreadsheet.	CO3	Understand	PO3

Big Questions – LOCF Mapping Table

S.No	Big Question	CO	Bloom's Level	PO
1	Explain the basic features of a spreadsheet application and the common operations such as opening, saving, closing, and converting files.	CO1	Understand	PO2
2	Describe spreadsheet addressing and the process of entering, editing, and manipulating data using copy, cut, paste, undo, redo, find, and replace.	CO2	Apply	PO3
3	Explain basic formulas and different types of functions in spreadsheets, including mathematical, group, string, and date/time functions.	CO2	Apply	PO3
4	Discuss formatting features in spreadsheets, including alignment, font, borders, highlighting values, background color, and locking/hiding cells.	CO3	Apply	PO3
5	Explain the creation and formatting of charts, sorting, filtering, subtotals, and the use of spell check in spreadsheets.	CO3	Analyze	PO4

UNIT –III

3.1 Introduction M S Power Point:

PowerPoint is a special program provided by MS-office. Power Point is used to create various Presentation slide, Photo prints etc. The Presentation created in PowerPoint is used for seminars, conferences, various education programs etc. PowerPoint provides us various tools and features to create a presentation we can make our presentation more attractive and easier using these tools.

3.2 Opening new presentation:

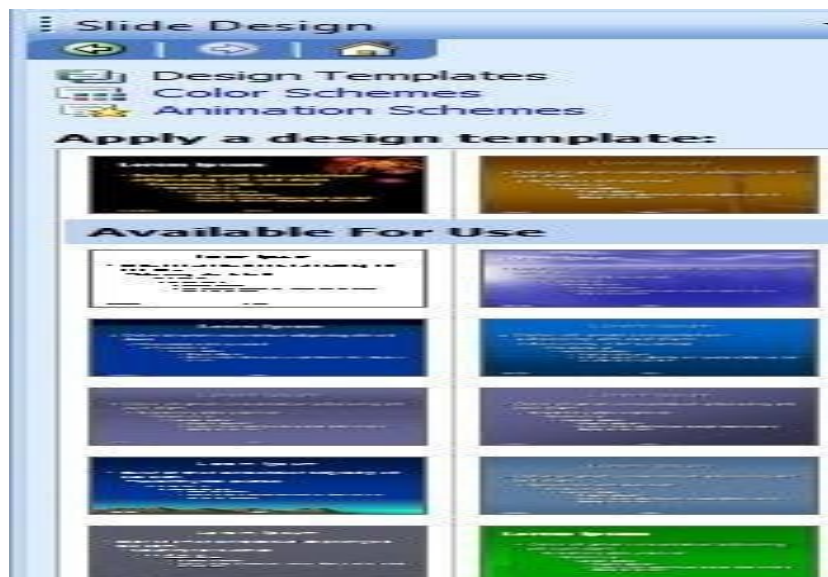
1. Click/ point on start button.
2. Point to all program PowerPoint.
3. After then we will select MS-office option.
4. Select MS-Power Point from MS-office option.

Or

1. Start all programs -MSoffice2003-MSPowerPoint .

3.3 Presentation Templates:

Design templates provide us some predesigned formats of presentation we can select any one of them and create the presentation. It can also be said that design formats are directly used to create the presentation.



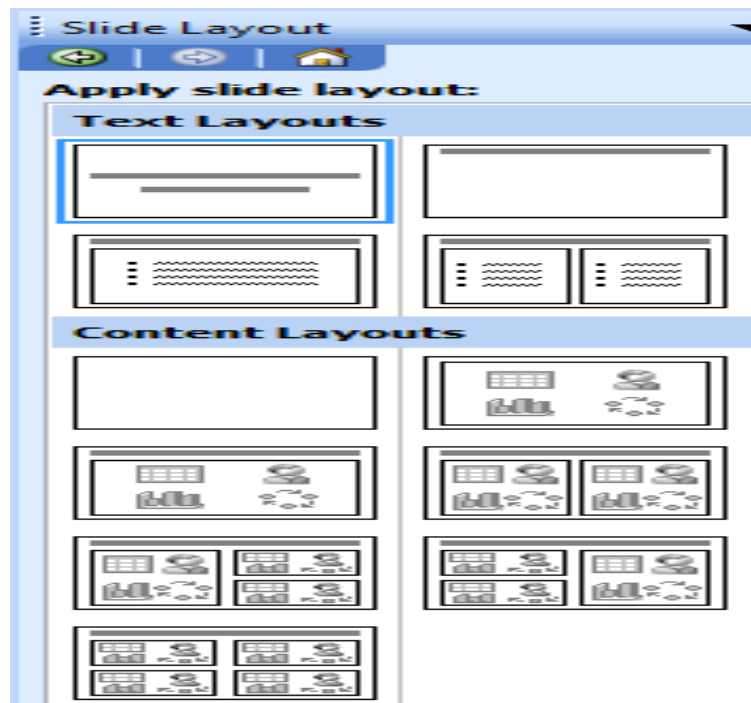
To begin a new presentation with a design template: -

- Open Power Point.
- In the **task pane** under **New**, click **From Design Template**.
- Another way to select template design option is Format-Slide Design.
- A list of templates appears.

- Move your mouse pointer through the different designs, or use the scrollbar.
- Click the down-pointing arrow in the gray box next to the template you like.
- Choose **Apply to All Slides**.

3.4 Slide lay out:

Slide layouts define containers, positioning, and formatting for all of the content that appears on a slide. Placeholders are the containers in layouts that hold such content as text (including body text, bulleted lists, and titles), tables, charts, Smart Art graphics, movies, sounds, pictures, and clip art. An arrangement of one or more of these placeholders is a Slide Layout. PowerPoint provides a variety of different slide layouts grouped in to four categories.



- **Text Layouts:** contain text place holders only.
- **Content Layouts:** contain the blank slide layout and layouts with place holders for media such as pictures, diagrams, charts and video clips.
- **Text and Content Layouts:** contain text and media placeholders.
- **Other Layouts:** contain miscellaneous slide layouts with text, media and object only placeholders.

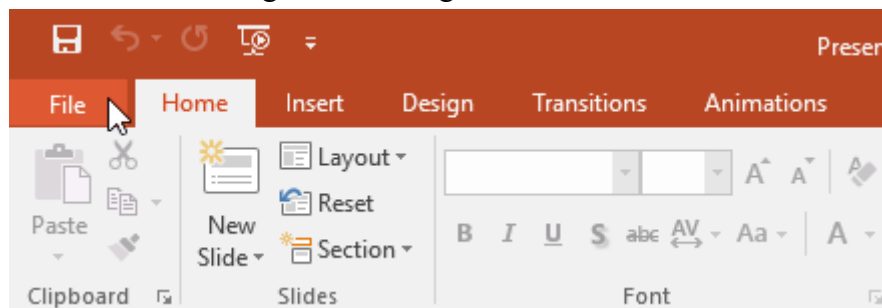
To change the slide layout:-

- **Display the Slide Layout** task pane if it is not already displayed. Click Format >
- Slide Layout. The Slide Layout task pane is displayed.
- Display the slide you wish to format. You can select several slides by holding the Ctrl key while selecting them.
- Click on the slide layout in the task pane that you want. The layout is applied to the selected slides.

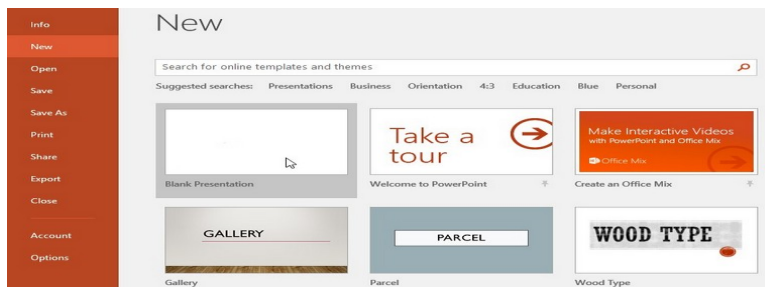
3.4 To create a new presentation:

When beginning a new project in Power Point, you'll often want to start with a new blank presentation.

1. Select the File tab to go to back stage view.



- 2 Select **New** on the left side of the window, and then click **Blank Presentation**.



- 3 A new presentation will appear.

3.5 Adding Text:

1. **Open PowerPoint** and select a slide layout that includes text placeholders (such as the Title Slide or Title and Content layout).
2. **Click on the Text Placeholder:**
 - These boxes will say things like “Click to add title” or “Click to add text.”
 - Click inside one of these boxes to activate it.
3. **Type your text:**

➤ Start typing, and the text will appear in the placeholder box.

4. **Format the text** (optional):

➤ Highlight your text and go to the **Home** tab to adjust the **font, size, color, or alignment**.

3.6 Formatting – Adding Style:

1 Select the Text:

Highlight the text you want to style.

2 Change Font Style:

Go to the Home tab.

Choose from various font styles like Bold, Italic, or Underline.

3 Text Effects:

Select the text, go to the Home tab > Text Effects (an "A" icon with a glowing outline).

Apply effects like Shadow, Glow, Reflection, or 3D text options.

3.7 Changing Color of Text or Objects

1 Select the Text:

Highlight the text you want to change.

2 Change Font Color:

Go to the **Home** tab and click on **Font Color** (a small "A" with a colored underline).

Choose a color from the dropdown menu, or click **More Colors** for additional options.

3.8 Steps to Add Header and Footer:

1 Open the Insert Tab:

Click on the **Insert** tab at the top of the screen.

2 Select Header & Footer:

In the **Text** group, click **Header & Footer**.

3 Footer Options:

A dialog box will open with options

Slide Number: Check this box to add the slide number to each slide

Footer: Check this box to add custom text to the footer (e.g., company name or date)

Date and Time: Check this to automatically add the date and time. You can select if it should update automatically or remain fixed.

3.9 Slide Background:

1 Open the Design Tab:

Click on the **Design** tab in the PowerPoint ribbon.

2 Select Format Background:

On the right side of the **Design** tab, click **Format Background**.

3 Background Options:

Solid Fill: Choose a single color as the background.

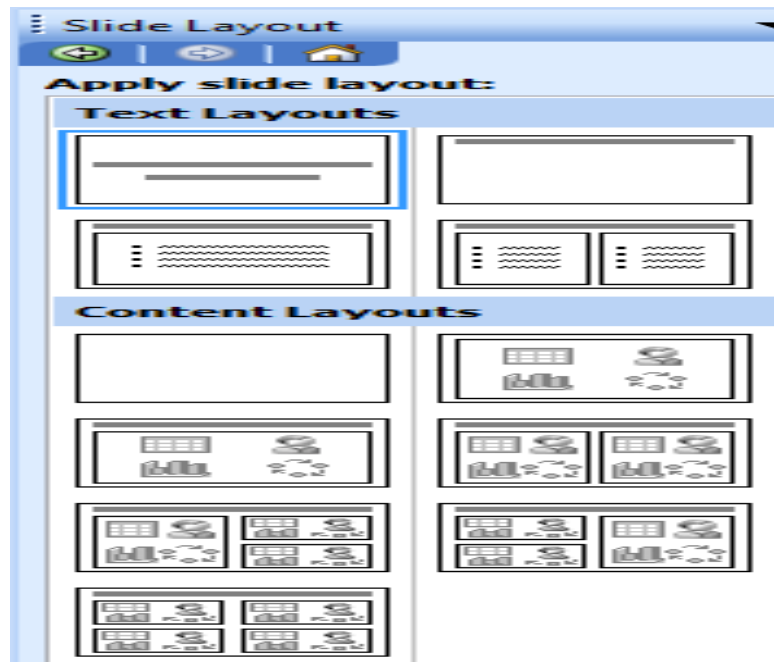
Gradient Fill: Apply a gradient effect that blends two or more colors.

Picture or Texture Fill: Insert an image or texture as the background.

Pattern Fill: Apply a repeating pattern to the background.

3.10 Slide Layouts

Slide layouts define containers, positioning, and formatting for all of the content that appears on a slide. Placeholders are the containers in layouts that hold such content as text (including body text, bulleted lists, and titles), tables, charts, Smart Art graphics, movies, sounds, pictures, and clip art. An arrangement of one or more of these placeholders is a Slide Layout. Power Point provides a variety of different slide layouts grouped into four categories.



- **Text Layouts:** contain text place holders only.
- **Content Layouts:** contain the blank slide layout and layouts with placeholders for media such as pictures, diagrams, charts and video clips.
- **Text and Content Layouts:** contain text and media placeholders.
- **Other Layouts:** contain miscellaneous slide layouts with text, media and object only placeholders.

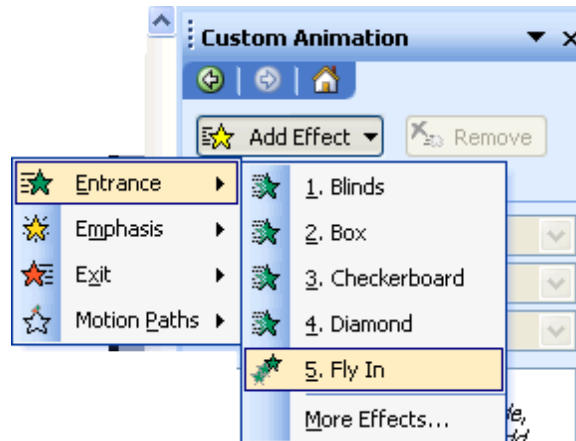
a) To change the slide layout:-

- Display the Slide Layout task pane if it is not already displayed. Click **Format> Slide Layout**. The Slide Layout task pane is displayed.
- Display the slide you wish to format. You can select several slides by holding the Ctrl key whilst selecting them.
- Click on the slide layout in the task pane that you want. The layout is applied to the selected slides.

3.11 Setting Animation:

Animation is a process to activate any text or object by using custom animation you can alive (live) any dead object. It can also be said that animation is used to make the presentation active by using custom animation we can make the moving object used in different slides like text, graphic, picture, images. This object can also be affected or

animated with various sound by using the presentation can be make very effecting and attractive.



Animate any object (Text, Chart, Images): -

To animate any object or text use in the slide or presentation very first use we will open the particular presentation then select animation scheme option from the slide show menu or we can also select custom animation option from the slide show menu. Then we have to click on add effect button available in the custom animation and select any animation from the different categories provided by custom animation options. By doing this the selected animation can be apply on the selected object in the slide. To view the animation effect we will click on Play button available in the task pane or we can also select auto preview check box to get automatic preview of the effect or animation apply on various object.

Adding sounds to the slides:

Various kinds of sound can also be applied on different slides at the time of creating presentation to apply the sound on slide very first we will select the slide & then click on slide transition option from the slide show menu. Slide transaction box will appear in task pane. It also contains the option for adding the sound with transaction.

We can select any sound from the list available in sound option presented in Modify Transition & it will be applied to the selected slide, to apply the same on each slide click on Apply to all slides button.

3.12 Slide Transition

Once you've completed all of your slides, create a cohesive presentation by adding a

transition. You can move from slide to slide with interesting transitions that affect the timing, entrance, and exit of your slides. A transition is an effect that is applied to some or all of the slides in a presentation.

To make transitions from slide to slide:

- Click **Slide Show Slide Transition**.
- In the **Slide Transition pane**, choose the **effect** you want from the drop-down menu, such as Blinds Horizontal, Blinds Vertical, Box In, Box Out, Cover Down, Cover Left, Cover Right, and Cover Up.

Automatically **preview** each transition by clicking on it. (AutoPreview must be selected).

- Click **Apply to All** when you have chosen an effect.
- The other option is **Advance**. The default is to have each slide transition after the mouse has been clicked. You can also tick the box next to **automatically after**. This lets you set how many seconds/ minutes to wait before the next slide appears.
- To see how your transition works, **preview the slide show**. Some transitions work well with effects that have been added to text and graphics. Others do not. Preview a variety of transitions before finalizing your slide presentation.

3.12 Insert video or sound clips in to slide

Attention: Always put the movie, sound and video in the same folder as your PowerPoint presentation. If you later move the PowerPoint presentation to another computer, copy the movie too. Keeping your movie in the same folder as your presentation ensures the link will still work. However, you should always test the movie on a new machine just to be certain. Re-insert the movie, if necessary.

On the **Insert menu**, point to Movies and Sounds, and then click Movie from File. Click the video you want to use and then click OK. After you click OK, you're prompted with a message asking how you want the movie to start in the slideshow

Recommend choosing automatically even if you want the movie to play when clicked— I'll talk about how to set this part too. (If you choose when clicked you have to click the black box to start the movie. Because I don't like to show the black box on the slide, I do this a little differently.

Right-click the movie objects (the small rectangle) and on the shortcut menu, clicks Edit Movie Object.

The Movie Options dialog box appears. Select what you want, and then click OK. For example: Play the movie full Screen.

Test this now to see how it works by starting the slide show. (On the Slide Show menu, click View Show.) Advance to the slide with the movie, (best if you have the title of the movie on it). Within a couple of seconds, the movie starts to play full screen. When the movie finishes, you return to the same slide (but no unsightly box appears). Click to advance to your next slide.

MCQ Questions

1. Presentation software is used to:
 - a) Create documents
 - b) Create slides for presentations
 - c) Store data
 - d) Manage database

Answer: b) Create slides for presentations

2. A presentation template provides:
 - a) Pre-designed layouts
 - b) Data tables
 - c) Calculations
 - d) Database structure

Answer: a) Pre-designed layouts

3. Slide layout determines:
 - a) Position of content on slide
 - b) Color of slide
 - c) Animation speed
 - d) Slide timing

Answer: a) Position of content on slide

4. Header and footer are used to display:

- a) Text and page numbers
- b) Images
- c) Videos
- d) Charts

Answer: a) Text and page numbers

5. Animation effects are used to:

- a) Format text
- b) Add movement to objects
- c) Insert images
- d) Create tables

Answer: b) Add movement to objects

6. Transition effects occur:

- a) Between slides
- b) Within slide text
- c) In charts
- d) In images

Answer: a) Between slides

7. Slide show mode is used to:

- a) Edit slides
- b) Present slides to audience
- c) Save slides
- d) Delete slides

Answer: b) Present slides to audience

8. Pictures and videos can be inserted to:

- a) Enhance presentation
- b) Replace text
- c) Store data
- d) Format slides

Answer: a) Enhance presentation

9. Gradient fills are used for:

- a) Background color effects
- b) Animation
- c) Tables

d) Charts

Answer: a) Background color effects

10. Presentation layout includes:

a) Title slide

b) Content slide

c) Image slide

d) All of the above

Answer: d) All of the above

Small Questions – LOCF Mapping Table

S.No	Small Question	CO	Bloom's Level	PO
1	Define a presentation and mention two common presentation software.	CO1	Remember	PO2
2	What is the purpose of presentation templates and layouts?	CO1	Understand	PO2
3	Name two formatting features that can be applied to text or objects in a presentation.	CO2	Remember	PO2
4	State two types of effects that can be added to slides.	CO2	Remember	PO2
5	What is the purpose of adding audio or video to a presentation?	CO3	Understand	PO3

Big Questions – LOCF Mapping Table

S.No	Big Question	CO	Bloom's Level	PO
1	Explain the basic features of a presentation application and the steps to create a new presentation using templates and layouts.	CO1	Understand	PO2
2	Describe how to add and format text in slides, including styles, colors, and gradient fills.	CO2	Apply	PO3
3	Explain the process of arranging objects, adding headers and footers, and setting slide backgrounds and layouts.	CO2	Apply	PO3
4	Discuss how to apply animation and transition effects to slides and objects in a presentation.	CO3	Analyze	PO4
5	Explain the procedure for inserting multimedia elements such as pictures, audio, and video into slides and their	CO3	Apply	PO3

	significance in presentations.			
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UNIT – IV

4.1 Data Base Introduction:

Microsoft Access is a Database Management System (DBMS) from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software-development tools. It is a member of the Microsoft Office suite of applications, included in the professional and higher editions.

- Microsoft Access is just one part of Microsoft’s overall data management product strategy.
- It stores data in its own format based on the Access Jet Database Engine.
- Like relational databases, Microsoft Access also allows you to link related information easily. For example, customer and order data. However, Access 2013 also complements other database products because it has several powerful connectivity features.
- It can also import or link directly to data stored in other applications and databases.
- As its name implies, Access can work directly with data from other sources, including many popular PC database programs, with many SQL (Structured Query Language) databases on the desktop, on servers, on minicomputers, or on main frames, and with data stored on Internet or intranet web servers.
- Access can also understand and use a wide variety of other data formats, including many other database file structures.
- You can export data to and import data from word processing files, spreadsheets, or database files directly.
- Access can work with most popular databases that support the Open Database Connectivity (ODBC) standard, including SQL Server, Oracle, and DB2.
- Software developer’s can use Microsoft Access to develop application software.

Creating Database:

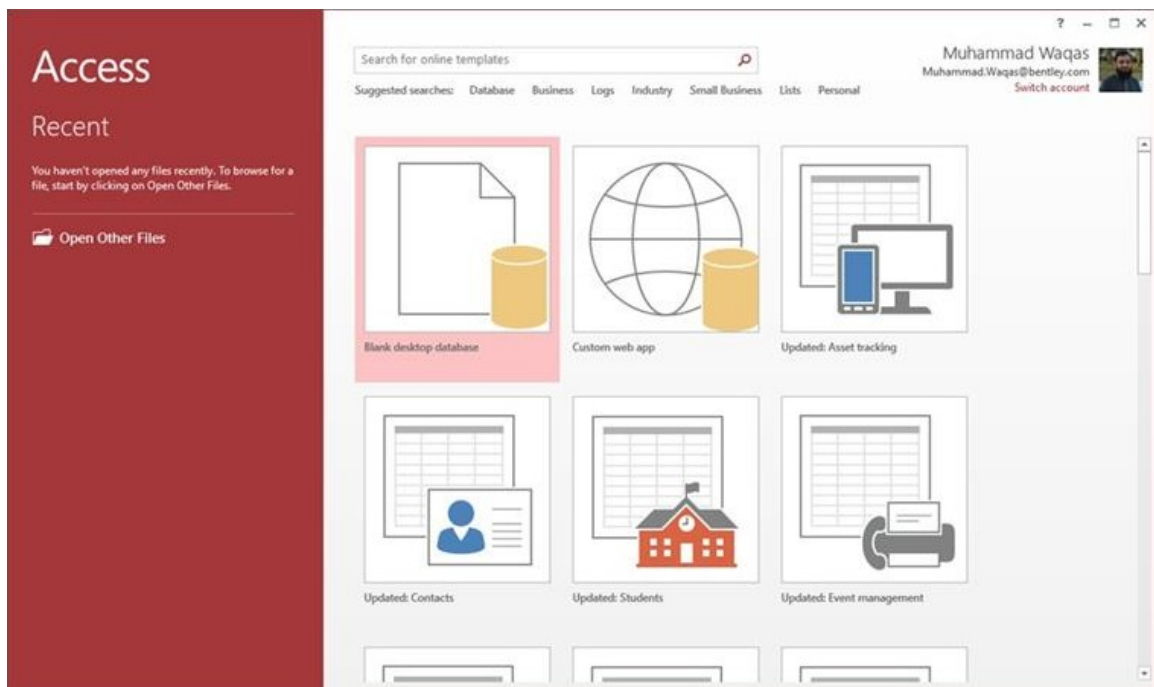
Microsoft Access stores information which is called a database. To use MS Access, you will need to follow these four steps:

- **Database Creation-** Create your Microsoft Access database and specify what

kind of data you will be storing.

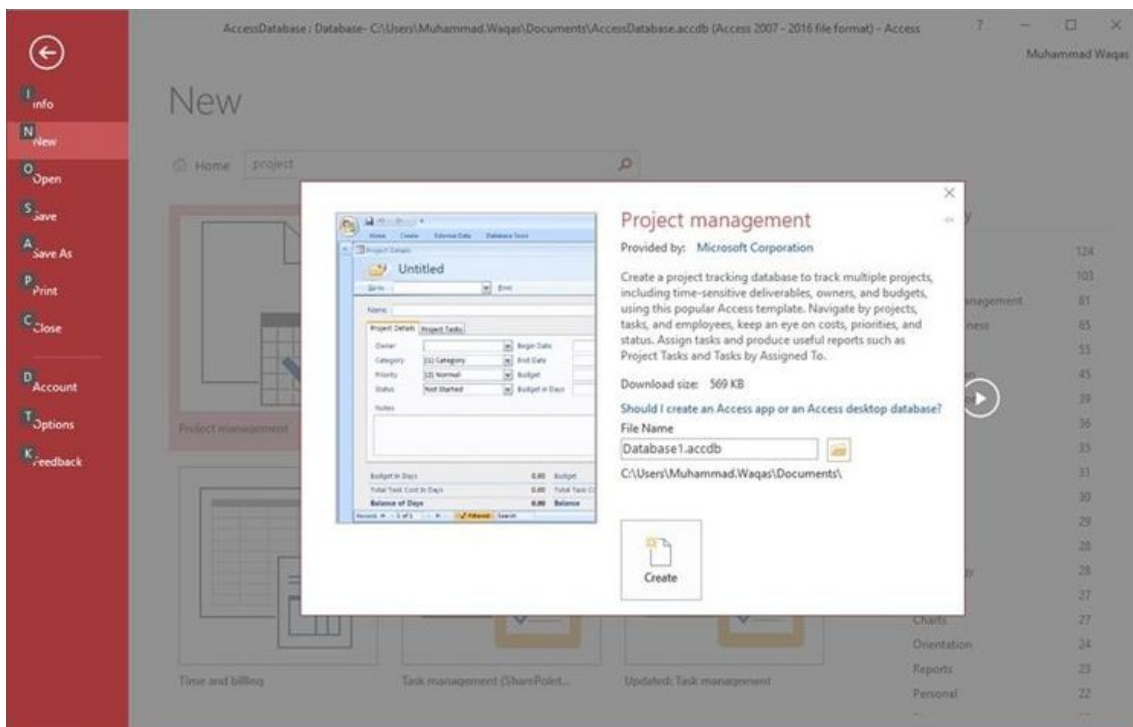
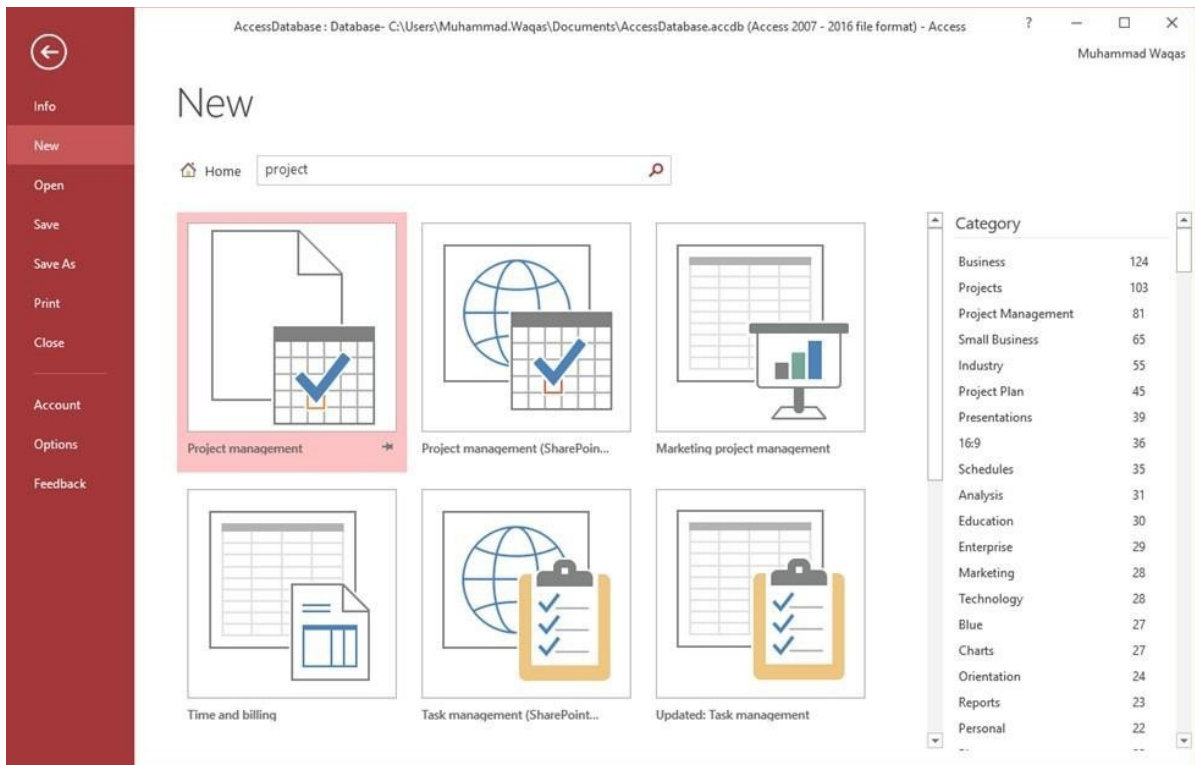
- **Data Input**- After your database is created, the data of every business day can be entered into the Access database.
- **Query**-This is a fancy term to basically describe the process of retrieving information from the database.
- **Report** (optional)-Information from the database is organized in a nice presentation that can be printed in an Access Report.

To create a database from a template, we first need to open MS Access and you will see the following screen in which different Access database templates are displayed.



To view the all the possible databases, you can scroll down or you can also use the search box. Let us enter project in the search box and press Enter. You will see the database templates related to project management.

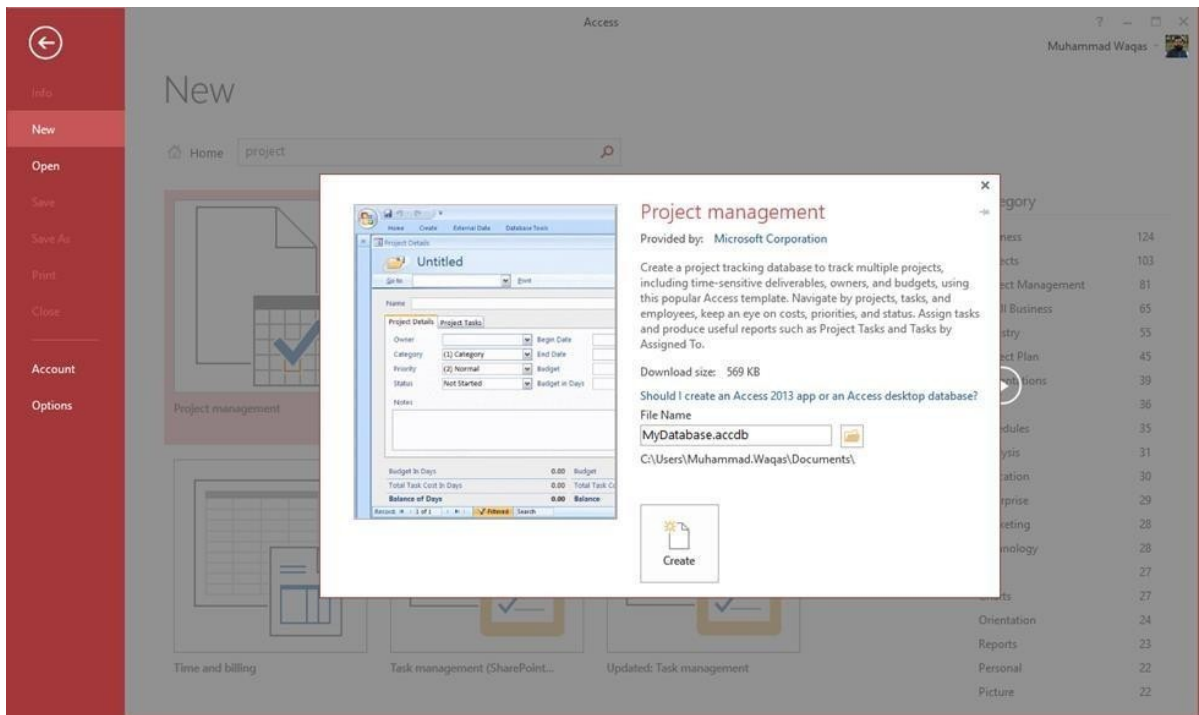
Select the first template. You will see more information related to this template.



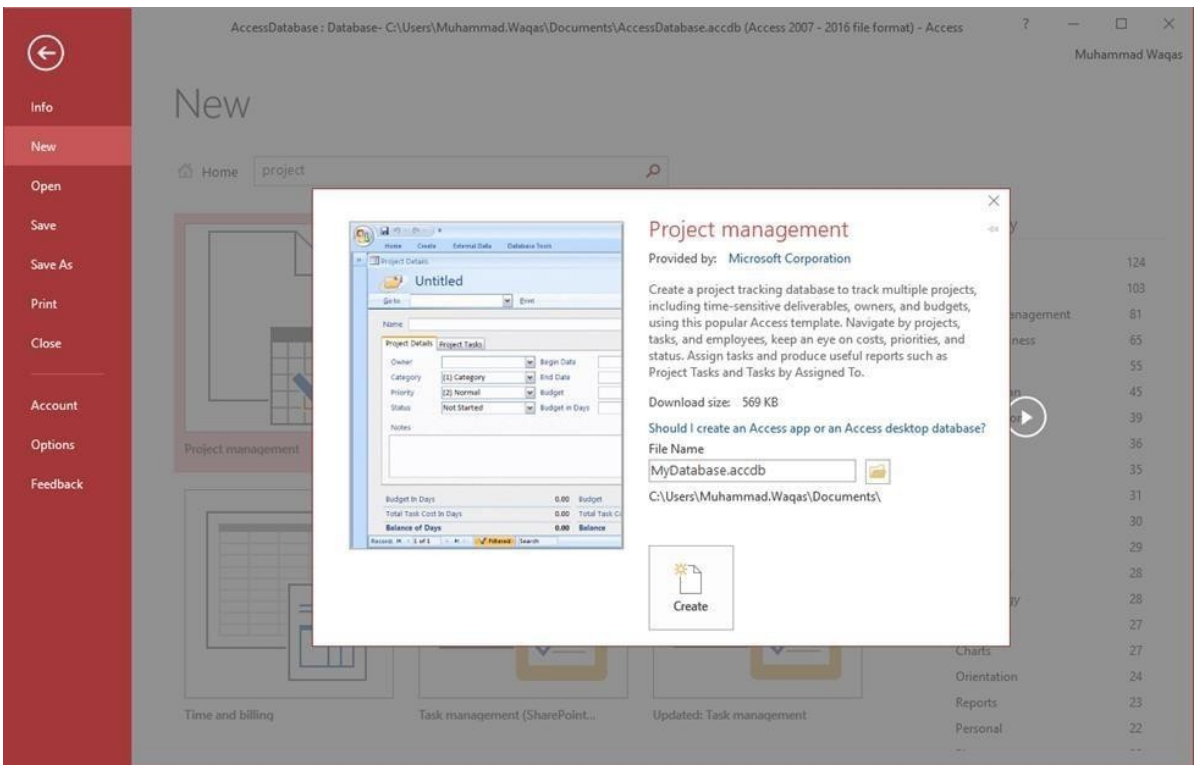
Let us enter project in the search box and press Enter. You will see the database templates related to project management.

After selecting a template related to your requirements, enter a name in the **File name**

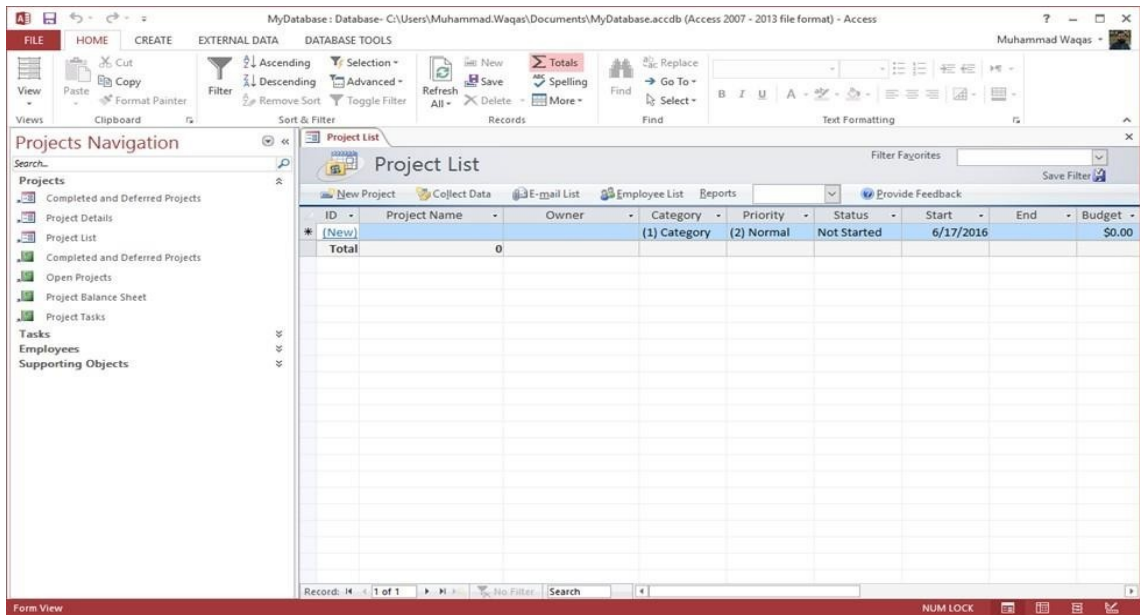
field and you can also specify another location for your file if you want.



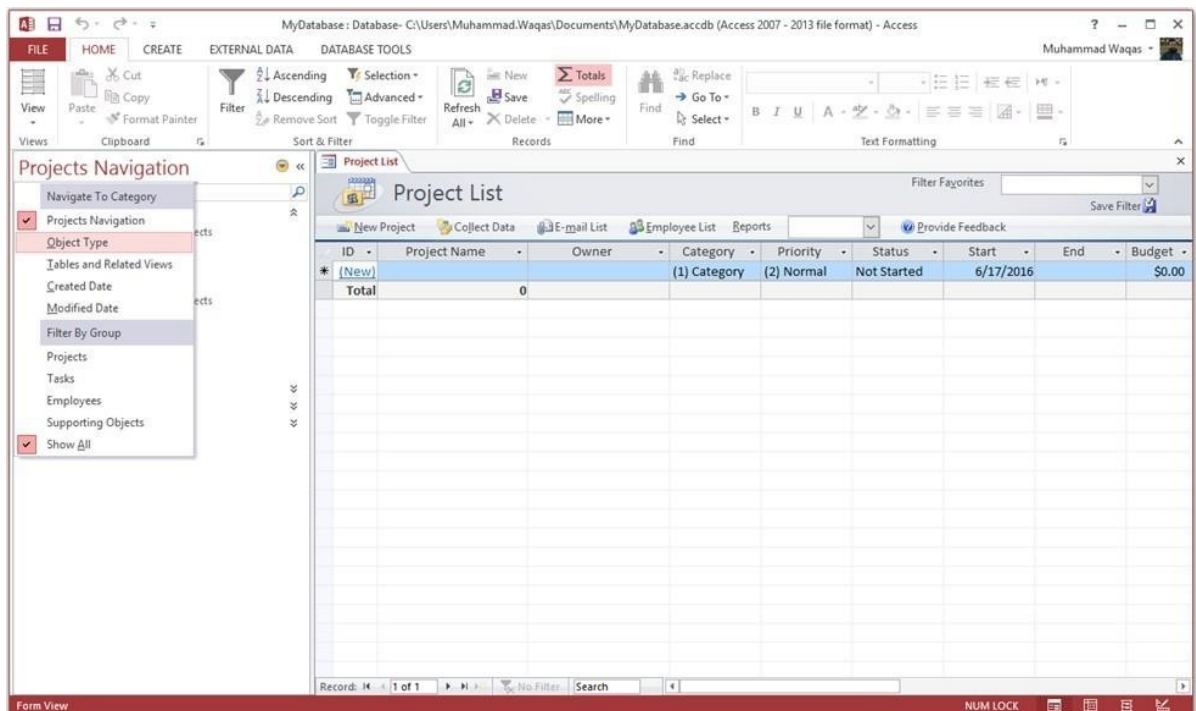
Now, press the Create option. Access will download that database template and open a new blank database as shown in the following screenshot.



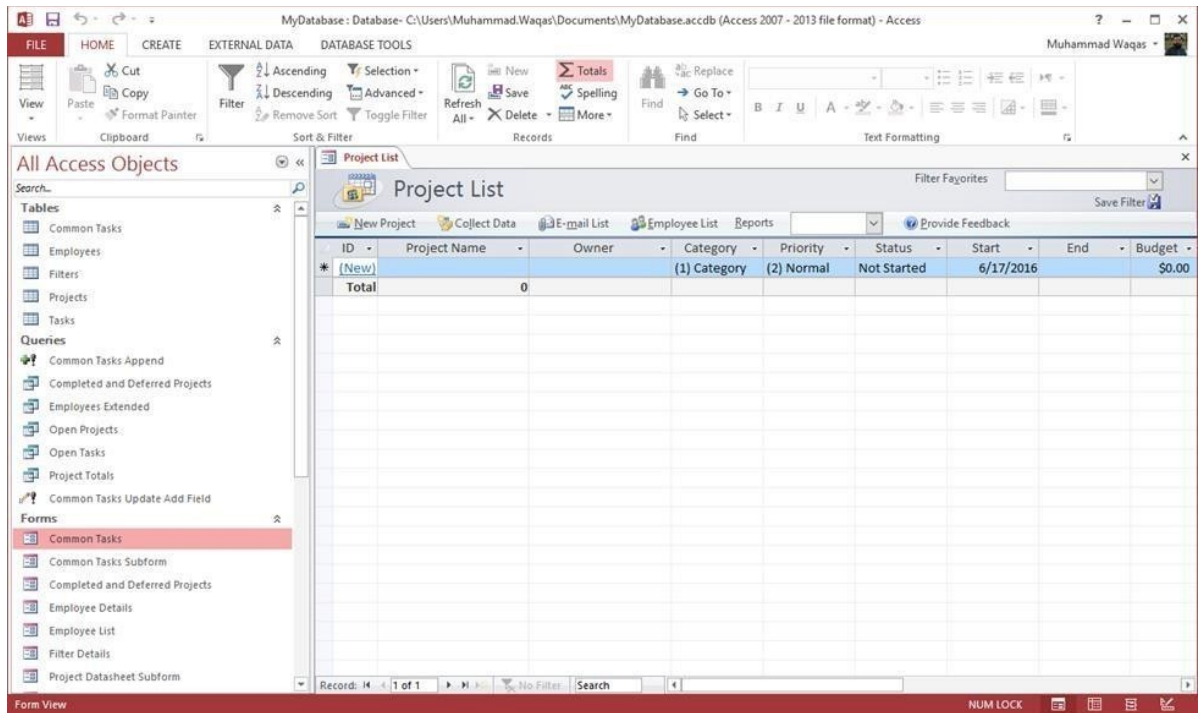
Now, click the Navigation pane on the left side and you will see all the other objects that come with this database.



Click the Projects Navigation and select the Object Type in the menu.



You will now see all the objects types - tables, queries, etc.

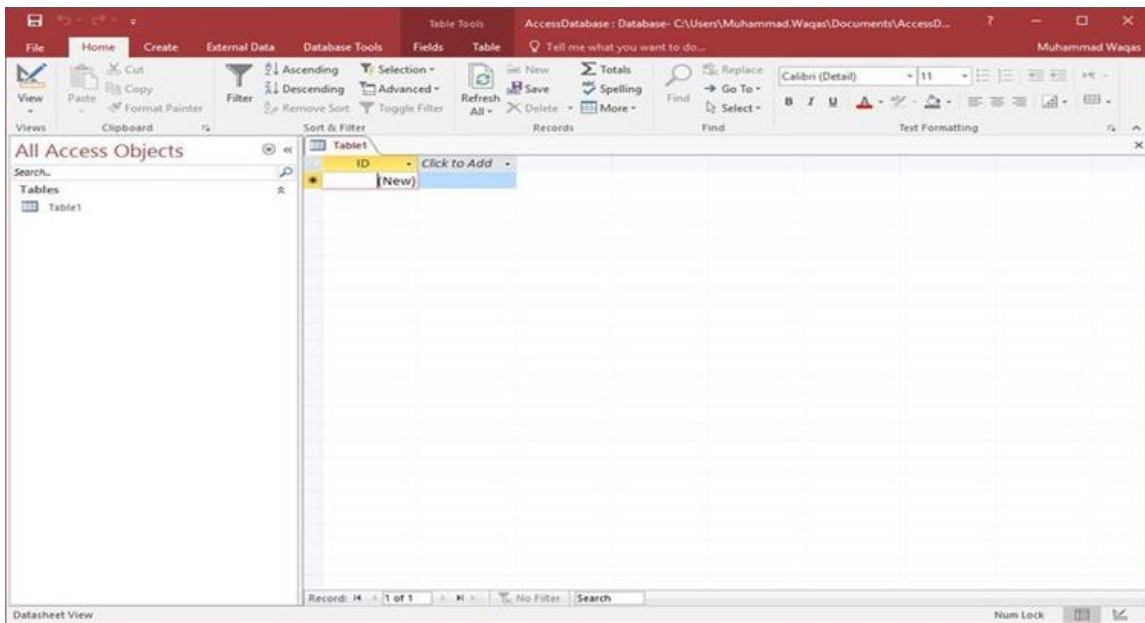


4.3 Creating Table:

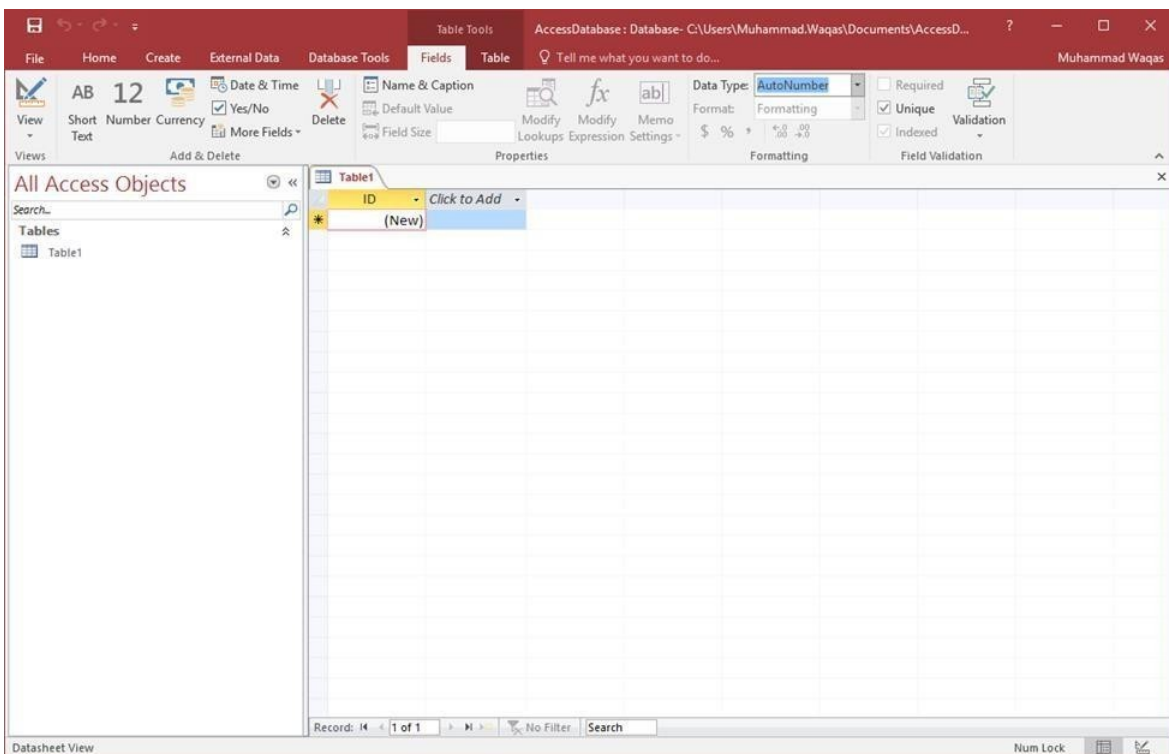
When you create a database, you store your data in tables. Because other database objects depend so heavily on tables, you should always start your design of a database by creating all of its tables and then creating any other object. Before you create tables, carefully consider your requirements and determine all the tables that you need. Let us try and create the first table that will store the basic contact information concerning the employees as shown in the following table:

Field Name	Data Type
Employee ID	AutoNumber
First Name	Short Text
Last Name	Short Text
Address1	Short Text
Address2	Short Text
City	Short Text
State	Short Text
Zip	Short Text
Phone	Short Text
Phone Type	Short Text

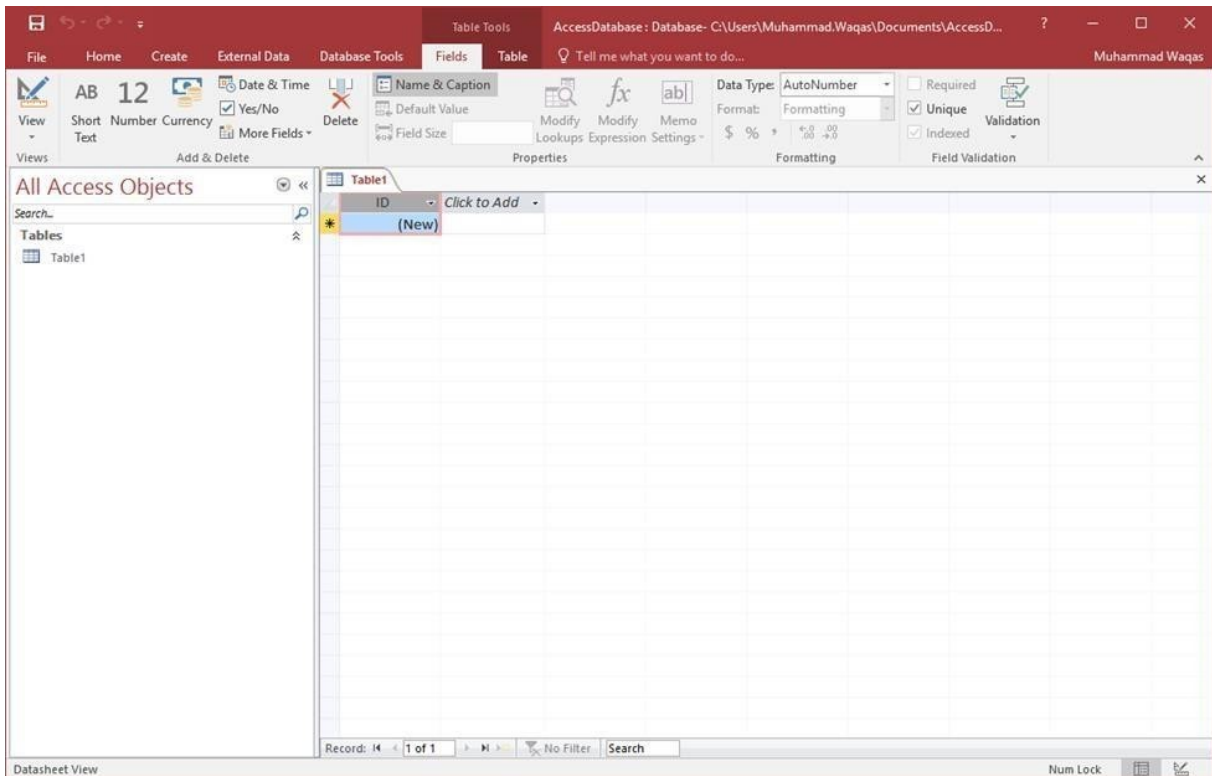
Let us now have short text as the data type for all these fields and open a blank database in Access.



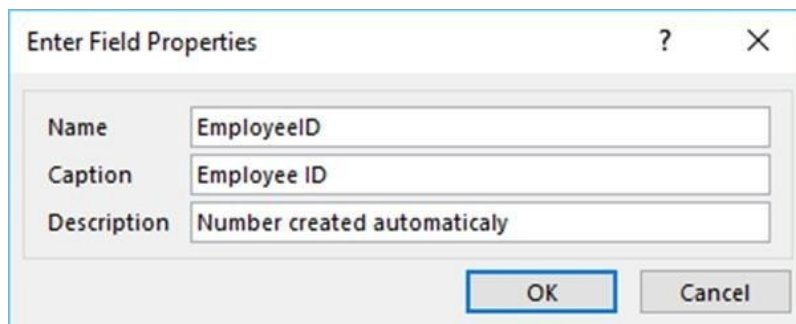
This is where we left things off. We created the database and then Access automatically opened up this table- one-datasheet view for a table.



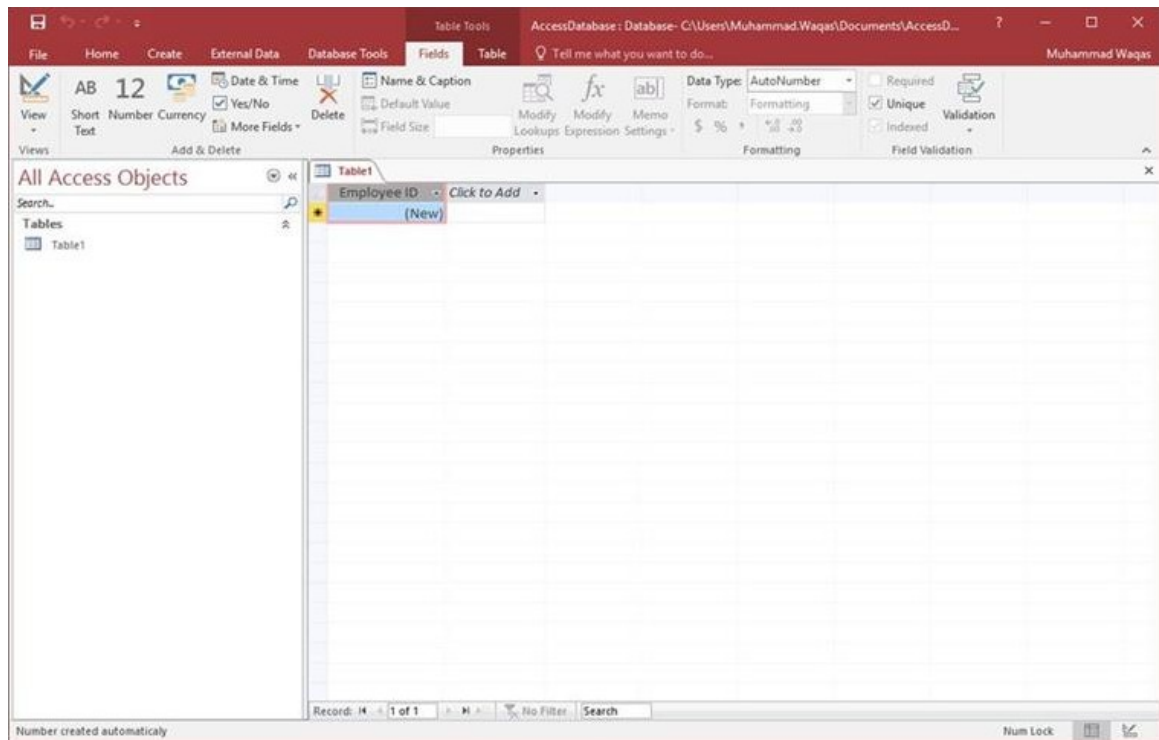
Let us now go to the Field tab and you will see that it is also automatically created. The ID which is an Auto Number field acts as our unique identifier and is the primary key for this table. The ID field has already been created and we now want to rename it to suit our conditions. This is an employee table and this will be the unique identifier for our employees.



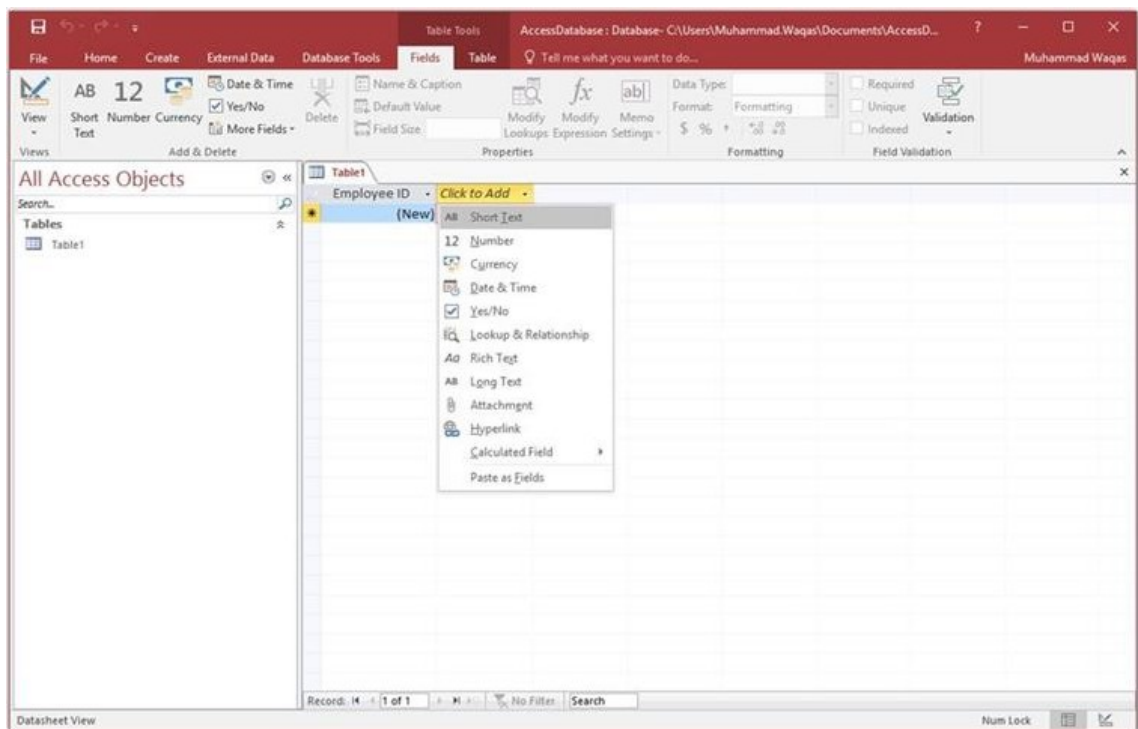
Click on the **Name & Caption** option in the Ribbon and you will see the following dialog box.



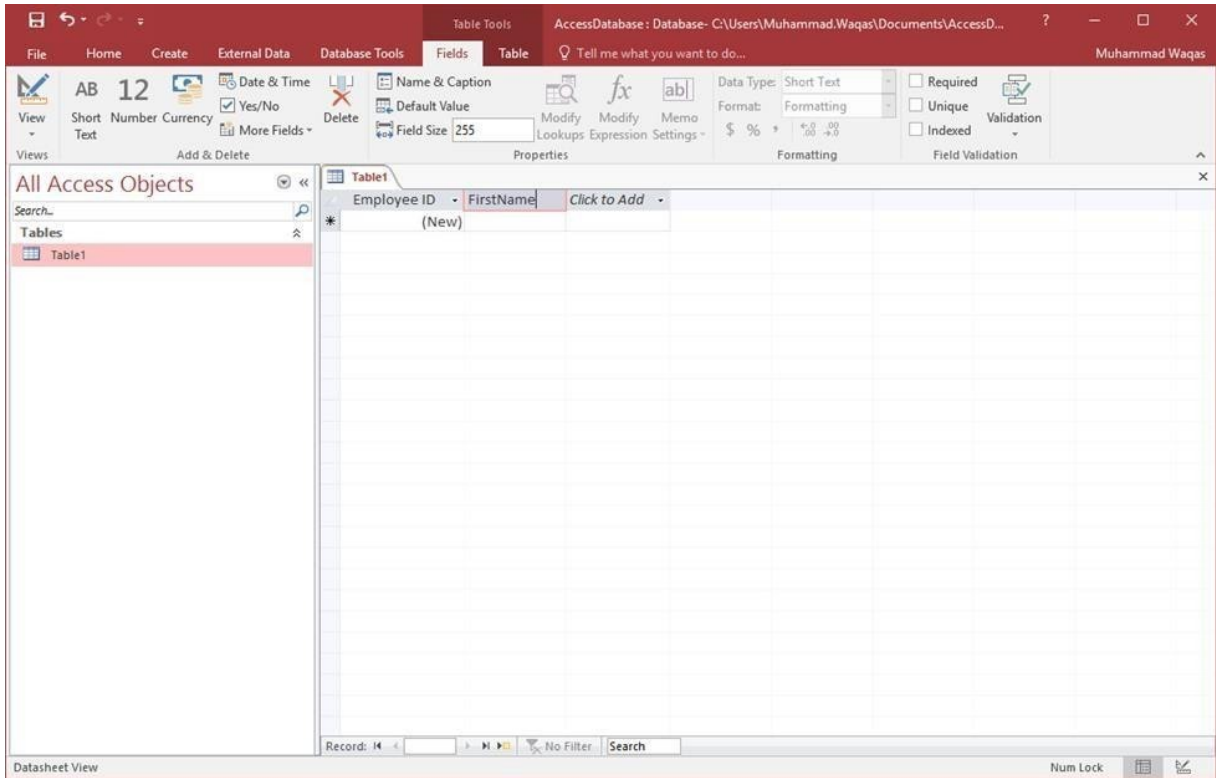
Change the name of this field to **Employee ID** to make it more specific to this table. Enter the other optional information if you want and click Ok.



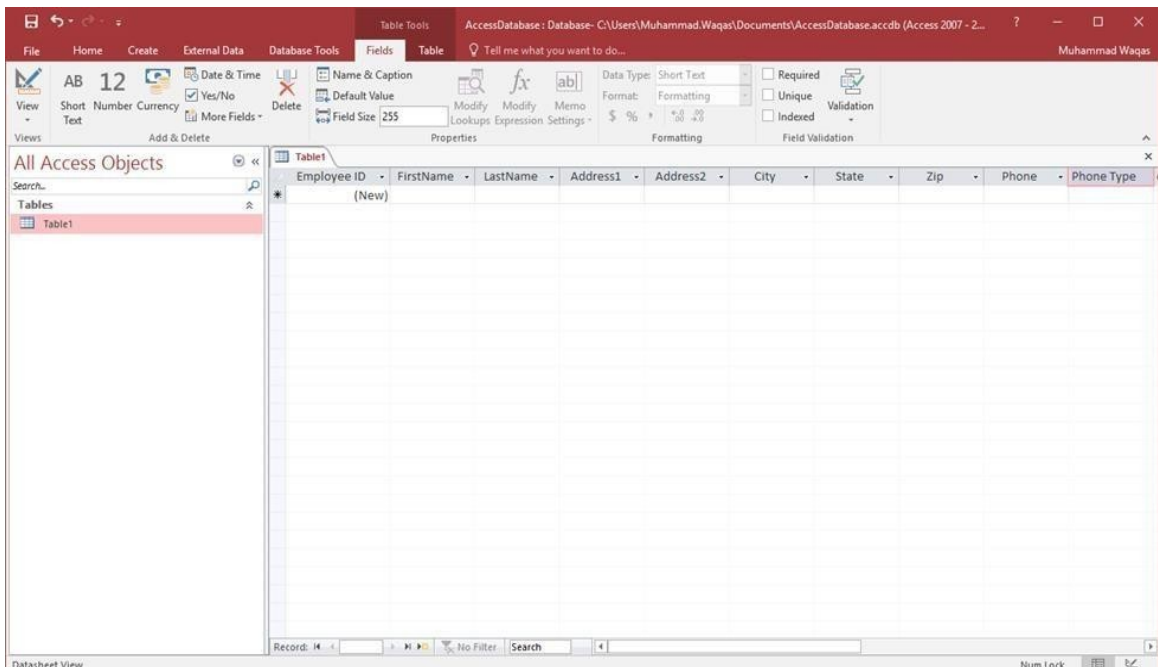
Suppose if we have our employee ID field with the caption Employee ID. This is automatically set to auto number so we don't really need to change the data type. Let us now add some more fields by clicking on **click to add**.



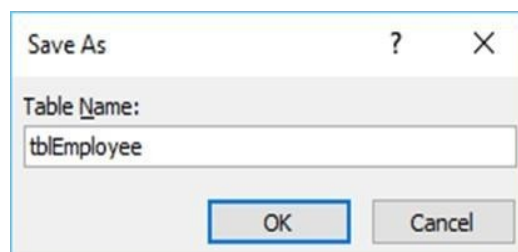
Choose **Short Text** as the field. When you choose short text, Access will then highlight that field name automatically and all you have to do is type the field name.



Type **First Name** as the field name. Similarly, add all the required fields as shown in the following screen shot.



You will now see the **Save As** dialog box, where you can enter a table name for the table.



Enter the name of your table in the Table Name field. Here the **tbl** prefix stands for table. Let us click Ok and you will see your table in the navigation pane.

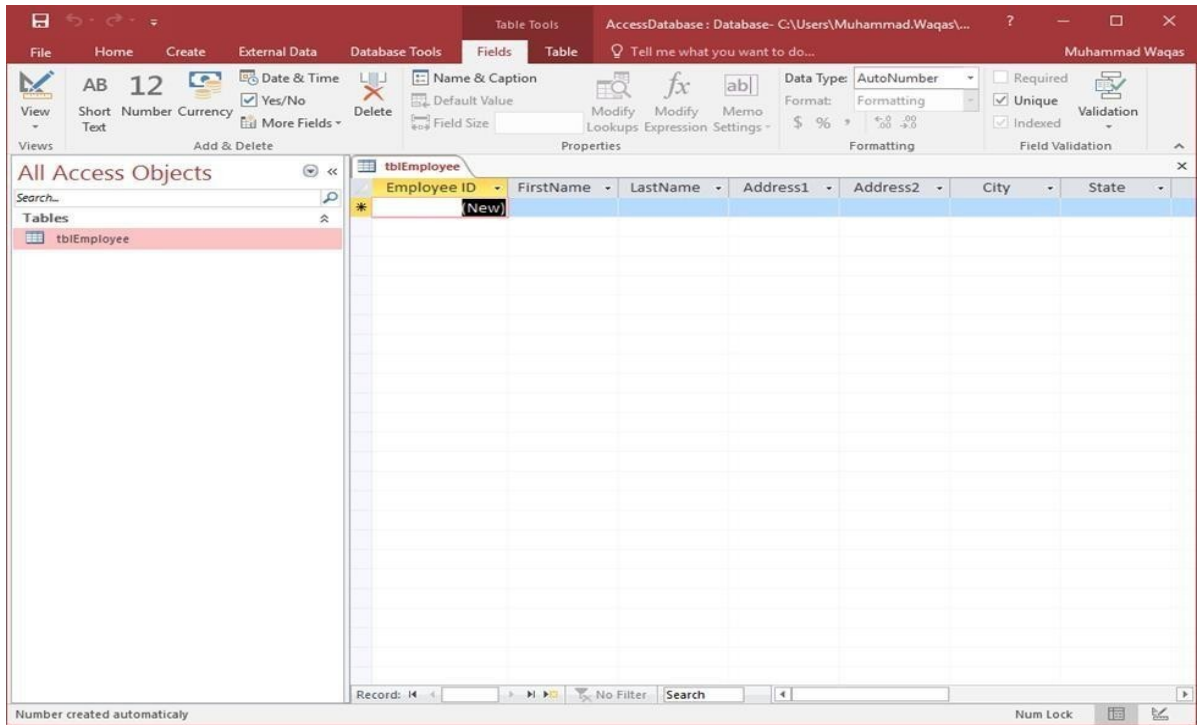


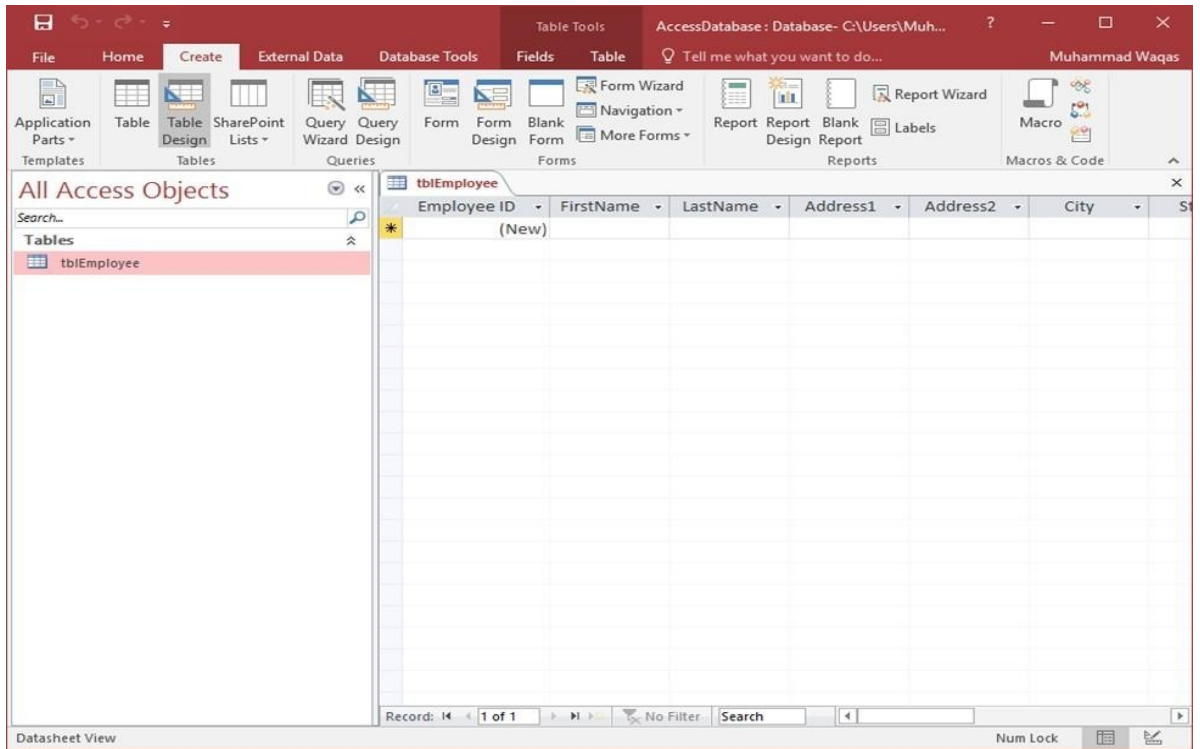
Table Design View

As we have already created one table using **Datasheet View**. We will now create another table using the **Table Design View**. We will be creating the following fields in this table. These tables will store some of the information for various book projects.

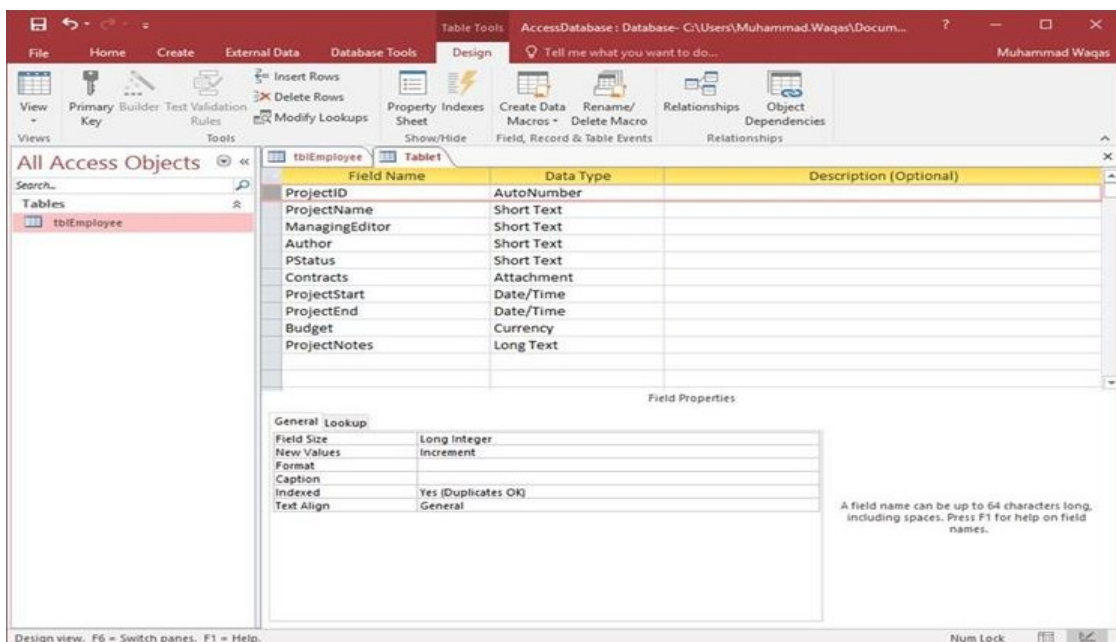
Field Name	Data Type
Project ID	Auto Number
Project Name	Short Text
Managing Editor	Short Text
Author	Short Text
P Status	Short Text
Contracts	Attachment
Project Start	Date/Time
Project End	Date/Time

Budget	Currency
Project Notes	Long Text

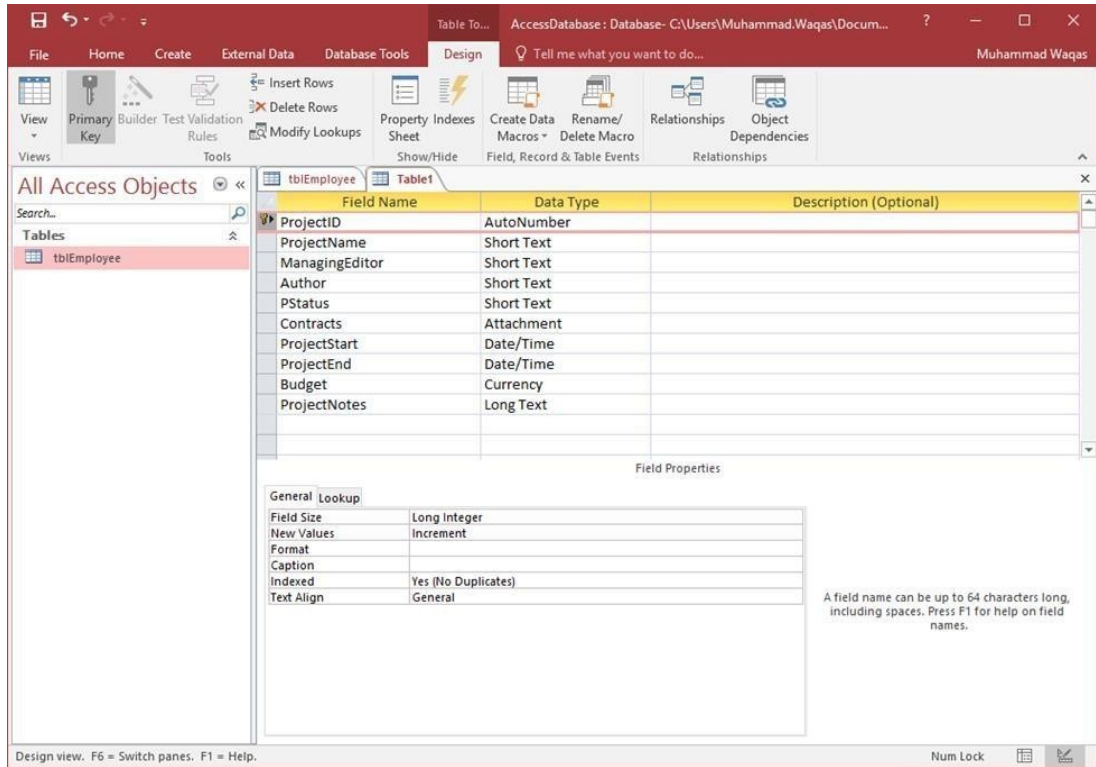
Let us now go to the Create tab.

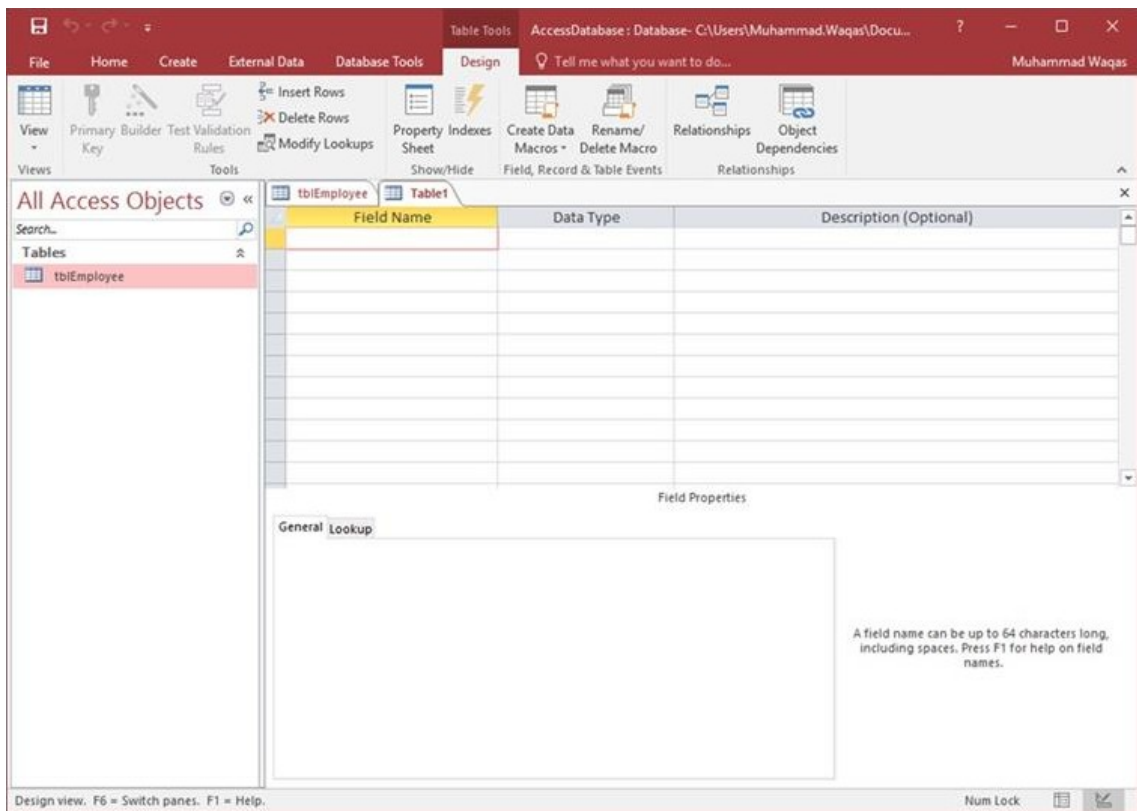


In the tables group, click on Table and you can see this looks completely different from the Datasheet View. In this view, you can see the **field name** and **data type** side by side.

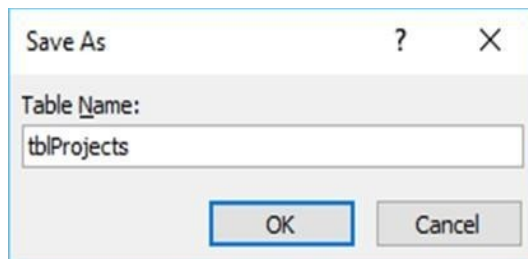


We now need to make **Project ID** a primary key for this table, so let us select **Project ID** and click on **Primary Key** option in the ribbon.

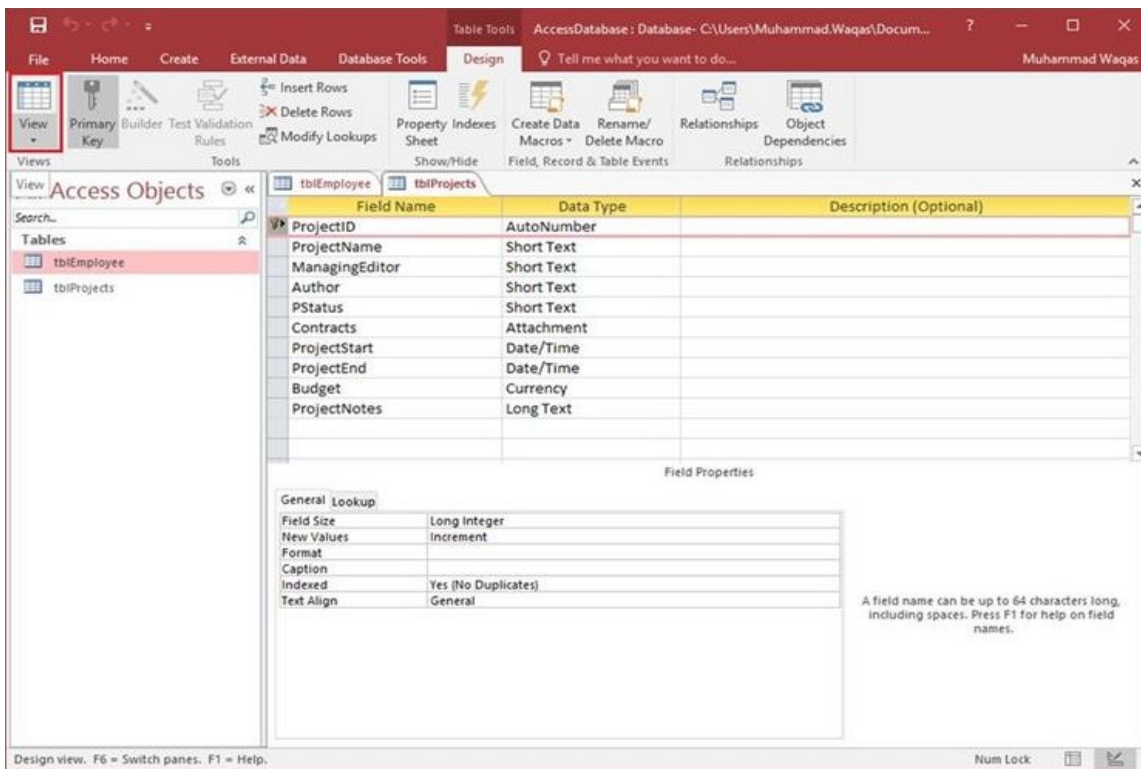




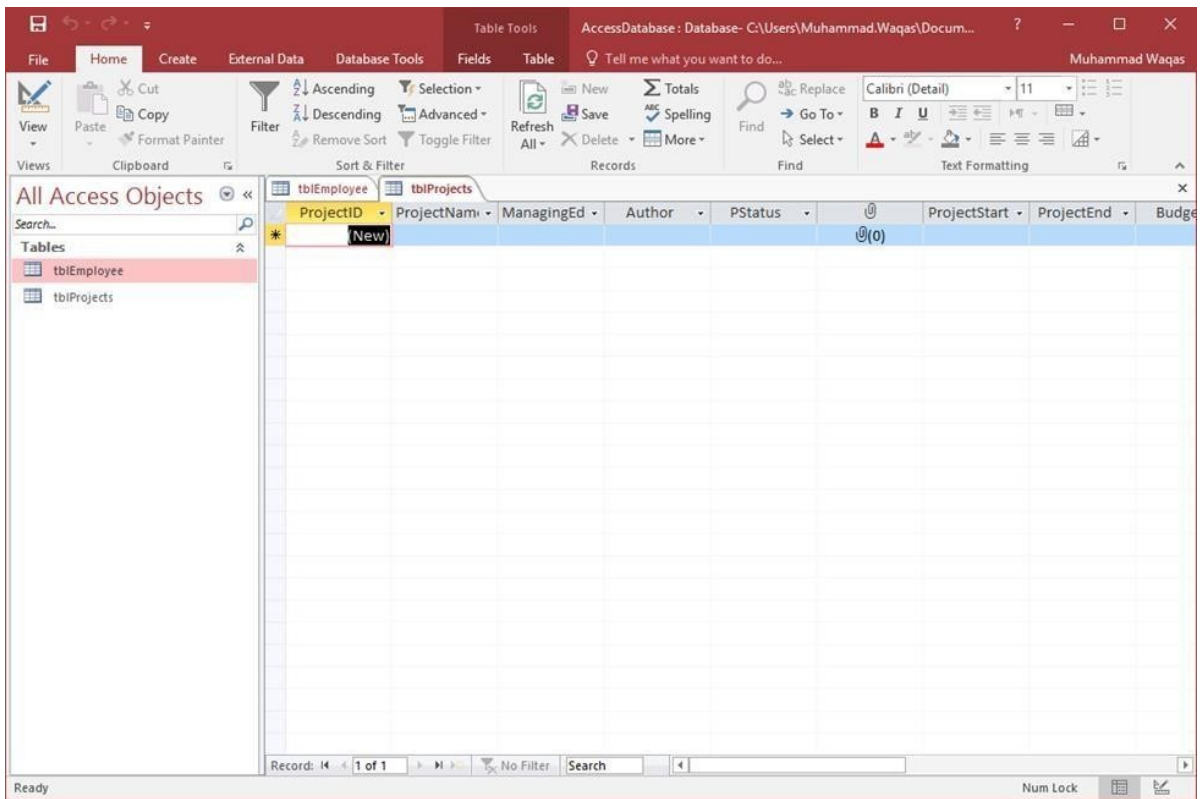
You can now see a little key icon that will show up next to that field. This shows that the field is part of the table's primary key. Let us save this table and give this table a name.



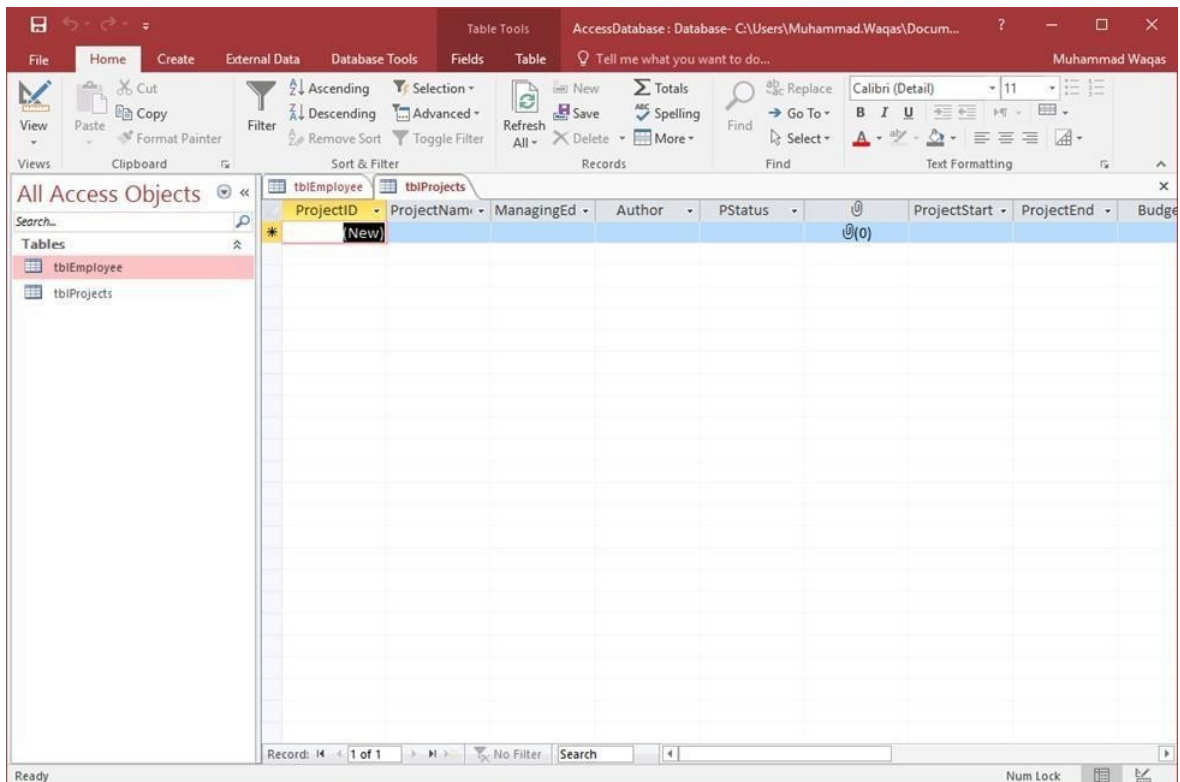
Click Ok and you can now see what this table looks like in the Data sheet View.



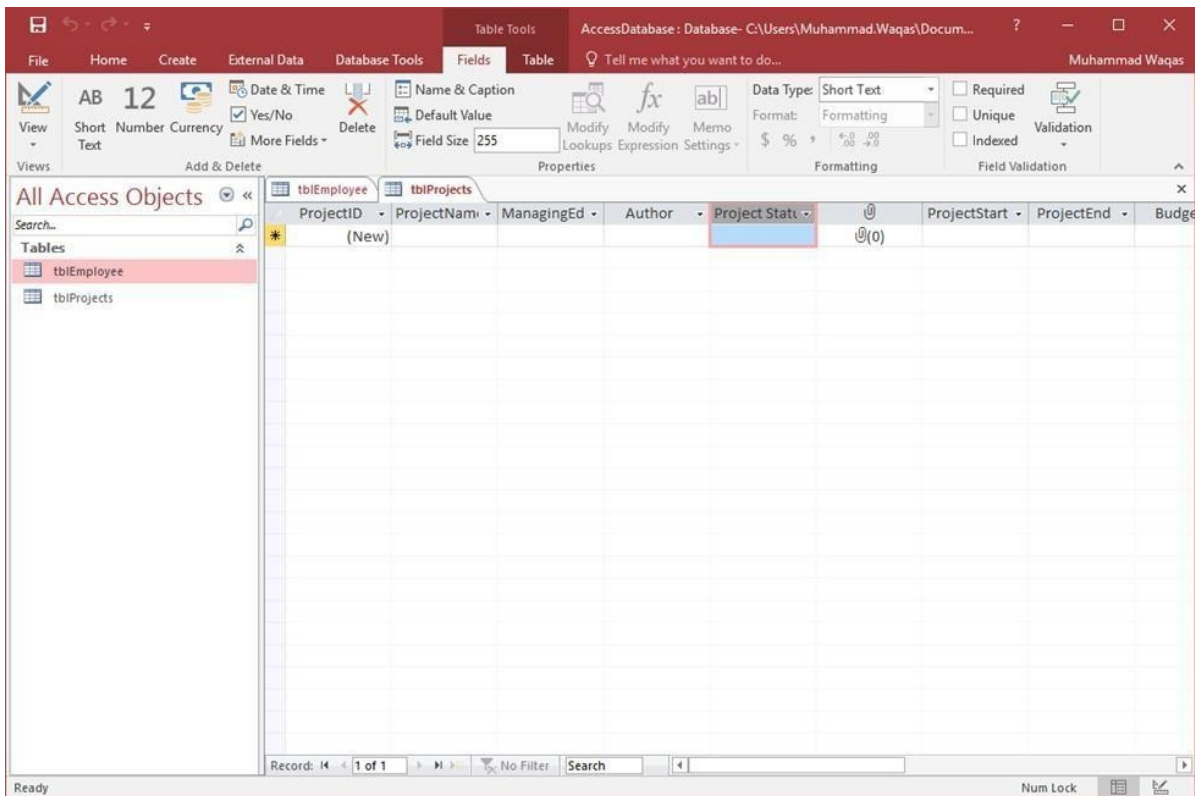
Let us click the data sheet view button on the top left corner of the ribbon



Let us click the data sheet view button on the top left corner of the ribbon.



Click Ok and you will see the changes.



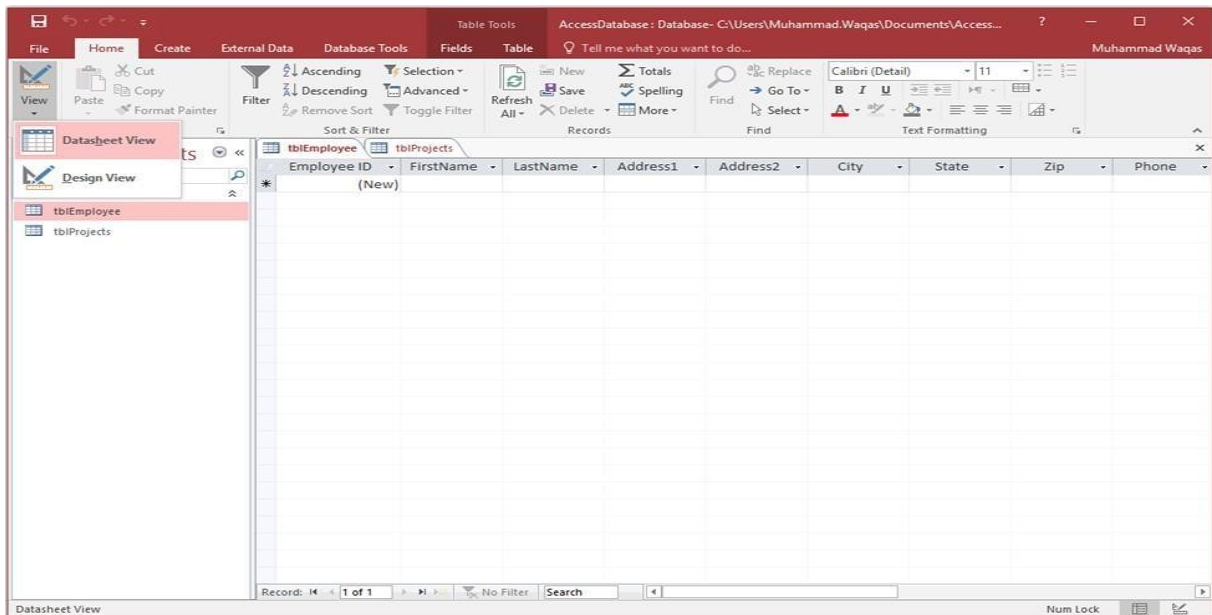
4.4 Modifying Data:

An Access database is not a file in the same sense as a Microsoft Office Word document or a Microsoft Office PowerPoint are. Instead, an Access database is a collection of objects like tables, forms, reports, queries etc. that must work together for a database to function properly. We have now created two tables with all of the fields and field properties necessary in our database. To view, change, insert, or delete data in a table within Access, you can use the table's Datasheet View.

- A datasheet is a simple way to look at your data in rows and columns without any special formatting.
- Whenever you create a new web table, Access automatically creates two views that you can start using immediately for data entry.
- A table open in Datasheet View resembles an Excel worksheet, and you can type or paste data in to one or more fields.
- You do not need to explicitly save your data. Access commits your changes to the table when you move the cursor to a new field in the same row, or when you move the cursor to another row.

- By default, the fields in an Access database are set to accept a specific type of data, such as text or numbers. You must enter the type of data that the field is set to accept. If you don't, Access displays an error message:

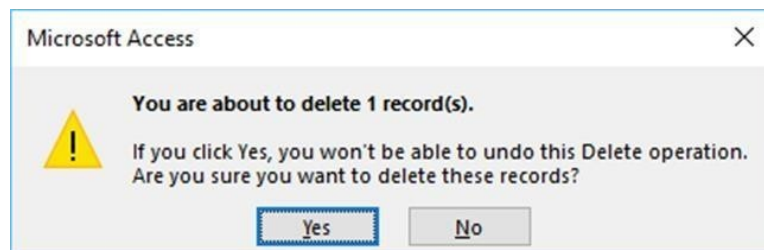
Let us add some data into your tables by opening the Access database we have created.



Select the **Views > Datasheet** View option in the ribbon and add some data as shown in the following screen shot.

ProjectID	ProjectName	ManagingEditor	Author	Project Status	ProjectStart	ProjectEnd	Budget	ProjectNotes
2	Project Quarterly 1.1	12		Completed	11/1/2006	2/15/2007	\$5,000.00	A quarterly literary journal de
11	Project Quarterly 1.2	12		Completed	2/1/2007	5/15/2007	\$5,000.00	A quarterly literary journal de
12	Project Quarterly 1.3	12		Completed	5/1/2007	8/15/2007	\$5,000.00	A quarterly literary journal de
13	Project Quarterly 1.4	12		Completed	8/1/2007	11/15/2007	\$5,000.00	A quarterly literary journal de
14	Project Quarterly 2.1	12		Completed	11/1/2007	2/15/2008	\$6,000.00	A quarterly literary journal de
15	Project Quarterly 2.2	12		Completed	2/1/2008	5/15/2008	\$6,000.00	A quarterly literary journal de
16	Project Quarterly 2.3	12		Completed	5/1/2008	8/15/2008	\$6,000.00	A quarterly literary journal de
17	Project Quarterly 2.4	12		Completed	8/1/2008	11/15/2008	\$6,000.00	A quarterly literary journal de
(New)							\$0.00	

Now press the delete button. This will display the confirmation message.



Click **Yes** and you will see that the selected record is deleted now.

ProjectID	ProjectName	ManagingEditor	Author	Project Status	ProjectStart	ProjectEnd	Budget	ProjectNotes
2	Project Quarterly 1.1	12		Completed	11/1/2006	2/15/2007	\$5,000.00	A quarterly literary journal dec
11	Project Quarterly 1.2	12		Completed	2/1/2007	5/15/2007	\$5,000.00	A quarterly literary journal dec
12	Project Quarterly 1.3	12		Completed	5/1/2007	8/15/2007	\$5,000.00	A quarterly literary journal dec
13	Project Quarterly 1.4	12		Completed	8/1/2007	11/15/2007	\$5,000.00	A quarterly literary journal dec
14	Project Quarterly 2.1	12		Completed	11/1/2007	2/15/2008	\$6,000.00	A quarterly literary journal dec
15	Project Quarterly 2.2	12		Completed	2/1/2008	5/15/2008	\$6,000.00	A quarterly literary journal dec
16	Project Quarterly 2.3	12		Completed	5/1/2008	8/15/2008	\$6,000.00	A quarterly literary journal dec
*	(New)						\$0.00	

MCQ Questions

- A database is:
 - Collection of organized data
 - Word document
 - Spreadsheet file
 - Presentation slide

Answer: a) Collection of organized data
- Database tables store data in:
 - Rows and columns
 - Slides
 - Paragraphs
 - Charts

Answer: a) Rows and columns
- A row in database table represents:
 - Record
 - Field
 - Column
 - Table

Answer: a) Record
- A column in database table represents:
 - Field

- b) Record
- c) Sheet
- d) File

Answer: a) Field

5. Creating database means:

- a) Organizing data into tables
- b) Writing documents
- c) Creating charts
- d) Drawing diagrams

Answer: a) Organizing data into tables

6. Modifying table means:

- a) Changing structure of table
- b) Deleting database
- c) Creating slides
- d) Printing data

Answer: a) Changing structure of table

7. Data in table can be:

- a) Added
- b) Deleted
- c) Edited
- d) All of the above

Answer: d) All of the above

8. Database software is used for:

- a) Data storage and management
- b) Word processing
- c) Presentation
- d) Drawing

Answer: a) Data storage and management

9. A field represents:

- a) Attribute of record
- b) Table
- c) Row
- d) Database

Answer: a) Attribute of record

10. Example of database software is:

- a) MS Access
- b) MS Word
- c) MS PowerPoint
- d) Paint

Answer: a) MS Access

Small Questions – LOCF Mapping Table

S.No	Small Question	CO	Bloom's Level	PO
1	Define a database and give one example of a database application.	CO1	Remember	PO2
2	What is a table in a database?	CO1	Remember	PO2
3	Name two steps involved in creating a database.	CO1	Remember	PO2
4	What is the purpose of modifying data in a table?	CO2	Understand	PO3
5	Mention two ways to modify data in a database table.	CO2	Remember	PO3

Big Questions – LOCF Mapping Table

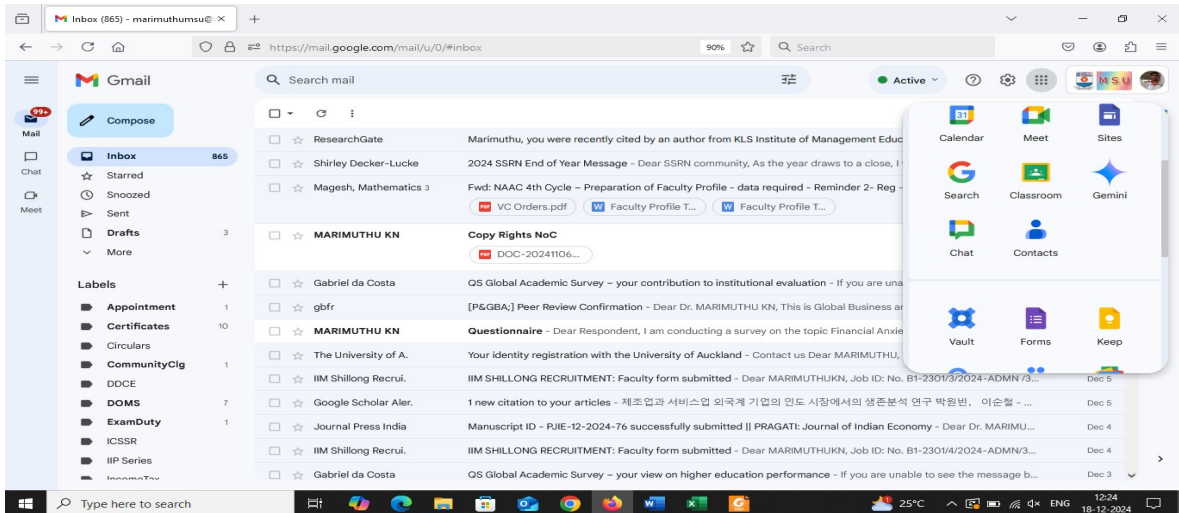
S.No	Big Question	CO	Bloom's Level	PO
1	Explain the concept of a database and its advantages in managing data.	CO1	Understand	PO2
2	Describe the steps involved in creating a new database and its tables.	CO1	Apply	PO3
3	Explain the different types of data that can be stored in a database table.	CO2	Understand	PO3
4	Discuss the methods for modifying data in a table, including updating, deleting, and inserting records.	CO2	Apply	PO3
5	Explain the importance of maintaining data integrity while creating and modifying database tables.	CO2	Analyze	PO4

UNIT –V

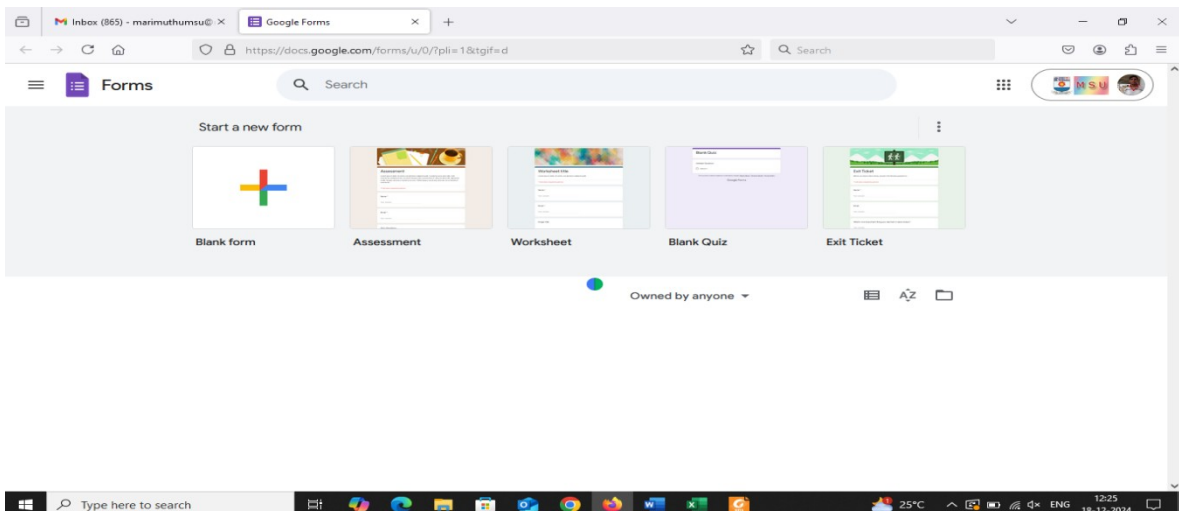
5.1 USE GOOGLE FORMS TO DEVELOP & SHARE QUESTIONNAIRE.

Step 1: Access Google Forms

1. Go to [Google Forms](https://forms.google.com).



2. **Sign in** with your Google account if you haven't already.
3. On the main page, click the **Blank** form to create a new questionnaire or select a template if you find one that fits your needs.

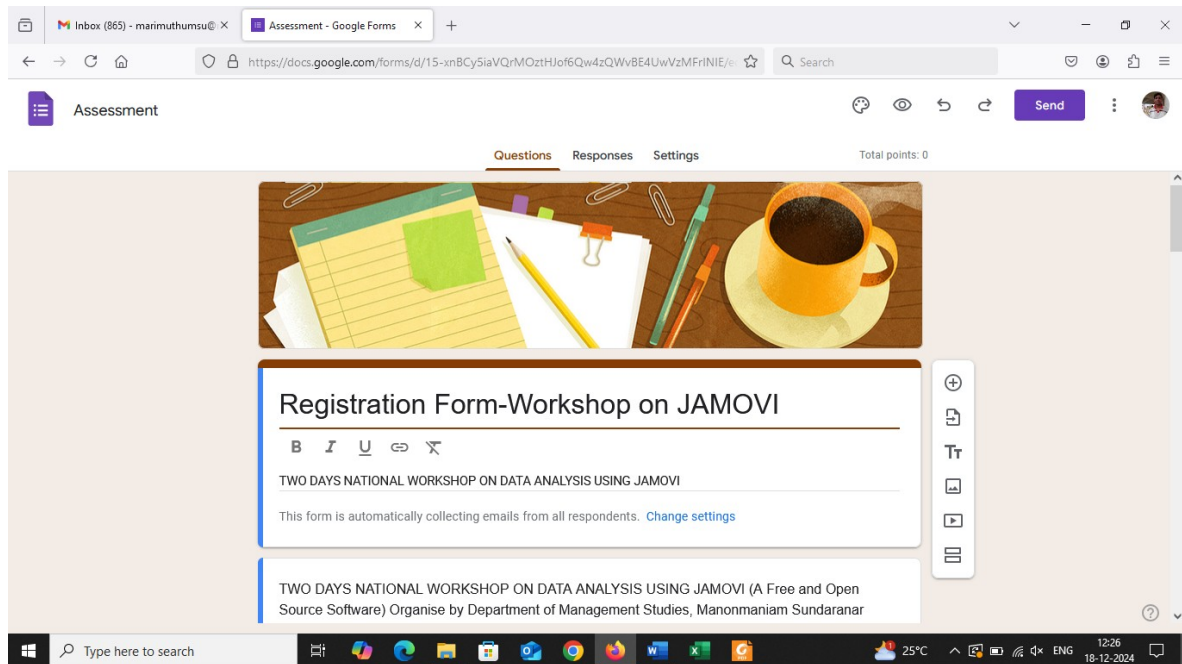


Step 2: Create the Questionnaire

Write the Title for Your Google Form:

Click at the top where it says "Untitled form" and give your questionnaire a title.

Below the title, add a brief **description** explaining the purpose of the questionnaire.

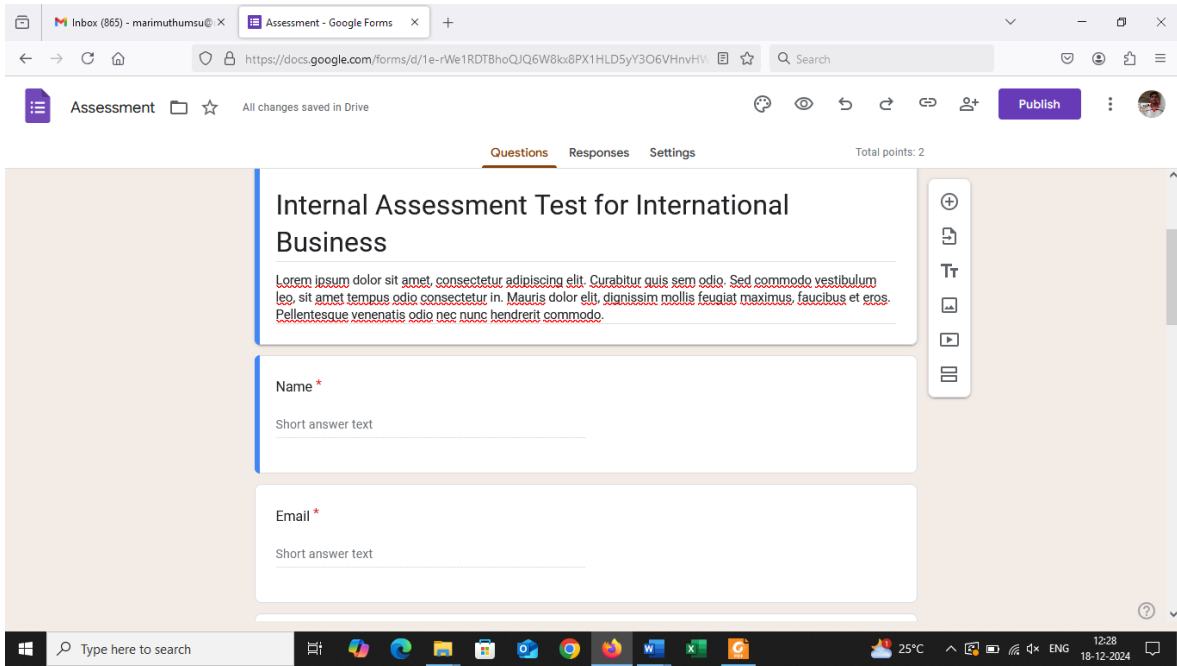


Add Questions:

Click the + icon on the side panel to add a new question.

Choose the question **type** from the dropdown next to the question field:

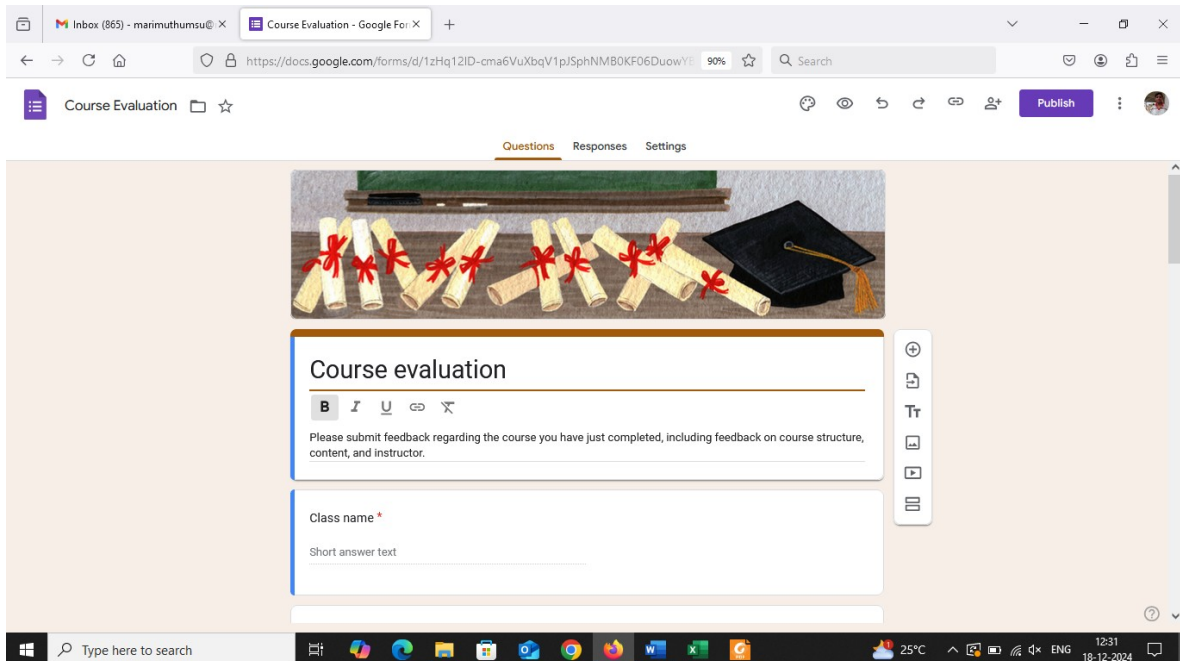
- **Short Answer:** For brief, text-based answers.
- **Paragraph:** For longer text answers.
- **Multiple Choices:** For single-answer questions.
- **Checkboxes:** For multiple-answer questions.
- **Dropdown:** For a list of options.
- **Linear Scale:** For rating scales (e.g., 1 to 5).
- **Multiple Choice Grid** or **Checkbox Grid:** For matrix-style questions.



Enter the Question and Options (if applicable):

For multiple-choice, checkboxes, or dropdown questions, input answer options.

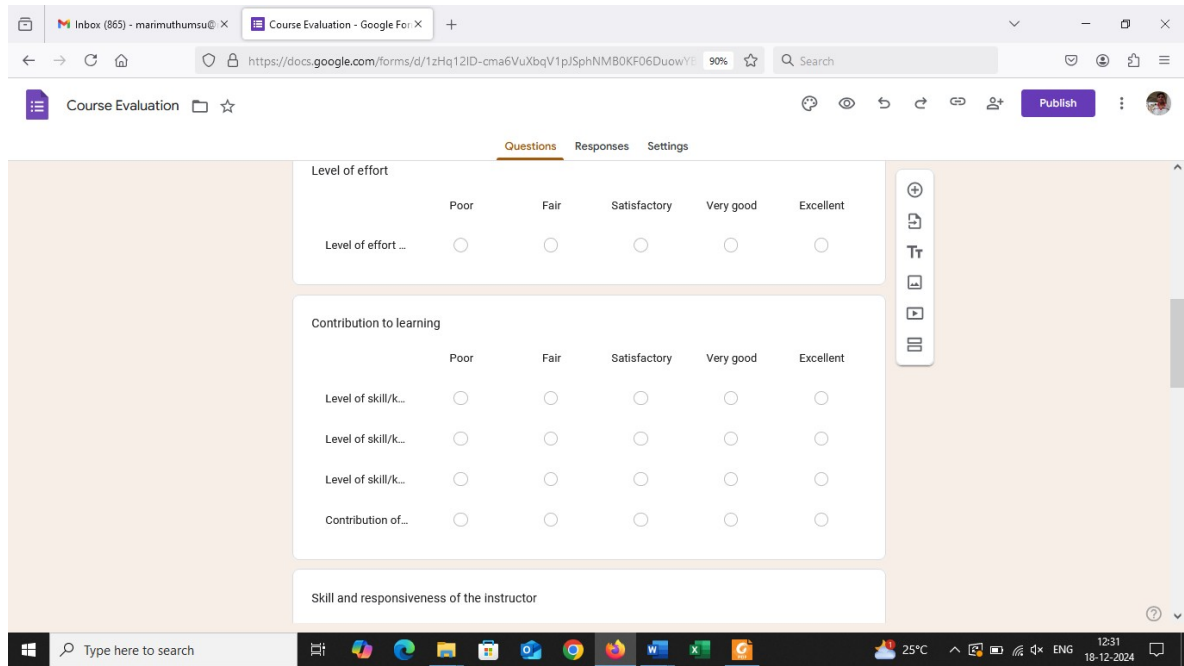
Click the **Required toggle** if the question must be answered.



Add Sections (Optional):

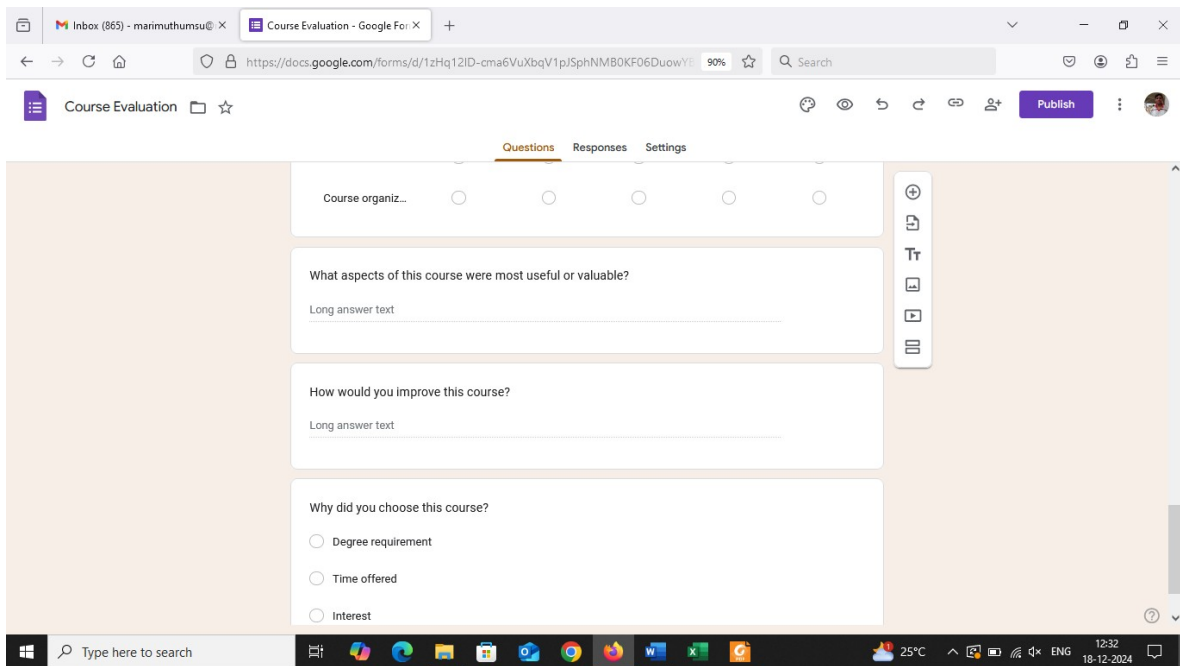
If your form is long or has different sections, click the **Add Section** icon (two horizontal lines) to divide the form into sections.

This allows you to group similar questions together or guide respondents through different parts of the form.



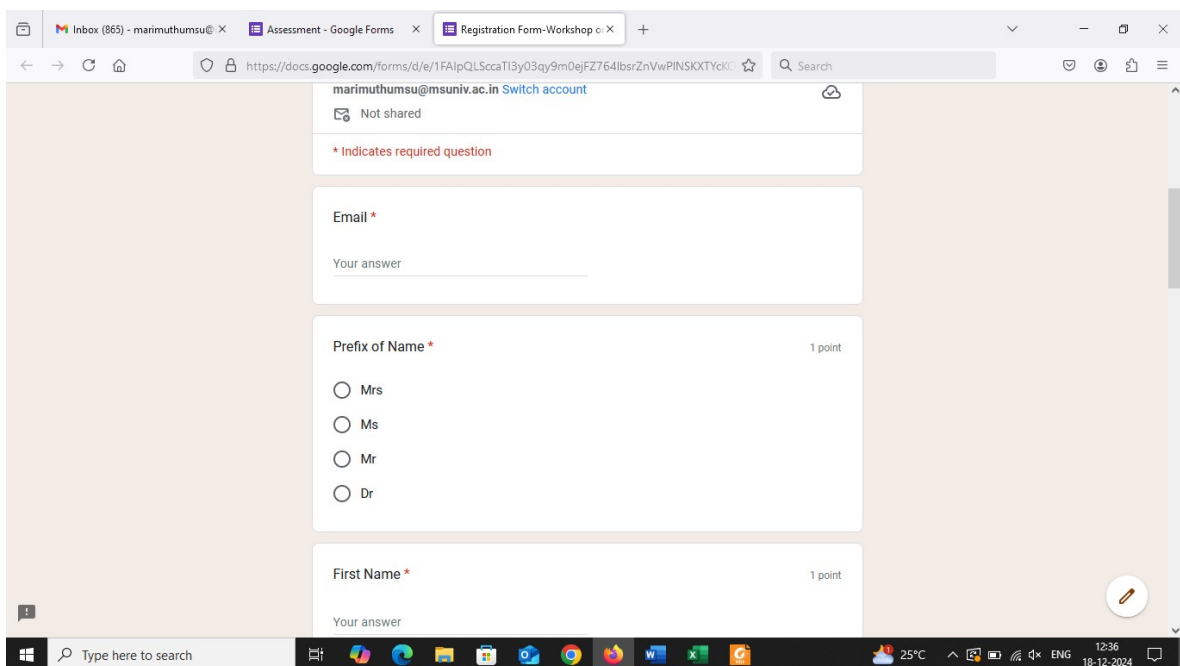
Add Images/Videos (Optional):

Click the image or video icon to include media within your questionnaire to make it more engaging.

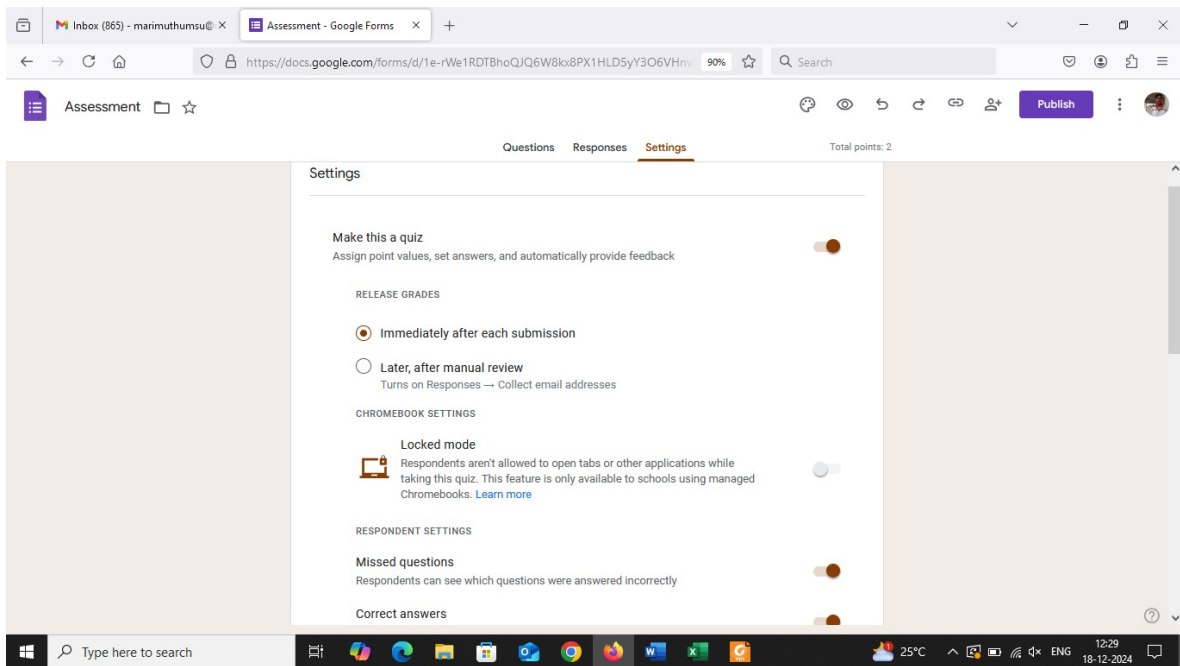


Step 4: Preview the Questionnaire

Click the **eye icon** at the top to preview how the form will appear to respondents.



Test it by filling out the form yourself to ensure everything works properly.



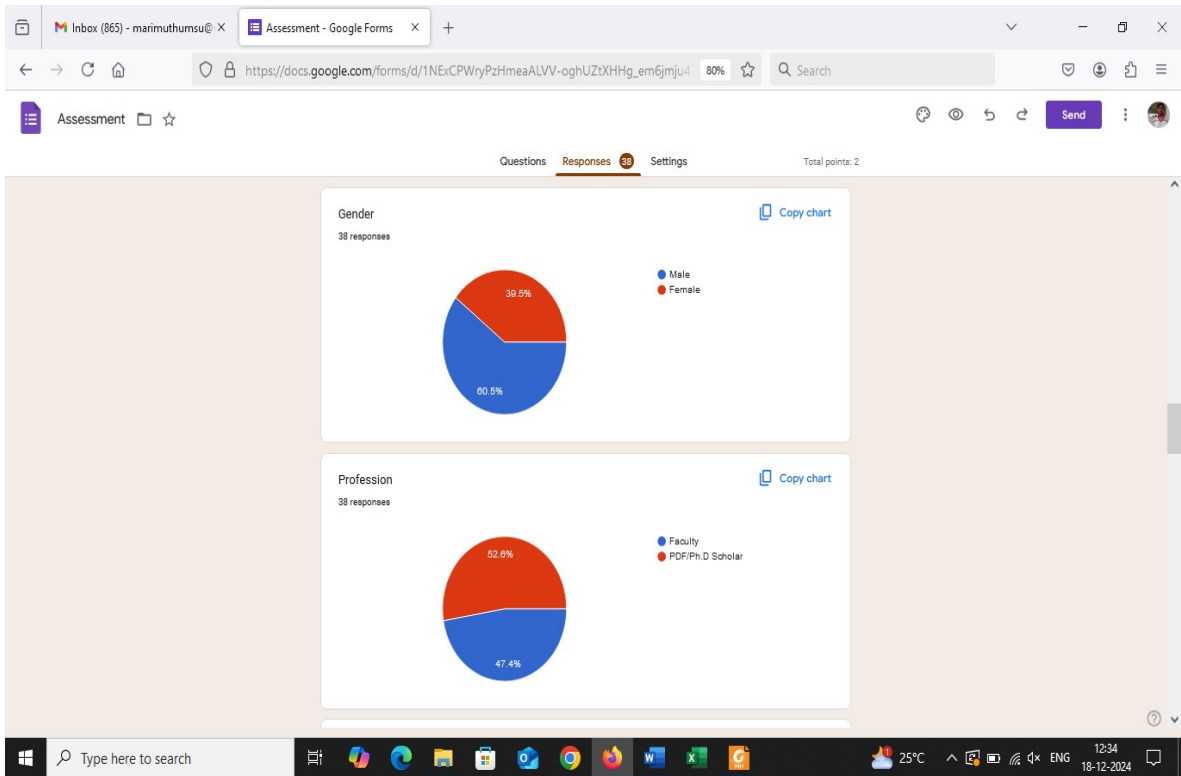
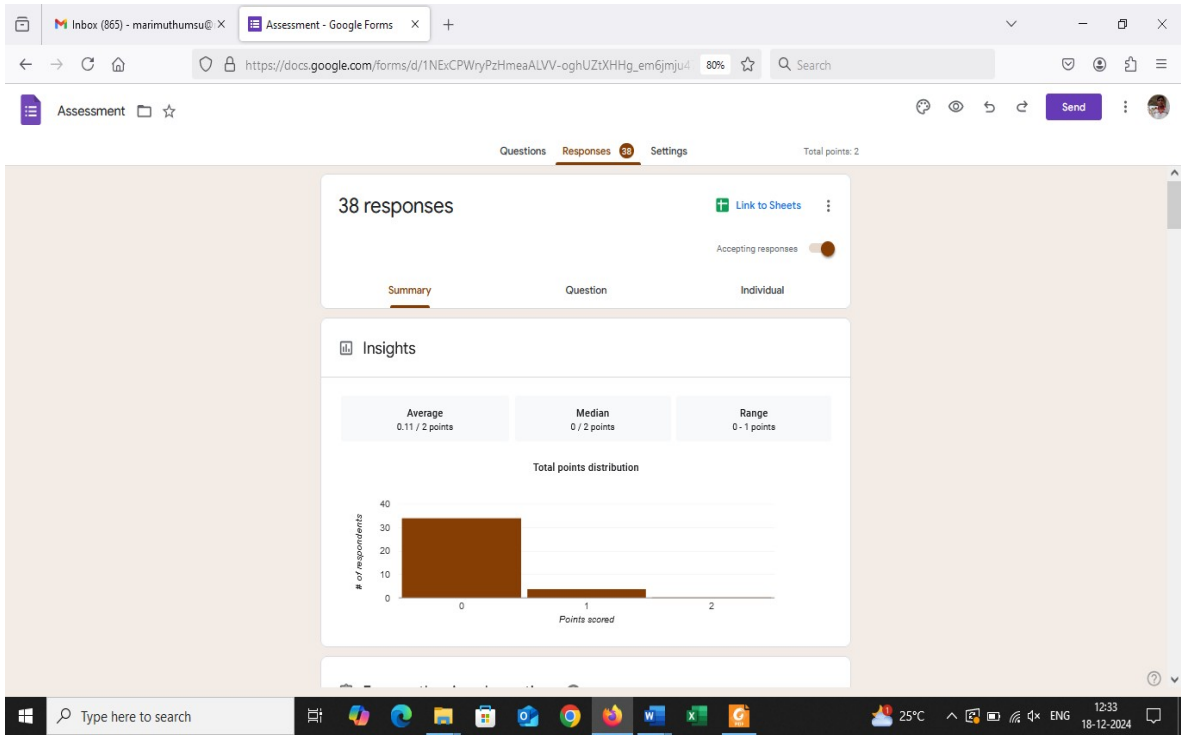
Step 5: Share the Questionnaire

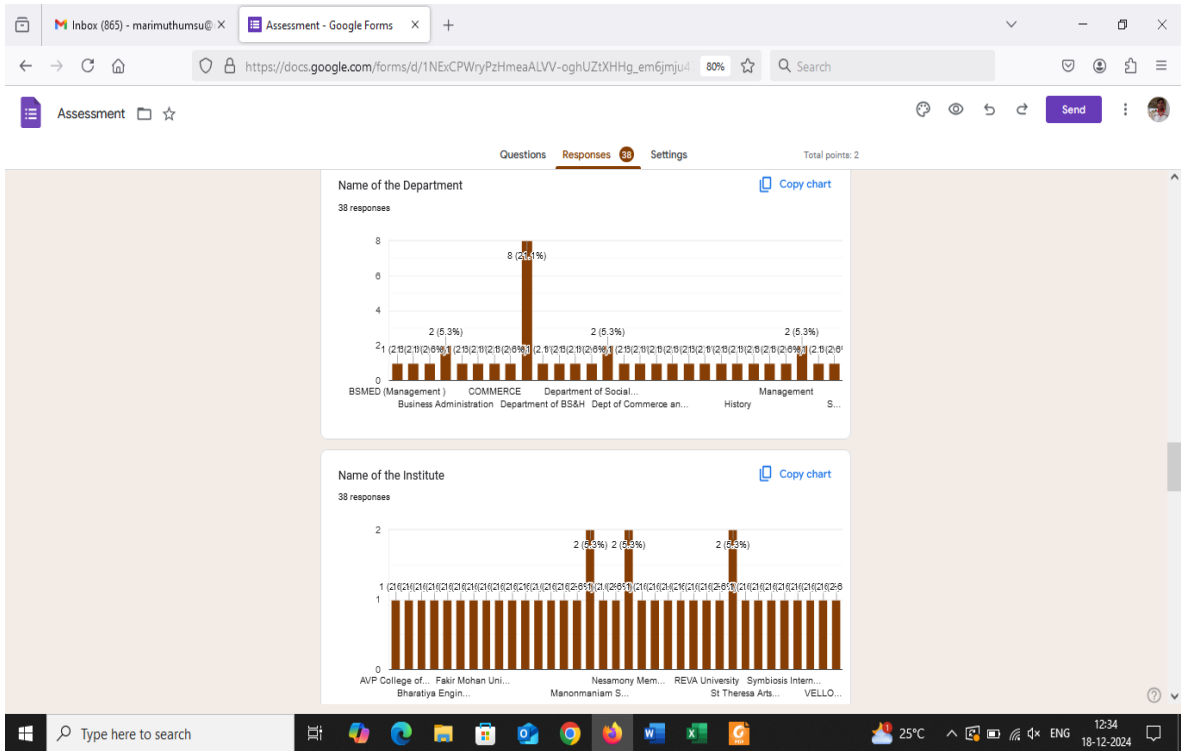
Once the form is ready, it's time to share it.

1. **Click Send** at the top right of the form.
2. Choose one or more of the following sharing options:
 - **Email:** Directly send the form via email to respondents. You can add a custom message.
 - **Link:** Click **Copy** to generate a shareable link. You can shorten the URL if needed. Share this link via social media, messaging apps, or any other communication platform.
 - **Embed HTML:** Copy the embed code and add it to a website if you want to embed the form there.

Step 6: View Responses

- Go to the **Responses** tab at the top of your form to see the answers.
- You can view responses in Google Forms or click the **Google Sheets icon** to export responses to a spreadsheet for easier analysis.





MCQ Questions

1. Google Forms is used for:
- a) Creating surveys and questionnaires
 - b) Writing documents
 - c) Creating presentations
 - d) Editing images
- Answer:** a) Creating surveys and questionnaires

2. Google Forms is part of:
- a) Google Workspace
 - b) Microsoft Office
 - c) Linux
 - d) Apple iWork
- Answer:** a) Google Workspace

3. Responses collected in Google Forms can be viewed in:
- a) Google Sheets
 - b) Word
 - c) PowerPoint
 - d) Paint
- Answer:** a) Google Sheets

4. Google Forms allows users to:
- a) Share forms online
 - b) Print documents
 - c) Create slides
 - d) Edit images
- Answer:** a) Share forms online

5. Question types include:
- a) Multiple choice
 - b) Short answer
 - c) Checkboxes
 - d) All of the above
- Answer:** d) All of the above

6. Forms can be shared using:
- a) Link
 - b) Email
 - c) Social media

d) All of the above

Answer: d) All of the above

7. Google Forms automatically:

a) Collect responses

b) Print documents

c) Delete responses

d) Create slides

Answer: a) Collect responses

8. Google Forms helps in:

a) Data collection

b) Survey analysis

c) Feedback gathering

d) All of the above

Answer: d) All of the above

9. Google Forms responses can be:

a) Analyzed

b) Exported

c) Visualized

d) All of the above

Answer: d) All of the above

10. Google Forms is mainly used for:

a) Research surveys

b) Feedback forms

c) Online quizzes

d) All of the above

Answer: d) All of the above

Small Questions – LOCF Mapping Table

S.No	Small Question	CO	Bloom's Level	PO
1	What is Google Forms and its primary purpose?	CO1	Remember	PO2
2	Mention two types of questions that can be added to a Google Form.	CO1	Remember	PO2
3	How can you share a Google Form with respondents?	CO2	Understand	PO3
4	What is the function of the “Responses” tab in Google Forms?	CO2	Understand	PO3
5	Name two ways to collect or export responses from Google Forms.	CO3	Remember	PO3

Big Questions – LOCF Mapping Table

S.No	Big Question	CO	Bloom's Level	PO
1	Explain what Google Forms is and describe its main features and uses.	CO1	Understand	PO2
2	Describe the steps to create a questionnaire in Google Forms, including adding different types of questions.	CO2	Apply	PO3
3	Explain how to format and customize a Google Form using themes, headers, and section breaks.	CO2	Apply	PO3
4	Discuss the methods to share a Google Form with respondents and manage access permissions.	CO3	Analyze	PO4
5	Explain how to view, analyze, and export responses from Google Forms for reporting purposes.	CO3	Apply	PO3

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