UNIT 3

INTRODUCTION TO MICROSOFT EXCEL

MS-EXCEL is a part of Microsoft Office suite software. It is an electronic spreadsheet with numerous rows and columns, used for organizing data, graphically represent data(s), and performing different calculations. It consists of 1048576 rows and 16384 columns; a row and column together make a cell. Each cell has an address defined by column name and row number example A1, D2, etc. this is also known as a cell reference.

Cell references: The address or name of a cell or a range of cells is known as Cell reference. It helps the software to identify the cell from where the data/value is to be used in the formula. We can reference the cell of other worksheets and also of other programs.

- Referencing the cell of other worksheets is known as External referencing.
- Referencing the cell of other programs is known as Remote referencing.

There are three types of cell references in Excel:

1. Relative reference.
2. Absolute reference.
3. Mixed reference.

NAVIGATING

Step 1 – Click on the windows button at the below-left corner (taskbar) or press the Windows 10 button from the keyboard. Search for Excel in Apps. OR

Step 2 – Click on the "Search Box" at the lower-left corner of the screen.

Step 3 – Type "Excel".

Step 4 – Click on the Excel Icon as you can see in the below screenshot.

Your Microsoft Excel application will launch and you will see the below Microsoft excel window.

EXCEL TOOLBARS AND OPERATING

MS Excel is a software program that is used to create spreadsheets. It helps the users to format, organize and calculate data using different **types of toolbars in MS Excel**. In order to perform its purposes quite efficiently, we use different toolbars.

What is a toolbar- A **toolbar** is a band of icons displayed on the computer to perform certain functions just by clicking on them. It reduces workloads and saves time. It is also very easy to operate. So, the **Types of toolbars in MS Excel** are a must to learn.

Types of toolbars in MS Excel- Many toolbars were enlisted separately in the previous versions of **MS Excel** as **types of toolbars** like **Standard Toolbar**, **Formatting Toolbar, Formula Toolbar,** etc. The latest version of **MS Excel** which is **MS Excel 365**, have toolbars arranged under different **Tabs** in the **Ribbons**.

In **MS Excel 365**, There are icons in the **Ribbon** under the **Home Tab** which were in the **Standard Toolbar and Formatting Toolbar** in the previous versions of **MS Excel**.

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1. Quick Access Toolbar

The Quick Access Toolb**ar**, a **type of toolbars in MS Excel**, is actually a command line that normally appears above the main ribbon tabs in Excel. We can actually use the options just by clicking on them rather than going from the **Tabs**.
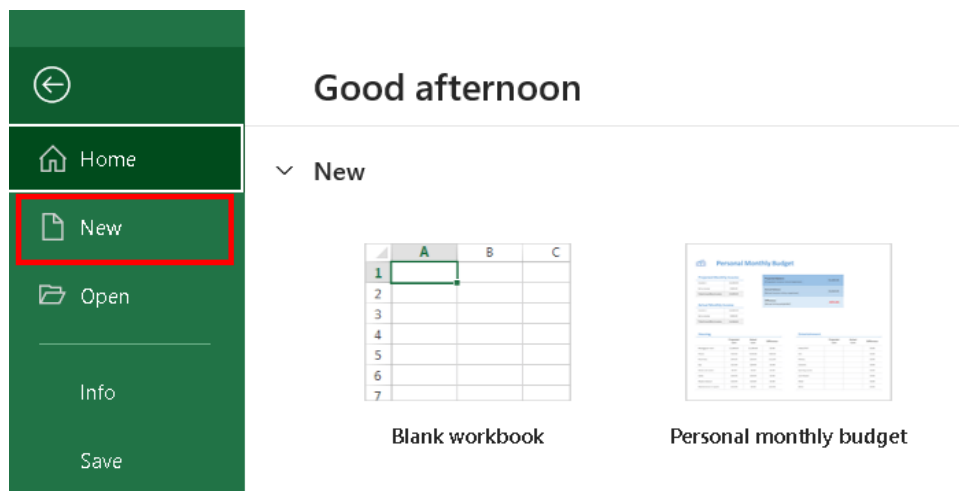
9	5	Portugal	$	169.99

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From the **Quick Access Toolbar**, I can create a **New Workbook** just by clicking.
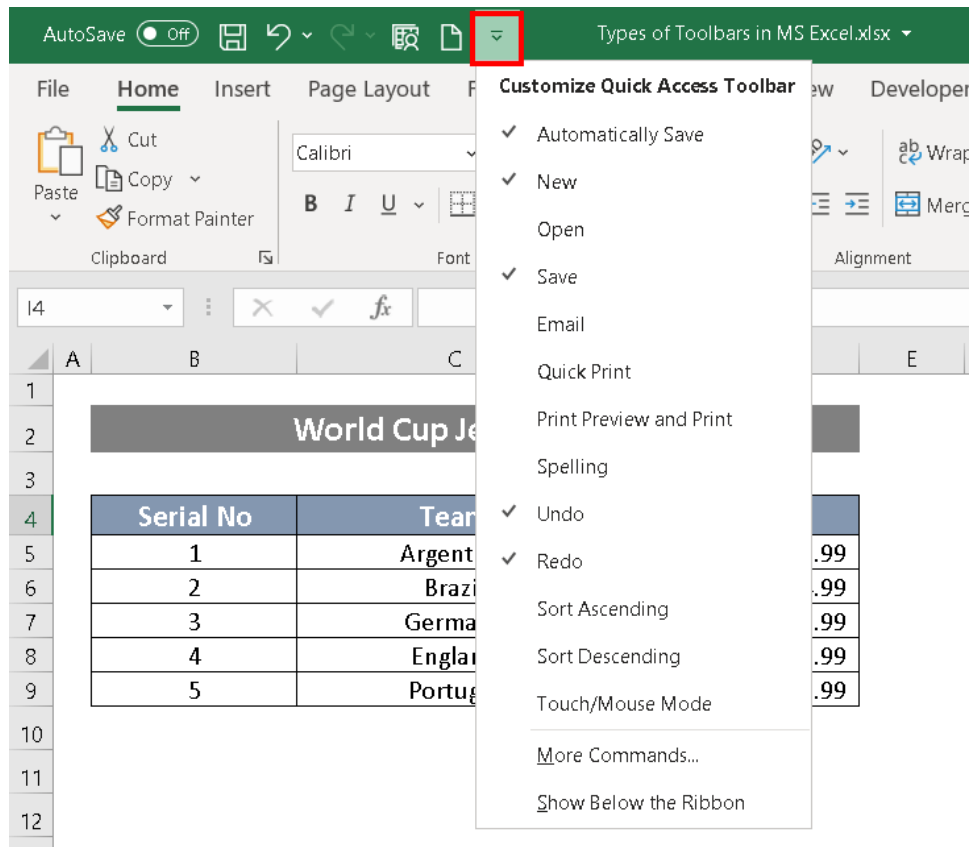
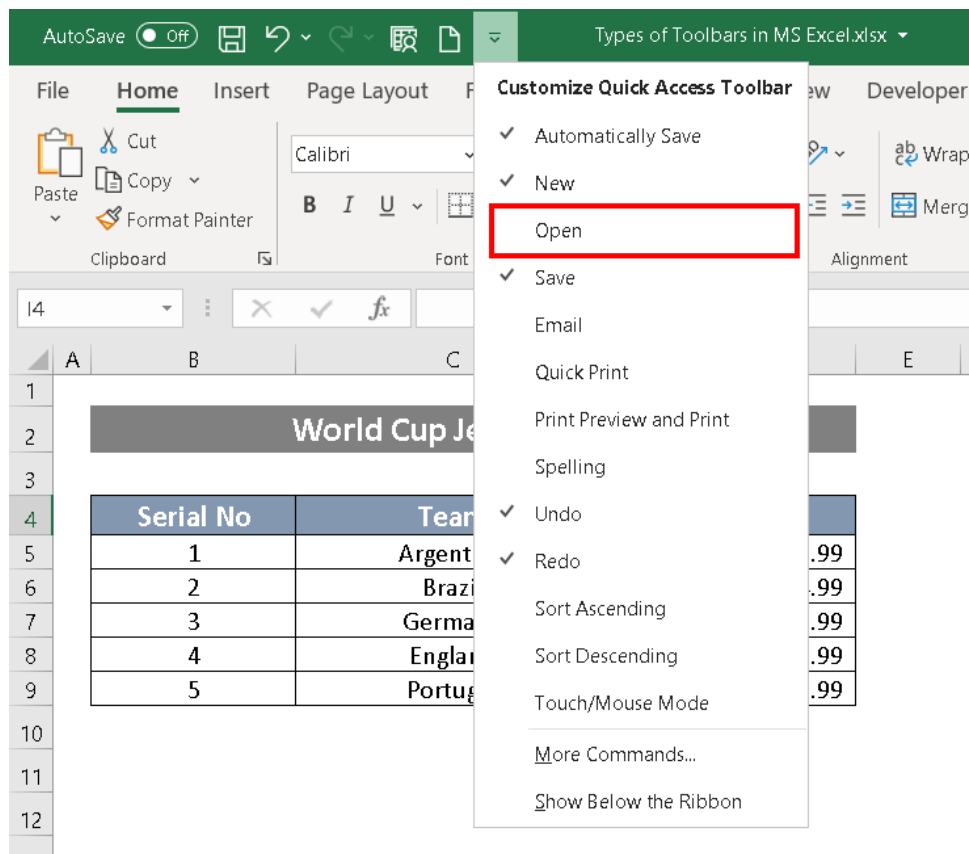| 10 |
|----|

We can create it instead of going to **File Tab**.

Then, click on **New** option.

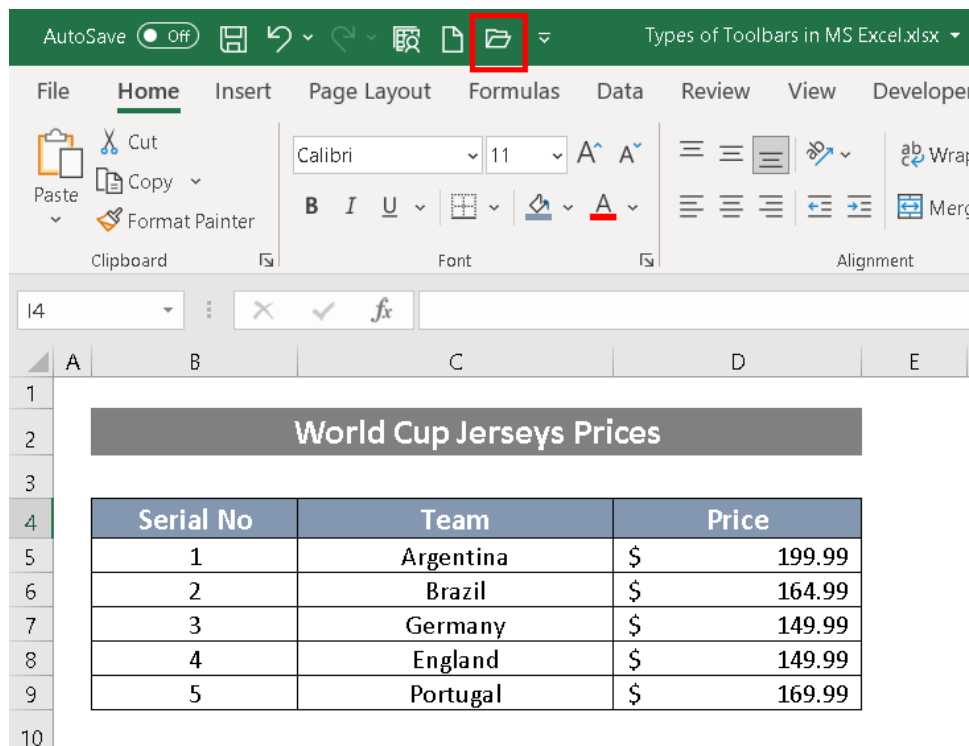
We can also customize the **Quick Access Toolbar** by clicking on **Customize Quick Access Toolbar** option.
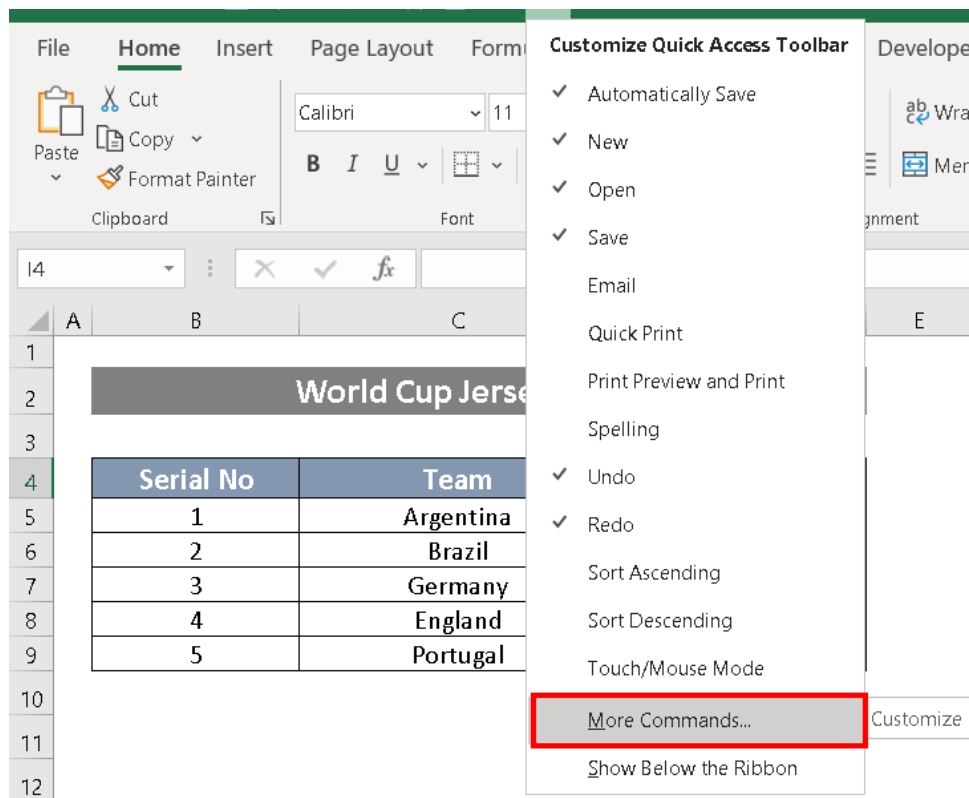
You can add any other **Menu** just by clicking on it. Here, I further added the **Open** menu.
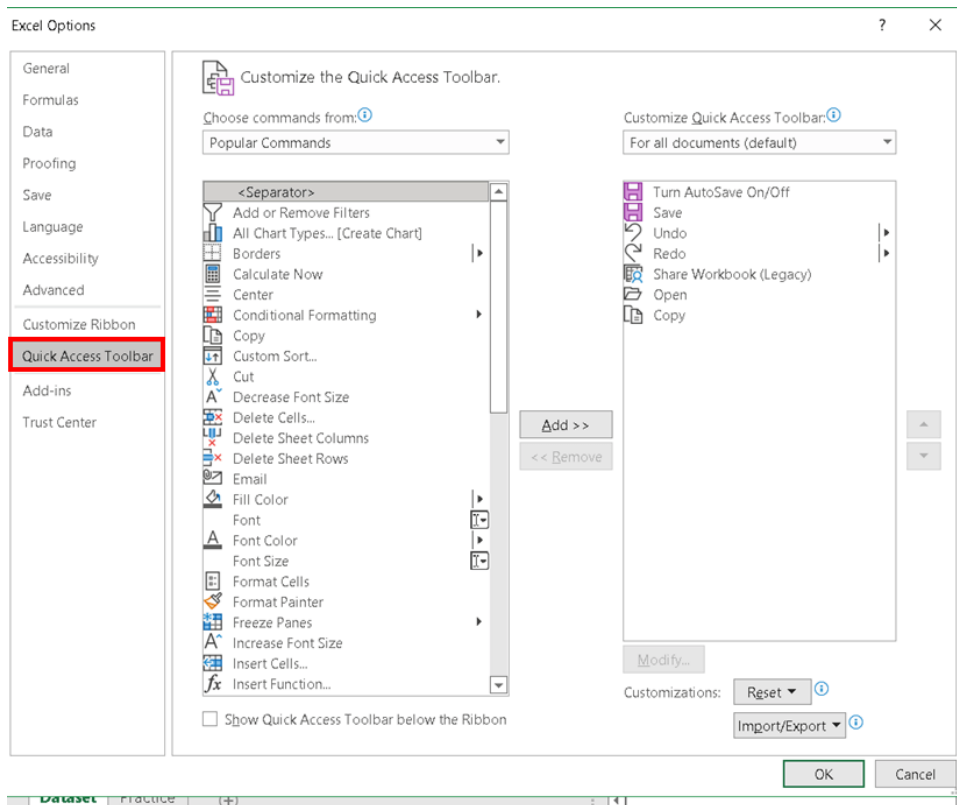
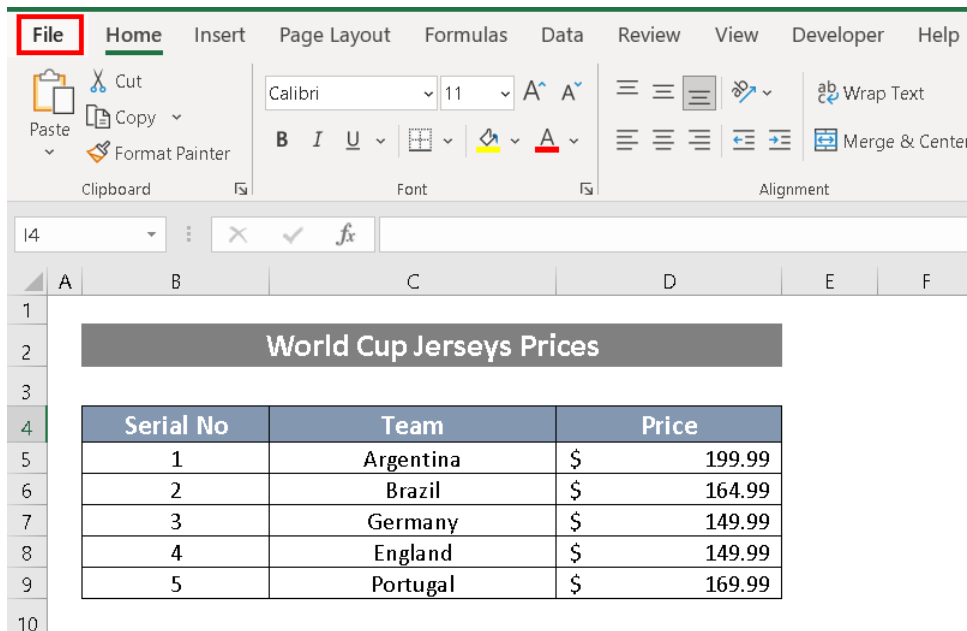You will have that **Menu** on the **Quick Access Toolbar**.

You can customize the **Quick Access Toolbar** more advanced way by choosing the **More Commands** option.

An **Excel Options** box will appear. Now you can **Add** or **Remove** commands of your need and choice.

We can also use another way for the appearance of the **Excel Options** box. For this, We need to go to the **File Tab**.

Then, Click on the **Options.**

Options

The **Excel Options** box will come forward. We can then choose the **Quick Access Toolbar.**

From the **Quick Access Toolbar** option, We can **Add/Remove** any other **Menu** to the **Quick Access Toolbar**. Here, I first choose the **Copy** menu and then click on the **Add** option.

Afterward, I hit the **OK** button and the **Copy** menu will be added to The **Quick Access Toolbar**.

You can also remove the **Menu** that was added before. Here, I chose the **New File** menu and pressed the **Remove** button to customize the **Quick Access Toolbar**. Finally, click on the **OK** button.
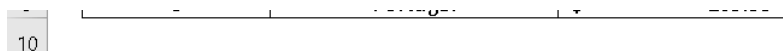
Thus, We can have a **Customised Quick Access Toolbar**.

8	4	England	$	149.99
9	5	Portugal	$	169.99
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2. Standard Menu Bar

Standard Menu Bar is actually a compilation of **Tabs**. Under each **Tab**, there are some groups with a number of commands. It is usually placed on the top of the worksheet.

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2.1. List of Tabs in Standard Menu Bar

- **File ——>** The **File Tab** contains mostly document and file-related commands such as **Save, Save As, Open, Close,** etc.
- **Home ——> Home Tab** comprises seven groups. With the help of it, We can edit and analyze text & tables.
- **Insert ——>** We can add pictures, tables, symbols, etc through this **Tab**.
- **Draw ——> Draw tab** offers options to draw through pen, pencil, and highlighter.
- **Page Layout ——> Page Layout** allows you to arrange your document pages just the way you want them.
- **Formulas ——>** It allows you to choose functions from over 300 functions arranged in financial, logical, text, date & time, lookup and reference, math & trig, statistical, etc. categories.
- **Data ——> Data** is normally used for large amounts of data. It is very handy to import data from servers, and the web and also to filter & sort data.
- **Review ——>** It helps to proofread the documents.
- **View ——> View** gives us the opportunity to view the worksheets in different ways.
- **Developer ——> Developer Tab** provides options to create VBA applications, create macros, import and export XML data, etc.
- **Add-ins ——> Add-ins** allow using the features that are not directly offered or rarely needed.
- **Help ——> Help tab** allows you to access quickly to the Help Task Panel and allows you to contact Microsoft support, suggest a feature, send feedback, and have quick access to training videos.
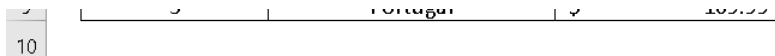
These are the features of Standard types toolbars in MS Excel.
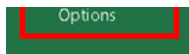
2.2. Customizing Standard Menu Bar

In the **List of Tabs in the Standard Menu Bar**, I have mentioned all the names of the available **Tabs**. Anyone can customize his **Standard Menu Bar by** selecting the frequently used **Tabs**.

Steps:

- Select **File Tab**.

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- Click on **Options**.

An **Excel Options** box will appear.

- Then, go to **Customize Ribbon**. Here, We will have all the **Default Tabs** in the **Main Tabs** section.

We can also create a **new tab** with the preferred groups. For this, We have to click on the **New Tab** button. Then, we will be able to customize it according to our choice

3. Formatting Bar

Formatting Bar provides several functions in a few groups to format the selected texts.

3.1. List of Groups in Formatting Bar of Home Tab

Clipboard ——> The **Clipboard** allows you to **Copy** or **Cut** data and **Paste** it to the places.

List of Commands

- **Paste**
- **Cut**
- **Copy**
- **Format Painter**

Font ——> **Font** helps you to change the **format**, **size**, and **style** of the texts.

List of Commands

- **Fonts**
- **Font Size**
- **Font Style**
- **Underline**
- **Color**
- **Effects**

Alignment ——> Alignment allows you to relocate the position of the texts.

List of Commands

- **Text Alignment**
- **Text Control**
- **Text Direction**

Numbers ——> It gives the option to change the number format. We can change the numbers into **time**, **date**, **currency,** etc based on our needs.

Styles ——> Styles give you permission to highlight the tables as well as their cells in different ways.

List of Commands

- **Conditional Formatting**
- **Format as Table**
- **Cell Styles**

Cells ——> We can add, vanish or edit cells using the functions in **Cells**.

List of Commands

- **Insert**
- **Delete**
- **Format**

Editing ——> Editing helps you to organize data as well as apply it to mathematical functions.

List of Commands

- **AutoSum**
- **Fill**
- **Clear**
- **Sort & Filter**
- **Find & Select**

Analysis ——> The **Analysis** gives the option to **Analyze Data** to show intelligent, personalized suggestions.

3.2. List of Groups in Formatting Bar of Insert Tab

Tables ——> Tables allow you to create a suitable table for the data and arrange complex & suitable data in a pivot table.

List of Commands

- **Pivot Table**
- **Recommended Pivot Tables**
- **Tables**

Illustrations ——> Illustrations allow you to insert pictures and shapes and take screenshots.

List of Commands

- **Pictures**
- **Shapes**
- **Icons**
- **3D Models**
- **Smart Art**
- **Screenshot**

Add-ins ——> Add-in is actually a program to add additional functions. It can increase memory or add graphics or communication capabilities to a computer.

List of Commands

- **Get Add-ins**
- **My Add-ins**

Charts ——> Charts present the options to visualize the data in a graphical form.

List of Commands

- **Recommended Charts**
- **Maps**
- **Pivot Chart**

Tours ——> Tours contain the command to launch **Power Map** and add selected data to the **Power Map**.

List of Commands

- **3D Map**

Sparklines ——> Sparklines allow you to create a small visual representation in a cell.

List of Commands

- **Line**
- **Column**
- **Win/Loss**

Filters ——> Filters can be used to highlight the particular cells and hide the rest.

List of Commands

- **Slicer**
- **Timeline**

Links ——> Links are used to establish two or more files in a single click.

Text ——> Text Tab allows you to write text and modify the text.

List of Commands

- **Text Box**

- **Header & Footer**
- **Word Art**
- **Signature Line**
- **Object**

Symbols ——> **Symbols** help to add arithmetic operators in Excel Formulas

List of Commands

- **Equation**
- **Symbol**

3.3. List of Groups in Formatting Bar of Page Layout Tab

Themes ——> **Themes** help to change the overall appearance.

List of Commands

- **Themes**
- **Colors**
- **Fonts**
- **Effects**

Page Setup ——> **Page Setup** allows you to arrange the document page as your choice.

List of Commands

- **Margin**
- **Orientation**
- **Size**
- **Print Area**
- **Breaks**
- **Background**
- **Print Titles**

Scale to Fit ——> **Scale to Fit** helps to resize the page.

List of Commands

- **Width**
- **Height**
- **Scale**

Sheet Options ——> Sheet Options works to modify the worksheet appearances.

List of Commands

- **Gridlines**
- **Headings**

Arrange ——> Arrange is normally used to reposition the inserted images perfectly.

List of Commands

- **Bring Forward**
- **Send Backward**
- **Selection Pane**
- **Align**
- **Group**
- **Rotate**

3.4. List of Groups in Formatting Bar of Formulas Tab

Function Library ——> Function Library represents the **Insert Function** dialogue box which allows to search for a particular function and displays the list of functions in a category.

List of Commands

- **Insert Function**
- **Auto Sum**
- **Recently Used**
- **Financial**
- **Logical**
- **Text**

- **Date & time**
- **Lookup & Reference**
- **Math & Trig**
- **More Functions**

Defined Names ——> Defined Names symbolize a single cell, range of cells, constant value, or formula.

List of Commands

- **Name Manager**
- **Defined Name**
- **Use in Formula**
- **Create from Selection**

Formula Auditing ——> Formula Auditing helps to represent graphically the relationship between formulas and cells.

List of Commands

- **Trace Precedents**
- **Trace Dependents**
- **Remove Arrows**
- **Watch Window**

Calculation ——> Calculation gives the scope to evaluate the data.

List of Commands

- **Calculation Options**
- **Calculate Now**
- **Calculate sheet**

3.5. List of Groups in Formatting Bar of Data Tab

Get & Transform Data ——> Get & Transform data helps to connect external data and customize it.

List of Commands

- **Get Data**
- **From Text/CSV**
- **From Web**
- **From Table/Range**
- **Recent Sources**
- **Existing Connections**

Queries & Connections ——> Queries & Connections is widely used to find queries when you have so many queries.

List of Commands

- **Refresh All**
- **Queries & Connections**
- **Properties**
- **Edit Links**

Sort & Filter ——> Sort & Filter helps to decorate by sorting and filtering.

List of Commands

- **Sort**
- **Filter**
- **Clear**
- **Reapply**
- **Advanced**

Data Tools ——> Data tools are used to validate and modify data.

List of Commands

- **Text to columns**
- **Flash Fill**
- **Remove Duplicates**
- **Data validation**
- **Consolidation**
- **Relationships**
- **Manage Data model**

Forecast ——> Forecast helps to predict the future values using linear regression.

List of Commands

- **What-If Analysis**
- **Forecast Sheet**

Outline ——> An **Outline** is used to add an organizational quality to a long or wide worksheet.

List of Commands

- **Group**
- **Ungroup**
- **Subtotal**
- **Show Detail**
- **Hide Detail**

Analysis ——> Analysis is to overview the entire data.

List of Commands

- **Data Analysis**

3.6. List of Groups in Formatting Bar of Review Tab

Proofing ——> Proofing allows you to check the spelling on the current worksheet.

List of Commands

- **Spelling**
- **Thesaurus**
- **Workbook Statistics**

Accessibility ——> Accessibility is to find the error and the way to fix it.

List of Commands

- **Check Accessibility**

Insights ——> Insights based on machine learning find and highlight patterns.

List of Commands

- **Smart Lookup**

Language ——> Language helps to translate the data into another language.

List of Commands

- **Translate**

Comments ——> Comments allow to add or show additional words with the data.

List of Commands

- **New Comments**
- **Delete**
- **Previous**
- **Next**
- **Show/Hide Comments**
- **Show All Comments**

Protect ——> Protect helps to secure the given data.

List of Commands

- **Protect Sheet**
- **Protect Workbook**
- **Allow Edit Ranges**
- **Un share Workbook**

Ink ——> Ink allows you to draw something or highlight the content.

List of Commands

- **Hide Ink**

3.7. List of Groups in Formatting Bar of View Tab

Workbook Views ——> Workbook Views is used to control the appearance of the workbook.

List of Commands

- **Normal**
- **Page Break Preview**
- **Page Layout**
- **Custom Views**

Show ——> Show allows you to modify the worksheet view.

List of Commands

- **Ruler**
- **Gridlines**
- **Formula Bar**
- **Headings**

Zoom ——> Zoom is used to control the size of the worksheet view.

List of Commands

- **Zoom**
- **100%**
- **Zoom to Selection**

Window ——> Window helps to open, create, freeze or hide the window.

List of Commands

- **New window**
- **Arrange All**
- **Freeze Panes**
- **Split**
- **Hide**
- **Unhide**
- **View Side by Side**

- **Synchronous Scrolling**
- **Reset Window Position**
- **Switch windows**

Macros ——> Macros show or record the used code in the worksheet.

3.8. List of Groups in Formatting Bar of Developer Tab

Code ——> Code helps us to use and modify programming language.

List of Commands

- **Visual Basic**
- **Macros**
- **Record Macro**
- **Use Relative References**
- **Macro Security**

Add-ins ——> Add-ins help to add the features that are rarely used.

List of Commands

- **Add-ins**
- **Excel Add-ins**
- **COM Add-ins**

Controls ——> Controls help to edit the code and switch the design mode to on or off.

List of Commands

- **Insert**
- **Design Mode**
- **Properties**
- **View Code**
- **Run Dialog**

XML ——> XML is used to represent structured information**.**

List of Commands

- **Source**
- **Map Properties**
- **Expansion Packs**
- **Refresh Data**
- **Import**
- **Export**

3.9. List of Groups in Formatting Bar of Help Tab

Help ——> Help allows you to contact Microsoft for any query.

List of Commands

- **Help**
- **Contact Support**
- **Feedback**
- **Show Training**

Community ——> Community helps to communicate with the Excel experts.

List of Commands

- **Community**
- **Excel Blog**

These are the formatting Bar's options or commands which are also considered as **toolbars types** in **MS Excel**.

FORMATTING IN EXCEL

Formatting in Excel means a trick that we can use to modify the data's appearance in a worksheet. We can format the data in various ways, like we can format the font of the cells or the table with the help of the styles and **format tab** present in the **home tab.**

It's easier than ever to format worksheet (or sheet) data in Excel. There are various quick and easy ways to generate professional-looking worksheets that efficiently present our data. For example, we can utilize document themes to give our Excel

spreadsheets a consistent design, style to apply predetermined formats, and other manual formatting capabilities to highlight essential data.

Microsoft Excel has several features that permit users to customize the way their data is displayed. And there is a solid reason for it: formatting cells can help bring attention to essential data or show the content more properly (such as adding $ to cells which comprise price values or configure cells that represent dates to a standard display of **xx/xx/xxxx).**

Excel formatting is an optional step following data preparation, or all of the **data cleansing, structuring, enriching,** and **standardizing** necessary to prepare the data for analysis.

New data rarely comes without its own unique set of issues; it is up to the analysts to analyze their data and guarantee that it is ready to meet the exact requirements of their analytical project. Splitting columns, eliminating rows with incomplete data, and standardizing against a certain name.

Once completed, Excel formatting adds the finishing touches, ensuring that the data is properly prepared and presented.

Good formatting will improve our data in various ways:

- With the help of the formatting, we can present our data correctly; for example, formatting as **dates** or **currency** will provide more value to our data.
- Merging and aligning our data is a vital aspect of making our data more readable.
- Formatting our text by **increasing the Size, bolding, adding italics,** or **changing the fonts** will improve the overall appearance of our worksheet.
- Using styles **(like table styles)** can make our data stand out and helps the reader to focus on crucial portions of the worksheet.
- **Conditional formatting** is a useful tool for highlighting crucial portions of our worksheet graphically or visibly. These are dynamic tools. The Highlighted region changes as our data changes.

Benefits of Data Formatting in Excel
The following are some of the benefits of Excel data formatting:

- The data appears to be more presentable.
- Data formatting saves a lot of time and effort.
- With the help of the chart, we can analyze the data.
- With the help of the formatting, we can highlight specific data such as profit or loss in business.

How to Format Data in Excel?

Let's have a look at some easy instances of data formatting in Excel. Suppose we have a simple sales report for a company that looks like this:

	A	B
1	Name of Seller	Amount Collected
2	Sonoo	54700
3	Yash	76345
4	Rohan	87432
5	Rohit	23845
6	Kunal	98457
7	Karan	23485
8	Ramesh	13455
9	Prashant	45834
10	Shrey	35412
11	Total	458965

We need to format the data in this report because it is not attractive to viewers.

Now, in order to format data in Excel, we'll do the following things:

- The Font size is **larger.**
- We make the text of the column head **bold**
- **Center aligning** the data
- We will apply the outline border with the help of the shortcut that is (Alt+H+B+T),
- After selecting the full table **(using Ctrl+A),** use the shortcut key **(Alt+H+O+I)** to adjust the column width.
- To alter the background, use the 'Fill Color' command in the 'Font' group on 'Home'.

We will use a similar format for the **'Total'** row, which is the last row of the table, with the help of the **'Format Painter'** command, present in the 'Clipboard' group on the **'Home'** tab.

Because the amount gathered is in a currency so, we have to format the same as currency, using the command available in the 'Number' group which is placed on the **'Home'** tab

After selecting the cells, that need to be formatted as currency, click the arrow above to open the **'Format cells'** dialogue box.

Select the **'Currency'** option and click on **'OK.'**

We can also apply the outline border to the table.

Name of Seller	Amount Collected
Sonoo	₹ 54,700.00
Yash	₹ 76,345.00
Rohan	₹ 87,432.00
Rohit	₹ 23,845.00
Kunal	₹ 98,457.00
Karan	₹ 23,485.00
Ramesh	₹ 13,455.00
Prashant	₹ 45,834.00
Shrey	₹ 35,412.00
Total	**₹ 4,58,965.00**

Now our next task is to generate a label for the report. With the help of the **Shapes,** we will make the report's label. If we want to create the shape above from the table, we'll need to add two new rows. To do so, we have to select the row by **'Shift + Spacebar'** and then press **'Ctrl'+'+"** twice to insert two rows.

Now we can insert the shape, to insert shape, go to the **'Shapes'** command in the **'Illustration'** group of the **'Insert'** tab and select an appropriate shape.
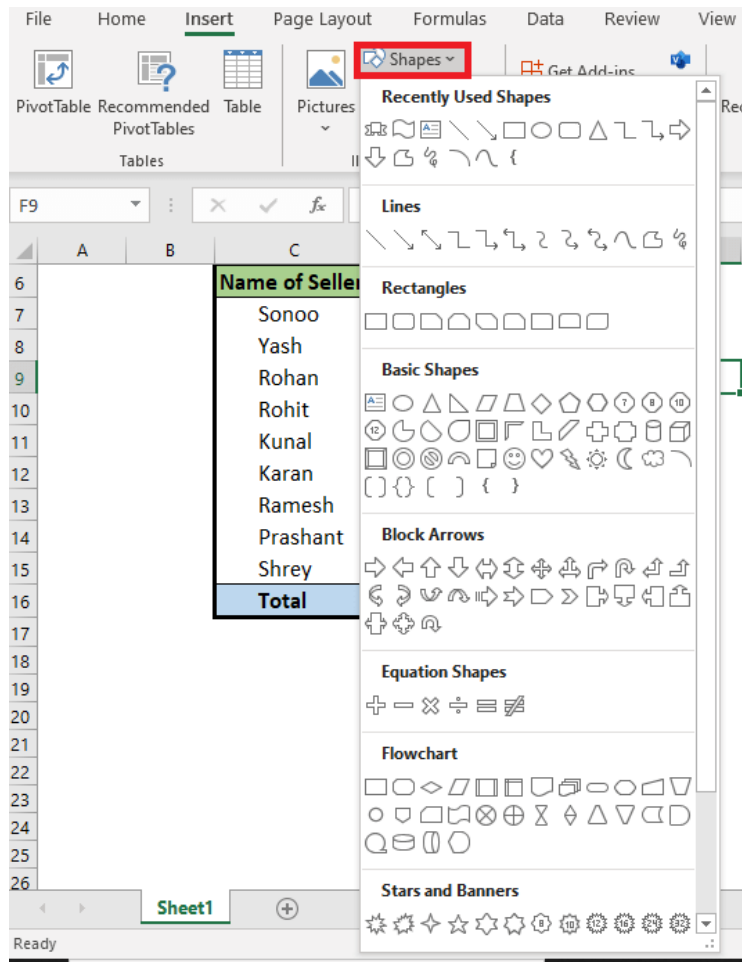
Create the shape that meets the requirement and add text to it by right-clicking on the shape and selecting **'Edit Text.'**
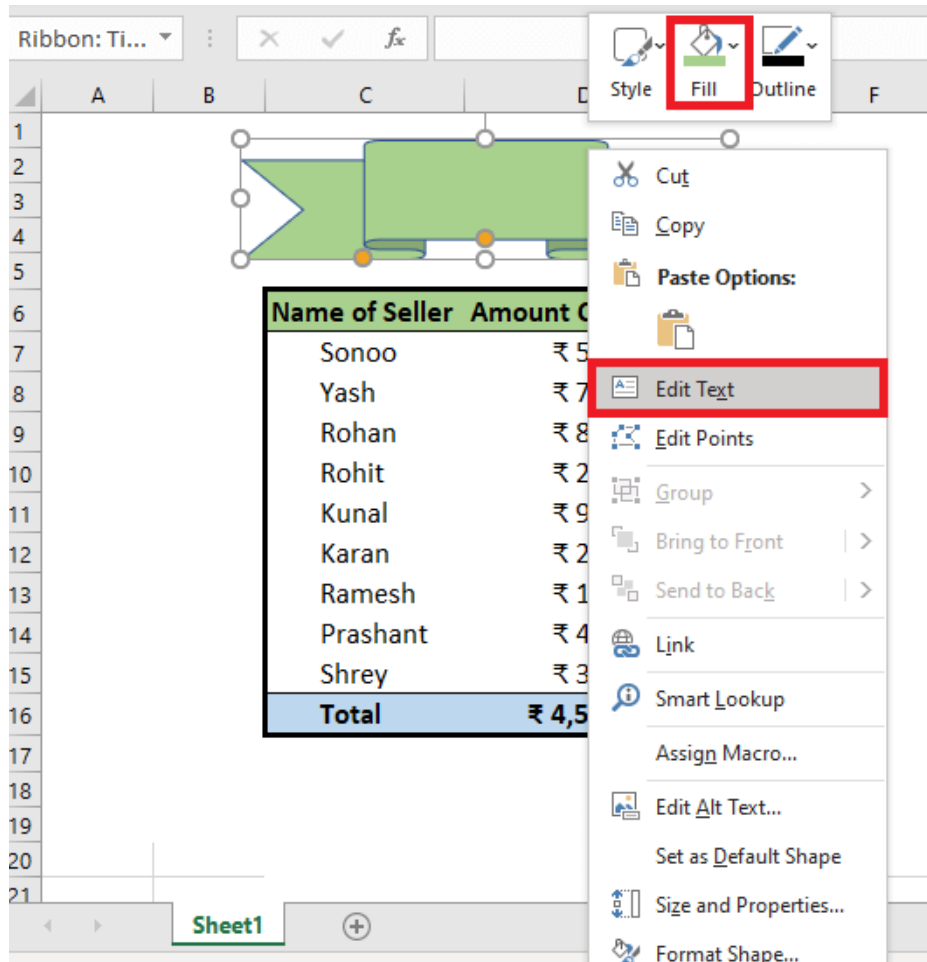
We may also utilize the **'Format'** contextual tab to format the shape with commands like **'Text Outline', 'Text Fill', 'Shape Fill', Shape Outline.'** etc. We can also use the excel formatting on text using the commands available in the **'Front'** group, which is placed on the **'Home'** tab.
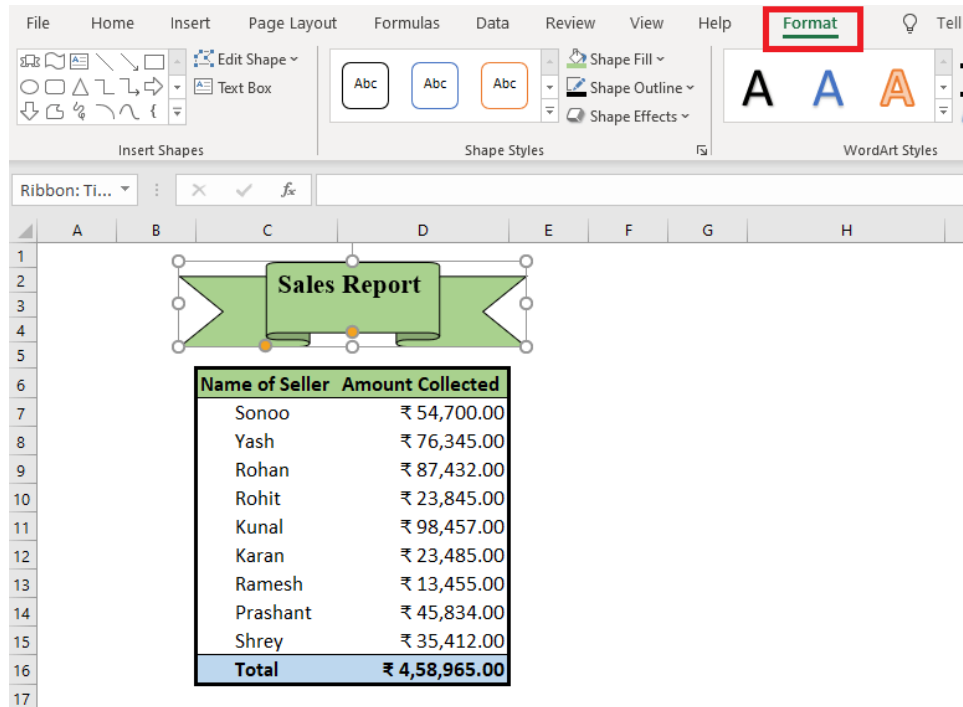
Conditional Formatting can also be used to draw the visitor's attention to the **'Top 3'** and **'Bottom 3'** salespeople. To perform this, we have to select the option **Top/Bottom** rules in the conditional formatting and then we have to select the option named **Top 10** Items.
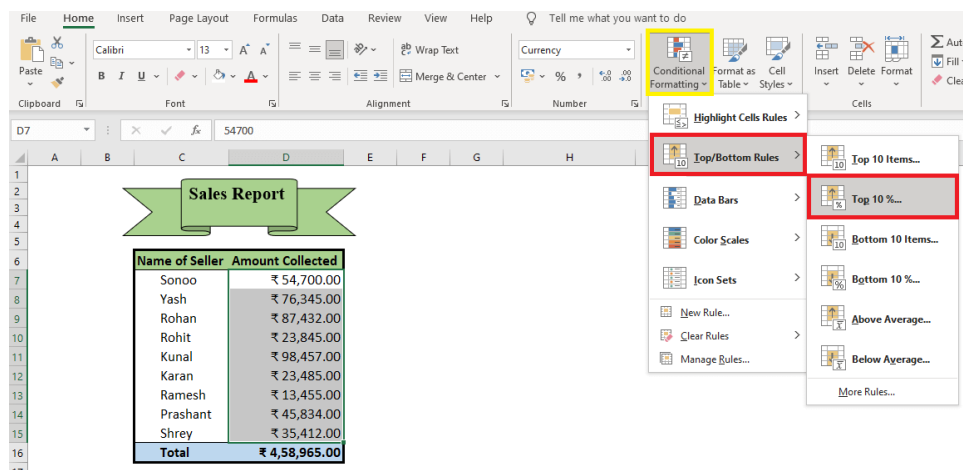
After that, the dialog box will open, and in this dialog box, we have to fill the number for top ranks and the color we want.

Sales Report

Name of Seller	Amount Collected
Sonoo	₹ 54,700.00
Yash	₹ 76,345.00
Rohan	₹ 87,432.00
Rohit	₹ 23
Kunal	₹ 98
Karan	₹ 23
Ramesh	₹ 13
Prashant	₹ 45
Shrey	₹ 35
Total	**₹ 4,58,965.00**

Top 10 Items   ?   ✕

Format cells that rank in the TOP:

3 ⇕ with Light Red Fill with Dark Red Text ∨

OK   Cancel

Similarly, we can do this for Bottom 3.

Sales Report

Name of Seller	Amount Collected
Sonoo	₹ 54,700.00
Yash	₹ 76,345.00
Rohan	₹ 87,432.00
Rohit	₹ 23
Kunal	₹ 98
Karan	₹ 23
Ramesh	₹ 13
Prashant	₹ 45
Shrey	₹ 35
Total	**₹ 4,58,965.00**

Bottom 10 Items   ?   ✕

Format cells that rank in the BOTTOM:

3 ⇕ with Green Fill with Dark Green Text ∨

OK   Cancel

We can also use other options of conditional formatting, such as **Data Bars.**

We can also generate the chart to display the data, which is also part of **"Excel Data Formatting.'**

Shortcut Keys to Format Data in Excel

There are various shortcut keys to format data in Excel:

- **Ctrl+2** or **Ctrl+B,** we can use this shortcut to make the **text bold.**
- **Ctrl+3** or **Ctrl+I** if we want to make the **text italic,** then we can use this shortcut.
- **Ctrl+4** or **Ctrl+U** if we want to underline the text, then this shortcut is helpful.
- **Alt+H, FA** shortcut is used to open the **'Alignment'** Dialog box.
- **Alt+H, FN** shortcut is used to open the **'Front'** Dialog box.
- **Alt+H, FK** is used to make the font size of the **text smaller.**
- **Alt+H, FG** is used to make the font size of the **text larger.**
- **Alt+H, B** is used to **add border.**
- **Alt+H, A** then **C** is used to **center align** cell content.

- **Ctrl+1** is used to open the **'Format Cell'** Dialog box.
- **Ctrl+Shift+Ampersand (&)** is used to apply an **outline border** to the selected cells.
- **Ctrl+Shift+Percent (%)** is used to apply the **percentage format** with no decimal places.
- **Shift+F8** is used to add a non-adjacent cell or range to a selection of cells.
- **Ctrl+5** is used to apply or remove strikethrough **Data Formatting Excel.**

Note: While data formatting in Excel makes the title stand out, bold, and appealing, it also guarantees that it clearly relates to the content we're presenting. Then slightly increase the column and row headings and color them in a different hue. Readers will rapidly scan the column and row headings to understand how the worksheet's content is organized. This will aid them in determining the most crucial information on the and page and where they have to start.

What is Format Cells in Excel?

In Excel, the format cells is used to modify the formatting of cell numbers without modifying the actual number. With the help of the format cells, we can change the **number, alignment, font style, Border style, Fill options,** and **Protection.**

We can access this option with **right-click** of the mouse. After **right-clicking,** a **pop-up** will display, and then we have to click on the **Format Cells,** or we can also use the shortcut key **Ctrl+1** on our keyboard.
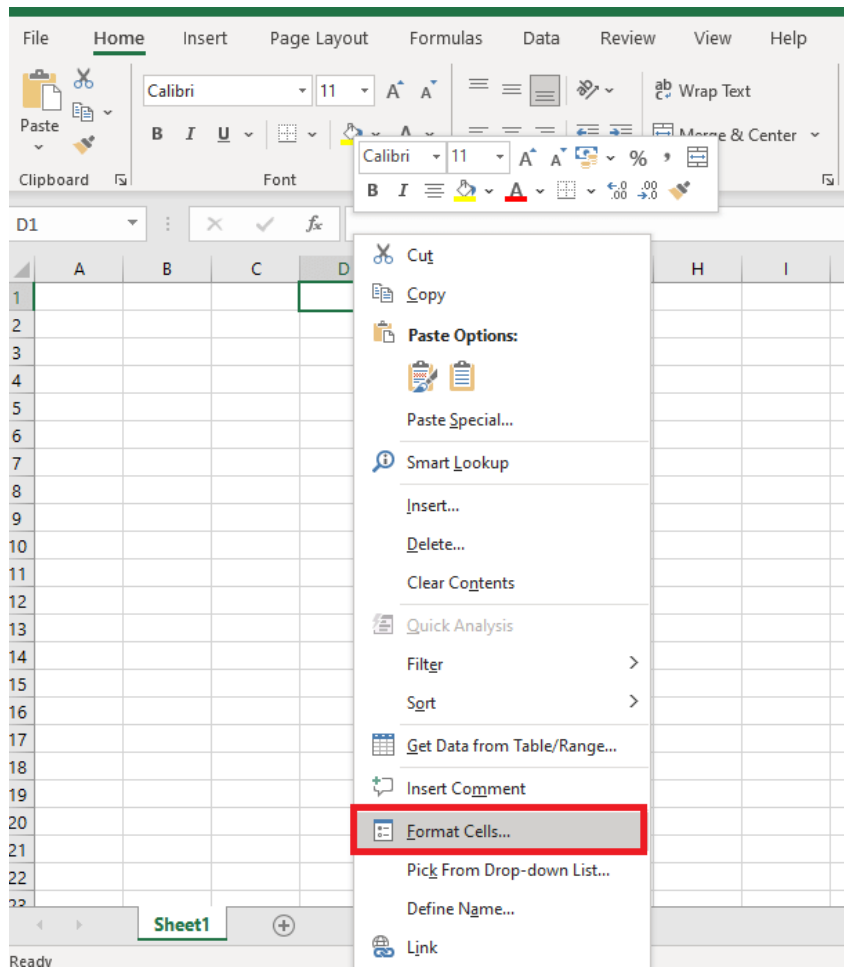
Format cells has five tabs for formatting the cells. Using this, we can modify the **data style, Alignments, time style, insert the border** with a different style, protect the cells, etc.
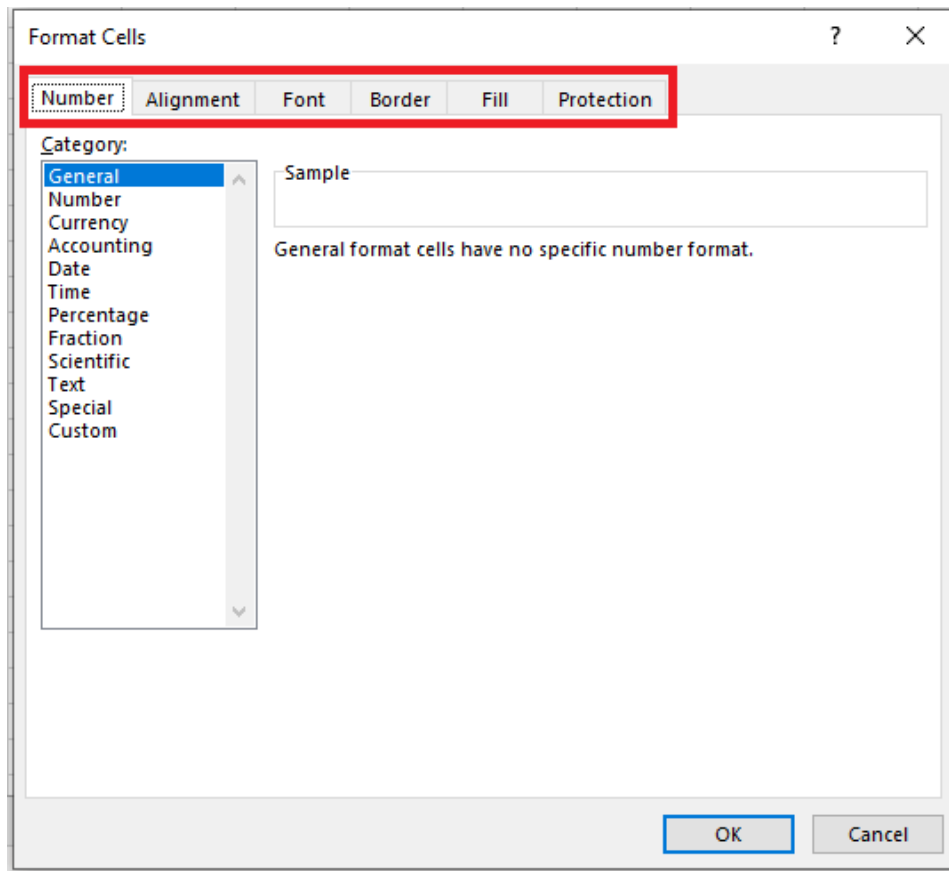
1. Number Tab

Excel **Number Tab** is used to change the decimal formatting of number cells, offering the appropriate format in terms of **number, date, percentage, fractions,** and so on.

With the help of the **Number Tab,** we can format the numbers as per our requirements. We can select from various choices such as currency, dates, times, percentage, etc.
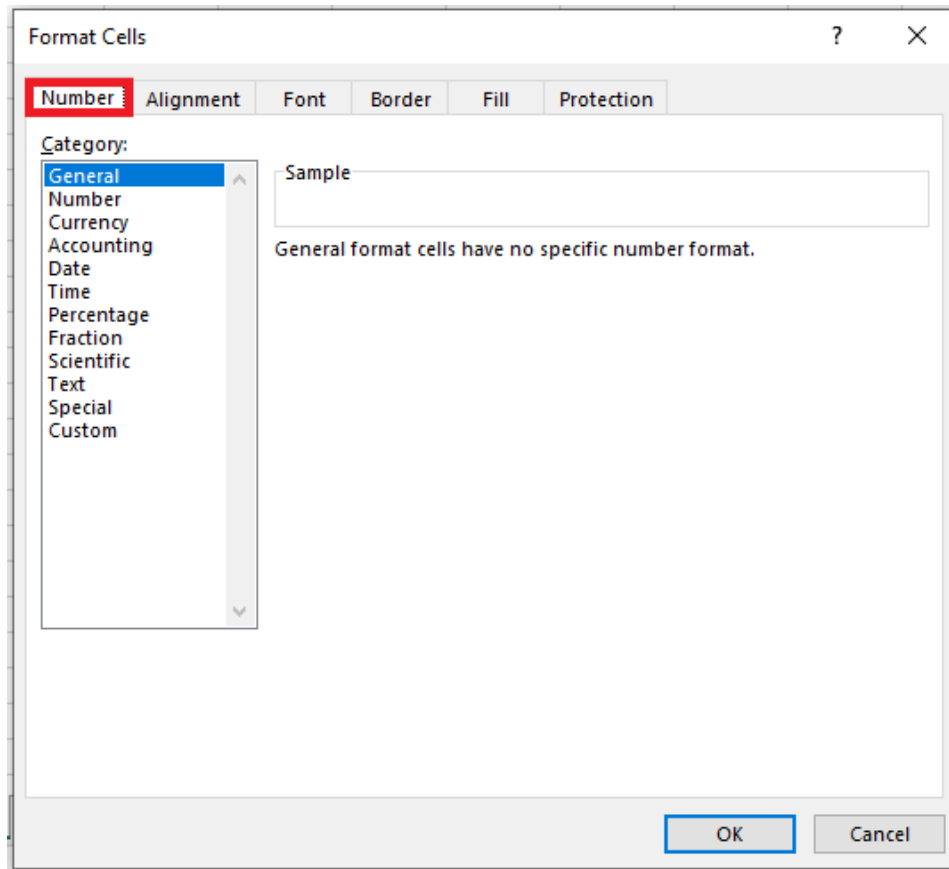
2. Alignment Tab

The **alignment tab** can be used to align the cell's text and merge the text of two cells together. If the text is hidden, we can use the **wrap text** to display it appropriately, and align the text in the desired direction.

Within the Formal cells dialogue box, the Alignment tab allows us to specify how our values are **aligned,** both **horizontally** and **vertically.**
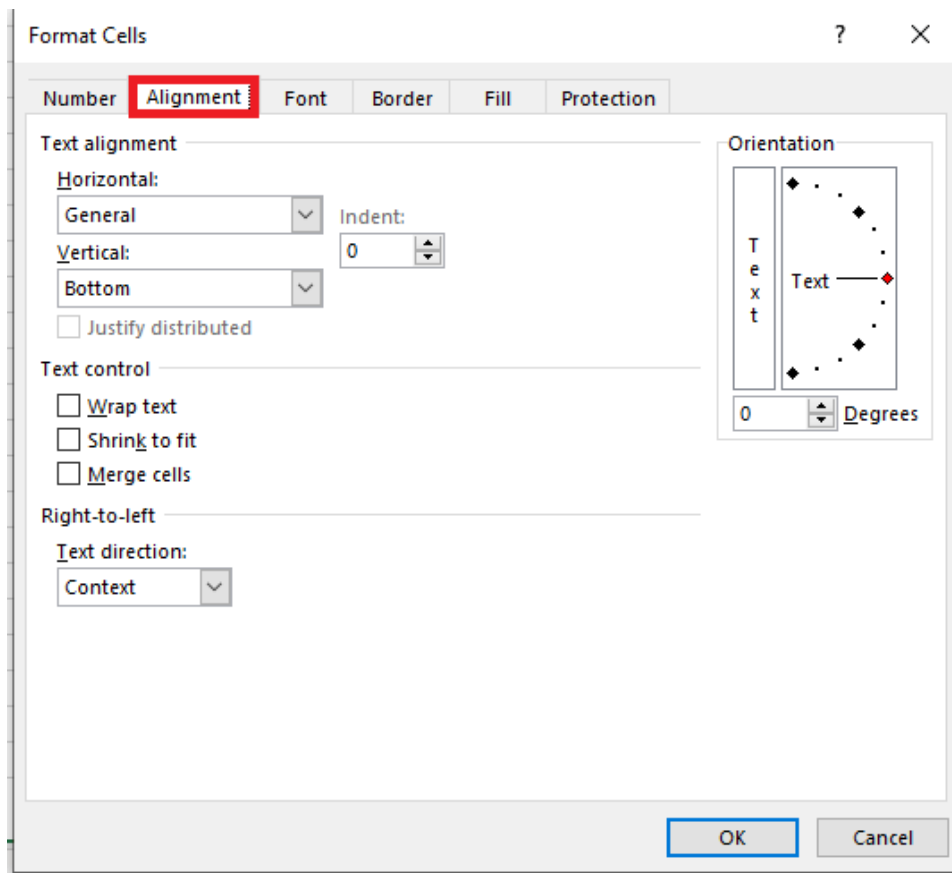
3. Font Tab

With the help of the **Font Tab,** we may alter the **font size, font style, font color,** etc. we can change the **font effects,** we can **underline** the text, and preview how it will appear.

Quick Font changes can be made from the **home tab;** however, the **Formal Cells** dialog box is more efficient for mass changes. From there, we can easily modify the **typeface, font size, italicize, point size, bold underlining, italicize,** and, **color** across the whole selection of cells.
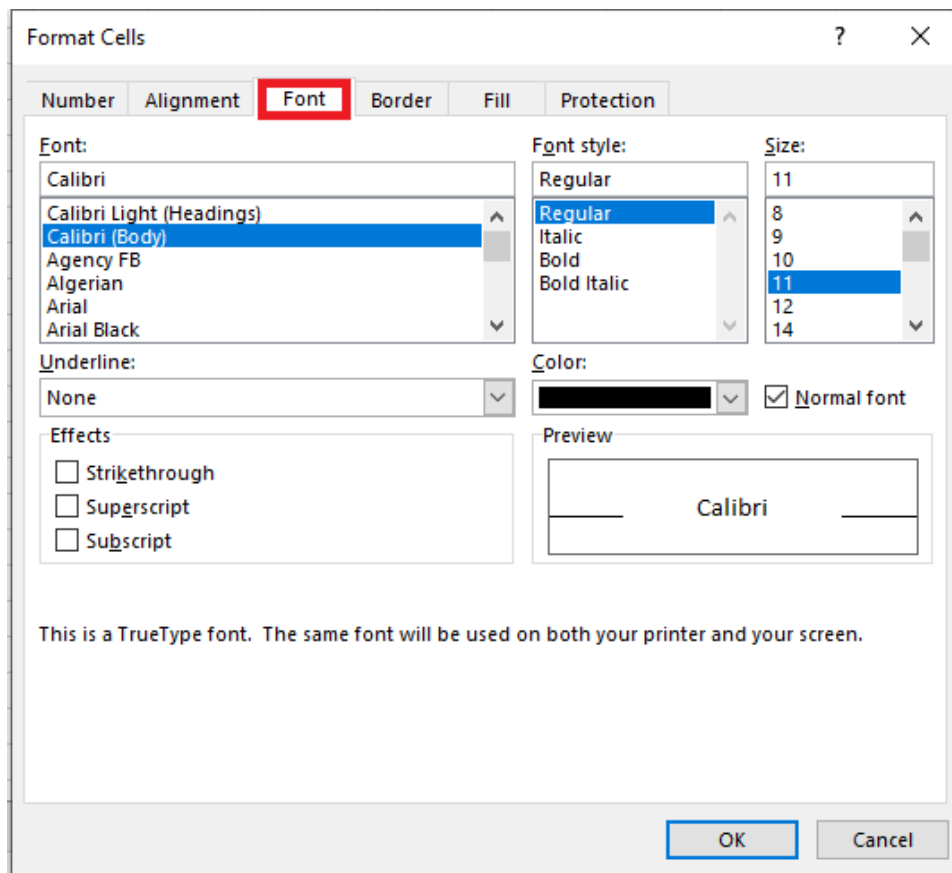
4. Border Tab

By using **Border Tab,** we can create colorful border line for various styles; if we don't want to provide the border outline, we can leave it blank.

We can create borders around a single cell or a group of cells in Excel. We can choose the **thickness, color,** and **line style** of the lines and where they will be created (for example, only on the cell's top or on all horizontal sides).
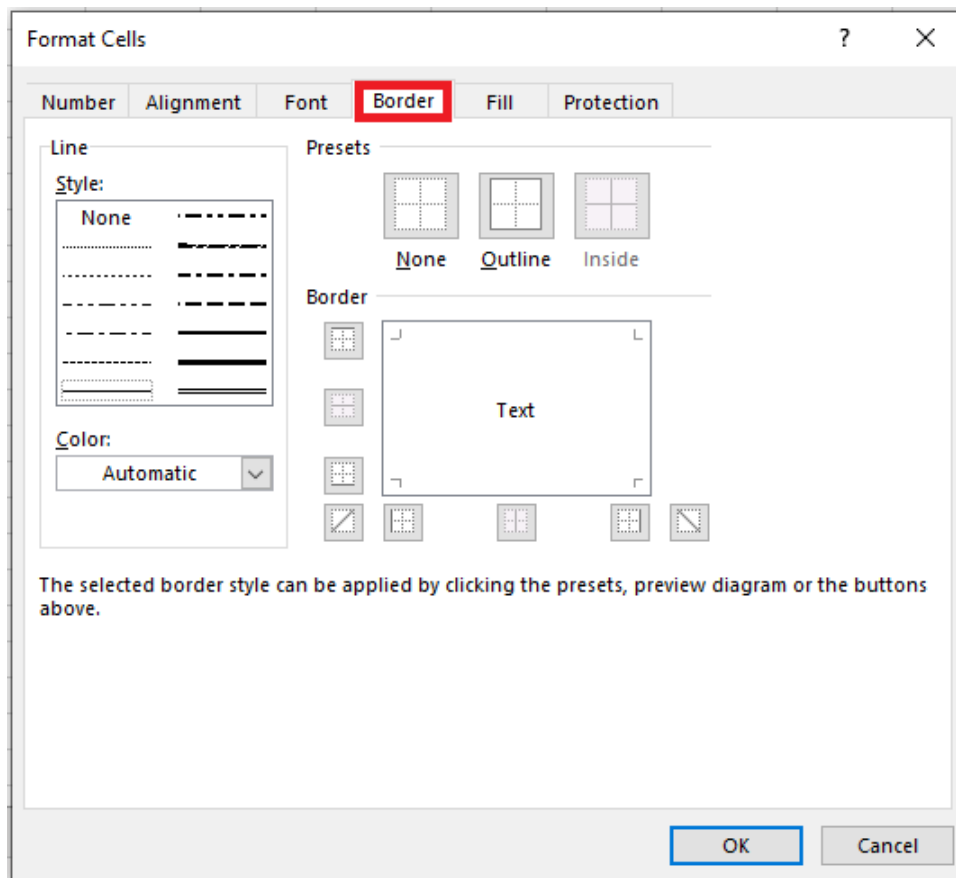
5. Fill Tab

We may use the **Fill Tab** to fill a cell or a range with colors in various ways, combine two colors, and even put a picture into a cell using the **Fill option.**
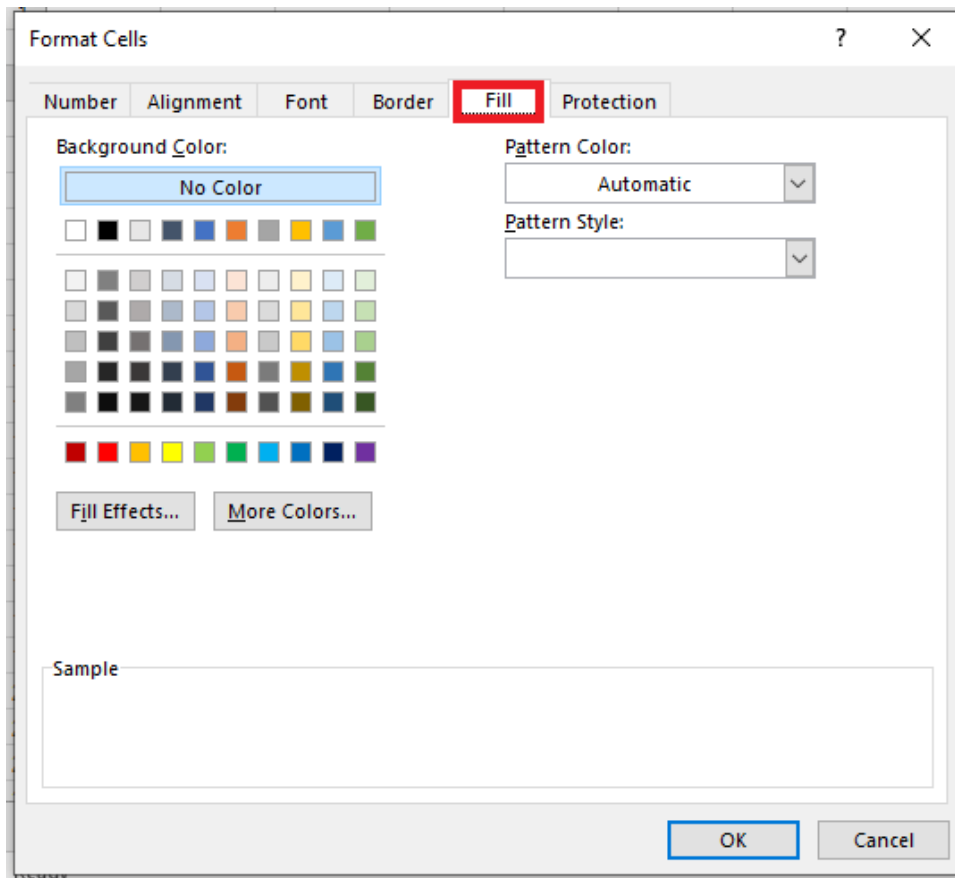
6. Protection Tab

The Protection tab can be used to **protect cell, range, cells, sheets, a formula containing,** etc.
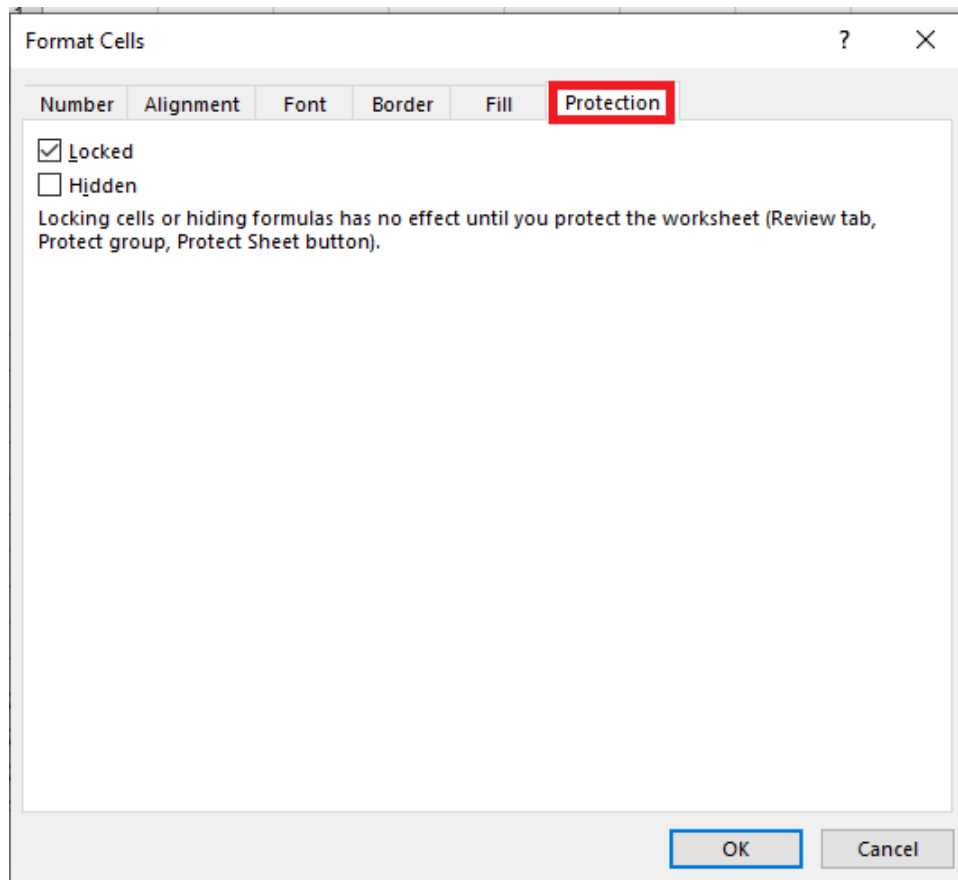
The Protection tab doesn't apply unless we've already protected our worksheet. To do this, click on **Protection** in the Tools menu, select **Protect Sheet,** and then select the **Contents check box** to determine how the worksheet will be protected. When the Locked option is selected, we are forbidden to do the following:

- Modifying the data or formulas of a cell.
- Typing data in an empty cell.
- Moving the cell.
- Resizing the cell.
- Deleting the cell or its contents.
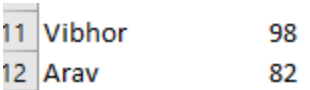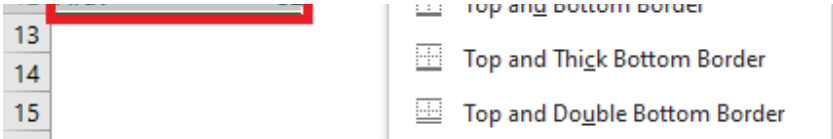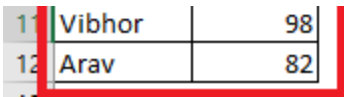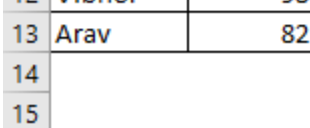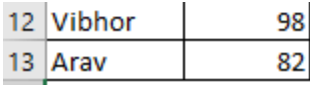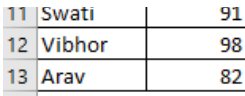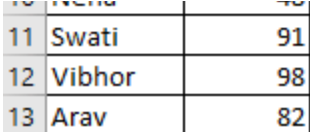
When we choose the **Hidden option,** all the formulas used to calculate values will no longer be viewed in the formula bar (although we can still see the end result of that formula).

Formatting in Excel Example 1:

We have the below-mentioned disorganized data, which appears to be quite straightforward. Now we'll use Excel to format the data and show it in a readable fashion.

The following are the steps that must be followed when formatting data:

- header field and make it **bold.**

- option named **"All** border.

- the data will appear as follows:

- **box borders"** option thick border.

- the data will appear as follows:

- the **center.**

- use a light green color

- | 12 | Vibhor | 98 |
  | 13 | Arav | 82 |

  data   appears   more   presentable.
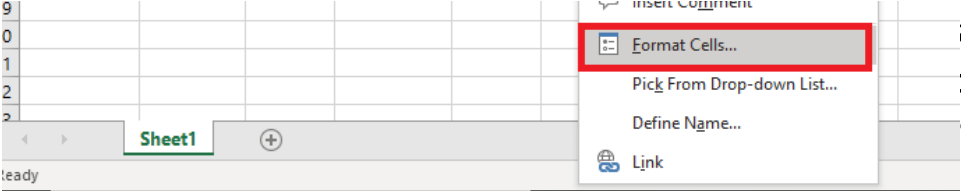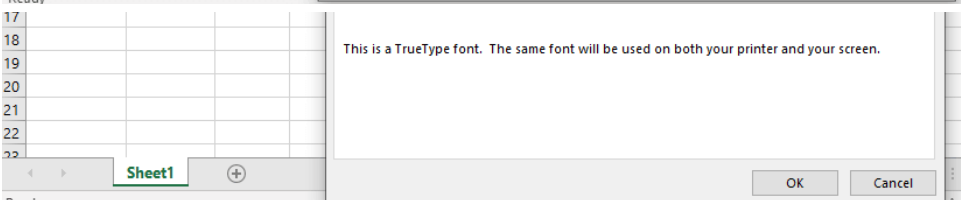
Formatting in Excel-Example 2

Let us understand more about formatting with the help of the following example.

In this example, we have a day-wise weather production of different cities.

	A	B	C	D	E	F	G	H
1	City	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2	Delhi	45	35	30	45	44	23	36
3	Pune	33	38	27	32	46	28	45
4	Banglore	44	47	46	36	37	38	32
5	Mumbai	39	46	44	28	29	42	28
6	Nainital	27	26	36	35	39	21	44

Now we have to highlight the **Friday** data.

- ... the data of ... **op-down** box ... **mat Cells".**

- ...re are many ...ious   ways.

- ...type such as ...   etc.

- ...n a different

- ...ns available ...d **color,** etc.

- ...**or green.** By ...border more

	A						
4	Banglore	44	47	46	36	37	38	32
5	Mumbai	39	46	44	28	29	42	28
6	Nainital	27	26	36	35	39	21	44

- ...t   below:

Formatting in Excel-Example 3

In this example. We're using the same data as before. In this, we will try to present the data in a pictorial format.

	A	B	C	D	E	F	G	H
1	City	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2	Delhi	45	35	30	45	44	23	36
3	Pune	33	38	27	32	46	28	45
4	Banglore	44	47	46	36	37	38	32
5	Mumbai	39	46	44	28	29	42	28
6	Nainital	27	26	36	35	39	21	44

- ...cked Column ...mn   Chart.

3-D Bar

More Column Charts...

- ...screenshot.

City   Monday   Tuesday   Wednesday   Thursday   Friday   Saturday   Sunday

■ Series6 ■ Series5 ■ Series4 ■ Series3 ■ Series2 ■ Series1

Formatting Tricks for Excel Users

The majority of Excel users are familiar with basic numeric and text formatting. Users who go beyond the basics, on the other hand, will produce more readable and effective sheets. Furthermore, knowing how to quickly and simply apply the appropriate formatting to specific cells helps users work more productively. These formatting tips will help users in getting the most out of Excel's formatting features.

1. Copy Styles Between Workbooks

If we use similar cell styles in multiple workbooks, don't waste time re-creating custom cell styles. Rather, copy the style from one file to another in the following manner:

- First, we have to open the **source workbook** and a destination workbook.
- Then from the destination workbook, we have to click on the **Cell Styles** in the Styles group on the **home** tab. In **Excel 2003,** select Styles from the **Format menu.**
- Next, we have to choose **Merge Styles** at the bottom of the gallery.
- In the resulting dialog, select the open worksheet, which comprises the styles we need to copy.

- Click on **OK** twice.

Open Excel's default workbook, book.xltx. as the destination, if we want all new workbooks to have the same custom design. (In Excel 2003, open book.xlt). After we have added the style, save and close the template file. The unified styles will be included in all new workbooks based on the book.xltx.

2. Add a Background Image

It is so easy to add a background image to the sheets that we might be tempted to brighten up all our sheets. (Of course, we are not going to do that). To add an image to the background of the sheet, perform the following:

- First, we have to click on the **Page Layout tab.**
- Then, we have to click on the **Background** option in the **Page Setup** group.
- Lastly, browse to the file and double-click it.

3. Quickly Apply Table Formatting

If we select a range and choose a built-in format from the **Format As Table drop-down,** Excel (2007 and later) converts the range to a Table object. If the format works for us, but we do not need the table object, we can keep the format and dump the table.

It takes a few clicks to do, but probably less than formatting it manually. To quickly format a data range using the built-in table format, do the following:

- First, we have to click anywhere inside the data range.
- Then on the **Home tab,** we have to click on the **Format As Table drop-down** and select a format from the gallery.
- Select properly when Excel asks if the range has headers and click OK.
- Click anywhere within the table.
- With the contextual **Design tab** current, select Convert To Range in the Tools group.
- Then we have to click Yes to confirm the action.

4. Create a Cell Style That Indicates Purpose

The usage of a **Cell Style** to determine the purpose helps users in acclimating faster. It's also a simple technique for a company to maintain uniformity. For example, the color could be used to separate input and label cells. The use of a **Cell Style** is a

quick and easy technique to implement the rule. Make a **Cell Style** for input cells to demonstrate this concept:

- Click on the **Home tab** and then click **Cell Styles** group. In Excel 2003, select from the **Format menu** and skip to the 3rd step.
- Then we have to click on the **New Cell Style** at the bottom of the list.
- Enter a name for the style in the resulting dialog box, like Input cell.
- Then click on the **Format.** In Excel 2003, we have to click on Modify.
- Click on the **Border tab** and select the **Outline option** in the Presets section.
- Select light blue from the Fill tab.
- Click **OK** to view the selected formats as shown below:
- Click **OK** again.

5. Change Colors in a Snap

Suppose we have made a spreadsheet model or dashboard. We also want to modify the colors to something more vibrant. Simply select a color scheme from the **Colors box** on the top left of the **Page Layout** ribbon. Microsoft has come up with some fantastic color palettes. These are nicely contrasted and look fantastic on our computer screen. We can create our own color schemes as well (to match corporate style). Furthermore, we can set font schemes or combine the two to create a new theme.
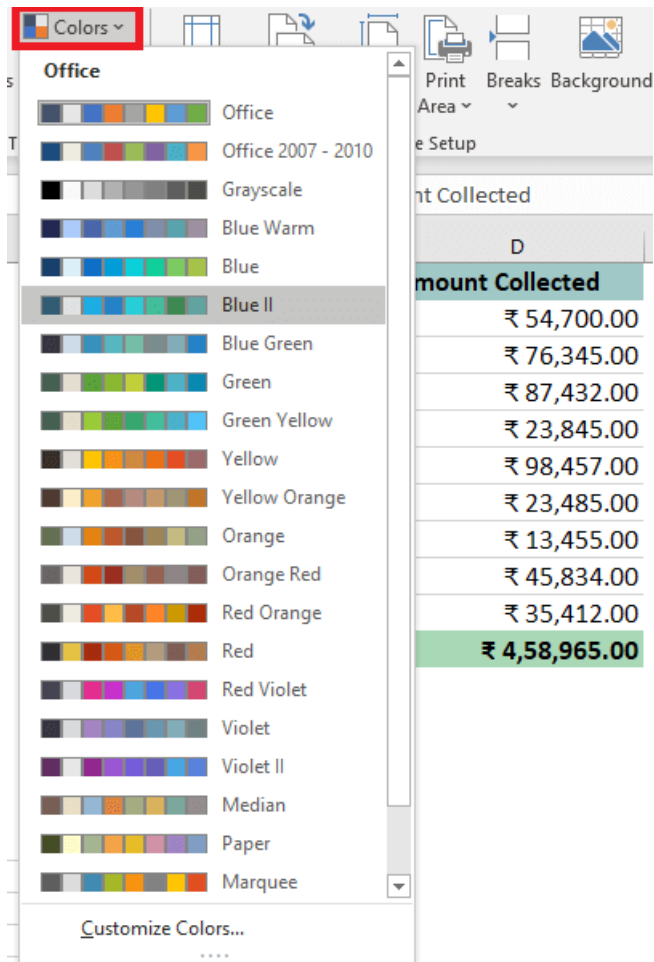
6. Use Format Painter

Format painter is a lovely tool that comes with all office programs. This is useful for copy formatting from one place to another. See the below screenshot in order to understand how it works. Format painter is located on the top left corner of the **Home ribbon.**

Name of Seller	Amount Collected
Sonoo	₹ 54,700.00
Yash	₹ 76,345.00
Rohan	₹ 87,432.00
Rohit	₹ 23,845.00
Kunal	₹ 98,457.00

Name of Seller	Amount Collected
Sonoo	₹ 54,700.00
Yash	₹ 76,345.00
Rohan	₹ 87,432.00
Rohit	₹ 23,845.00
Kunal	₹ 98,457.00

After applying this formula, the output is:

7. Formatting Keyboard Shortcuts

There are a number of shortcuts in Excel which we can use to format our data. Formatting is an everyday activity. We do it while composing an email, preparing a report, creating a workbook, making a presentation or drawing something. Knowing a few formatting shortcuts will help us improve productivity. The following are some formatting keyboard shortcuts:

- **Ctrl+1:** - Using this shortcut, we can open the **format dialog** for whatever we've chosen **(charts, drawing shapes, charts, etc.).**
- **Ctrl + B:** - This shortcut is used to **bold** the text.
- **Ctrl + U:** - This shortcut is used to **underline** the text.
- **Ctrl + I:** - This shortcut is used to **Italicize** the text.
- **ALT + EST:** - We used this shortcut to **paste** formats. It works like the **format painter.**
- **Ctrl + T:** - We used this shortcut to apply formatting to the current region of the cells.
- **ALT + Enter:** - While editing a cell, we can use this shortcut to add a new line.

8. Use Templates

It may be enjoyable and challenging to develop our own spreadsheets, but there is no reason to do so with so many pre-made templates available. For example, we can get a **C# spreadsheet library** that allows us to **read, modify,** and **create** spreadsheets without having to open Excel!

There are various templates for **calendars, invoices, budgets,** etc.

COPYING THE DATA BETWEEN THE WORKSHEETS

- Press CTRL and drag the worksheet tab to the tab location you want.

OR

4. Right click on the worksheet tab and select **Move or Copy.**
5. Select the **Create a copy** checkbox.
6. Under **Before sheet**, select where you want to place the copy.
7. Select **OK.**

ENTERING FORMULA

You can create a simple formula to add, subtract, multiply or divide values in your worksheet. Simple formulas always start with an equal sign (**=**), followed by constants that are numeric values and calculation operators such as plus (**+**), minus (**-**), asterisk (*****), or forward slash (**/**) signs.

Let's take an example of a simple formula.

1. On the worksheet, click the cell in which you want to enter the formula.
2. Type the **=** (equal sign) followed by the constants and operators (up to 8192 characters) that you want to use in the calculation
3. For our example, type **=1+1**.
4. Press **Enter** (Windows) or **Return** (Mac).

Let's take another variation of a simple formula. Type **=5+2*3** in another cell and press **Enter** or **Return**. Excel multiplies the last two numbers and adds the first number to the result.

Use AutoSum
You can use AutoSum to quickly sum a column or row or numbers. Select a cell next to the numbers you want to sum, click **AutoSum** on the **Home** tab, press **Enter** (Windows) or **Return** (Mac), and that's it!
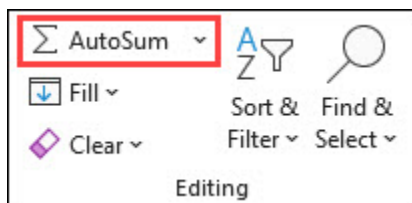
When you click **AutoSum**, Excel automatically enters a formula (that uses the SUM function) to sum the numbers.

Here's an example. To add the January numbers in this Entertainment budget, select cell B7, the cell immediately below the column of numbers. Then click **AutoSum**. A formula appears in cell B7, and Excel highlights the cells you're totaling.

	A	B	C	D
1		Jan	Feb	
2	**Entertainment**			
3	Cable TV	52.98	52.98	
4	Video Rentals	7.98	11.97	
5	Movies	16.00	32.00	
6	CDs	18.99	29.99	
7	Totals	=SUM(B3:B6)		
8				

Press Enter to display the result (95.94) in cell B7. You can also see the formula in the formula bar at the top of the Excel window.

| 8 | | | | |

CHART CREATION

Charts help you visualize your data in a way that creates maximum impact on your audience. Learn to create a chart and add a trendline. You can start your document from a recommended chart or choose one from our collection of pre-built chart templates

Create a chart
1. Select data for the chart.
2. Select **Insert** > **Recommended Charts**.
3. Select a chart on the **Recommended Charts** tab, to preview the chart
4. Select a chart.
5. Select **OK**.

Add a trendline
1. Select a chart.
2. Select **Design** > **Add Chart Element**.

3. Select **Trendline** and then select the type of trendline you want, such as **Linear, Exponential, Linear Forecast**, or **Moving Average**.

DATA FORMS

1. **It's time-consuming**. You need to enter the data in one cell, then go to the next cell and enter the data for it. Sometimes, you need to scroll up and see which column it is and what data needs to be entered. Or scroll to the right and then come back to the beginning in case there are many columns.
2. **It's error-prone**. If you have a huge data set which needs 40 entries, there is a possibility you may end up entering something that was not intended for that cell.

A data entry form can help by making the process faster and less error-prone.

Below is a data set that is typically maintained by the hiring team in an organization.

	A	B	C	D	E
1	**Date**	**Name**	**Area**	**Interviewed By**	**Status**
2	01-08-2018	Mike Banes	Admin	John Lopez	Rejected
3	03-08-2018	Ross Taylor	PHP	David Peters	Hired
4	07-08-2018	Steve Grant	PHP	Helen Bash	In-progress
5	08-08-2018	Ruth Fowler	Java	Carolyn Johnson	In-progress

Every time a user has to add a new record, he/she will have to select the cell in the next empty row and then go cell by cell to make the entry for each column.

While this is a perfectly fine way of doing it, a more efficient way would be to use a Data Entry Form in Excel.
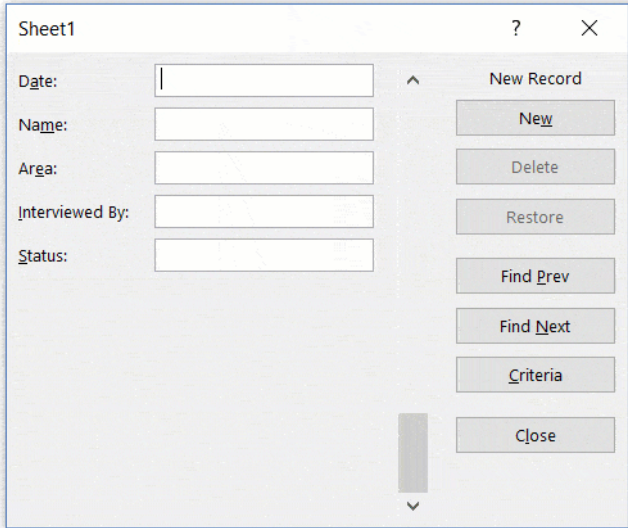
Below is a data entry form that you can use to make entries to this data set.

The highlighted fields are where you would enter the data. Once done, hit the Enter key to make the data a part of the table and move on to the next entry.

Data Entry Form in Excel

Using a data entry form in Excel needs a little pre-work.

You would notice that there is no option to use a data entry form in Excel (not in any tab in the ribbon).

To use it, you will have to first add it to the Quick Access Toolbar (or the ribbon).

Adding Data Entry Form Option To Quick Access Toolbar

Below are the steps to add the data entry form option to the Quick Access Toolbar:

1. Right-click on any of the existing icons in the Quick Access Toolbar.

2. Click on 'Customize Quick Access Toolbar'.
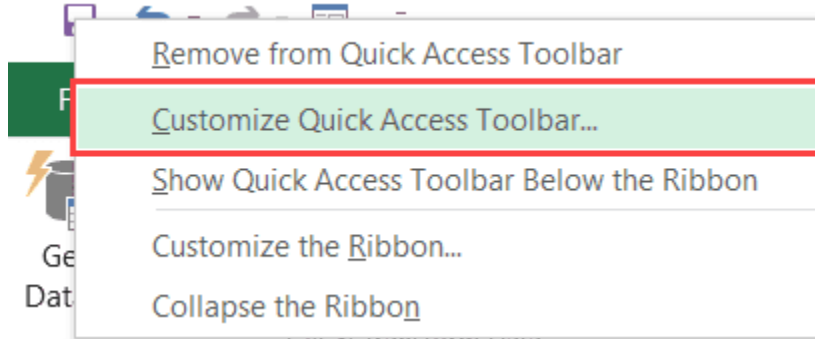
3. In the 'Excel Options' dialog box that opens, select the 'All Commands' option from the drop-down.
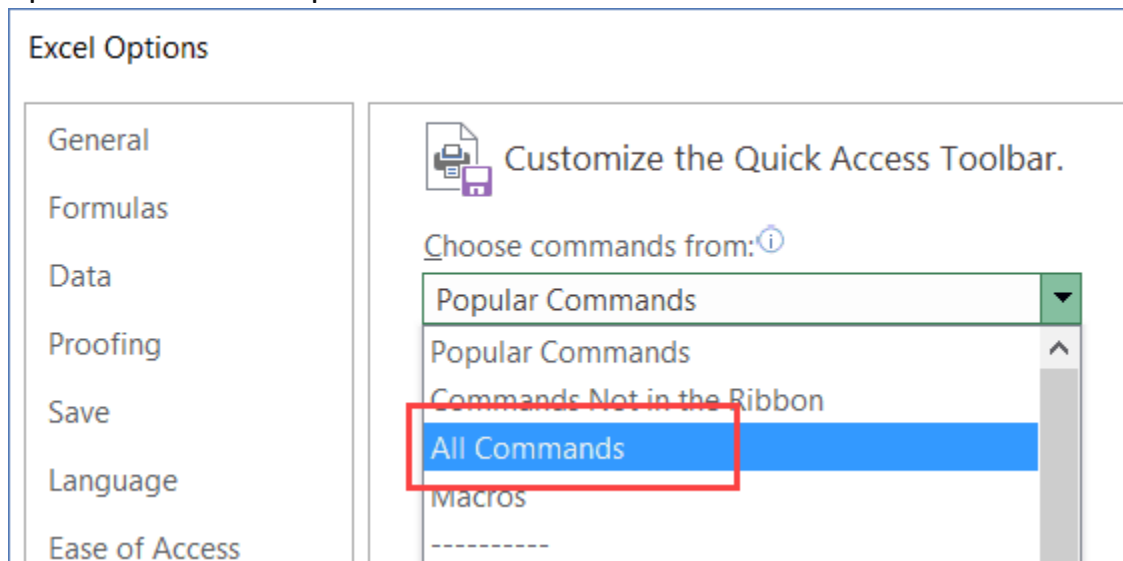
4. Scroll down the list of commands and select 'Form'.
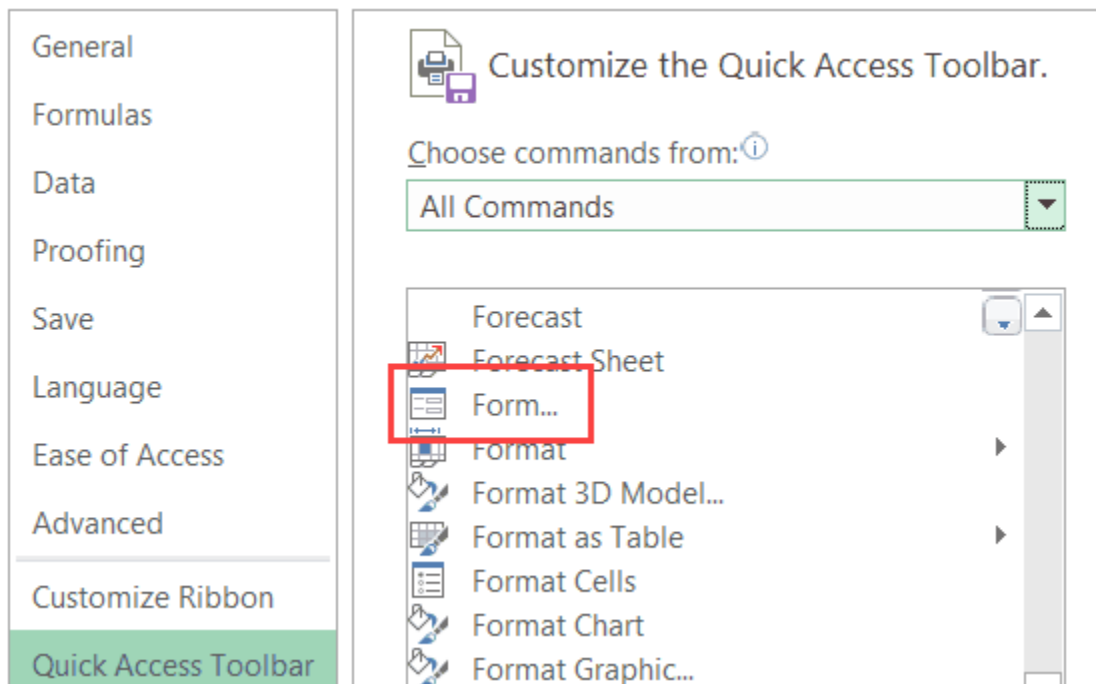
5. Click on the 'Add' button.
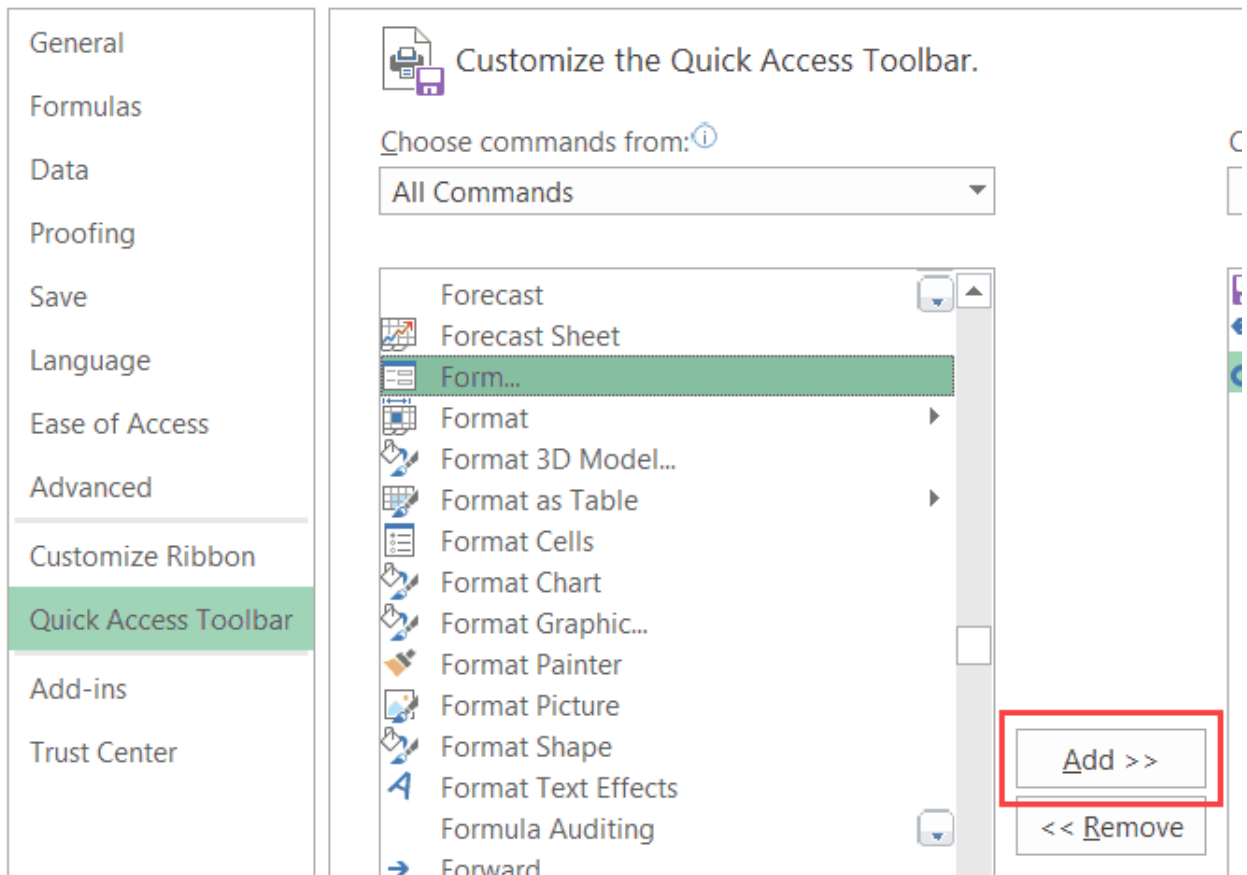
6. Click OK.

The above steps would add the Form icon to the Quick Access Toolbar (as shown below).
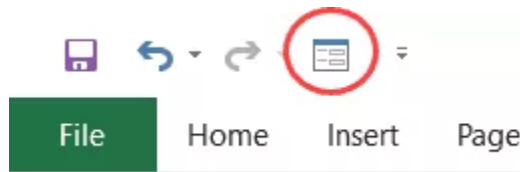
Once you have it in QAT, you can click any cell in your dataset (in which you want to make the entry) and click on the Form icon.

Parts of the Data Entry Form
A Data Entry Form in Excel has many different buttons (as you can see below).

Here is a brief description of what each button is about:

- **New**: This will clear any existing data in the form and allows you to create a new record.

- **Delete**: This will allow you to delete an existing record. For example, if I hit the Delete key in the above example, it will delete the record for Mike Banes.
- **Restore**: If you're editing an existing entry, you can restore the previous data in the form (if you haven't clicked New or hit Enter).
- **Find Prev**: This will find the previous entry.
- **Find Next**: This will find the next entry.
- **Criteria**: This allows you to find specific records. For example, if I am looking for all the records, where the candidate was Hired, I need to click the Criteria button, enter 'Hired' in the Status field and then use the find buttons. Example of this is covered later in this tutorial.
- **Close**: This will close the form.
- **Scroll Bar**: You can use the scroll bar to go through the records.

Creating a New Entry

Below are the steps to create a new entry using the Data Entry Form in Excel:

1. Select any cell in the Excel Table.
2. Click on the Form icon in the Quick Access Toolbar.
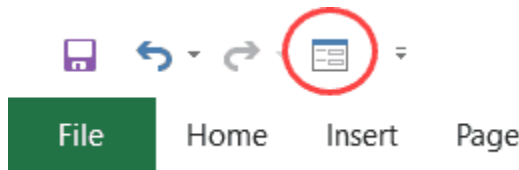
3. Enter the data in the form fields.
4. Hit the Enter key (or click the new button) to enter the record in the table and get a blank form for next record.

Navigating Through Existing Records

One of the benefits of using Data Entry Form is that you can easily navigate and edit the records without ever leaving the dialog box.

This can be especially useful if you have a dataset with many columns. This can save you a lot of scrolling and the process of going back and forth.

Below are the steps to navigate and edit the records using a   data entry form:

1. Select any cell in the Excel Table.
2. Click on the Form icon in the Quick Access Toolbar.

3. To go to the next entry, click on the 'Find Next' button and to go to the previous entry, click the 'Find Prev' button.

4. To edit an entry, simply make the change and hit enter. In case you want to revert to the original entry (if you haven't hit the enter key), click the 'Restore' button.

You can also use the scroll bar to navigate through entries one-by-one.

The above snapshot shows basic navigation where you are going through all the records one after the other.

But you can also quickly navigate through all the records based on criteria.

For example, if you want to go through all the entries where the status is 'In-progress', you can do that using the below steps:

- Select any cell in the Excel table.
- Click on the Form icon in the Quick Access Toolbar.

- In the Data Entry Form dialog box, click the Criteria button.

Sheet1	? ✕
Date: 01-08-2018	1 of 6
Name: Mike Banes	New
Area: Admin	Delete
Interviewed By: John Lopez	Restore
Status: Rejected	Find Prev
	Find Next
	Criteria
	Close

- In the Status field, enter 'In-progress'. Note that this value is not case sensitive. So even if you enter IN-PROGRESS, it would still work.

- Use the Find Prev/Find Next buttons to navigate through the entries where the status is In-Progress.

Criteria is a very useful feature when you have a huge dataset, and you want to quickly go through those records that meet a given set of criteria.

Note that you can use multiple criteria fields to navigate through the data.

For example, if you want to go through all the 'In-progress' records after 07-08-2018, you can use '>07-08-2018' in the criteria for 'Date' field and 'In-progress' as the value in the status field. Now when you navigate using Find Prev/Find Next buttons, it will only show records after 07-08-2018 where the status is In-progress.

You can also use wildcard characters in criteria.

For example, if you have been inconsistent in entering the data and have used variations of a word (such as In progress, in-progress, in progress, and inprogress), then you need to use wildcard characters to get these records.

Below are the steps to do this:

1. Select any cell in the Excel table.
2. Click on the Form icon in the Quick Access Toolbar.
3. Click the Criteria button.

4. In the Status field, enter ***progress**

5. Use the Find Prev/Find Next buttons to navigate through the entries where the status is In-Progress.

This works as an asterisk (*) is a wildcard character that can represent any number of characters in Excel. So if the status contains the 'progress', it will be picked up by Find Prev/Find Next buttons no matter what is before it).

Deleting a Record
You can delete records from the Data Entry form itself.

This can be useful when you want to find a specific type of records and delete these.

Below are the steps to delete a record using Data Entry Form:

1. Select any cell in the Excel table.
2. Click on the Form icon in the Quick Access Toolbar.
3. Navigate to the record you want to delete
4. Click the Delete button.

While you may feel that this all looks like a lot of work just to enter and navigate through records, it saves a lot of time if you're working with lots of data and have to do data entry quite often.

Restricting Data Entry Based on Rules
You can use data validation in cells to make sure the data entered conforms to a few rules.

For example, if you want to make sure that the date column only accepts a date during data entry, you can create a data validation rule to only allow dates.

If a user enters a data that is not a date, it will not be allowed and the user will be shown an error.

Here is how to create these rules when doing data entry:

1. Select the cells (or even the entire column) where you want to create a data validation rule. In this example, I have selected column A.
2. Click the Data tab.
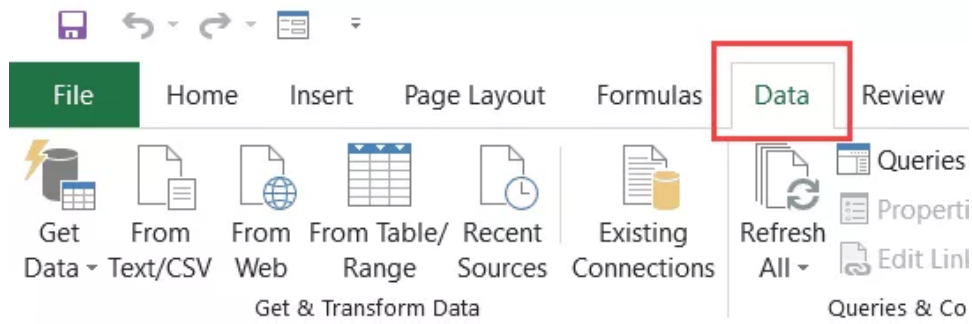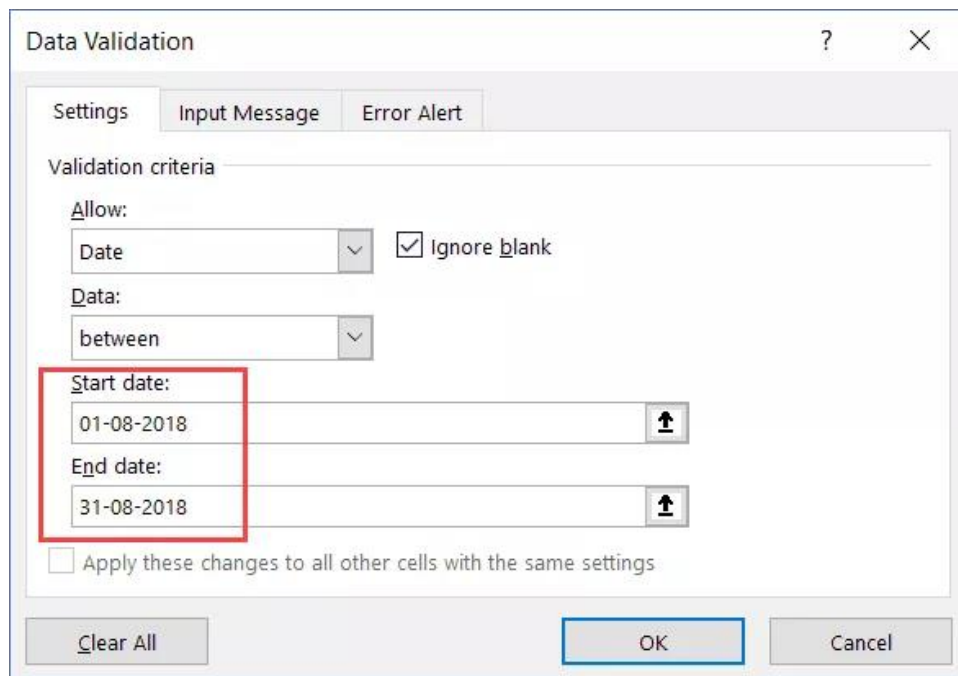
3. Click the Data Validation option.
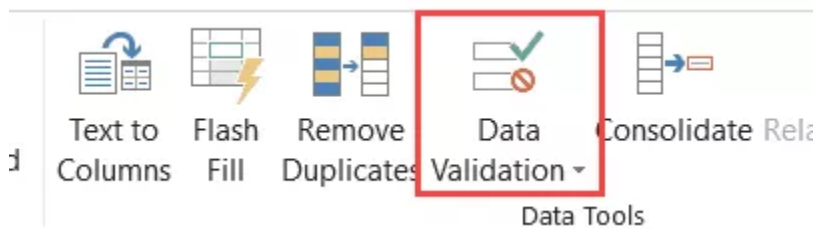
4. In the 'Data Validation' dialog box, within the 'Settings' tab, select 'Date' from the 'Allow' drop down.
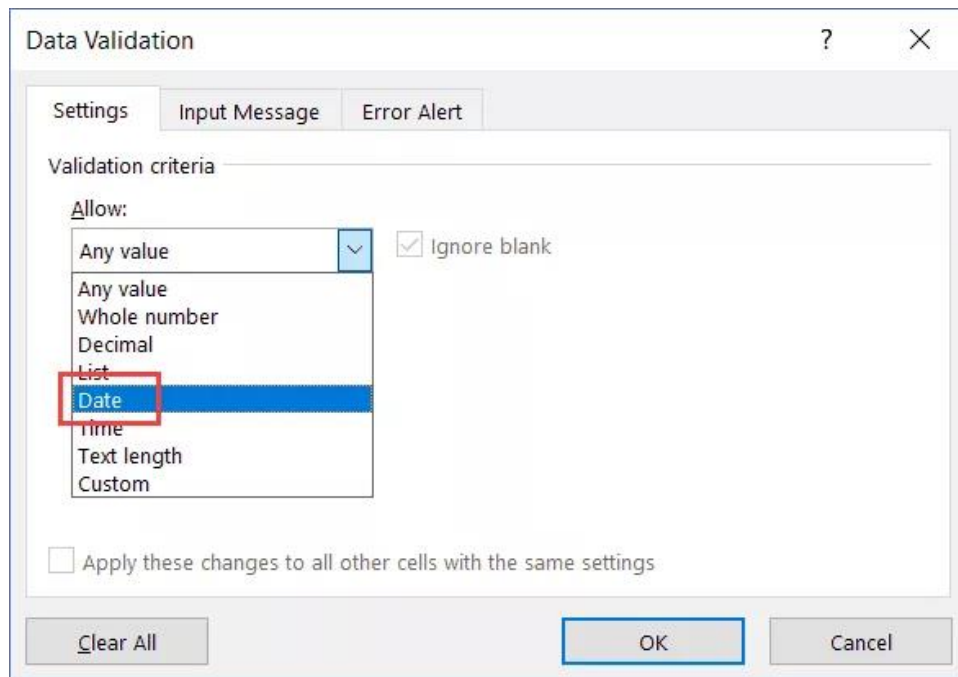
5. Specify the start and the end date. Entries within this date range would be valid and rest all would be denied.

6. Click OK.

Now, if you use the data entry form to enter data in the Date column, and if it isn't a date, then it will not be allowed.

You will see a message as shown below:

DATA SORT

Select the data to sort

Select a range of tabular data, such as A1:L5 (multiple rows and columns) or C1:C80 (a single column). The range can include the first row of headings that identify each column.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	38	44	46	51	56	67	72	70	59	45	41
34	33	38	41	45	48	51	55	54	45	41	38
61	69	79	83	95	97	100	101	94	87	72	66
0	2	9	24	28	32	36	39	35	21	12	4

Sort quickly and easily

8. Select a single cell in the column you want to sort.
9. On the **Data** tab, in the **Sort & Filter** group, click to perform an ascending sort (from A to Z, or smallest number to largest).

10. Click to perform a descending sort (from Z to A, or largest number to smallest).

Sort by specifying criteria

Use this technique to choose the column you want to sort, together with other criteria such as font or cell colors.

11. Select a single cell anywhere in the range that you want to sort.
12. On the **Data** tab, in the **Sort & Filter** group, click **Sort** to display the Sort popup window

13. In the **Sort by** dropdown list, select the first column on which you want to sort.
14. In the **Sort On** list, choose **Values**, **Cell Color**, **Font Color**, or **Cell Icon**.
15. In the **Order** list, choose the order that you want to apply to the sort operation—alphabetically or numerically, ascending or descending (that is, from A to Z (or Z to A) for text, or lower to higher, or higher to lower for numbers).

FUNCTIONS IN EXCELROUND

1. SQRT ()

Returns a positive square root.

Syntax
SQRT (number)

The SQRT function syntax has the following arguments:

- **Number**   Required. The number for which you want the square root.

2. MAX ()

Returns the largest value in a set of values.

Syntax
MAX (number1, [number2], ...)

The MAX function syntax has the following arguments:

- **Number1, number2, ...**   Number1 is required, subsequent numbers are optional. 1 to 255 numbers for which you want to find the maximum value.

3. MIN ()

Returns the smallest number in a set of values.

Syntax
MIN (number1, [number2], ...)

The MIN function syntax has the following arguments:

- **Number1, number2, ...**   Number1 is optional, subsequent numbers are optional. 1 to 255 numbers for which you want to find the minimum value.

4. AVERAGE ()

Returns the average (arithmetic mean) of the arguments. For example, if the range A1:A20 contains numbers, the formula **=AVERAGE(A1:A20)** returns the average of those numbers.

Syntax
AVERAGE(number1, [number2], ...)

The AVERAGE function syntax has the following arguments:

- **Number1**   Required. The first number, cell reference, or range for which you want the average.
- **Number2, ...**   Optional. Additional numbers, cell references or ranges for which you want the average, up to a maximum of 255.\

5. COUNT ()

The **COUNT** function counts the number of cells that contain numbers, and counts numbers within the list of arguments

Syntax
COUNT (value1, [value2], ...)

The COUNT function syntax has the following arguments:

- **value1**   Required. The first item, cell reference, or range within which you want to count numbers.
- **value2, ...**   Optional. Up to 255 additional items, cell references, or ranges within which you want to count numbers.

6. SUMIF ()

You use the **SUMIF** function to sum the values in a range that meet criteria that you specify. For example, suppose that in a column that contains numbers, you want to sum only the values that are larger than 5. You can use the following formula: **=SUMIF (B2:B25,">5")**

Syntax
SUMIF (range, criteria, [sum range])

The **SUMIF** function syntax has the following arguments:

- **range**   Required. The range of cells that you want evaluated by criteria. Cells in each range must be numbers or names, arrays, or references that contain numbers. Blank and text values are ignored. The selected range may contain dates in standard Excel format (examples below).
- **criteria**   Required. The criteria in the form of a number, expression, a cell reference, text, or a function that defines which cells will be added. Wildcard characters can be included - a question mark (?) to match any single character, an asterisk (*) to match any sequence of characters. If you want to find an actual question mark or asterisk, type a tilde (~) preceding the character.
- **sum range**   Optional. The actual cells to add, if you want to add cells other than those specified in the *range* argument. If the *sum range* argument is omitted, Excel adds the cells that are specified in the *range* argument (the same cells to which the criteria is applied).

7. ABS ()

Returns the absolute value of a number. The absolute value of a number is the number without its sign.

Syntax
ABS (number)

The ABS function syntax has the following arguments:

- **Number**   Required. The real number of which you want the absolute value

8. ROMAN ()

Converts an Arabic numeral to roman, as text.

Syntax
ROMAN (number, [form])

The ROMAN function syntax has the following arguments:

- **Number**   Required. The Arabic numeral you want converted.

- **Form**   Optional. A number specifying the type of roman numeral you want. The roman numeral style ranges from Classic to Simplified, becoming more concise as the value of form increases. See the example following ROMAN (499,0) below.

9. UPPER ()

Converts text to uppercase.

Syntax
UPPER (text)

The UPPER function syntax has the following arguments:

- **Text**   Required. The text you want converted to uppercase. T
- Text can be a reference or text string.

10. LOWER ()

Converts all uppercase letters in a text string to lowercase.

Syntax
LOWER (text)

The LOWER function syntax has the following arguments:

- **Text**   Required. The text you want to convert to lowercase. LOWER does not change characters in text that are not letters.

11. CELL ()

The CELL function returns information about the formatting, location, or contents of a cell.

Syntax
CELL (info type, [reference])

The CELL function syntax has the following arguments:

Argument	Description
info type Required	A text value that specifies what type of cell information you want to return. The following list shows the possible values of the Info_type argument and the corresponding results.
reference Optional	The cell that you want information about. If omitted, the information specified in the info_type argument is returned for cell selected at the time of calculation. If the reference argument is a range of cells, the CELL function returns the information for active cell in the selected range. **Important:** Although technically reference is optional, including it in your formula is encouraged, unless you understand the effect its absence has on your formula result and want that effect in place. Omitting the reference argument does not reliably produce information about a specific cell, for the following reasons: In automatic calculation mode, when a cell is modified by a user the calculation may be triggered before or after the selection has progressed, depending on the platform you're using for Excel. For example, Excel for Windows currently triggers calculation before selection changes, but

	Excel for the web triggers it afterward.
	• When Co-Authoring with another user who makes an edit, this function will report your active cell rather than the editor's.
	• Any recalculation, for instance pressing F9, will cause the function to return a new result even though no cell edit has occurred.

info type values

The following list describes the text values that can be used for the info_type argument. These values must be entered in the CELL function with quotes (" ").

info type	Returns
"address"	Reference of the first cell in reference, as text.
"col"	Column number of the cell in reference.
"color"	The value 1 if the cell is formatted in color for negative values; otherwise returns 0 (zero). **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.
"contents"	Value of the upper-left cell in reference; not a formula.
"filename"	Filename (including full path) of the file that contains reference, as text. Returns empty text ("") if the worksheet that contains reference has not yet been saved.

	Note: This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.
"format"	Text value corresponding to the number format of the cell. The text values for the various formats are shown in the following table. Returns "-" at the end of the text value if the cell is formatted in color for negative values. Returns "()" at the end of the text value if the cell is formatted with parentheses for positive or all values. **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.
"parentheses"	The value 1 if the cell is formatted with parentheses for positive or all values; otherwise returns 0. **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.
"prefix"	Text value corresponding to the "label prefix" of the cell. Returns single quotation mark (') if the cell contains left-aligned text, double quotation mark (") if the cell contains right-aligned text, caret (^) if the cell contains centered text, backslash (\) if the cell contains fill-aligned text, and empty text ("") if the cell contains anything else. **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.

"protect"	The value 0 if the cell is not locked; otherwise returns 1 if the cell is locked. **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.
"row"	Row number of the cell in reference.
"type"	Text value corresponding to the type of data in the cell. Returns "b" for blank if the cell is empty, "l" for label if the cell contains a text constant, and "v" for value if the cell contains anything else.
"width"	Returns an array with 2 items. The 1st item in the array is the column width of the cell, rounded off to an integer. Each unit of column width is equal to the width of one character in the default font size. The 2nd item in the array is a Boolean value, the value is TRUE if the column width is the default or FALSE if the width has been explicitly set by the user. **Note:** This value is not supported in Excel for the web, Excel Mobile, and Excel Starter.

CELL format codes

The following list describes the text values that the CELL function returns when the Info type argument is "format" and the reference argument is a cell that is formatted with a built-in number format.

If the Excel format is	The CELL function returns
General	"G"
0	"F0"

#,##0	",0"
0.00	"F2"
#,##0.00	",2"
$#,##0_);($#,##0)	"C0"
$#,##0_);[Red]($#,##0)	"C0-"
$#,##0.00_);($#,##0.00)	"C2"
$#,##0.00_);[Red]($#,##0.00)	"C2-"
0%	"P0"
0.00%	"P2"
0.00E+00	"S2"
# ?/? or # ??/??	"G"
m/d/yy or m/d/yy h:mm or mm/dd/yy	"D4"
d-mmm-yy or dd-mmm-yy	"D1"
d-mmm or dd-mmm	"D2"
mmm-yy	"D3"
mm/dd	"D5"
h:mm AM/PM	"D7"
h:mm:ss AM/PM	"D6"
h:mm	"D9"
h:mm:ss	"D8"

12.TODAY ()

Returns the serial number of the current date. The serial number is the date-time code used by Excel for date and time calculations. If the cell format was **General** before the function was entered, Excel changes the cell format to **Date**. If you want to view the serial number, you must change the cell format to **General** or **Number**.

The **TODAY** function is useful when you need to have the current date displayed on a worksheet, regardless of when you open the workbook. It is also useful for calculating intervals. For example, if you know that someone was born in 1963, you might use the following formula to find that person's age as of this year's birthday:

= YEAR(TODAY())-1963

This formula uses the **TODAY** function as an argument for the **YEAR** function to obtain the current year, and then subtracts 1963, returning the person's age.

Syntax
TODAY ()

The TODAY function syntax has no arguments.

12.NOW ()

Returns the serial number of the current date and time. If the cell format was **General** before the function was entered, Excel changes the cell format so that it matches the date and time format of your regional settings. You can change the date and time format for the cell by using the commands in the **Number** group of the **home** tab on the Ribbon.

The **NOW** function is useful when you need to display the current date and time on a worksheet or calculate a value based on the current date and time, and have that value updated each time you open the worksheet.

Syntax
NOW ()

The NOW function syntax has no arguments.

MICROSOFT PAINT

INTRODUCTION TO MS POWER POINT

- The program was created in a software company named Forethought, Inc. by Robert Gaskins and Dennis Austin.

- It was released on April 20, 1987, and after 3 months of its creation, it was acquired by Microsoft.
- The first version of this program, when introduced by Microsoft was MS PowerPoint 2.0 (1990).
- It is a presentation-based program that uses graphics, videos, etc. to make a presentation more interactive and interesting.
- The file extension of a saved PowerPoint presentation is ".ppt".
- A PowerPoint presentation comprising slides and other features is also known as PPT.

Gradually, with each version, the program was more creative and more interactive. Various other features were added in PowerPoint which massively increased the requirement and use of this MS Office program.

From the examination point of view, MS PowerPoint happens to be a very important topic. Candidates who are preparing for the various Government exams can visit the Computer Knowledge page and get a list of topics included in the syllabus and prepare themselves accordingly.

Basics of MS PowerPoint

Discussed below are a few questions that one must be aware of while discussing the basics of MS PowerPoint. Once this is understood, using the program and analyzing how to use it more creatively shall become easier.

What is MS PowerPoint?

PowerPoint (PPT) is a powerful, easy-to-use presentation graphics software program that allows you to create professional-looking electronic slide shows.

The image given below shows the main page of MS PowerPoint, where a person lands when the program is opened on a computer system:
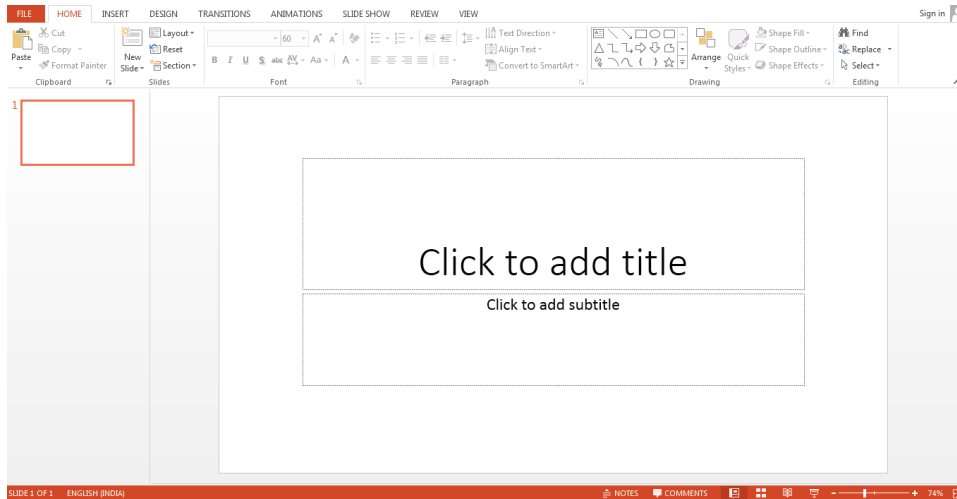
How to open MS PowerPoint on a personal computer?

Follow the steps below to open MS PowerPoint on a personal computer:

1. Click on the start button
2. Then choose "All Programs"

3.Next step is to select "MS Office"

4. Under MS Office, click on the "MS PowerPoint"

A blank presentation is open on the screen. According to the requirement a person can modify the template for a presentation and start using the program

What is a PowerPoint presentation or PPT?

A combination of various slides depicting a graphical and visual interpretation of data, to present information in a more creative and interactive manner is called a PowerPoint presentation or PPT.

What is a slide show in a PowerPoint presentation?

When all the slides of a PowerPoint presentation are set in series and then presented to a group of people, where each slide appears one after the other, is a set pattern, this is known as a PowerPoint slide show. **What all elements can be added to a slide?**

The following elements can be added to a PowerPoint slide:

1. Clip Art

2. Graphs
3. Tables
4. Photographs
5. Charts
6. Media Clips
7. Videos

All these elements are mainly used to enhance presentation skills and make the slide more interactive.

Features of MS PowerPoint

There are multiple features that are available in MS PowerPoint which can customize and optimize a presentation. The same have been discussed below.

- **Slide Layout**

Multiple options and layouts are available based on which a presentation can be created. This option is available under the "Home" section and one can select from the multiple layout options provided.

The image below shows the different slide layout options which are available for use:
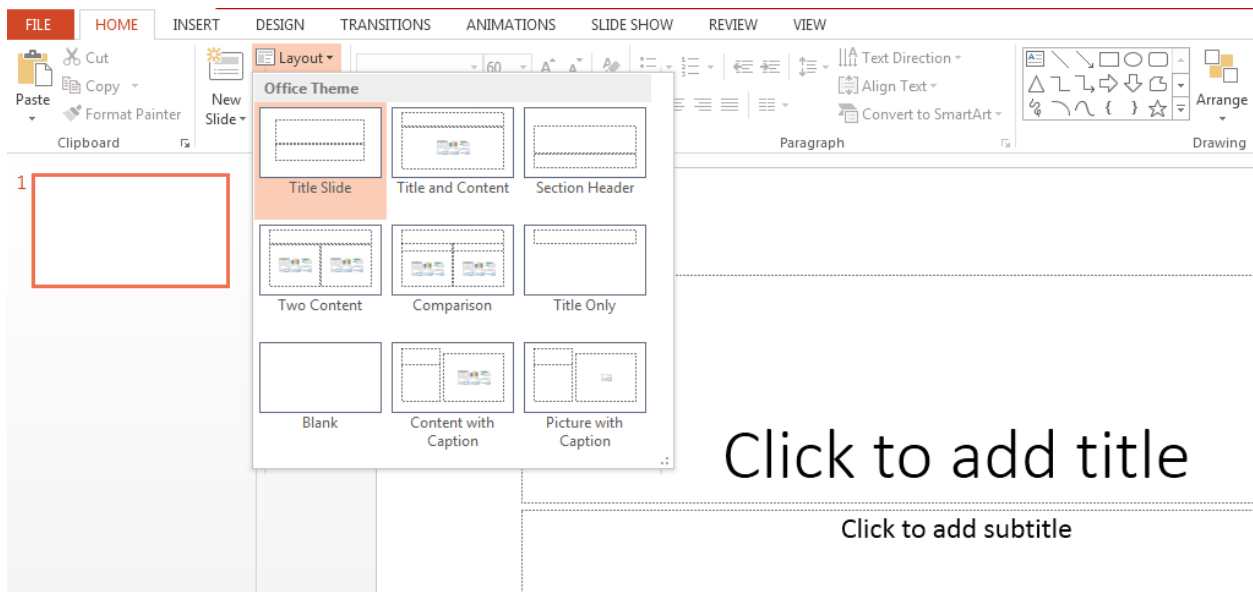
- **Insert – Clipart, Video, Audio, etc.**

Under the "Insert" category, multiple options are available where one can choose what feature they want to insert in their presentation. This may include images, audio, video, header, footer, symbols, shapes, etc.

The image below shows the features which can be inserted:
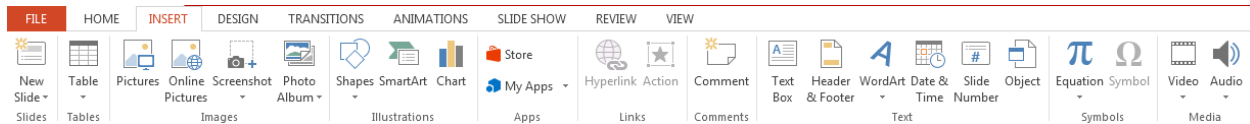
- **Slide Design**

MS PowerPoint has various themes using which background color and designs or textures can be added to a slide. This makes the presentation more colorful and attracts the attention of the people looking at it.

This feature can be added using the "Design" category mentioned on the homepage of MS PowerPoint. Although there are existing design templates available, in case someone wants to add some new texture or color, the option to customize the design is also available. Apart from this, slide designs can also be downloaded online.

Refer to the below for slide design:
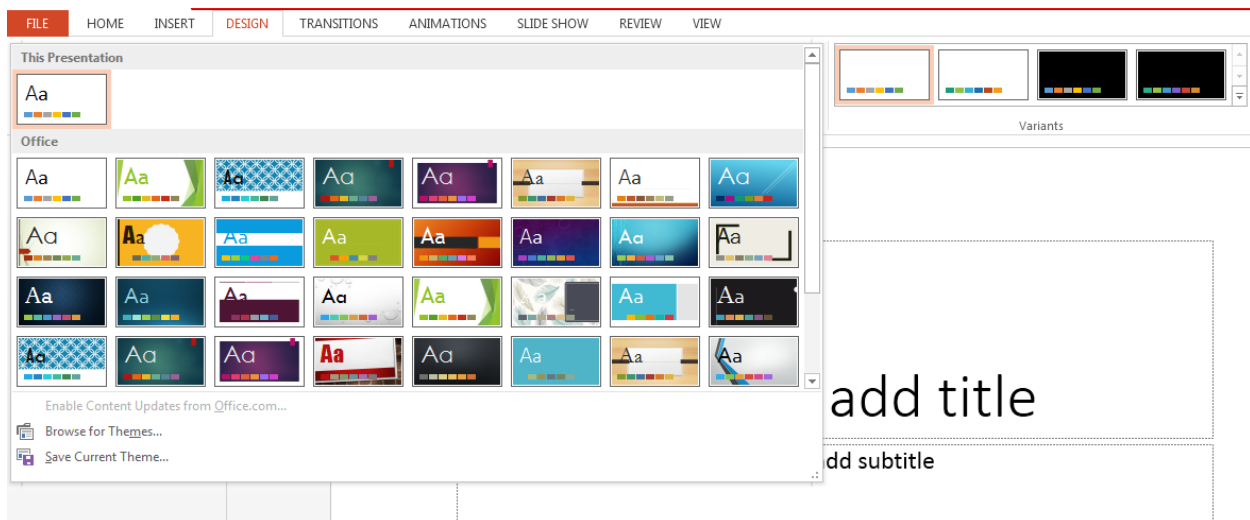
- **Animations**

During the slide show, the slides appear on the screen one after the other. In case, one wants to add some animations to the way in which a slide presents itself, they can refer to the "Animations" category.

The different animation styles available on PowerPoint are:
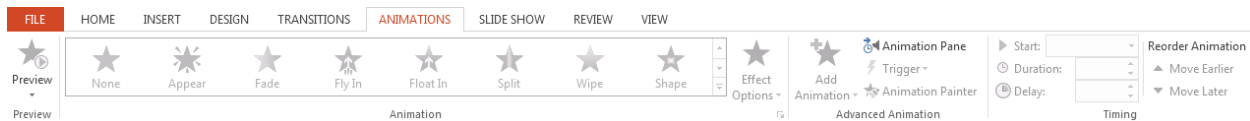
Apart from all these options; font size, font style, font color, word art, date and time, etc. can also be added to a PPT.

Uses of PowerPoint Presentation

PowerPoint presentations are useful for both personal and professional usage. Given below are a few of the major fields where PPT is extremely useful:

- **Education –** With e-learning and smart classes being chosen as a common mode of education today, PowerPoint presentations can help in making education more interactive and attract students towards the modified version of studying
- **Marketing –** In the field of marketing, PowerPoint presentations can be extremely important. Using graphs and charts, numbers can be shown more evidently and clearly which may be ignored by the viewer if being read
- **Business –** To invite investors or to show the increase or decrease in profits, MS PowerPoint can be used
- **Creating Resumes –** Digital resumes can be formed using MS PowerPoint. Different patterns, photograph, etc. can be added to the resume
- **Depicting Growth** – Since both graphics and text can be added in a presentation, depicting the growth of a company, business, student's marks, etc. is easier using PPT

WORKING OF POWER POINT

- Create presentations from scratch or a template.
- Add text, images, art, and videos.
- Select a professional design with PowerPoint Designer.
- Add transitions, animations, and motion.
- Save to OneDrive, to get to your presentations from your computer, tablet, or phone.

- Share and work with others, wherever they are.

Create a presentation

1. Open PowerPoint.
2. In the left pane, select **New**.
3. Select an option:
   - To create a presentation from scratch, select **Blank Presentation**.
   - To use a prepared design, select one of the templates.
   - To see tips for using PowerPoint, select **Take a Tour**, and then select **Create**, .
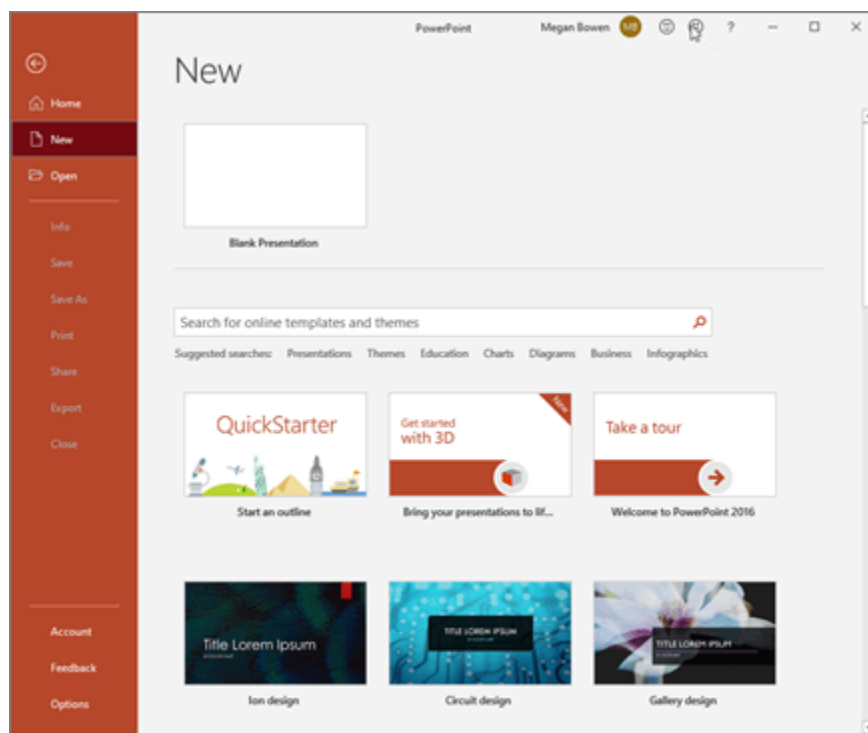
Add a slide

1. In the thumbnails on the left pane, select the slide you want your new slide to follow.
2. In the **Home** tab, in the **Slides** section, select **New Slide**.
3. In the **Slides** section, select **Layout**, and then select the layout you want from the menu.
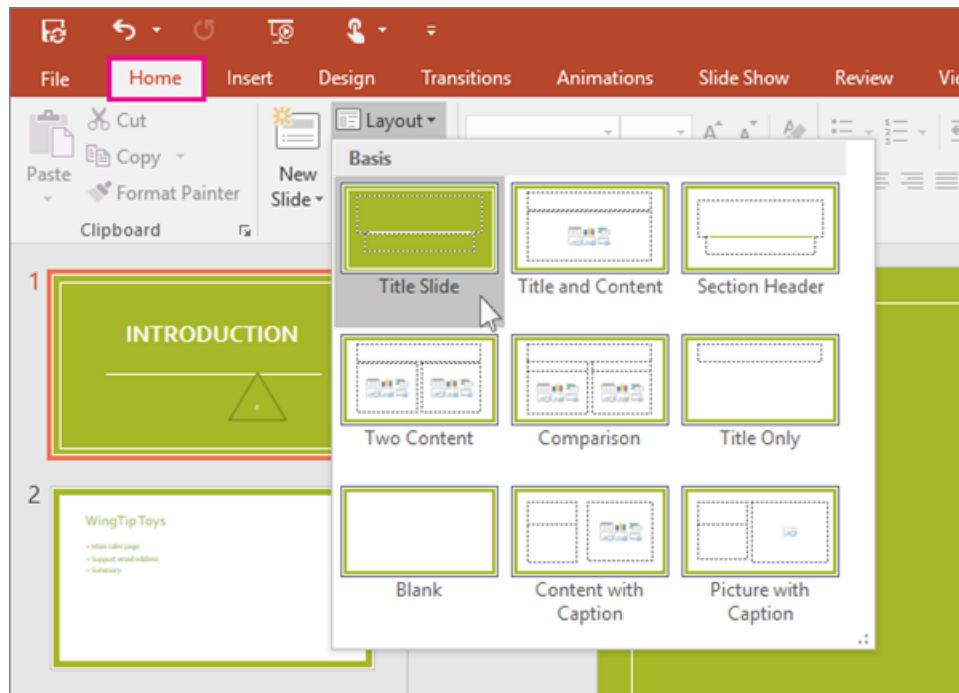
Add and format text

1. Place the cursor inside a text box, and then type something.
2. Select the text, and then select one or more options from the **Font** section of the **Home** tab, such as **Font**, **Increase Font Size**, **Decrease Font Size**, **Bold**, **Italic**, **Underline**, etc.
3. To create bulleted or numbered lists, select the text, and then select **Bullets** or **Numbering**.
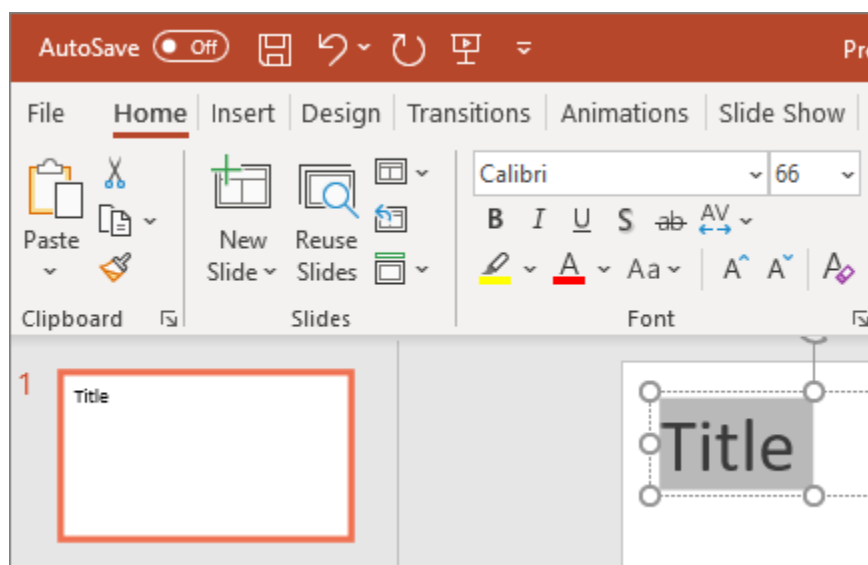
Add a picture, shape, and more

1. Go to the **Insert** tab.
2. To add a picture:
    o In the **Images** section, select **Pictures**.
    o In the **Insert Picture From** menu, select the source you want.
    o Browse for the picture you want, select it, and then select **Insert**.
3. To add illustrations:
    o In the **Illustrations** section, select **Shapes**, **Icons**, **3D Models**, **SmartArt**, or **Chart**.
    o In the dialog box that opens when you click one of the illustration types, select the item you want and follow the prompts to insert it.

STANDARD TOOLBAR

This toolbar contains buttons to allow you to perform the basic operations such as opening and closing presentations, moving and printing data.

	New - Creates a new, blank file based on the default template. (Ctrl + N).
	Open - Displays the **(File > Open)** dialog box. (Ctrl + O).
	Save - Saves the active presentation Displays the **(File > Save As)** dialog box the first time a presentation is saved. (Ctrl + S).
	Permission - (Added in 2003)
	E-mail - Emails the active presentation as an attachment.
	Search - (Removed in 2003). Finds files, Web pages, and Outlook items based on the search criteria you enter.

|	
	Print - Prints the active presentation.
	Print Preview - Displays the **(File > Print Preview)** dialog box.
	Spelling - Displays the **(Tools > Spelling)** dialog box. (F7).
	Research - (Added in 2003). Displays the Research Task Pane.
	Cut - Cuts the current selection to the clipboard. (Ctrl + X).
	Copy - Copies the current selection to the clipboard. (Ctrl + C).
	Paste - Pastes the entry from the clipboard. (Ctrl + V).
	Format Painter - Copies the format of the selected object or text to allow it to be pasted elsewhere.
	Undo - Undoes the last action you performed. (Ctrl + Z).
	Redo - Redoes the last action your performed. (Ctrl + Y).
	Insert Chart - Creates a chart by inserting a Microsoft Graph object.
	Insert Table - Inserts a table on to the current slide with the number of columns and rows you specify.
	Tables and Borders - Toggles the display of the Tables and Borders toolbar.
	Insert Hyperlink - Inserts a new hyperlink or edits the selected hyperlink. (Ctrl + K).
	Expand All - Displays the titles and all the body text for each slide (Outline pane). (Ctrl + Shift + 9).
	Show Formatting - Shows or hides character formatting (such as bold and italic) in normal view. In slide sorter

	view, switches between showing all text and graphics on each slide and displaying titles only.
	Show/Hide Grid - Displays or hides gridlines you can use to align objects precisely. The grid displays on the screen only; it does not print. (Shift + F9).
	Colour/Greyscale - Displays the presentation either in colour, greyscale or just blank and white.
	Zoom - Adjusts the size that the presentation appears on the screen.
	Microsoft PowerPoint Help - Displays the **(Help > Microsoft PowerPoint Help)** dialog box. (F1).

FORMATTING TOOLBAR

This toolbar contains drop-down boxes and buttons to allow you to format the objects on your slides

|	
	Font - Provides a list of all the available fonts (based on your current printer selection).
	Font Size - Lets you adjust the character size (based on your current font selection).
	Bold - Toggles bold on the current selection.
	Italic - Toggles italics on the current selection.

U	**Underline** - Toggles underline on the current selection.
S	**Shadow** - Toggles a shadow from the currently selected text.
≡	**Align Left** - Aligns data to the left edge of the cell.
≡	**Centre** - Aligns data in the centre of the cell.
≡	**Align Right** - Aligns data to the right edge of the cell.
≔	**Numbering** - Adds numbers to or removes numbers from selected paragraphs.
≔	**Bullets** - Adds bullets to or removes bullets from selected paragraphs.
A	**Increase Font Size** - Increases the font size of the selected text to the next larger size in the Font Size box.
A	**Decrease Font Size** - Decreases the font size of the selected text to the next smaller size in the Font Size box.
≔	**Decrease Indent** - Decreases or removes the indent.
≔	**Increase Indent** - Increases the indent.
A	**Font Colour** - Changes the colour of the text in the current selection.
✎	**Design** - Displays the Slide Design task pane, where you can select design templates, colour schemes, and animation schemes.
▣	**New Slide** - Inserts a new slide into the active presentation containing a tile and a text placeholder.

DRAWING TOOLBAR

Drawing Toolbar

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		Draw Drop-Down - Enables you to manipulate the placement of and the relationship between your drawing objects.
		Select Objects - This allows to select any drawn objects.
		AutoShapes Drop-Down - Displays a list of possible autoshapes that can be inserted. This is a drag toolbar.
		Line - Allows you to draw straight lines of any length. You can later adjust the width and the length of the line as well as adding arrowheads.
		Arrow - Allows you to draw straight lines with an arrowhead.
		Rectangle - Allows you to draw simple squares and rectangles.
		Oval - Allows you to draw elliptical shapes and true circles.
		Text Box - Inserts a textbox anywhere on the slide (document or worksheet).
		Insert WordArt - Allows you to insert text with a wide variety of fonts, colours and fill options.
		Insert Diagram - This includes organisation charts and business strategy diagrams.
		Insert Clip Art - Displays the Clip Art task pane.
		Insert Picture - Allows you to insert pictures from files.

	Fill Color - Allows you to change the fill colour of your cells or the solid colour of your shapes.
	Line Color - Allows you to change the line colours of your lines arrows and outlines.
	Font Color - Allows you to change the font colour of the text within your worksheet and within shapes.
	Line Style - Allows you to change the line weight and line styles for any lines.
	Dash Style - Allows you to change the line to a dash, dotted or a combination of the two.
	Arrow Style - Allows you to turn a line into an arrow letting you choose from 10 styles of arrows.
	Shadow Style - Allows you to change the light source and angle of your shadows. Apply a shadow can be used to create depth and can be applied to both shapes and lines.
	3D Style - Allows you to add sides as well as depth to your objects for a true 3D effect.

Draw Drop-Down (in PowerPoint)
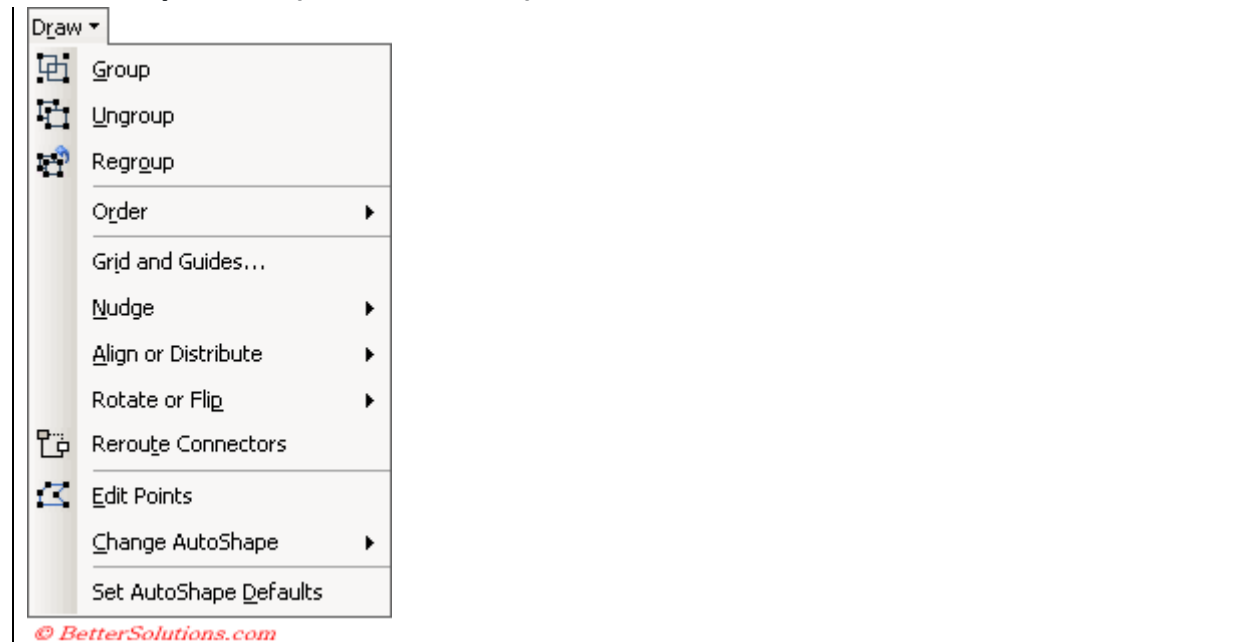
Group - Groups the selected objects so they can be treated as a single object.

Ungroup - Ungroups the selected object into its individual objects.

Regroup - Regroups the objects back to a single object.

Order - Lets you change the display order of the object, either Bring to Front, Send to Back, Bring Forward or Send Backward.

Grid and Guides -

Nudge -

Align or Distribute -

Rotate or Flip -
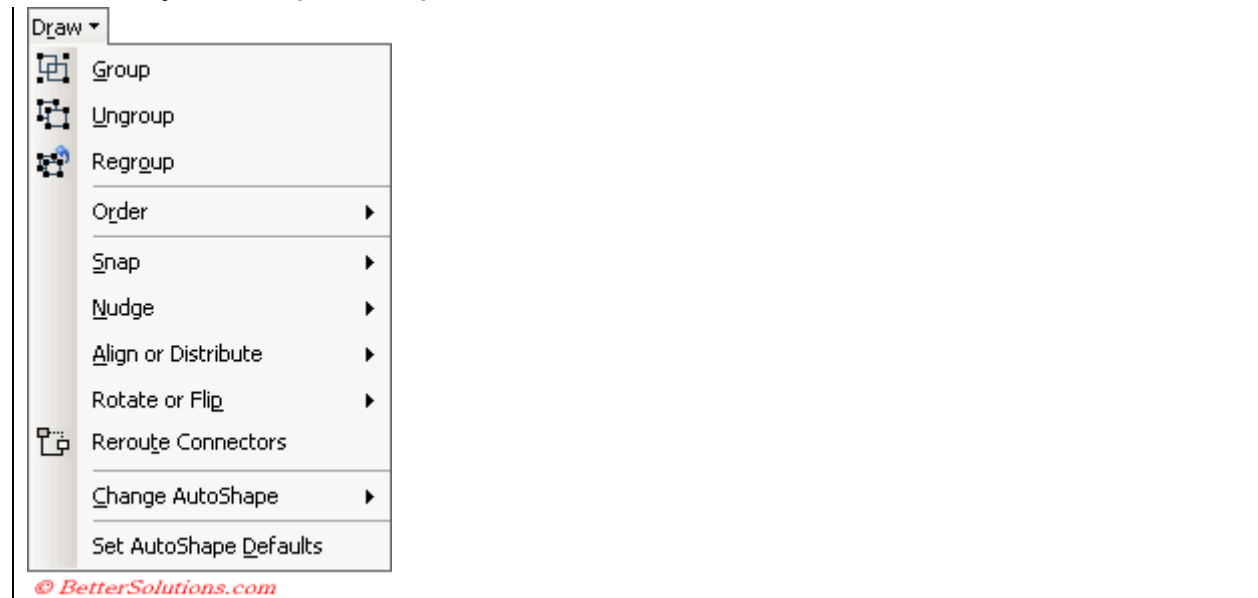
Reroute Connectors -

Edit Points -

Change Auto shape -

Set AutoShape Defaults

Draw Drop-Down (in Excel)

Group - see above

Ungroup - see above

Regroup - see above

Order - see above

Snap - (Excel only)

Nudge - see above

Align or Distribute - see above

Rotate or Flip - see above

Reroute Connectors - see above

Change Auto shape - see above

Set AutoShape Defaults - see above

Draw Drop-Down (in Word)

Draw ▾
- Group
- Ungroup
- Regroup
- Order ▶
- Grid...
- Nudge ▶
- Align or Distribute ▶
- Rotate or Flip ▶
- Text Wrapping ▶
- Reroute Connectors
- Edit Points
- Change AutoShape ▶
- Set AutoShape Defaults

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Group - see above

Ungroup - see above

Regroup - see above

Order - see above

Grid - (Word only)
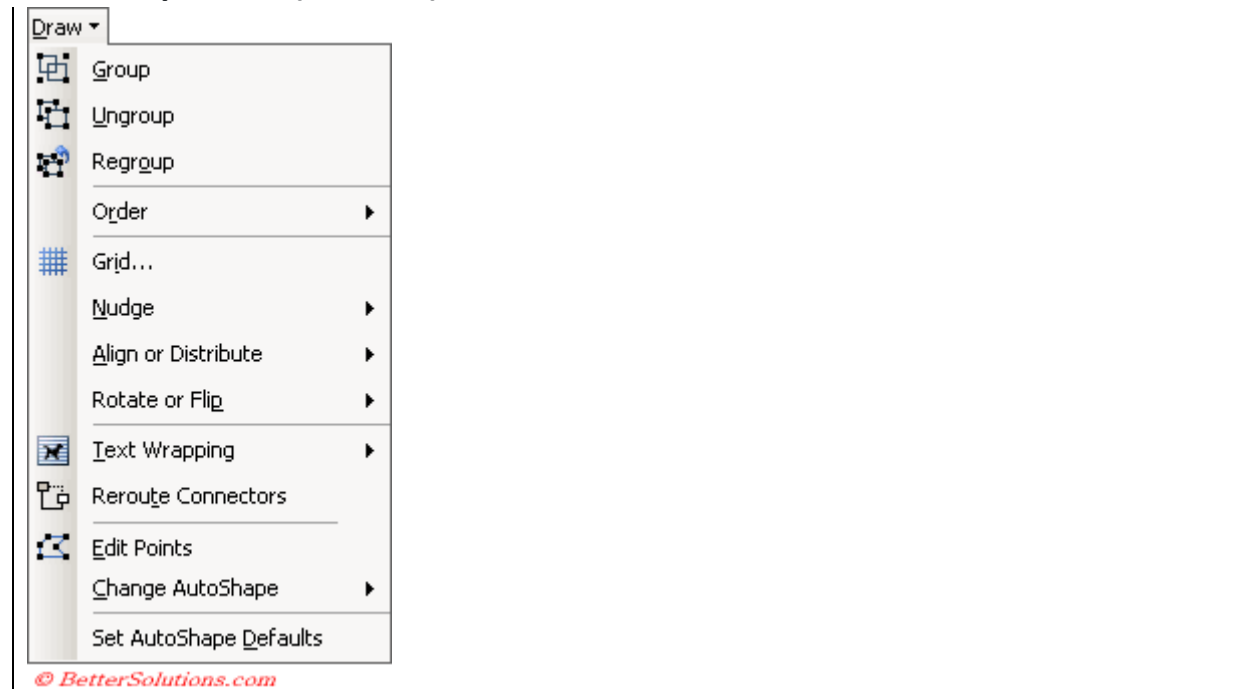
Nudge - see above

Align or Distribute - see above

Rotate or Flip - see above

Text Wrapping - (Word only)

Reroute Connectors - see above

Edit Points -

Change Auto shape - see above

Set AutoShape Defaults - see above

AutoShapes Drop-Down

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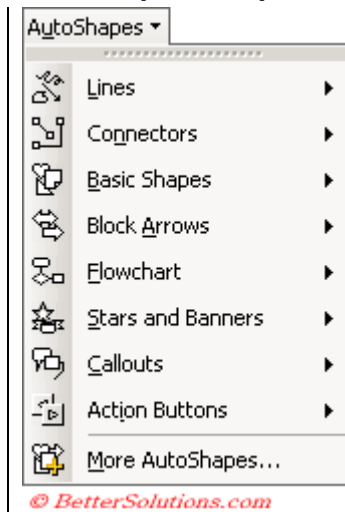
Lines -
Connectors -
Basic Shapes -
Block Arrows -
Flowchart -
Stars and Banners -
Callouts -
Action Buttons - (PowerPoint only)
More AutoShapes -

MOVING THE FRAME

After you have inserted the object, you can change it in many ways. Make sure it is selected (click on it once) to do the following:

The first three options will work with photos/images as well as shapes.

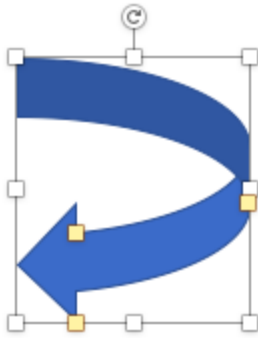**To move it,** click on it, hold, and then drag it to the desired location.

To resize it, click and drag one of the little squares that appear in the corners. Hold down the **Shift** key before you start dragging the corner to keep the image proportionate. Note that depending on the file type, your image may become distorted if you make it bigger.

To rotate the image/shape, click and drag on the circle at the top.
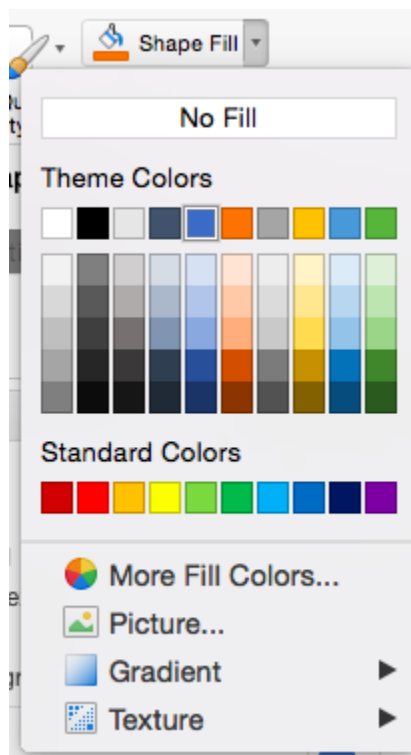
To modify the proportions of a shape, click, hold, and drag one of the yellow squares that appear on the shape.

**To change the color (inside or out)**, use the appropriate Fill (inside) or Outline (line around the image) options in the Shape (or Picture) Format Ribbon or at the right of the Home Ribbon. If you want just the outline of a shape, choose *No fill* from the dropdown menu.
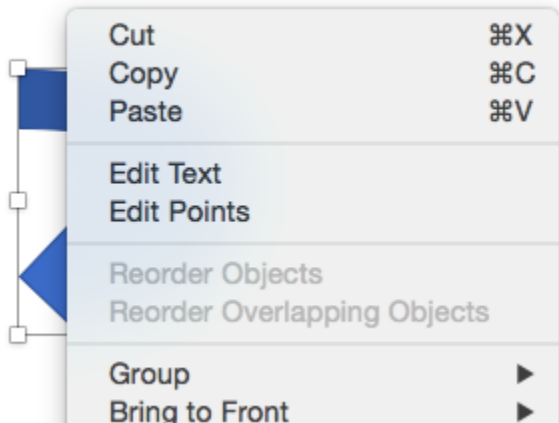
To add text to a shape, right-click and choose **Edit Text**…. A cursor appears in the shape - start typing. The text will automatically fit inside the shape. To edit or modify the text (color, size, font, etc.), highlight the text and make the change.

To connect lines between objects, choose a line from the Shapes icon, move your cursor over the object until you see green circles on the edge of the shape. Click and hold on the green circles, drag a line to the other object until you see a green circle again, and then let go of the mouse button.
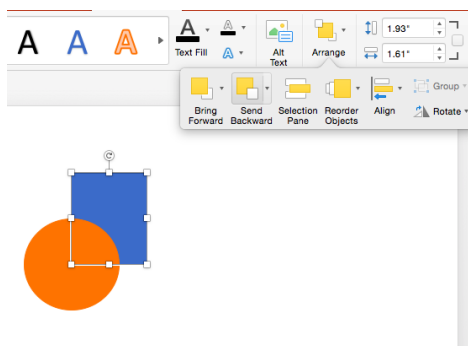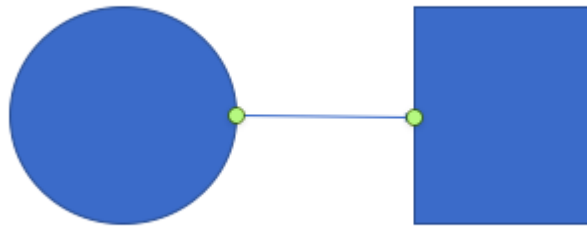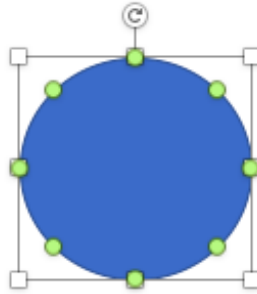
To change the order of the objects, click on the Bring Forward or Send Backward icon in the **Arrange Group** of the Picture (or Shape) Format Ribbon – use the arrow next to the icon for more options.

To group objects together, select one, hold down the *Shift* key on the keyboard and select the other(s), then click on the Group icon in the **Arrange Group** of the Picture (or Shape) Format Ribbon. When moved, resized, or animated, grouped objects act as one.

To crop the image/shape, click the Crop icon in the Picture Format Ribbon. Cropping handles will appear – move these by clicking and dragging, and the

image will automatically be cropped. Note that unlike a program like Photoshop, the cropped portion of the image is still in the document unless you compress the image (as described below). You can get the cropped area back by clicking the Reset Picture icon in the **Adjust Group**.
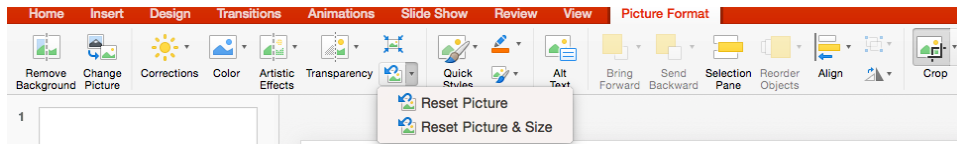
To compress the image/shape, click the Compress Pictures icon – this will make your presentation file size smaller. If you have cropped an image, the cropped area is now gone permanently.

To make the background of an image transparent, so it blends to your background, click on the image and go to the Picture Tools Format Ribbon.

Click on the Remove Background icon, then PowerPoint will guess which part of the image to remove (shown below in purple), and bring up the Background Removal Ribbon. This Ribbon allows you to make adjustments to the area that will be removed. This tool does well with single color removal, but it can also work on more complicated backgrounds as well.

You can play with the brightness, contrast, and color using the options in the **Adjust Group** or modify the shape, border and effect in the **Picture Styles Group**.

Another tool is Artistic Effects, found in the **Adjust Group**. Move your mouse over preset effects to preview how they would look on your image, and then click on it to apply it.

INSERTING CLIP ART

Select Insert > Pictures > Online Pictures.

1. Type a word or phrase to describe what you're looking for, then press Enter.
2. Filter the results by Type for Clipart.
3. Select a picture.
4. Select Insert.

INSERTING A PICTURE

Depending on which version of PowerPoint you're using, you can insert pictures, photos, clip art, or other images to your slide show from your computer or from the Internet.

1. Click where you want to insert the picture on the slide.
2. On the **Insert** tab, in the **Images** group, click **Pictures** and then click **This Device**.
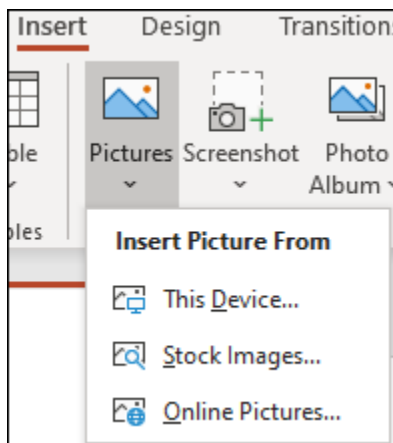
3.
4. In the dialog box that opens, browse to the picture that you want to insert, click that picture, and then click **Insert**.
5. **Tip:** If you want to insert multiple pictures at the same time, press and hold the Ctrl key while you select all the pictures you want to insert.

6. Insert stock images on your slide
7. Click where you want to insert the picture on the slide.
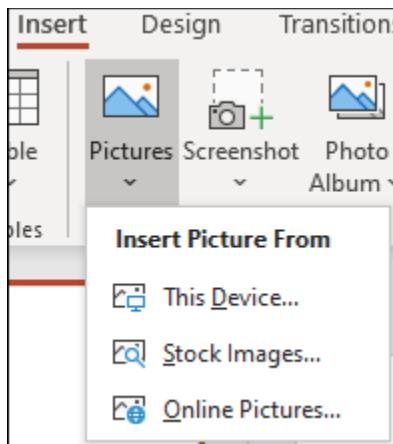8. On the **Insert** tab, in the **Images** group, click **Pictures** and then click **Stock Images**.
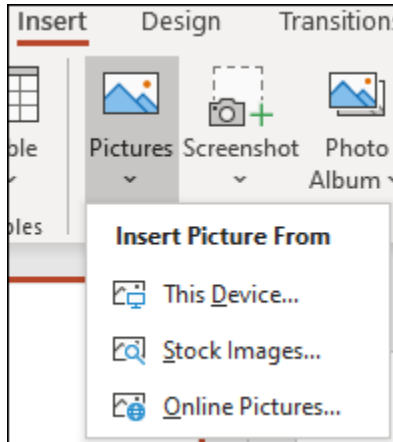
9.
10. Type in what image you're looking for, then click on which images you want and click **Insert**.

11. Insert a picture from the web on your slide
12. Click where you want to insert the picture on the slide.
13. On the **Insert** tab, in the **Images** group, click **Pictures** and then click **Online Pictures**.

14.
15. **Tips:**
16. If you see a message that "The service required to use this feature is turned off" you may need to check your privacy settings located at **File**>**Account**>**Account Privacy** and then click on **Manage Settings**. Check the **Enable optional connected experiences** box, click OK, and then restart PowerPoint.

17. If you don't have access to your privacy settings you may need to contact your administrator.
18. In the search box type in the image you're looking for and press enter.
19. Select all the images you want and then click **Insert**.
20. **Tip:** After you insert a picture, you can change its size and position. To do so, right-click the picture, and click **Format Picture**. You can then use the **Format Picture** tools that are on the right of your slide.

Insert a picture into the slide master
If you want a picture to appear on every slide of a specific type in your PowerPoint template, add it to the slide master.

Insert a picture into the background
If you want a picture to appear as background without affecting all slides in a Master, change the background settings for the slide.

INSERT SLIDE

Add, rearrange, duplicate, and delete slides in PowerPoint
When creating your presentation, you'll typically add new slides, move your slides around, and delete the slides you don't need.

[**WindowsmacOSWeb**](#)

Add slides
1. Select the slide you want your new slide to follow.
2. Select **Home** > **New Slide**.
3. Select a layout.
4. Select the text box and type.

Delete slides
1. For a single slide: Right-click the slide in the thumbnail pane on the left, and select **Delete Slide**.
2. For multiple slides: Press and hold Ctrl, and in the thumbnail pane on the left, select the slides. Release the Ctrl key. Then right-click the selection and choose **Delete Slide**.

3. For a sequence of slides: Press and hold Shift, and in the thumbnail pane on the left, select the first and last slides in the sequence. Release the Shift key. Then right-click the selection and choose **Delete Slide**.

Duplicate a slide

In the thumbnail pane on the left, right-click the slide thumbnail that you want to duplicate, and then click **Duplicate Slide**. The duplicate is inserted immediately after the original.

Rearrange the order of slides
In the pane on the left, click the thumbnail of the slide that you want to move, and then drag it to the new location.

To select multiple slides: Press and hold Ctrl, and in the pane on the left, click each slide that you want to move. Release the Ctrl key, and then drag the selected slides as a group to the new location.

TEXT STYLING

Add text
1. Select a text placeholder or box.
2. Type in the text you want.

Format text
When you select text and choose a format, hover over a menu option to see a live preview in your slide.

Format options include:

- **Font Color** - Choose a font color for your text.
- **Numbering** or **Bullets** - Create a list using numbers or bullets.
- **Add or Remove Columns** - Add or remove columns in your text.
- **Text Direction** - Change the direction of text.
- **Align Text** - Connect your text to the top, middle, or bottom of a bounding box.
- **Align Left**, **Center**, **Align Right**, or **Justify** - Align your text the way you want.
- **Increase List Level** or **Decrease List Level** - Increase or decrease a list inden

SEND TO BACK

Send to Back > Send Backward - **to move the object behind, or in back of another object**.

When you add pictures, shapes, and graphics, they can overlap. Change the way objects overlap in PowerPoint using **Send to Back** and **Bring to Front** to change the stacking order. And use the **Selection Pane** to find hidden objects.

Move an object to the back or front
1. Select the object.
2. Right-click and select an option:
    - **Bring to Front** - to move the object in front of all other objects.
    - **Send to Back** - to move the object behind all other objects.
3. Or, to move an object in-between layers:
    - **Bring to Front** > **Bring Forward** - to move the object in front of another object.
    - **Send to Back** > **Send Backward** - to move the object behind, or in back of another object.

Use the Selection Pane to find hidden objects
1. If an object is hidden behind other objects, select **Home** > **Select** > **Selection Pane**.
2. In the **Selection Pane**, reorder the objects how you want. The front object is listed at the top. You can turn objects off/on by selection the "open eye" icon or lock them
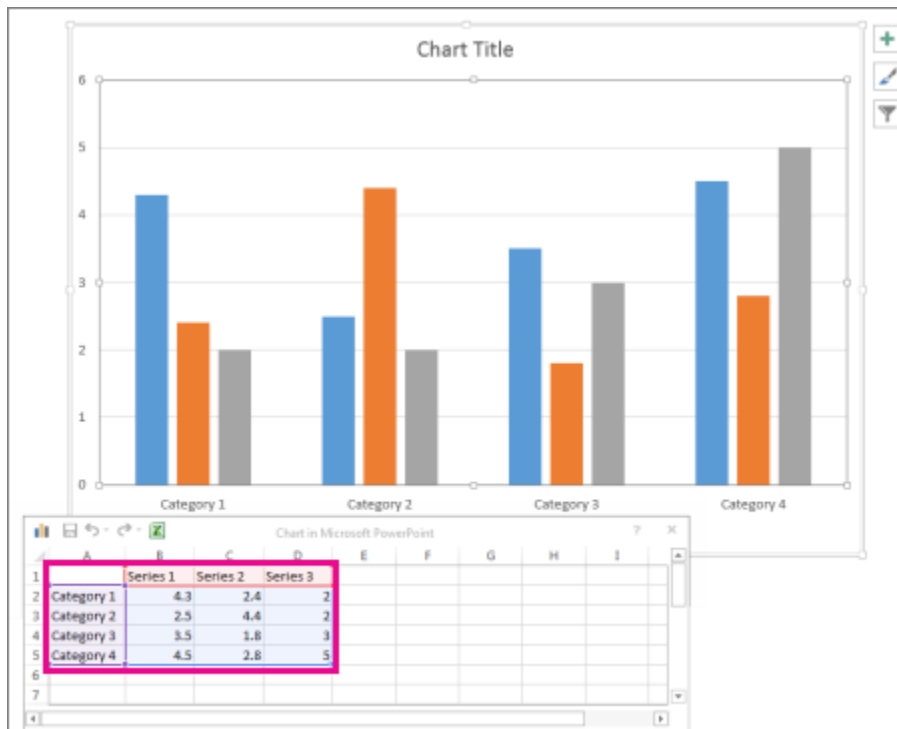

ENTERING DATA TO GRAPH

1. Click **Insert** > **Chart**.
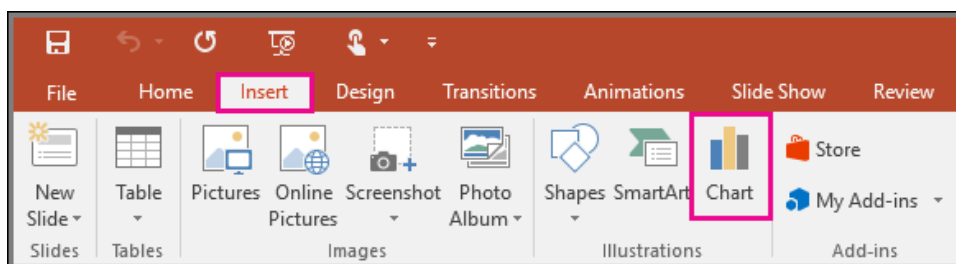
2.
3. Click the chart type and then double-click the chart you want.
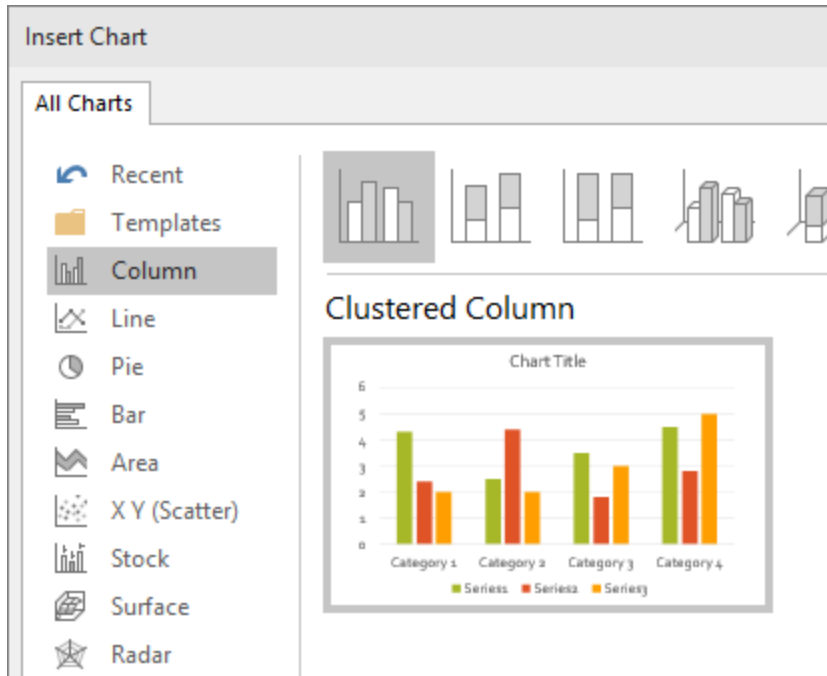
4.

5. **Tip:** For help deciding which chart is best for your data, see [Available chart types](#).

6. In the worksheet that appears, replace the placeholder data with your own information.
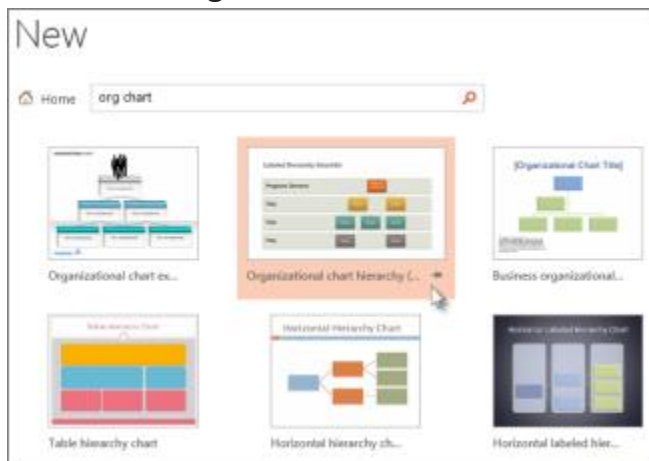

7.

8. When you insert a chart, small buttons appear next to its upper-right corner. Use the **Chart Elements** ➕ button to show, hide, or format things

like axis titles or data labels. Or use the **Chart Styles** button to quickly change the color or style of the chart
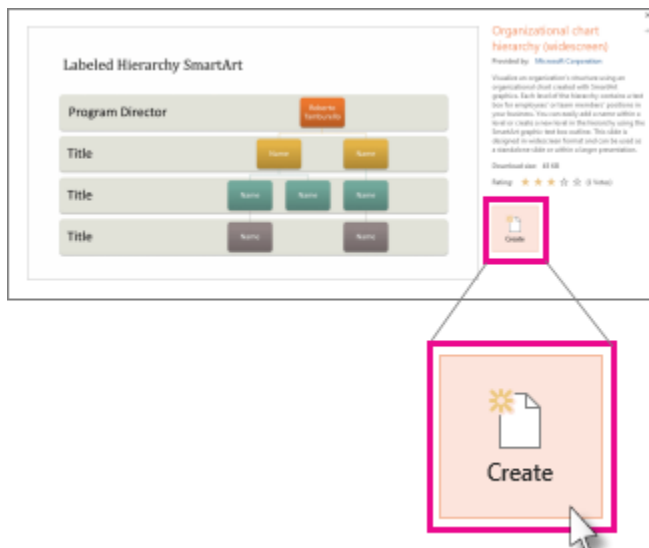
ORAGANIZATION CHART

Get the template for a chart

1. In PowerPoint, on the **File** tab, click **New**.
2. In the **Search for online templates and themes** box, type org chart, and then click 🔍 .
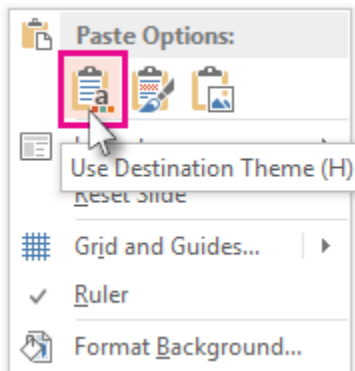3. Choose an org chart from the search results.
4.
5. Many aspects of the chart can be customized, so don't hesitate to pick one just because of its color or layout.
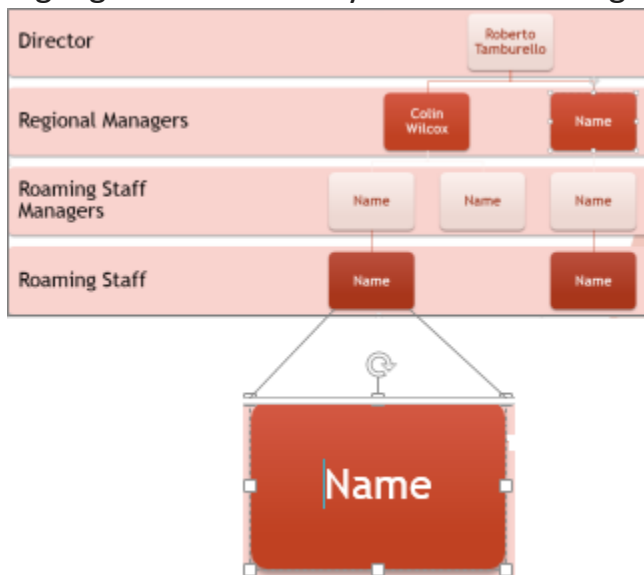6. Click **Create**.
7.

8. If you copy and paste the org chart slide into another presentation, to match the destination presentation's format, in **Paste Options**, be sure to choose **Use the Destination Theme**.

9.
10. To replace the placeholder text with your own, click inside each shape, highlight the text that you want to change, and then type your text.

11.
12. Customize the org chart
13. (Optional) To apply a different color and design scheme to the entire template you've opened, select the **Design** tab on the ribbon, and choose a theme from the gallery of themes.
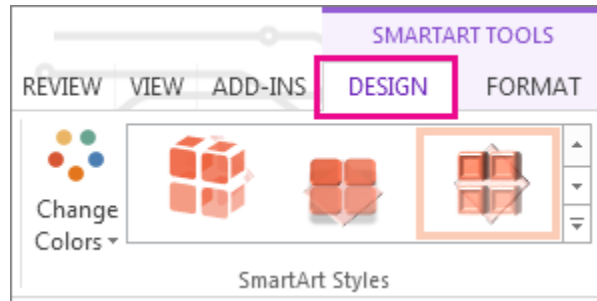

14.

15. Click a shape in the org chart and when **SmartArt Tools** appear on the ribbon, click either the **Design** or **Format** tab.
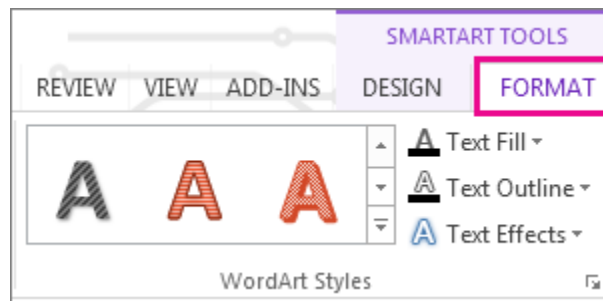16. Do one or more of the following:
    o On the **Design** tab:
    o

      ▪ Add more shapes to your org chart (to contain more names) or move shapes around in the **Create Graphic** group.
      ▪ Change the style of the org chart in the **SmartArt Styles** group.
      ▪ Change the org chart colors by clicking **Change Colors**.
      ▪ Change the layout of the org chart in the **Layouts** group.
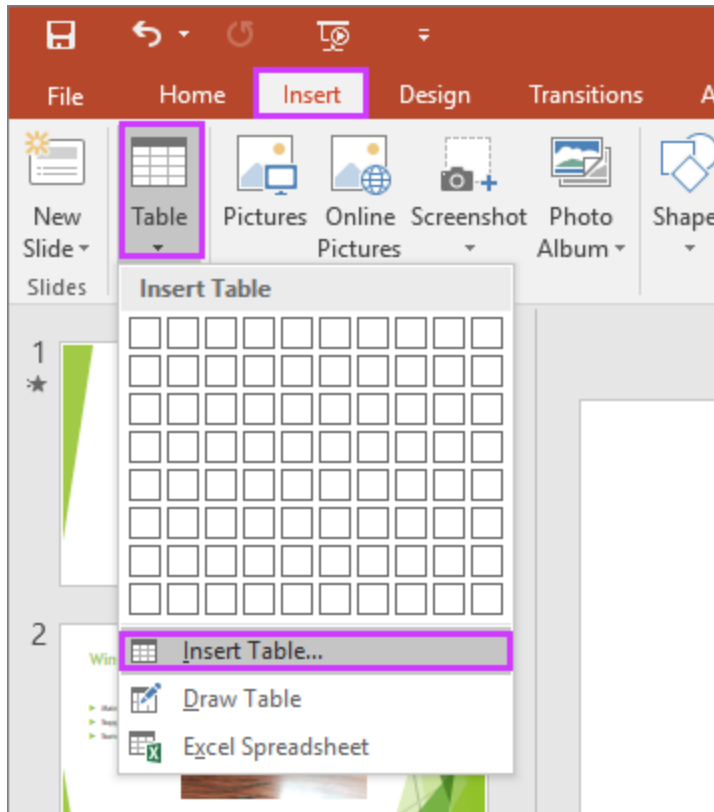   o On the **Format** tab:
   o

      ▪ Reformat the text in the **WordArt Styles** group.
      ▪ Change the shapes in the Shape Styles group.
      ▪ Rearrange the shapes in your org chart in the **Arrange** group.
      ▪ Change the size of a shape in the **Size** and **Shapes** groups.

TABLE

1. Select the slide that you want to add a table to.
2. On the **Insert** tab, select **Table**.

3.

4. In the **Insert Table** dialog box, do one of the following:

   o Use the mouse to select the number of rows and columns that you want.

   o Select **Insert Table**, and then enter a number in the **Number of columns** and **Number of rows** lists.

   o
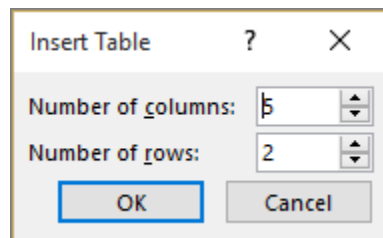
5. To add text to the table cells, click a cell, and then enter your text. After you enter your text, click outside the table.

   Tips:

   o To quickly insert a new row at the end of a table, click inside the last cell of the last row, and then press TAB.

   o To add rows or columns, right-click a cell, click **Insert** on the mini toolbar, and choose where you'd like to insert the row or column.

- To delete rows or columns, right-click a cell, click **Delete** on the mini toolbar, and choose what you'd like to delete.

TEMPLATE

1. Select **File** > **New**.
2. Choose a template or type a key word or phrase into the **Search for online templates and themes** field, and press Enter.
3. When you find the template that you want, select it to see the details, and then select **Create**.

MASTER SLIDE

When you want all your slides to contain the same fonts and images (such as logos), you can make those changes in one place—the Slide Master, and they'll be applied to all your slides. To open Slide Master view, on the **View** tab, select **Slide Master**:
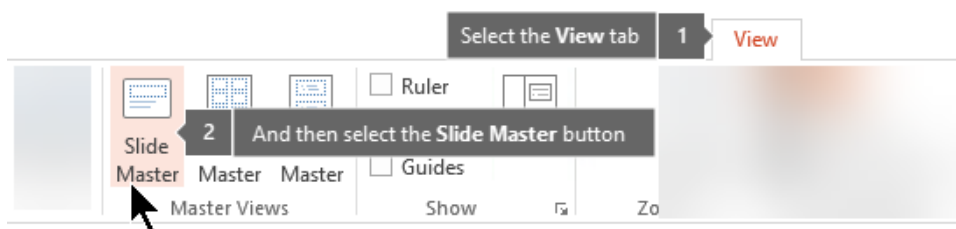
The master slide is the top slide in the thumbnail pane on the left side of the window. The related layout masters appear just below the slide master (as in this picture from PowerPoint for macOS):
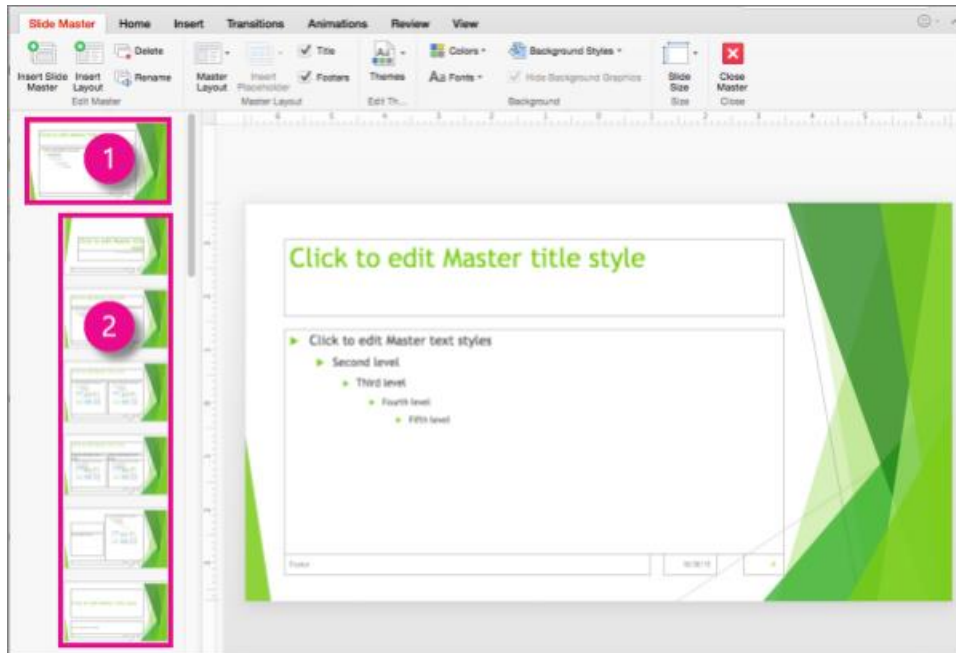
1 Slide master

2 Layout masters

When you edit the slide master, all slides that are based on that master will contain those changes. However, the majority of changes that you make will most likely be to the layout masters related to the master.

When you make changes to layout masters and the slide master in Slide Master view, other people working in your presentation (in Normal view) can't accidentally delete or edit what you've done. Conversely, if you're working in Normal view and find that you're unable to edit an element on a slide (such as, "why can't I remove this picture?") it may be because the thing you're trying to change is defined on the slide master or a layout master. To edit that thing, you must switch to Slide Master view.

Note: It's a good idea to edit your slide master and layout masters *before* you start to create individual slides. That way, all the slides that you add to your presentation are based on your custom edits. If you edit the slide master or layout masters *after* you create individual slides, you'll need to reapply the changed layouts to the existing slides in your presentation in Normal view.

Themes

A theme is a palette of colors, fonts, and special effects (like shadows, reflections, 3-D effects, and more) that complement one another. A skilled designer created each theme in PowerPoint. We make those pre-designed themes available to you on the **Design** tab in Normal view. You can also get more themes from templates.office.com.

Every theme you use in your presentation includes a slide master and a related set of layouts. If you use more than one theme in your presentation, you'll have more than one slide master and multiple sets of layouts.
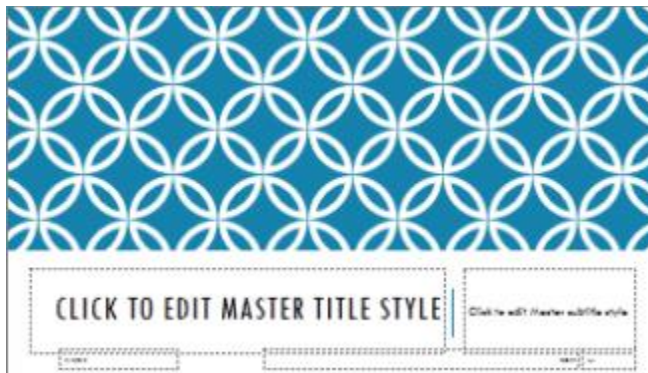

Slide Layouts

You change and manage slide layouts in Slide Master view. Every theme has a several slide layouts. You choose the layouts that best match your slide content; some are better for text and some are better for graphics.

In Normal view, you'll apply the layouts to your slides (shown below).
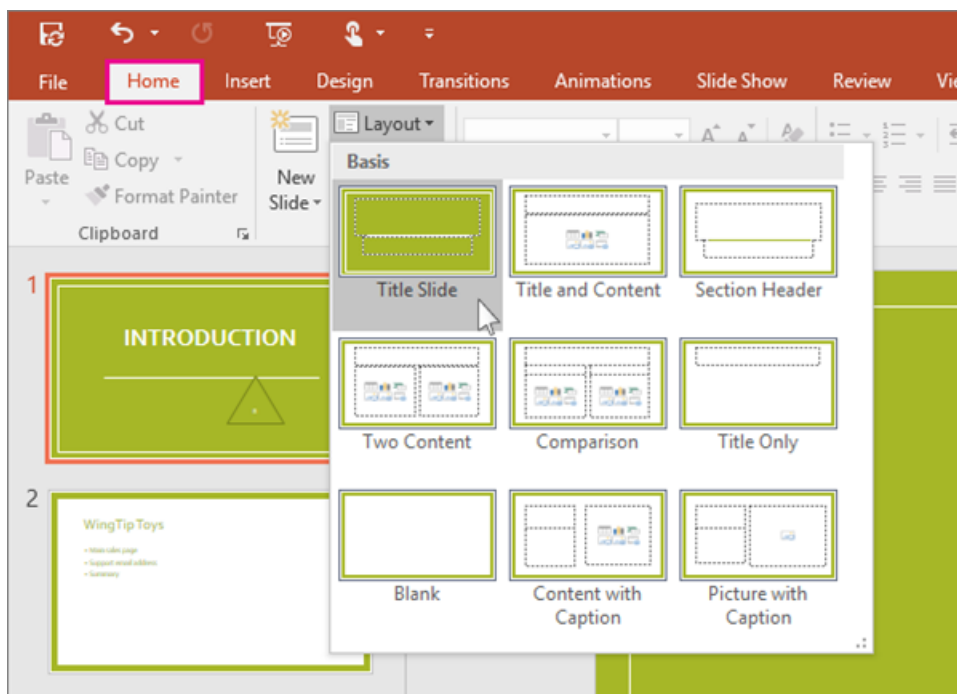
Each slide layout is set up differently — with different types of placeholders in different locations on each layout.

Every slide master has a related slide layout called **Title Slide Layout**, and each theme arranges the text and other object placeholders for that layout differently, with different colors, fonts and effects. The following pictures contrast the title slide layouts for two themes: first the **Basis** theme and then the **Integral** theme.

You can change anything about a layout to suit your needs. When you change a layout master and then go to Normal view, every slide you add after that time that's based on that layout will reflect the changed look of the layout. However, if there are existing slides in your presentation that are based on the prior version of the layout, you'll need to reapply the layout to those slides. (For instructions, see Edit and re-apply a slide layout.)

ANIMATION SETTING

Add animations and effects
16. Select the object or text you want to animate.
17. Select **Animations** and choose an animation.

18.Select **Effect Options** and choose an effect.

Manage animations and effects

There are different ways to start animations in your presentation:

- **On Click** - Start an animation when you click a slide.
- **With Previous** - Play an animation at the same time as the previous animation in your sequence.
- **After Previous** - Start an animation immediately after the previous one happens.
- **Duration** - Lengthen or shorten an effect.
- **Delay** - Add time before an effect runs.

Add more effects to an animation
1. Select an object or text with an animation.
2. Select **Add Animation** and choose one.

Change the order of animations
1. Select an animation marker.
2. Choose the option you want:
   - **Move Earlier** - Make an animation appear earlier in the sequence.
   - **Move Later** - Make an animation occur later in the sequence.

Add animation to grouped objects
You can add an animation to grouped objects, text, and more.

1. Press Ctrl and select the objects you want.
2. Select **Format** > **Group** > **Group** to group the objects together.
3. Select **Animations** and choose an animation.

SAVING PRESENTATION

Save your presentation

- Click **FILE** > **Save**, pick or browse to a folder, type a name for your presentation in the **File name** box, and click **Save**.
- Save your work as you go. Hit Ctrl+S often.

AUTO CONTENT WIZARD

This wizard is useful for certain categories of presentations particularly business-related presentations.

Provides templates and ideas for a wide variety of different types of presentation.

PowerPoint will create a number of slides for you and will suggest content relevant to that specific type of presentation.

This wizard helps you determine the content and organization of your presentation by using an outline.

The AutoContent Wizard leads you through a series of questions so you can choose the best layout for your presentation.

The Wizard supplies not only the design but also ideas, starter text, formatting and organization.

The color scheme and the background color will be selected for you although you can change this afterwards.

A very easy way to get started is to use the AutoContent wizard.

The easiest way to create your first presentation is to use the AutoContent Wizard.

Start

Select (File > New) to display the New Presentation task pane and click on the AutoContent Wizard hyperlink.

This will ask you for some information such as your name, the tile of the presentation, type of the presentation

This wizard only creates an outline for common types of presentations.

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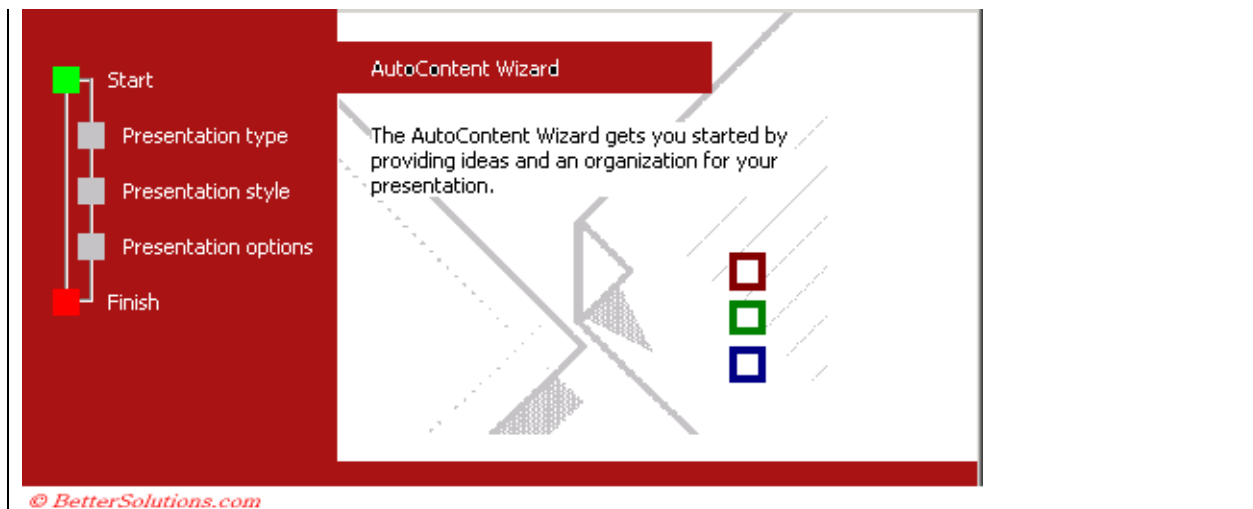
Presentation Type

Select the type of presentation you want that best describes the type of presentation you are going to give.

There are several sub topics to choose from under each category

There are a number of different categories to choose from or you can choose All to display the entire list.

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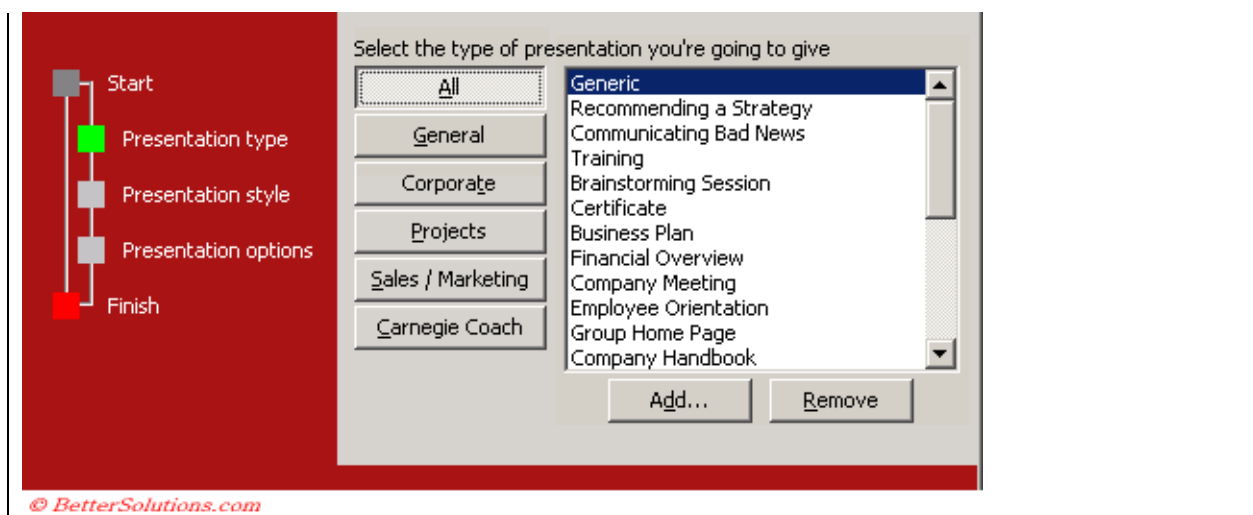
Presentation Style

Choose the type of output you want for the presentation.

Presentation Options

Enter a presentation title and footer

You can also include a footer which will be repeated at the bottom of every slide.

Finish

Select Finish to view the presentation.

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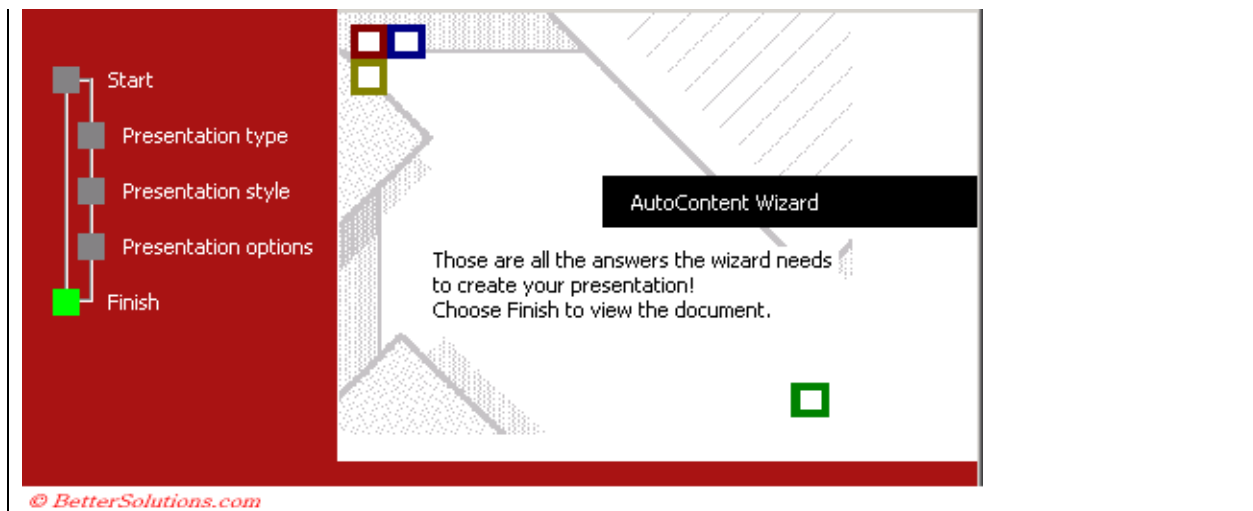
The presentation will be created and the sample content will be displayed.

Replace the suggestions for the content by clicking on each textbox in the slide pane

The suggestions given will guide you through the different sections of your presentation.

Replace the suggestions with your text.

The wizard populates the username into the subtitle box on the title slide. The name used is obtained from the information about the registered user although this can be overwritten from (Tools > Options)(General tab).

Suggestions on the points you might want to make are given on each slide and should be replaced with your own comments.

You should also change the slide titles as well if necessary.