



جامعة ستاردوم

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# advanced Computer Information System

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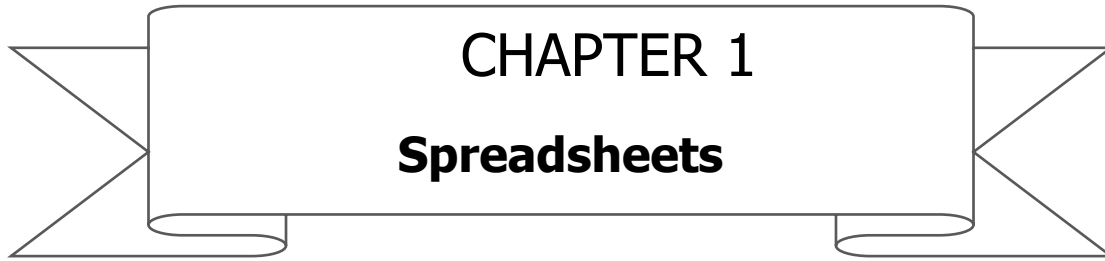
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# CHAPTER 1

## Spreadsheets

**The general objectives of this component are to equip students with the essential skills that**

**they need to create good quality spreadsheets during their studies, and the understanding of**

**Spreadsheet packages so that they can utilize it for data processing tasks during their studies**

**and in future.**

a) Recognize, open, modify, navigate, save and close a spreadsheet application file.

b) Identify the main components of a spreadsheet window.

c) Explain the basic uses of spreadsheets.

d) Create, Open, Save, and Close spreadsheets.

e) Use the help system effectively.

f) Identify and use the different menus and toolbars to set up the worksheets.

g) Demonstrate how to insert, store and manipulate data.

h) Demonstrate how to handle (Insert, rename, delete, duplicate, move etc.) worksheets.



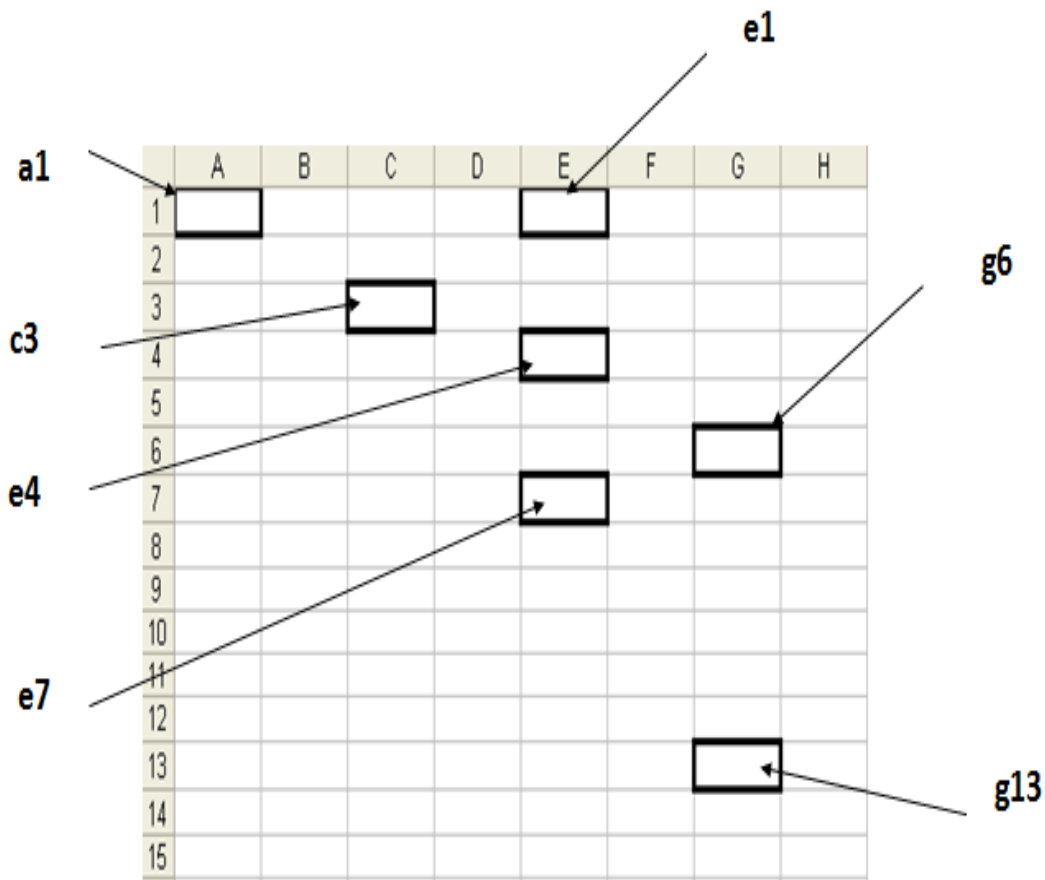
- i) Generate various formulas using built-in functions and use them appropriately and correctly to solve problems.
- j) Demonstrate the formatting of data, cells, rows and columns in a worksheet.
- k) Create and manipulate different types of charts/graphs on the worksheet data.
- l) Explain usage of formulas and functions in a worksheet.
- m) Explain generating various charts and graphs.
- n) Explain how to sort, link and consolidate spreadsheets.
- o) Demonstrate the understanding of various print options and how to print spreadsheets and charts after appropriate page set-up and pre-view.
- p) Demonstrate use of the edit (copy/cut/paste etc.) functions.
- q) Demonstrates the ability to reproduce a handwritten table as an electronic spreadsheet.
- r) Demonstrates the ability to perform basic analysis of data using graphs and charts.

## **Spreadsheets**

Excel files are called workbooks. Whenever you start a new project in Excel, you'll need to create a new workbook. There are several ways to start working with a workbook in Excel. You can choose to create a new workbook—either with a blank workbook or a predesigned template—or open an existing workbook.

### **Cell address**

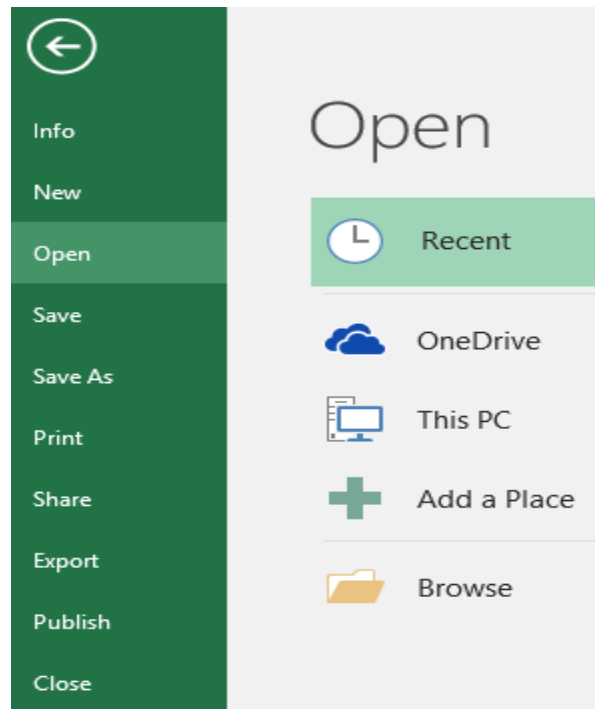
You can use the ADDRESS function to obtain the address of a cell in a worksheet, given specified row and column numbers.



**Open, Modify, navigate, save and close spreadsheet application file**

**To open spreadsheet**

1. File Menu
2. Open
3. Select Computer, then click Browse. Alternatively, you can choose OneDrive to open files stored on your OneDrive.
4. The Open dialog box will appear. Locate and select your workbook, then click Open.



## Modify and navigate spreadsheet

On a worksheet, you can specify a column width of 0 (zero) to 255. This value represents the number of characters that can be displayed in a cell that is formatted with the standard font. The default column width is 8.43 characters. If you set a column width to 0 (zero), the column is hidden.

You can specify a row height of 0 (zero) to 409. This value represents the height measurement in points (1-point equals approximately 1/72 inch or 0.035 cm). The default row height is 12.75 points (approximately 1/6 inch or 0.4 cm). If you set a row height to 0 (zero), the row is hidden.

## Data types in MS Excel

There are three kinds of data in MS Excel:

### 1 - Text

For example: John, Fatima, Salary....



## 2 – Number

For example: 13, -11, +105 ....

## 3 – Formulas

For example: =50 + 2000, =a4 \* b2, c10-c9+c8/b2...

While you can create simple formulas in Excel using numbers (for example, =2+2 or =5\*5), most of the time you will use cell addresses to create a formula. This is known as making a cell reference. Using cell references will ensure that your formulas are always accurate because you can change the value of referenced cells without having to rewrite the formula.

In the formula below, cell A3 adds the values of cells A1 and A2 by making cell references:

The image shows an Excel spreadsheet with columns A and B and rows 1 through 4. Cell A1 contains the number 5, and cell A2 contains the number 2. Cell A3 is currently selected and contains the formula =A1+A2, with the text highlighted in red. The formula bar at the top shows the formula being entered.

	A	B
1	5	
2	2	
3	=A1+A2	
4		

When you press Enter, the formula calculates and displays the answer in cell A3:

The image shows the same Excel spreadsheet as before, but now cell A3 displays the result of the formula, which is 7. The formula bar is no longer visible.

	A	B
1	5	
2	2	
3	7	
4		

If the values in the referenced cells change, the formula automatically recalculates:

	A	B
1	6	
2	2	
3	8	
4		

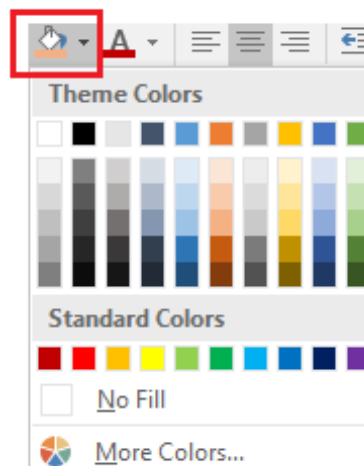
### Example1

Recreate the worksheet below with colors.

	A	B	C	D
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>
2	<b>Ali</b>	<b>988</b>	<b>75</b>	<b>211</b>
3	<b>Hassan</b>	<b>798</b>	<b>55</b>	<b>199</b>
4	<b>Omer</b>	<b>1200</b>	<b>45</b>	<b>150</b>
5	<b>Fatima</b>	<b>791</b>	<b>49</b>	<b>97</b>
6	<b>Muna</b>	<b>800</b>	<b>39</b>	<b>59</b>
7	<b>Khadija</b>	<b>1105</b>	<b>77</b>	<b>189</b>

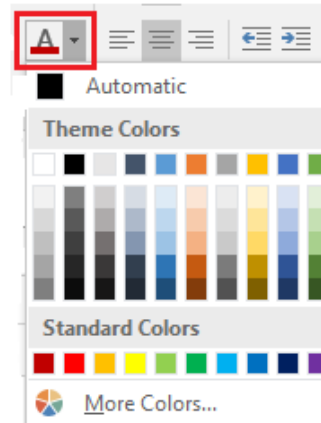
- To change background color:

- Home Menu
- Fill color





- To change font color:
  1. Home Menu
  2. Font color



## Example2

Update Example1, and add Total in cell E1, then use the formula to find total to all records.

	A	B	C	D	E
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>	<b>Total</b>
2	Ali	988	75	211	
3	Hassan	798	55	199	
4	Omer	1200	45	150	
5	Fatima	791	49	97	
6	Muna	800	39	59	
7	Khadija	1105	77	189	

## Solution

- The formula to find total:

**=B2+C2+D2**

- Enter the formula in cell E2

	A	B	C	D	E	F
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>	<b>Total</b>	
2	<b>Ali</b>	<b>988</b>	<b>75</b>	<b>211</b>	<b>=B2+C2+D2</b>	
3	<b>Hassan</b>	<b>798</b>	<b>55</b>	<b>199</b>		
4	<b>Omer</b>	<b>1200</b>	<b>45</b>	<b>150</b>		
5	<b>Fatima</b>	<b>791</b>	<b>49</b>	<b>97</b>		
6	<b>Muna</b>	<b>800</b>	<b>39</b>	<b>59</b>		
7	<b>Khadija</b>	<b>1105</b>	<b>77</b>	<b>189</b>		

- Press Enter key to find the total

	A	B	C	D	E
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>	<b>Total</b>
2	<b>Ali</b>	<b>988</b>	<b>75</b>	<b>211</b>	<b>1274</b>
3	<b>Hassan</b>	<b>798</b>	<b>55</b>	<b>199</b>	
4	<b>Omer</b>	<b>1200</b>	<b>45</b>	<b>150</b>	
5	<b>Fatima</b>	<b>791</b>	<b>49</b>	<b>97</b>	
6	<b>Muna</b>	<b>800</b>	<b>39</b>	<b>59</b>	
7	<b>Khadija</b>	<b>1105</b>	<b>77</b>	<b>189</b>	

- Click on the answer in E2, then put the cursor on the corner till change to plus sign (+), then drag down

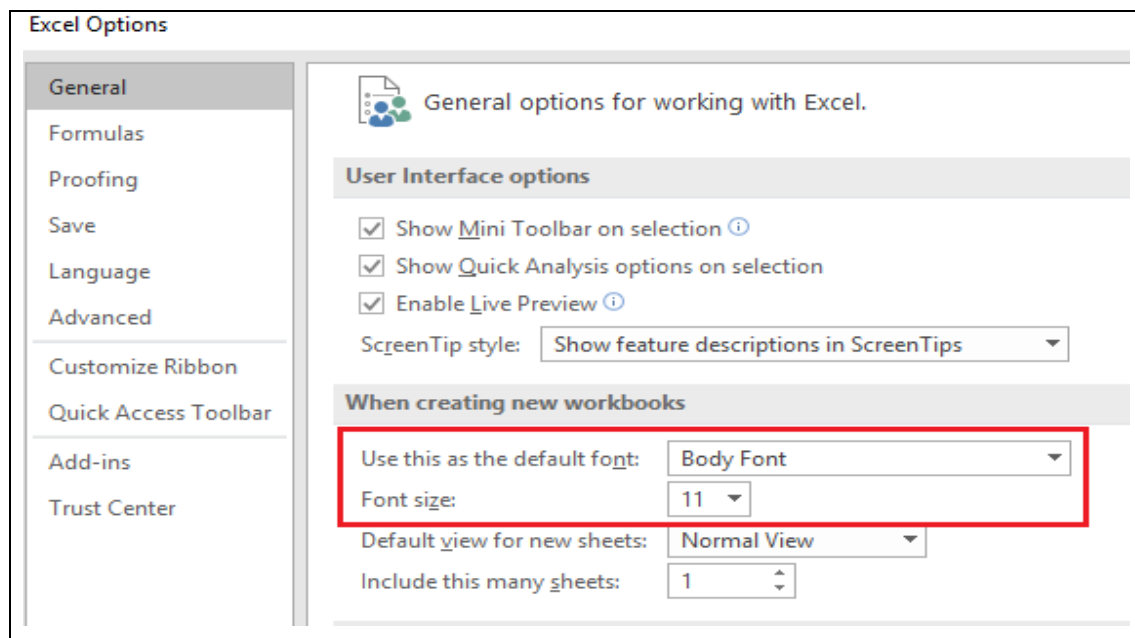
	A	B	C	D	E
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>	<b>Total</b>
2	<b>Ali</b>	<b>988</b>	<b>75</b>	<b>211</b>	<b>1274</b>
3	<b>Hassan</b>	<b>798</b>	<b>55</b>	<b>199</b>	
4	<b>Omer</b>	<b>1200</b>	<b>45</b>	<b>150</b>	
5	<b>Fatima</b>	<b>791</b>	<b>49</b>	<b>97</b>	
6	<b>Muna</b>	<b>800</b>	<b>39</b>	<b>59</b>	
7	<b>Khadija</b>	<b>1105</b>	<b>77</b>	<b>189</b>	

- Move your cursor to the cell corner, then press and move down to Copy the results.  
The summation will come to all records automatically

	A	B	C	D	E
1	<b>Name</b>	<b>Salary</b>	<b>Bonus</b>	<b>Allowance</b>	<b>Total</b>
2	<b>Ali</b>	<b>988</b>	<b>75</b>	<b>211</b>	<b>1274</b>
3	<b>Hassan</b>	<b>798</b>	<b>55</b>	<b>199</b>	<b>1052</b>
4	<b>Omer</b>	<b>1200</b>	<b>45</b>	<b>150</b>	<b>1395</b>
5	<b>Fatima</b>	<b>791</b>	<b>49</b>	<b>97</b>	<b>937</b>
6	<b>Muna</b>	<b>800</b>	<b>39</b>	<b>59</b>	<b>898</b>
7	<b>Khadija</b>	<b>1105</b>	<b>77</b>	<b>189</b>	<b>1371</b>

## Change the default font in Excel 2016 for Windows

1. In the File tab, click Options.
2. In the General category, under When creating new workbooks, do the following:
  - In the Use this as the default font box, click the arrow, and then pick the font you want.
  - In the Font Size box, click the arrow, and then pick a font size.

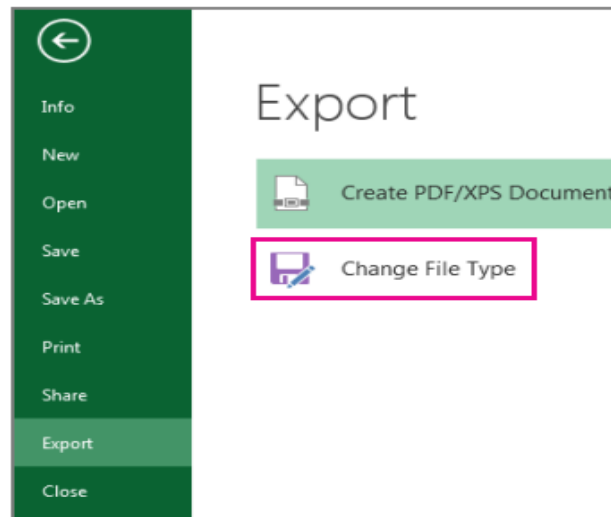




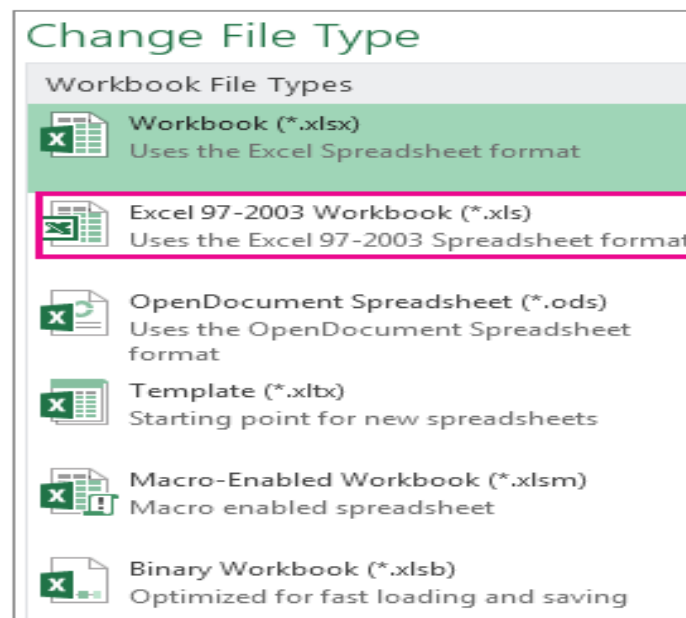
## Saving spreadsheet

Save an Excel 2016 workbook for compatibility with earlier versions of Excel:

1. Click File
2. Export
3. Change File Type



4. Under Workbook File Types, double-click Excel 97-2003 Workbook (\*.xls).





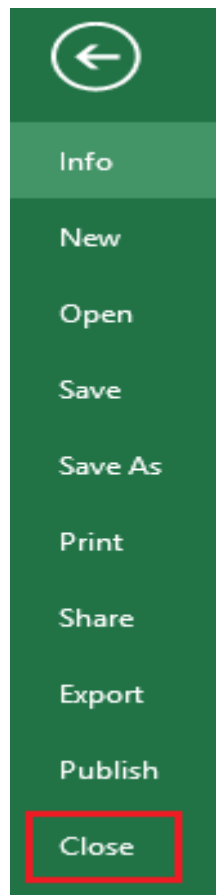
5. In the Save As dialog box, pick the location for the workbook.
6. In the File name box, type a new file name or use the one that's already there.
7. Click Save.

### **Close spreadsheet**

all workbooks that you open are opened in a workbook window inside the Excel window. You can also create new workbook windows for any worksheet in a workbook by using the New Window command (View tab, Window group).

### **Close a worksheet:**

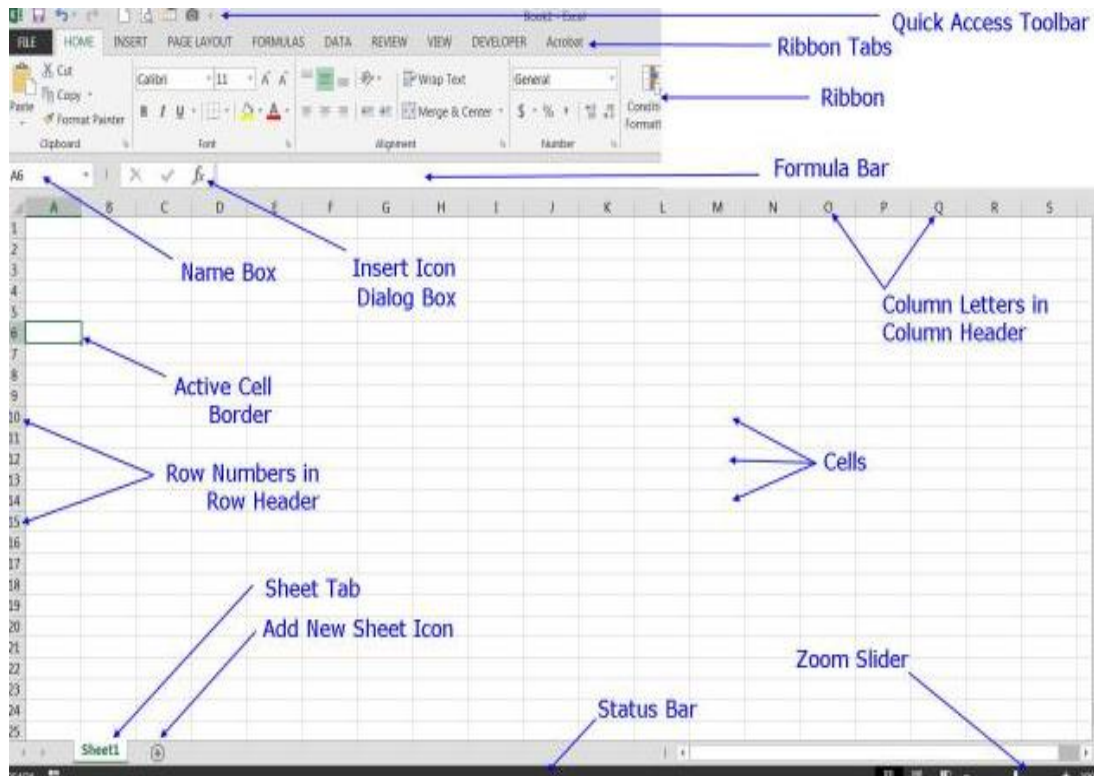
1. File menu
2. Close





### **Main components of a spreadsheets window**

- **Active Cell:** the active cell is recognized by its black outline.
- **Add Sheet Icon:** Adding additional worksheets can be done by clicking on the add sheet icon next to the sheet tab at the bottom of the screen or you can use this keyboard shortcut to add a new worksheet.
- **Cells:** are the rectangular boxes located in the central area of a worksheet.
- **Column Letters:** Columns run vertically on a worksheet and each one is identified by a letter in the header.
- **Formula:** Located above the worksheet, this area displays the contents of the active cell. It can also be used for entering or editing data and formulas.
- **Name Box:** Located next to the formula bar, the Name Box displays the cell reference or the name of the active cell.
- **Quick Access Toolbar:** This toolbar allows you to add frequently used commands. Click on the down arrow at the end of the toolbar to display available options.
- **Ribbon:** The Ribbon is the strip of buttons and icons located above the worksheet. When clicked on, these buttons and icons activate the various features of program.
- **The File Tab:** The File tab was introduced in Excel 2010 replacing the Excel 2007 Office Button, and it works differently than the other tabs.
- **Row Numbers:** Rows run horizontally in a worksheet and are identified by a number in the row header.
- **Sheet Tabs:** By default, there is one worksheet in an Excel 2016 file.
- **Status Bar:** The status bar, which runs horizontally along the bottom of screen, can be customized to display a number of options, most of which give the user information about the current worksheet, data the worksheet contains, and even the user's keyboard - such as whether the Caps Lock, Scroll Lock, and Num Lock keys are turned on or off.
- **Zoom Slider:** Located in the bottom right corner of the Excel screen, the zoom slider is used to change the magnification of a worksheet by dragging the slider box back and forth or by clicking on the Zoom Out and Zoom In buttons located at either end of the slider.



## Basic uses of spreadsheets

Excel is an incredibly powerful tool for getting meaning out of vast amounts of data. But it also works really well for simple calculations and tracking almost any kind of information. Cells can contain numbers, text, or formulas. You put data in your cells and group them in rows and columns. That allows you to add up your data, sort and filter it, put it in tables enter your data then click an empty cell.

For example, cell A1 on a new sheet. Cells are referenced by their location in the row and column on the sheet, so cell A1 is in the first row of column A.

Type text or a number in the cell.

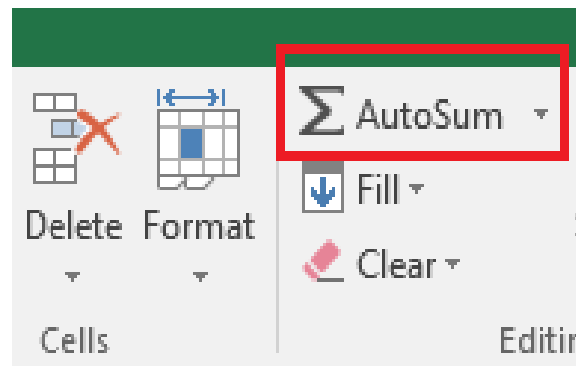
Press Enter or Tab to move to the next cell.

## Use AutoSum to add your data

When you've entered numbers in your sheet, you might want to add them up. A fast way to do that is by using AutoSum.

Select the cell to the right or below the numbers you want to add.

Click the Home tab, and then click AutoSum in the Editing group.



## Create a simple formula

Adding numbers is just one of the things you can do, but Excel can do other math as well. Try some simple formulas to add, subtract, multiply, or divide your numbers.

1. Pick a cell, and then type an equal sig.(=)

That tells Excel that this cell will contain a formula.

2. Type a combination of numbers and calculation operators, like the plus sign (+) for addition, the minus sign (-) for subtraction, the asterisk (\*) for multiplication, or the forward slash (/) for division.

For example, enter =2+4, =4-2, =2\*4, or =4/2.

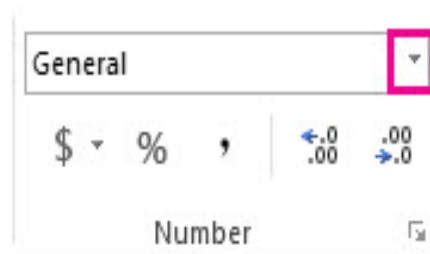
1. Press Enter.



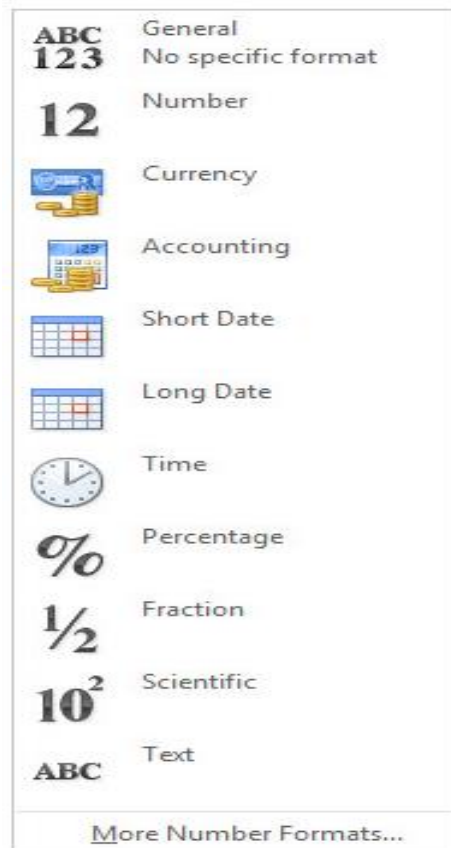
## Apply a number format

To distinguish between different types of numbers, add a format, like currency, percentages, or dates.

1. Select the cells that have numbers you want to format.
2. Click the Home tab, and then click the arrow in the General box.



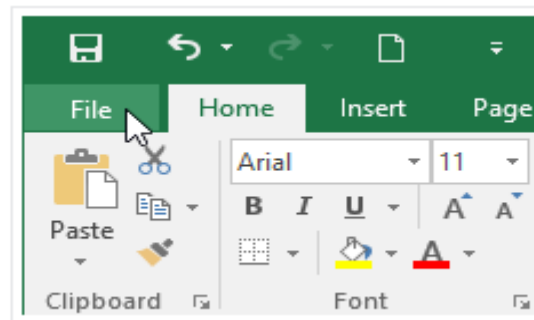
3. Pick a number format.



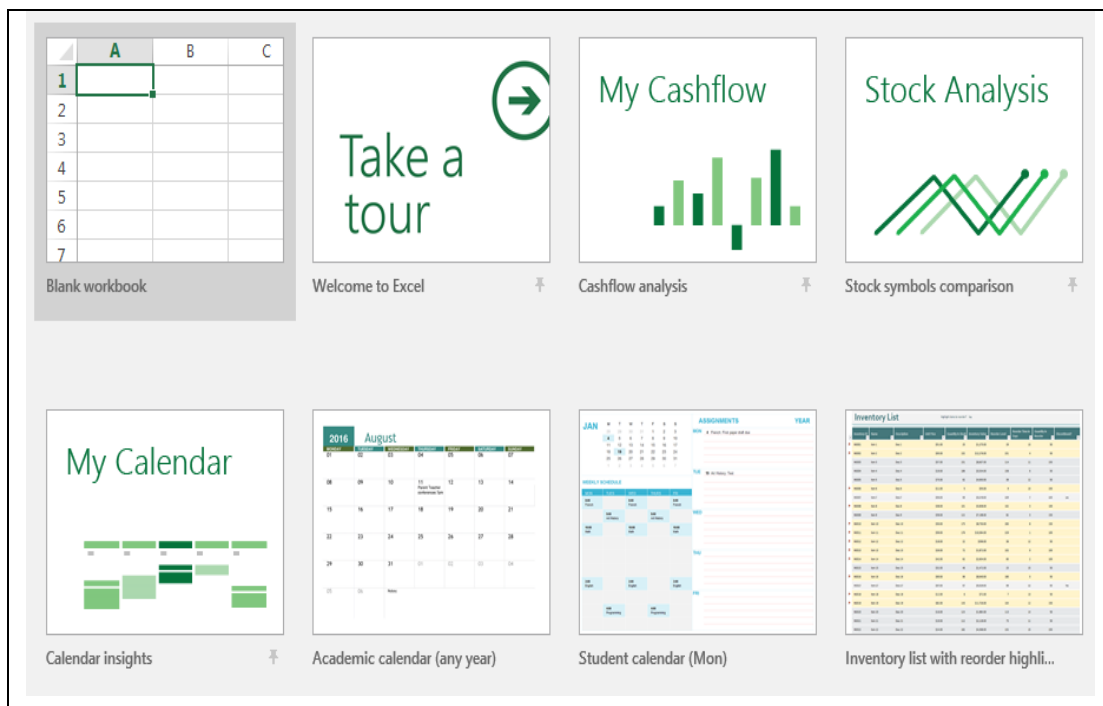
## Create, Open, Save and Close spreadsheets

### To create a new spreadsheet

1. Click the File menu



2. Select New. Several templates will appear below the Blank workbook option.
3. Select a template to review it.





4. A preview of the template will appear, along with additional information on how the template can be used.
5. Click Create to use the selected template.

### To save a new spreadsheet

1. Click the Save button on the Quick Access Toolbar, or press Ctrl+S.



If you've saved your work before, you're done.

2. If this is the first time you've save this file:
  - a. Under Save As, pick where to save your workbook, and then browse to a folder.
  - b. In the File name box, enter a name for your workbook.
  - c. Click Save.

### Use the different menus and toolbars to setup the worksheets

Microsoft Excel is one of the best tools ever built. It can help you perform not only easy tasks like calculations but also helps in performing analytical tasks.

### Menus in Excel 2016

#### 1. File Menu

The following tabs list all features and command for file menu:

1. File	2. Home	3. Insert	4. Page Layout
---------	---------	-----------	----------------










5. Formulas	6. Data	7. Review	8. View
-------------	---------	-----------	---------

New	New Microsoft Excel Sheet.
Open	Open an existing Microsoft Excel Sheet.
Save	Saves the current Sheet
Save As	Save the Sheet as a different file.
Print	Print the current Sheet.
Close	Close the current Excel.



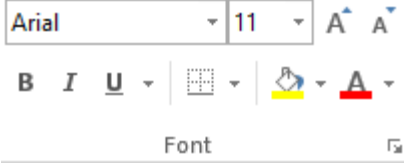










## 2. Home Menu

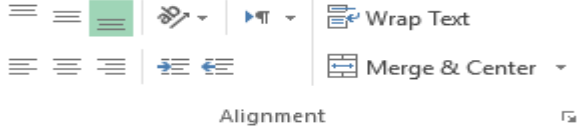











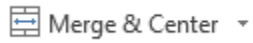
3. The following tabs list all features and command for Home menu:

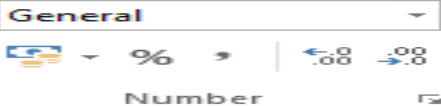









1. Clipboard	2. Font	3. Alignment	4. Number
5. Styles	6. Cells	7. Editing	





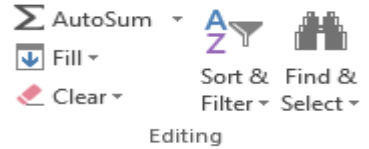




1. Clipboard	  Cut  Copy  Paste  Format Painter Clipboard
 Paste	Paste: Add content on the Clipboard to your document.
 Cut	Cut: Remove the selection and put it on the clipboard so you can paste it somewhere else.




 Copy ▾	Copy: Put a copy of the selection on the clipboard so you can paste it somewhere else.
 Format Painter	Format painter: Like the look of a particular selection? You can apply that look to other content in the document.
2. Font	
	Font: Pick a new font for your text.
	Font Size: Change the size of your text.
	Increase Font Size: Make your text a bit bigger.
	Decrease Font Size: Make your text a bit smaller.
	Bold: Make your text bold.
	Italic: Italicize your text.
	Underline: Underline your text.
	Bottom Border.
	Fill Color: Color the background of cells to make them stand out.
	Font Color: Change the color of your text.

3. Alignment	
	Top Align: Align text to the top.
	Middle Align: Align text so that it is centered between the top and bottom of the cell.
	Bottom Align: Align text to the bottom.
	Orientation: Rotate your text diagonally or vertically. This is a great way to label narrow columns.
	Left-to-Right Text Direction: Set the text to read from left to right.
 Wrap Text	Wrap extra-long text into multiple lines so you can see all of it.
	Align Left: Align your content to the left.
	Center: Center your content.
	Align Right: Align your content to the right.
	Decrease Indent: Move your content closer to the cell border.
	Increase Indent: Move your content farther away from the cell border.
 Merge & Center	Combine and center the contents of the selected cells in a new larger cell.

4. Number	
	Number Format: Choose the format for your cells such as percentage, currency, date or time.
	Accounting Number Format: Format as Dollars, Euros, or other currency.
	<p>Percent Style: Format as a percent.</p> <p>Comma Style: Format with a thousand separator.</p>
	Increase Decimal: Show more decimal places for a more precise value.
	Decrease Decimal: Show fewer decimal places.
5. Styles	
 Conditional Formatting ▾	Easily sport trends and patterns in your date using bars , colors, and icons to visually highlight important values.
 Format as Table ▾	Format as Table: Quickly convert a range of cells to a table with its own style.
 Cell Styles ▾	A colorful style is a great way to make important date stand out on the sheet.

6. Cells	
	Insert cells: Add cells, rows, columns or sheets to your workbook.
	Delete cells: Delete cells , rows, columns, or sheets from you workbook.
	Format: Change the row height or column width, organize sheets, or protect or hide cells.
7. Editing	
	Automatically add it up. Your total will appear after the selected cells.
	Continue a series or pattern into neighboring cells in any direction.
	Clear: Delete everything in the cell , or remove just the formatting , contents, comments or hyperlinks.
	Sort & Filter: Organize your data so it's easier to analyze.
















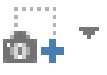











 Find & Select ▾	Find & select: Click to see options for finding text in your document.
---	--










## Insert Menu










The following tabs list all features and command for Insert menu:


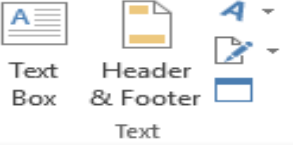





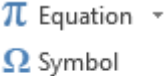
1. Tables	2. Illustration	3. Add-ins	4. Charts
5. Tours	6. Sparkline	7. Filters	8. Links
9. Symbols			



1. Tables	   PivotTable Recommended Table PivotTables Tables
 PivotTable	Pivot Table: Easily arrange and summarize complex data in a pivot Table.
 Recommended PivotTables Tables	Recommended pivot Tables: Want us to recommend pivot Tables that summarize your complex data?
 Table	Table: Create a table to organize and analyze related data.
2. Illustration	   Pictures Online Pictures Illustrations

	From File: Insert pictures from your computer or from other computers that you're connected to.
	Online Pictures: Find and insert pictures from a variety of online sources.
	Shapes: Insert ready-made shapes, such as circles, squares, arrows.
	Insert a SmartArt Graphic: Insert a SmartArt graphic to visually communicate information.
	Take a Screenshot: Quickly add a snapshot of any window that's open on your desktop to your document.
3. Add-ins	 Store   My Apps  Add-ins
	Browse Office Store: Explore apps in the Office Store.
	Insert an App: Insert an app into your document and use the web to enhance your work.
	The Bing Maps app makes it easy to plot locations.
	Transform cold data into a cool picture.
4. Charts	 Recommended Charts  Charts  PivotChart

 Recommended Charts	Recommended Charts: Want us to recommend a good chart to showcase your data
	Insert Column Chart: Use this chart type to visually compare values across a few categories.
	Insert Line Chart: Use this chart type to show trends over time (years, months, and days) or categories.
	Insert Pie or Doughnut Chart: Use this chart type to show proportions of a whole.
	Insert Bar Chart: Use this chart type to visually compare values across a few categories when the chart shows duration, or the category text is long.
	Insert Area Chart: Use the chart type to show trends over time (years, month, and days) or categories.
	Insert Scatter (X, Y) Or Bubble Chart: Use this chart type to show the relationship between sets of values.
	Insert Stock, Surface or Radar Chart: Click the arrow to see the different type of stock, surface, or radar charts available and pause the pointer on the icons to see a preview in your document.
	Insert Combo Chart: Use this chart type to highlight different types of information.

 <p>PivotChart</p>	PivotChart: Use pivot Charts to graphically summarize data and explore complicated data.
5. Sparklines	 <p>Line Column Win/Loss</p> <p>Sparklines</p>
 <p>Line</p>	Line Sparkline: Sparklines are mini charts placed in single cells, each representing a row of data in your selection.
 <p>Column</p>	Column Sparkline: Sparklines are mini charts placed in single cells, each representing a row of data in your selection.
 <p>Win/Loss</p>	Win/Loss Sparkline: Sparklines are mini charts placed in single cells, each representing a row of data in your selection.
6. Filters	 <p>Slicer Timeline</p> <p>Filters</p>
 <p>Slicer</p>	Slicer: Use a slicer to filter data visually.
 <p>Timeline</p>	Timeline: Use a Timeline to filter dates interactively.
7. Links	 <p>Hyperlink</p> <p>Links</p>









 Hyperlink	Add Hyperlink: Create a link in your document for quick access to webpages and files.
8. Text	
 Text Box	Text Box: Draw a text box anywhere.
 Header & Foote	Header & Footer: The content of the header and footer repeats at the top and bottom of each printed page.
	Insert WordArt: Add some artistic flair to your document using a WordArt text box.
	Add a signature Line: Insert a signature line that specifies the individual who must sign.
	Object: Embedded objects are documents or other files you have inserted into this document. Instead of having separate files, sometimes it's easier to keep them all embedded in a document.
9. Symbols	  Symbols

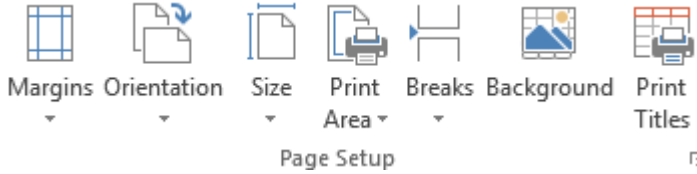







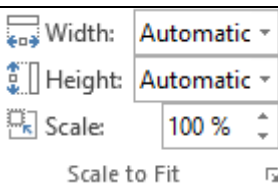
 Equation	Insert Equation: Add common mathematical equation to your document, such as the area of a circle or the quadratic formula.
 Symbol	Symbol: Add symbols that are not on your keyboard.




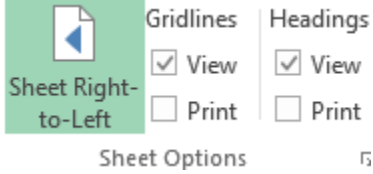



## Page Layout menu




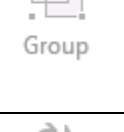

The following tabs list all features and command for Page Layout menu:

1. Themes	2. Page Setup	3. Scale to Fit
4. Sheet Options	5. Arrange	

1. Themes	  Colors ▾  Fonts ▾  Effects ▾ Themes
 Themes	Themes: Current: office Theme Pick a new theme to give your document instant style and just the right personality
 Colors ▾	Themes Colors: Current: office Quickly change all the colors used in your document by picking a different color palette.
 Fonts ▾	Theme Fonts: Current: Office Heading: Calibri Light  Body: Calibri Quickly change the text in your document by picking a new font set.
 Effects ▾	Theme Effects: Current: office Quickly change the general look of objects in your document.

2. Page Setup	
 Margins	Adjust Margins: Set the margin size for the entire document or the current section.
 Orientation	Change Page Orientation: Give your pages a portrait or landscape layout.
 Size	Choose Page Size: Choose a paper size for your document.
 Print Area	Print Area: Select an area on the sheet you'd like to print.
 Breaks	Breaks: Add a break where you want the next page to begin in the printed copy.
 Background	Background: Choose a picture for your background and add some personality to your worksheet.
 Print Titles	Print Titles: Choose rows and columns you'd like to repeat on each printed page, such as those with labels or headers.
3. Scale to Fit	



 Width: <span>Automatic ▾</span>	Width: Shrink the width of your printout to fit a certain number of pages.
 Height: <span>Automatic ▾</span>	Height: Shrink the height of your printout to fit a certain number of pages.
 Scale: <span>100 % ▴ ▾</span>	Scale: Stretch or shrink printout to a percentage of its actual size.
4. Sheet Options	
	Right-to-left document: Switch the sheet direction so that the first column is on the right side.
Gridlines <input checked="" type="checkbox"/> View <input type="checkbox"/> Print	View Gridlines: Show the lines between rows and columns to make the sheet easier to read.
Headings <input checked="" type="checkbox"/> View <input type="checkbox"/> Print	View Gridlines: Show the lines between rows and columns to make the sheet easier to read.  Print Headings: Print row and columns headings.
5. Arrange	
 Bring Forward ▾	Bring Forward: Bring the selected object forward one level or bring it in front of all the objects.

 <p>Send Backward ▾</p>	Send Backward: Send the selected object back one level or send it behind all the other objects.
 <p>Selection Pane</p>	Display the Selection Pane: See a list of all your objects.
 <p>Align</p>	Align Objects: Change the placement of your selected objects on the page.
 <p>Group</p>	Group Objects: Join object together to move and format them as if they were a single object.
 <p>Rotate</p>	Rotate Objects: Rotate or flip the selected object.

## Formulas Menu




















The following tabs list all features and command for Formulas menu:









1. Function Library	2. Defined Names
3. Formula Auditing	4. Calculation

1. Function Library	 <p>Function Library</p>
 <p>Insert Function</p>	Insert Function: Work with the formula in the current cell. You can easily pick functions to use and get help on how to fill out the input value.



 AutoSum	Sum: Automatically add a quick calculation to your worksheet, such as a sum or average.
 Recently Used ▾	Recently Used: Quickly choose from functions you recently used.
 Financial	Financial: Add a financial function to your sheet.
 Logical	Logical: Add a logical function to your worksheet.
 Text	Text Function: Add a text to function to your worksheet.
 Date & Time ▾	Date & Time: Add the time function.
 Lookup & Reference ▾	Lookup & Reference: Add a lookup reference function to your worksheet.
 Math & Trig ▾	Math & Trig: Add a math or trigonometry function to your worksheet.
 More Functions ▾	More Functions: Don't see what you need?  Browse more functions from categories like statistical, engineering, web, or OLAP cube functions.






2. Defined Names	  Define Name ▾  Use in Formula ▾  Create from Selection Defined Names
 Name Manager	Name Manager: Create, edit, delete, and find all the names used in the worksheet.
 Define Name ▾	Define Name: Define and apply names.
 Use in Formula ▾	Used in formula: Choose the name used in this workbook and insert it into the current formula.
 Create from Selection	Create from Selection: Automatically generate names from the selected cells.
3. Formula Auditing	 Trace Precedents  Trace Dependents  Remove Arrows ▾  Show Formulas  Error Checking ▾  Evaluate Formula Formula Auditing
 Trace Precedents	Show arrows that indicate which cells affect the value of the currently selected cell.
 Trace Dependents	Show arrows that indicate which cells are affected by the value of the currently selected cell.
 Remove Arrows	Remove All Arrows: Remove the arrows drawn by Trace Precedents or Trance Dependent.
 Show Formulas	Show Formulas: Display the formula in each cell instead of the resulting value.
 Error Checking	Error Checking: Check for common errors that occur when using formulas.










 Evaluate Formula	Evaluate Formula: Debug a complex formula, evaluating each part of the formula individually.
 Watch Window	Watch Window: Add cells to the watch window list to keep an eye on their value as you update other parts of the sheet.
4.Calculation	  Calculate Now Calculation Options ▾  Calculate Sheet Calculation
 Calculation Options ▾	Calculate Options: Choose to calculate formulas automatically or manually.
 Calculate Now	Calculate Now: Calculate the entire workbook now.
 Calculate Sheet	Calculate Sheet: Calculate the active sheet now.

## Data Menu








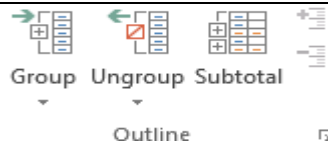

The following tabs list all features and command for Data Menu menu:





1. Get & Transform	2. Connections	3. Sort & Filter
4. Data Tools	5. Forecast	6. Outline

1.Get External Data	     From Access   From Web   From Text   From Other Sources ▾   Existing Connections Get External Data
---------------------	--

 From Access	Get Data from Access: Import data from a Microsoft Access database.
 From Web	Get Data from Web: Import data from a webpage.
 From Text	Get Data from Text: Import data from a text file.
 From Other Sources ▾	Get Data from Other Sources: Import data from other sources.
 Existing Connections	Get Data Using an Existing Connection: Import data from common sources.
2.Connections	
 Refresh All ▾	Refresh All: Get the latest data by refreshing all sources in the workbook.
 Connections	Connections: Display all data connections for the workbook.
 Properties	Data Range Properties: Specify how cells connected to a data source will be updated, what contents from the source will be displayed, and how changes in the number of rows

	or columns in the data source will be handled in the workbook.
Edit Links	Edit Links: View all of the other files this spreadsheet is linked to so that you can update or remove the links.
3. Sort & Filter	
	Sort A to Z: Lowest to highest.
	Sort Z to A: Highest to lowest.
 Sort	Sort: Find value quickly by sorting your data.
 Filter	Turn on filtering for selected cells. Then, click the arrow in the column header to narrow down the data.
 Clear	Clear: Clear the filter and sort state for the current range of data.
 Reapply	Reapply: Reapply the filter and sort on the current range so that changes you've made are included.
 Advanced	Advanced: Options for filtering using complex criteria.
4.Data Tools	

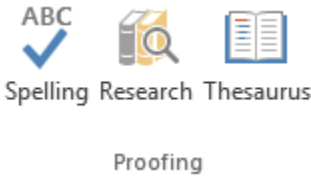



 Text to Columns	Text to Columns: Split a single column of text into multiple columns.
 Flash Fill	Automatically fill in values. Enter a couple of examples you want as output and keep the active cell in the column you want filled in.
 Remove Duplicates	Remove Duplicates: Delete duplicate rows from a sheet.
 Data Validation	Data Validation: Pick from a list of rules to limit the type of data that can be entered in a cell.
 Consolidate	Consolidate: Summarize data from separate ranges, consolidating the results in a single output range.
 What-If Analysis	What- If Analysis: Try out various values for the formulas in your sheet using Scenario Manager, Goal Seek and Data Tables.
 Relationships	Relationships: Create or edit relationships between tables to show related data from different tables on the same report.
5. Outline	 Group Ungroup Subtotal Outline
 Group	Group rows or columns, or automatically create an outline.

















 Ungroup	Ungroup a range of cells that were previously grouped.
 Subtotal	Quickly calculate rows of related data by inserting subtotals and totals.
 	Show Detail: Expand a collapsed group of cells.  Hide Detail: Collapse a group of cells.













## Review menu

The Review menu in Microsoft Excel 2016 shown:

1. Proofing	2. Insights	3. Translate
4. Comments	5. Changes	

1. Proofing	 Proofing
 Spelling	Spelling: Let us check your spelling.
 Research	Research: Want to explore something further  Use resources, such as dictionaries, encyclopedias and translation services to get the info you need
 Thesaurus	Translate: Translate the selected text into a different language.

2. Translate	 Translate Language
 Translate	Translate: Translate the selected text into a different language.
3. Comments	     Show/Hide Comment  Show All Comments  Show Ink Comments
 New Comment	Insert a Comment: Add a note about this part of the document.
 Delete	Delete Comment: Delete the selected comment.
 Previous	Previous: Jump to the previous comment.
 Next	Next: Jump to the next comment.
 Show/Hide Comment	Show/Hide Comment: Show or hide the comment on the active cell.
 Show All Comments	Show All Comments: Display all comments in the sheet.
 Show Ink	Show Ink: Show or hide ink on the sheet.

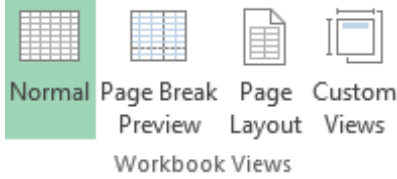




4. Changes	    Protect Sheet    Protect Workbook    Share Workbook    Protect and Share Workbook   Allow Users to Edit Ranges    Track Changes
 Protect Sheet	Protect Sheet: Prevent unwanted changes from other by limiting their ability to edit.
 Protect Workbook	Protect Workbook: Keep other from making structural changes to your workbook, such as moving, deleting or adding sheets.
 Share Workbook	Share Workbook: Share your workbook so that others can work in it at the same time.
 Protect and Share Workbook	Protect and Share Workbook: Share the workbook and protect change tracking with a password.
 Allow Users to Edit Ranges	Allow Users to Edit Ranges: Set up password protection on ranges and choose people who can edit those ranges.
 Track Changes	Track Changes: Keep track of changes made to this document.




















## View Menu










The following tabs list all features and command for View menu:

1. Workbook View	2. Show	3. Zoom
4. Window	5. Macros	



1.Workbook View	 <p>Normal Page Break Preview Page Layout Custom Views Workbook Views</p>
 <p>Normal</p>	Normal View: See your document in normal view.
 <p>Page Break Preview</p>	Page Break Preview: See where the page breaks will appear when your document is printed.
 <p>Page Layout</p>	Page Layout View: See how your printed document will look.
 <p>Custom Views</p>	Custom Views: Save your current display and print settings as a custom view that you can quickly apply in the future.
2.Show	<input checked="" type="checkbox"/> Ruler <input checked="" type="checkbox"/> Formula Bar <input checked="" type="checkbox"/> Gridlines <input checked="" type="checkbox"/> Headings Show
<input checked="" type="checkbox"/> Ruler	Show rules next to your document.
<input checked="" type="checkbox"/> Gridlines	Show the lines between rows and columns in the sheet to make the sheet easier to read.
<input checked="" type="checkbox"/> Formula Bar	Show the formula bar so you can see formula in cells.

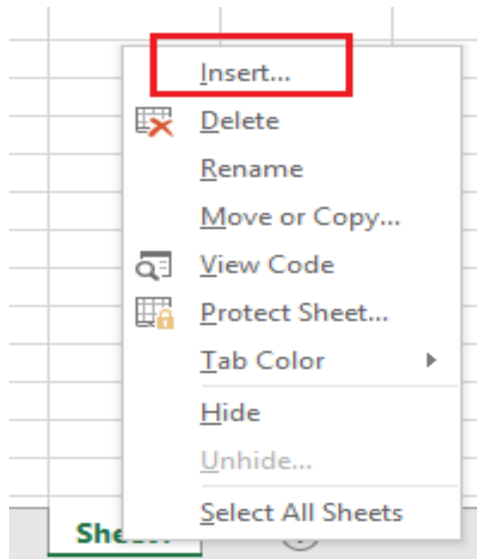
<input checked="" type="checkbox"/> Headings	<p>View Headings: Show columns heading and row numbers. Column heading are the letters or numbers that appear above the columns on a sheet.</p>
3.Zoom	<div data-bbox="792 405 1052 573">  Zoom  100%  Zoom to Selection </div>
 Zoom	<p>ZOOM: Zoom to the level that's right for you.</p> <p>For zooming, use the control in the status bar.</p>
 100%	<p>Zoom your document to 100%</p>
 Zoom to Selection	<p>Zoom to selection: Zoom the sheet so the selected range of cells fills the entire window.</p>
4.Window	<div data-bbox="524 1140 1304 1245">  New Window  Arrange All  Freeze Panes  Split  Hide  Unhide  View Side by Side  Synchronous Scrolling  Reset Window Position  Switch Windows </div>
 New Window	<p>New Window: Open the second window for your document so you can work in different places at the same time.</p>
 Arrange All	<p>Arrange All: Stack your open windows so you can see all of them at once.</p>
 Freeze Panes	<p>Freeze Panes: Freeze the portion of the sheet to keep it visible while you scroll through the rest of the sheet.</p>

 Split	Split: Divide the window into different panes that each scroll separately.
 Hide	Hide Window: Hide the current window.
 Unhide	Unhide window: Unhide any windows hidden by the hide window feature.
 View Side by Side	Instead of switching back and forth between workbooks, view them side by side. It makes comparing then easier.
 Synchronous Scrolling	Synchronous Scrolling: Scroll two documents at the same time.
 Reset Window Position	Reset Window Position: Place the documents you're comparing side by side, so they share the screen equally.
 Switch Windows	Quickly switch to another open Excel window.
5.Macros	 Macros ▼ Macros
 Macros	See a list of macros you can work with.

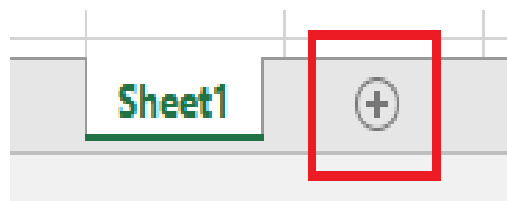
## Insert, rename, delete, duplicate and move worksheets

### Insert worksheet

- Right click on the sheet1 and select Insert

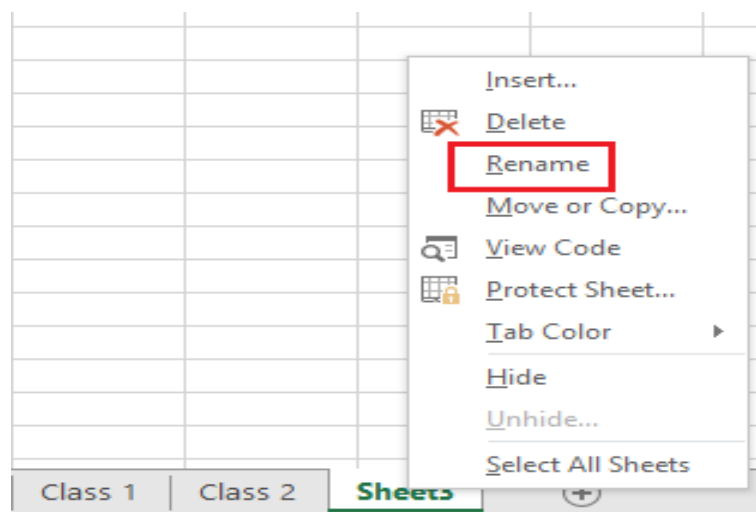


Or click on sign plus (+)



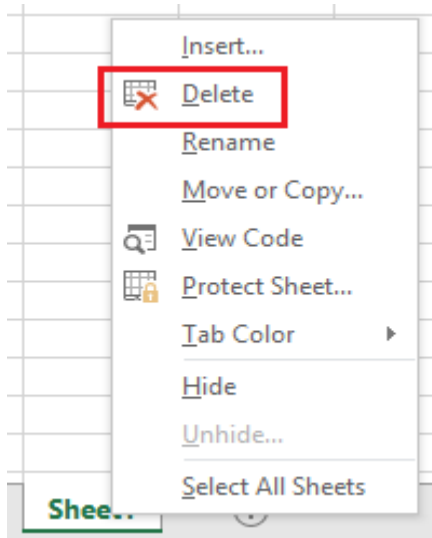
## Rename worksheet

- Right click on the sheet and select Rename



## Delete worksheet

- Right click on the sheet and select Delete.



## Duplicate worksheet

When you click and drag worksheet tabs at the bottom of a workbook, you are reordering the tabs. Use this shortcut when you want to duplicate a worksheet. The cursor will change to a small plus (+) sign inside a document. When you release your mouse, a copy of the worksheet will be inserted at the location of the cursor.

## Move worksheet

To move or copy worksheets between workbooks, follow these steps:

1. Open both the workbook with the worksheet(s) that you want to move or copy and the workbook that is to contain the moved or copied worksheet(s).

Choose File→Open or press Ctrl+O to open both the workbooks.

2. Select the workbook that contains the worksheet(s) that you want to move or copy.
3. Select the worksheet(s) that you want to move or copy.
4. Right-click its sheet tab and then click Move or Copy on its shortcut menu.
5. In the To Book drop-down list box, select the name of the workbook to which you want to copy or move the worksheets.



6. In the Before Sheet list box, select the name of the sheet that the worksheet(s) you're about to move or copy should precede. If you want the sheet(s) that you're moving or copying to appear at the end of the workbook, choose the (Move to End) option.
7. Select the Create a Copy check box to copy the selected worksheet(s) to the designated workbook (rather than move them).
8. Click OK or press Enter to complete the move or copy operation.

### Built-in functions

Excel does this by using formulas in cells. A formula performs calculations or other actions on the data in your worksheet. A formula always starts with an equal sign (=), which can be followed by numbers, math operators (such as a plus or minus sign), and functions, which can really expand the power of a formula.

#### Excel functions


When you create a formula that contains a function, you can use the Insert Function dialog box to help you enter worksheet functions. As you enter a function into the formula, the Insert Function dialog box displays the name of the function, each of its arguments, a description of the function and each argument, the current result of the function, and the current result of the entire formula.

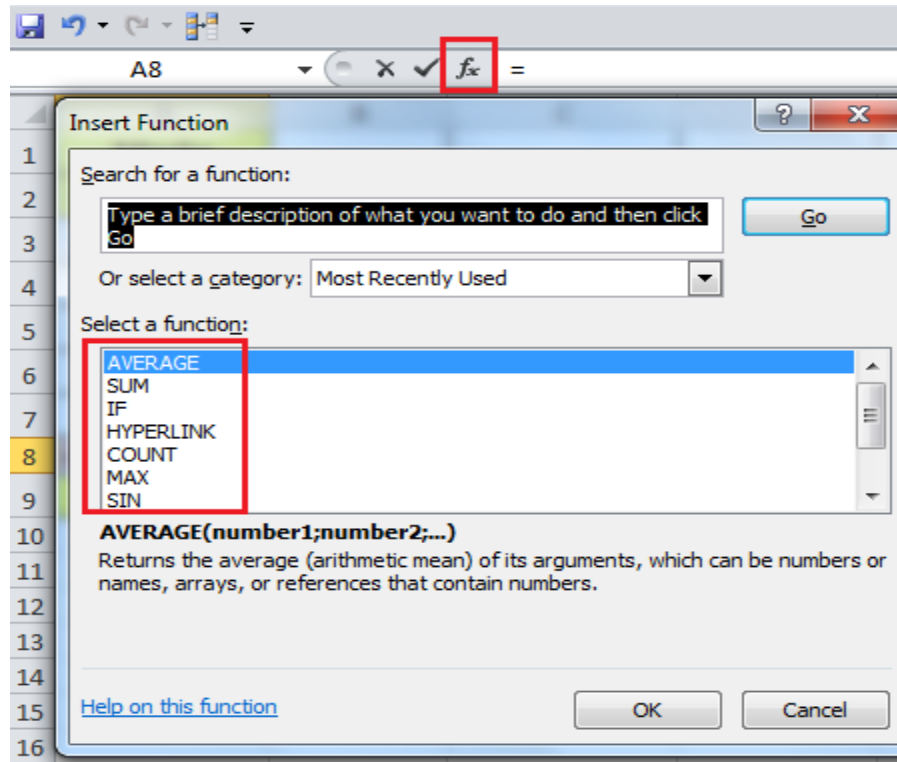
There are a variety of functions available in Excel. Here are some of the most common functions you'll use:

- **SUM:** This function adds all of the values of the cells in the argument.
- **AVERAGE:** This function determines the average of the values included in the argument. It calculates the sum of the cells and then divides that value by the number of cells in the argument.
- **COUNT:** This function counts the number of cells with numerical data in the argument. This function is useful for quickly counting items in a cell range.



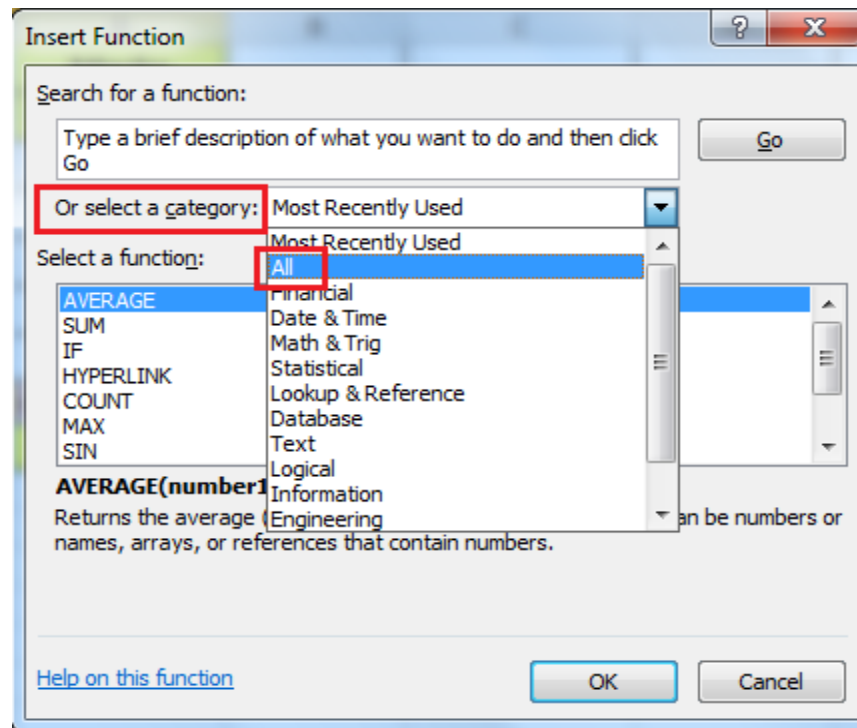
- MAX: This function determines the highest cell value included in the argument.
- MIN: This function determines the lowest cell value included in the argument.

To add functions, press Formula menu, then insert function. Or from Insert function  in formula bar.



### To show more functions

1. Click to: Or select a category
2. Select All



## Example 2

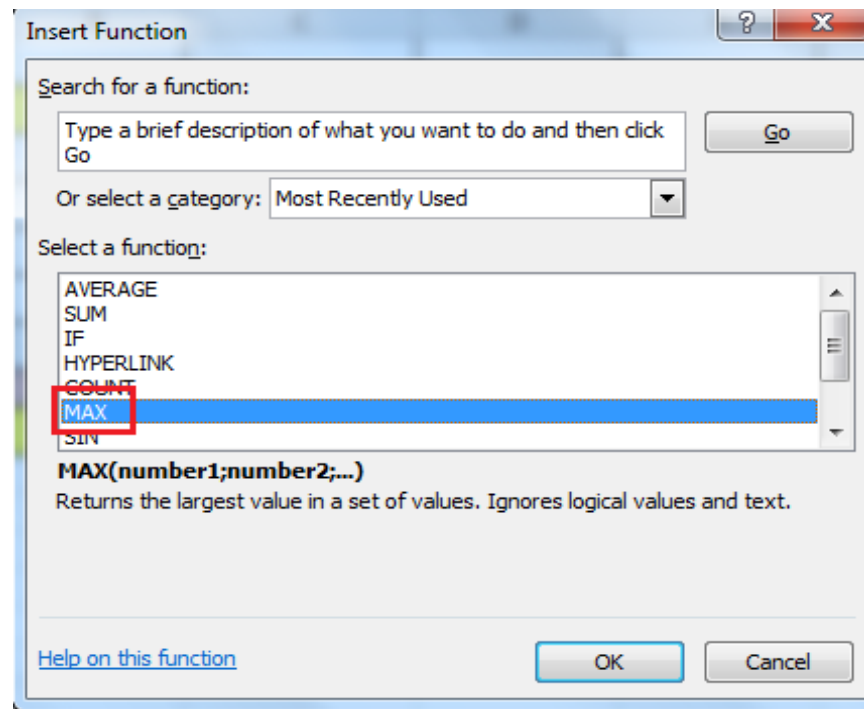
1. Recreate below table

	A	B	C	D	E
1	<b>Marks</b>				
2	<b>Computing</b>	<b>English</b>	<b>Mathematics</b>	<b>Study Skills</b>	<b>Total</b>
3	90	77	59	77	
4	87	68	90	78	
5	66	90	87	79	
6	95	90	65	76	
7	54	76	91	99	
8					
9	<b>Max</b>	<b>Sum</b>	<b>Count</b>	<b>Min</b>	<b>Average</b>

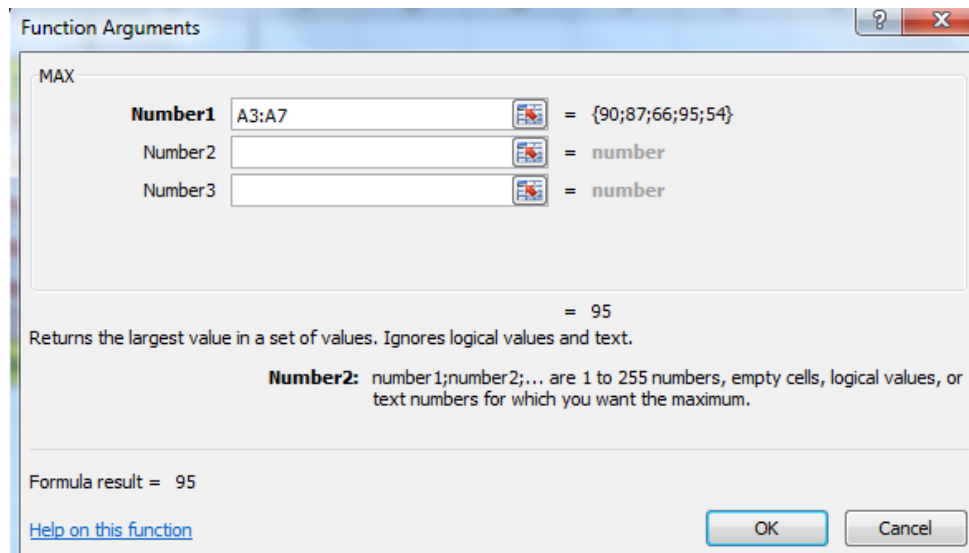
2. Using formula to find the total to all records
  - The formula: =A3 + B3 + C3 + D3
3. Add “Max” function to Computer marks in cell A8
  - Go to cell A8



- Press function
- Select Max



- Press OK
- From Function Arguments window, insure number1 A3: A7



- Press OK

4. Add “Sum” function to English marks in cell B8



- Go to cell B8
  - Press function
  - Select Sum
  - Press OK
  - From Function Arguments window, insure number1 B3: B7
  - Press OK
5. Add “Count” function to Mathematics marks in cell C8
- High light the marks from C3 to C7
  - Press function
  - Select Count
  - Press OK
  - From Function Arguments window, insure number1 C3: C7
  - Press OK
6. Add “Min” function to Study Skills marks in cell D8
- High light the marks from D3 to D7
  - Press function
  - Select Min
  - Press OK
  - From Function Arguments window, insure number1 D3: D7
  - Press OK
7. Add “Average” function to the Total in cell E8
- High light the marks from E3 to E7
  - Press function
  - Select Average
  - Press OK
  - From Function Arguments window, insure number1 E3: E7
  - Press OK

## Formatting of data, cells, rows and columns in a worksheet

Basic formatting can customize the look and feel of your workbook, allowing you to draw attention to specific sections and making your content easier to view and understand.

### To change the font size

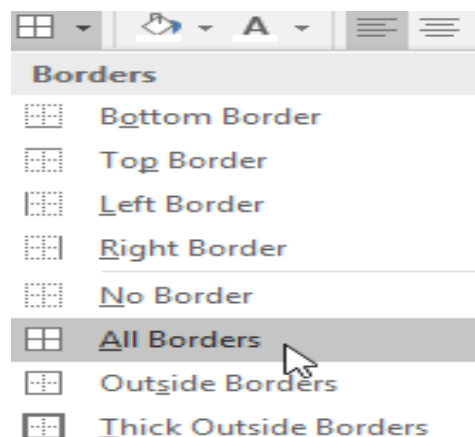
1. Select the cell(s) you want to modify.
2. On the Home tab, click the drop-down arrow next to the Font Size command, then select the desired font size
3. The text will change to the selected font size.

### To change the font

1. Select the cell(s) you want to modify.
2. On the Home tab, click the drop-down arrow next to the Font command, then select the desired font.
3. The text will change to the selected font.

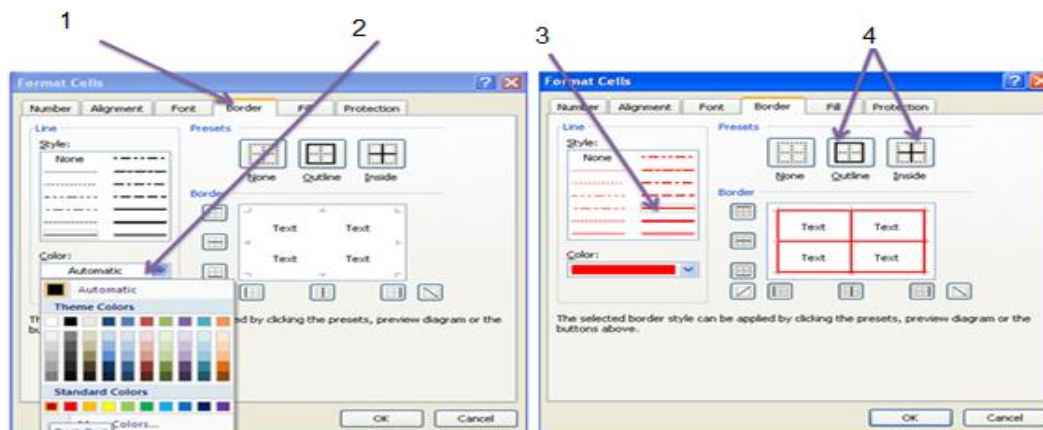
### To add a border

1. Select the cell(s) you want to modify.
2. On the Home tab, click the drop-down arrow next to the Borders command, then select the border style you want to use.




## To add color borders

- Highlight all worksheet,
- press right click
- Properties
  1. Borders
  2. Select the color
  3. Select the style
  4. Press Outline and Inside

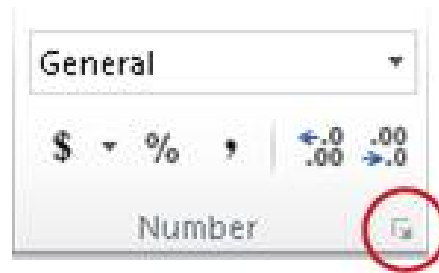


## Format numbers as currency in Excel 2016

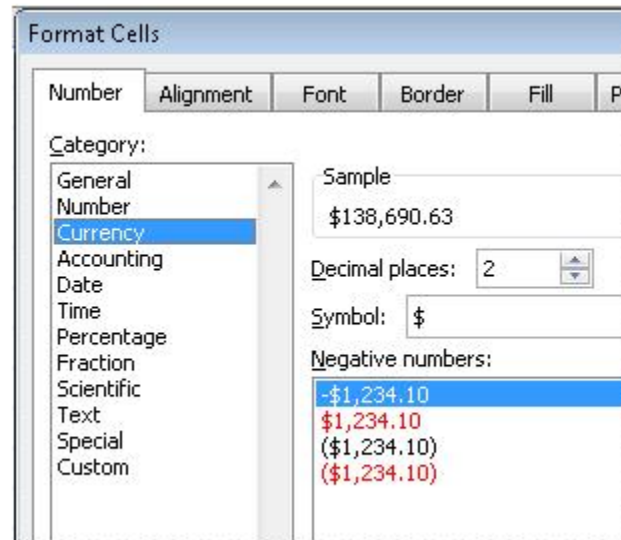
You can display a number with the default currency symbol by selecting the cell or range of cells, and then clicking Accounting Number Format  in the Number group on the Home tab. If you want to apply the Currency format instead, select the cells, and press Ctrl+Shift+.\$.

## Change other aspects of formatting

1. Select the cells you want to format.
2. On the Home tab, click the Dialog Box Launcher next to Number.



3. In the Format Cells dialog box, in the Category list, click Currency or Accounting.



4. In the Symbol box, click the currency symbol that you want.

Note: If you want to display a monetary value without a currency symbol, click None.

5. In the Decimal places box, enter the number of decimal places that you want for the number.

For example, to display \$138,691 instead of \$138,690.63 in the cell, enter 0 in the Decimal places box. As you make changes, watch the number in the Sample box. It shows you how changing decimal places will affect the display of a number.

6. In the Negative numbers box, select the display style you want to use for negative numbers.



If you don't want the existing options for displaying negative numbers, you can create your own number format.

Note: The Negative numbers box is not available for the accounting number format. That's because it is standard accounting practice to show negative numbers in parentheses.

7. To close the Format Cells dialog box, click OK.

### Remove currency formatting

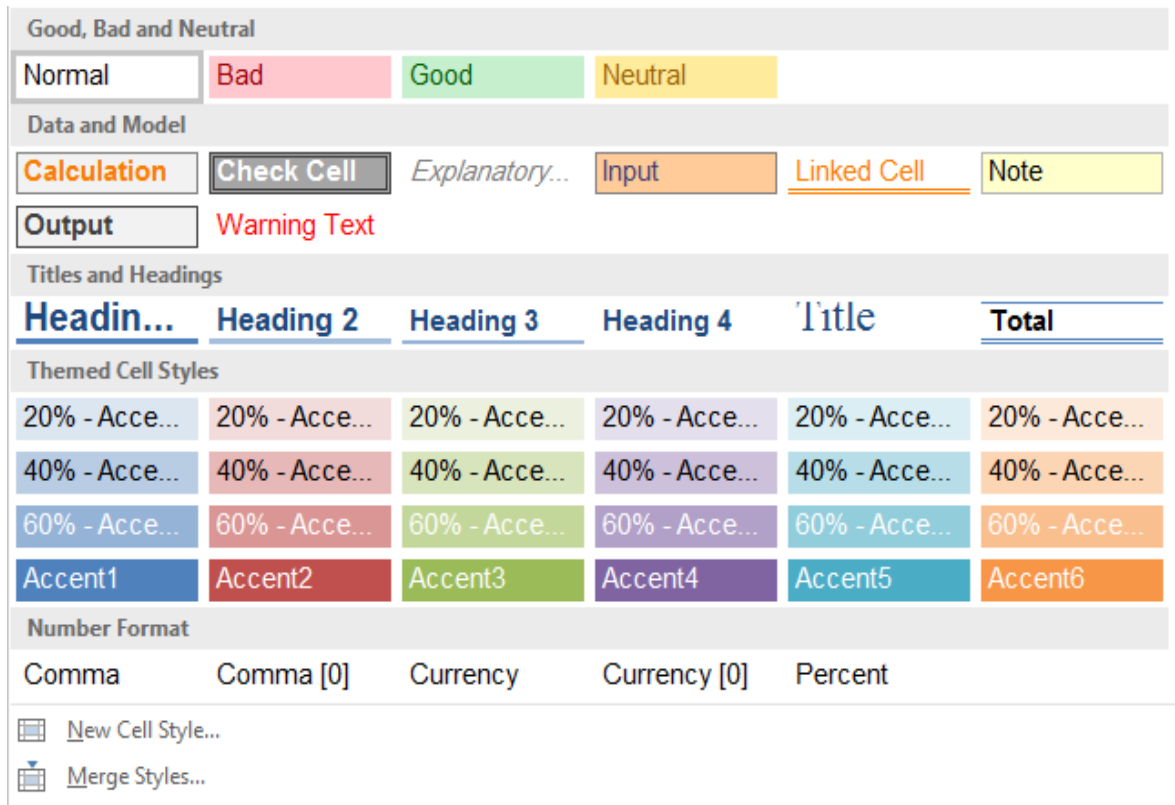
1. Select the cells that have currency formatting.
2. On the Home tab, in the Number group, click General in the list box.

Cells that are formatted with the General format do not have a specific number format.

### Formatting cells

Apply a cell style:

1. Select the cell(s) you want to modify.
2. Click the Cell Styles command on the Home tab, then choose the desired style from the drop-down menu.

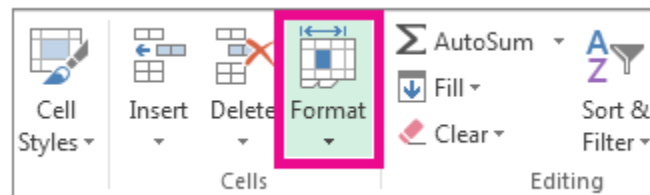


3. The selected cell style will appear.

## Formatting rows and columns

Set a column to a specific width

1. Select the column or columns that you want to change.
2. On the Home tab, in the Cells group, click Format.



3. Under Cell Size, click Column Width.



4. In the Column width box, type the value that you want.
5. Click OK.

### **Change the column width to automatically fit the contents (AutoFit)**

1. Select the column or columns that you want to change.
2. On the Home tab, in the Cells group, click Format.
3. Under Cell Size, click AutoFit Column Width.

### **Change the row height to fit the contents**

1. Select the row or rows that you want to change.
2. On the Home tab, in the Cells group, click Format.
3. Under Cell Size, click AutoFit Row Height.

Change the height of rows by using the mouse

Do one of the following:

- To change the row height of one row, drag the boundary below the row heading until the row is the height that you want.

	<b>A</b>	<b>B</b>	<b>C</b>
<b>1</b>			
<b>2</b>			
<b>3</b>			

Drag to resize

### **Freezing Row and Column Titles**

#### **To freeze rows**



1. Select the row below the row(s) you want to freeze. In our example, we want to freeze rows 1 and 2, so we'll select row 3.

A3

✕

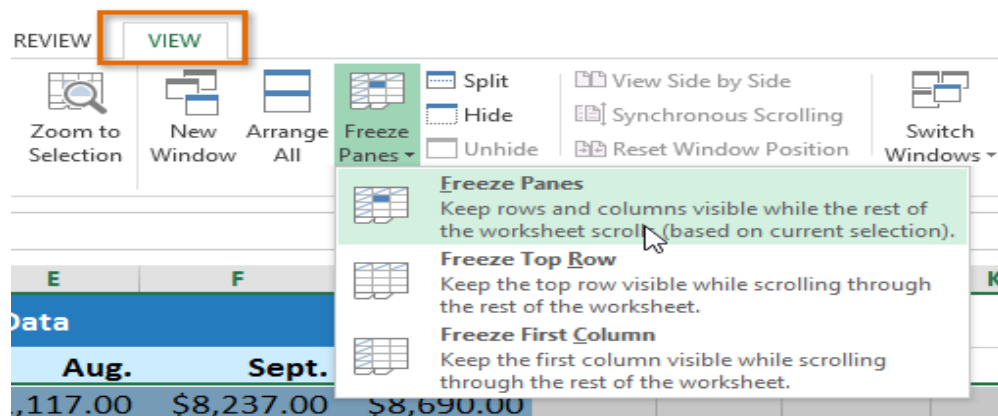
✓

*f<sub>x</sub>*

Albertson, Kathy

	A	B	C	D	E	F
1	Westbrook Parker Sales Data					
2	Salesperson	May	June	July	Aug.	Sept.
3	Albertson, Kathy	\$3,947.00	\$557.00	\$3,863.00	\$1,117.00	\$8,237.00
4	Allenson, Carol	\$4,411.00	\$1,042.00	\$9,355.00	\$1,100.00	\$10,185.00
5	Altman, Zoey	\$2,521.00	\$3,072.00	\$6,702.00	\$2,116.00	\$13,452.00
6	Bittiman, William	\$4,752.00	\$3,755.00	\$4,415.00	\$1,089.00	\$4,404.00

1. Click the View tab on the Ribbon.
2. Select the Freeze Panes command, then choose Freeze Panes from the drop-down menu.



## To freeze columns

1. Select the column to the right of the column(s) you want to freeze. In our example, we want to freeze column A, so we'll select column B.



normal

Page Break Preview

Page Layout

Custom Views

☒ Ruler

☒ Formula Bar

☒ Gridlines

☒ Headings

Zoom

100%

Zoom to Selection

New Window

Arrange All

Zoom

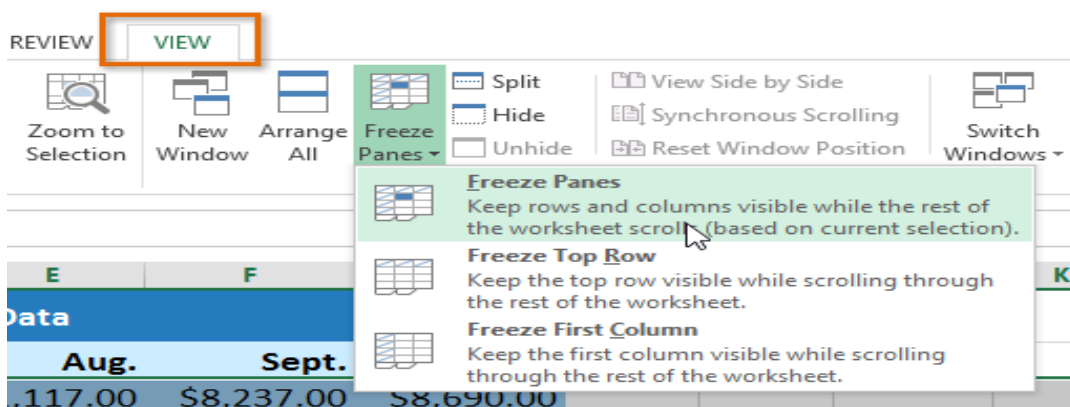
Rows 1 and 2 are frozen above this line

H6	A	B	C	D	E	F
1	Westbrook Parker Sales Data					
2	Salesperson	May	June	July	Aug.	Sept.
18	Hodges, Melissa	\$5,667.00	\$4,798.00	\$8,420.00	\$1,389.00	\$10,468.00
19	Jameson, Robins	\$4,269.00	\$4,459.00	\$2,248.00	\$1,058.00	\$6,267.00
20	Kellerman, Franc	\$3,502.00	\$4,172.00	\$11,074.00	\$1,282.00	\$2,365.00
21	Mark, Katharine	\$5,853.00	\$2,011.00	\$3,807.00	\$1,348.00	\$11,110.00

B2

	A	B	C	D	E	F
1			Westbrook Parker Sales Data			
2	Salesperson	May	June	July	Aug.	Sept.
3	Albertson, Kathy	\$3,947.00	\$557.00	\$3,863.00	\$1,117.00	\$8,237.00
4	Allenson, Carol	\$4,411.00	\$1,042.00	\$9,355.00	\$1,100.00	\$10,185.00
5	Altman, Zoey	\$2,521.00	\$3,072.00	\$6,702.00	\$2,116.00	\$13,452.00
6	Bittiman, William	\$4,752.00	\$3,755.00	\$4,415.00	\$1,089.00	\$4,404.00

2. Click the View tab on the Ribbon.
3. Select the Freeze Panes command, then choose Freeze Panes from the drop-down menu.





4. The column will be frozen in place, as indicated by the gray line. You can scroll across the worksheet while continuing to view the frozen column on the left. In our example, we've scrolled across to column E.

K19						
	A	E	F	G	H	I
1	Parker Sales Data					
2	Salesperson	Aug.	Sept.	Oct.	Nov.	Dec.
3	Albertson, Kathy	\$1,117.00	\$8,237.00	\$8,690.00	\$3,947.00	\$3,947.00
4	Allenson, Carol	\$1,100.00	\$1,100.00	\$1,100.00	\$1,100.00	\$4,411.00
5	Altman, Zoey	\$2,116.00	\$1,100.00	\$1,100.00	\$1,100.00	\$2,521.00
6	Bittiman, William	\$1,089.00	\$4,404.00	\$20,114.00	\$4,752.00	\$4,752.00

To unfreeze rows or columns, click the Freeze Panes command, then select Unfreeze Panes from the drop-down menu.

### Create and manipulate different types of charts/ graphs on the worksheet data

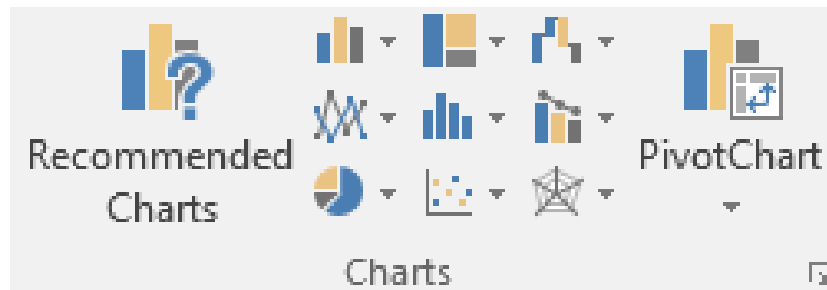
Microsoft Excel no longer provides the chart wizard. Instead, you can create a basic chart by selecting any part of the range you want to be charted, then clicking the chart type that you want on the Insert tab in the Charts group.

Charts are used to display series of numeric data in a graphical format to make it easier to understand large quantities of data and the relationship between different series of data.

A chart has many elements. Some of these elements are displayed by default, others can be added as needed. You can change the display of the chart elements by moving them to other locations in the chart, resizing them, or by changing the format. You can also remove chart elements that you do not want to display.

To add chart:

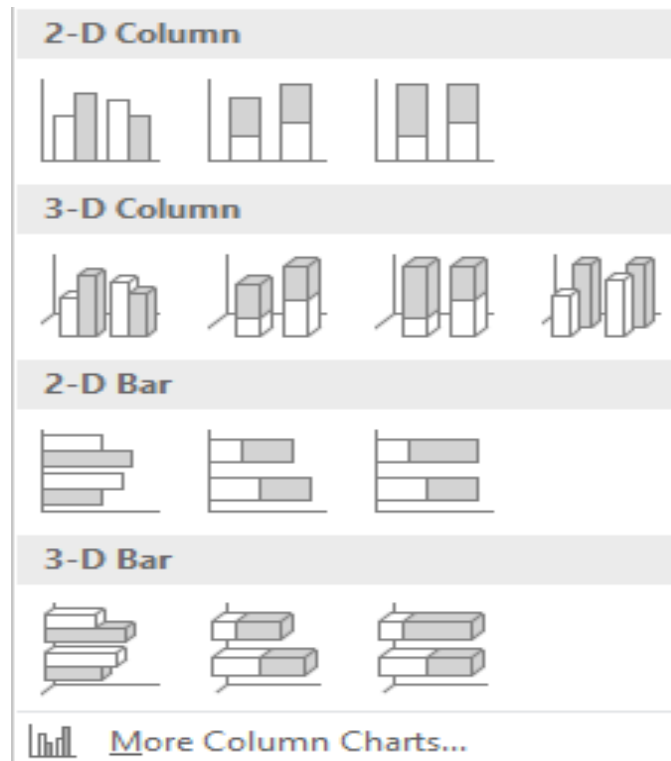
1. Highlight the cells you want to create chart
2. On the Insert tab, in the Charts group, Click the chart type,



## Types of charts

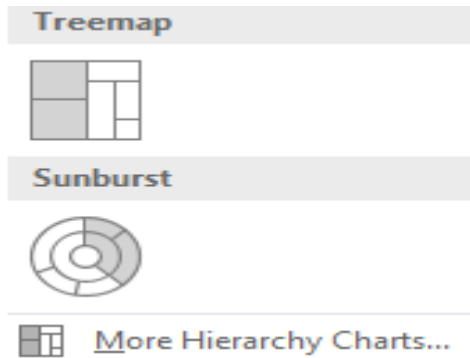
### 1. Column or Bar Chart

- 2-D Column
- 3-D Column
- 2-D Bar
- 3-D Bar



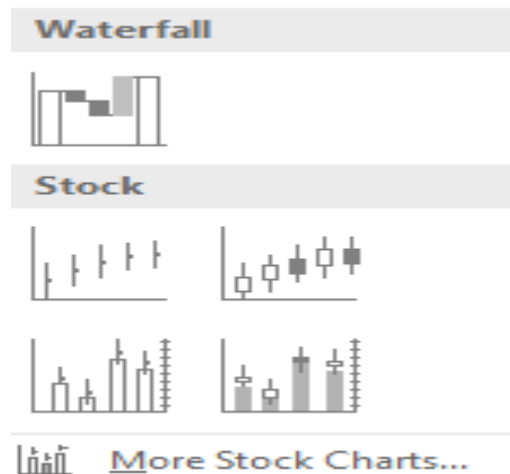
## 2. Hierarchy Charts

- Tree map
- Sunburst



## 3. Waterfall or Stock Chart

- Waterfall
- Stock



## 4. Line or Area Chart

- 2-D line
- 3-D Line
- 2-D Area
- 3-D Area

### 2-D Line



### 3-D Line



### 2-D Area



### 3-D Area



 [More Line Charts...](#)

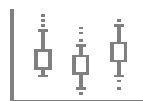
## 5. Statistical Charts

- Histogram
- Box and Whisker

### Histogram



### Box and Whisker

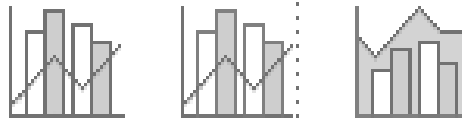


 [More Statistical Charts...](#)

## 6. Combo Chart

- Combo

## Combo



[Create Custom Combo Chart...](#)

## 7. Pie or Doughnut Chart

- 2-D Pie
- 3-D Pie
- Doughnut

### 2-D Pie



### 3-D Pie



### Doughnut



[More Pie Charts...](#)

## 8. Scatter or Bubble Chart

- Scatter
- Bubble

### Scatter



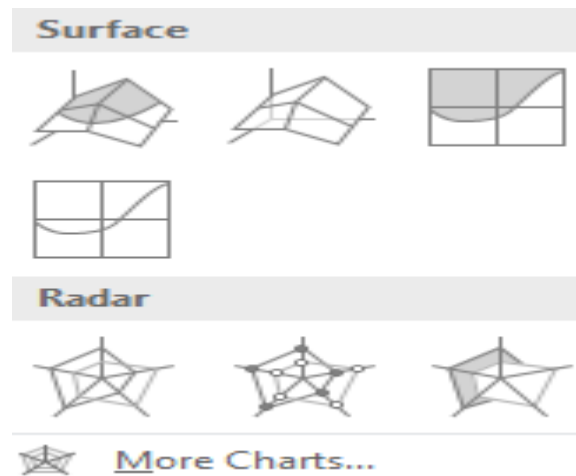
### Bubble



[More Scatter Charts...](#)

## 9. Surface or Radar Chart

- Surface
- Radar



## 10. Pivot Cart



PivotChart



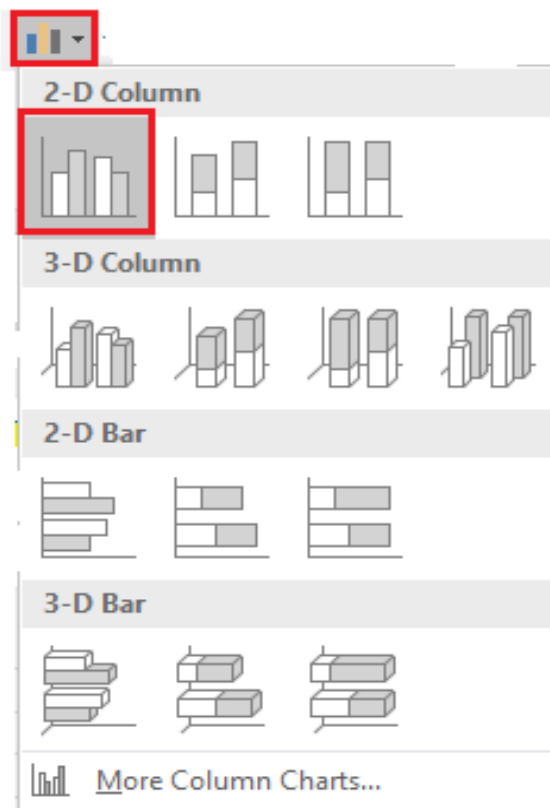
PivotChart & PivotTable

## Example3

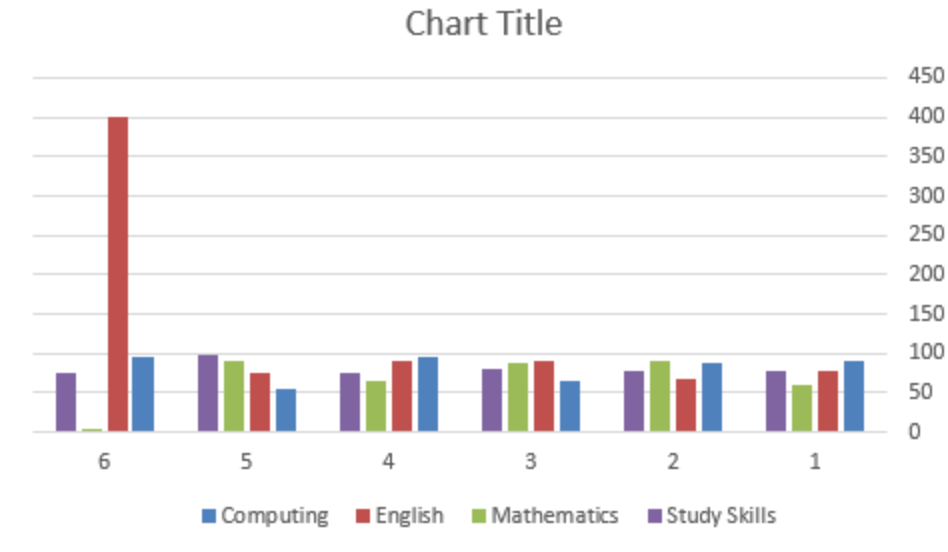
1. Highlight cells from A2 to D8

	A	B	C	D	E
1	<b>Marks</b>				
2	<b>Computing</b>	<b>English</b>	<b>Mathematics</b>	<b>Study Skills</b>	<b>Total</b>
3	90	77	59	77	303
4	87	68	90	78	323
5	66	90	87	79	322
6	95	90	65	76	326
7	54	76	91	99	320
8	95	401	5	76	318.8
9	<b>Max</b>	<b>Sum</b>	<b>Count</b>	<b>Min</b>	<b>Average</b>

2. Press insert menu, then select column chart
3. Click 2-D column



4. The chart will appear directly

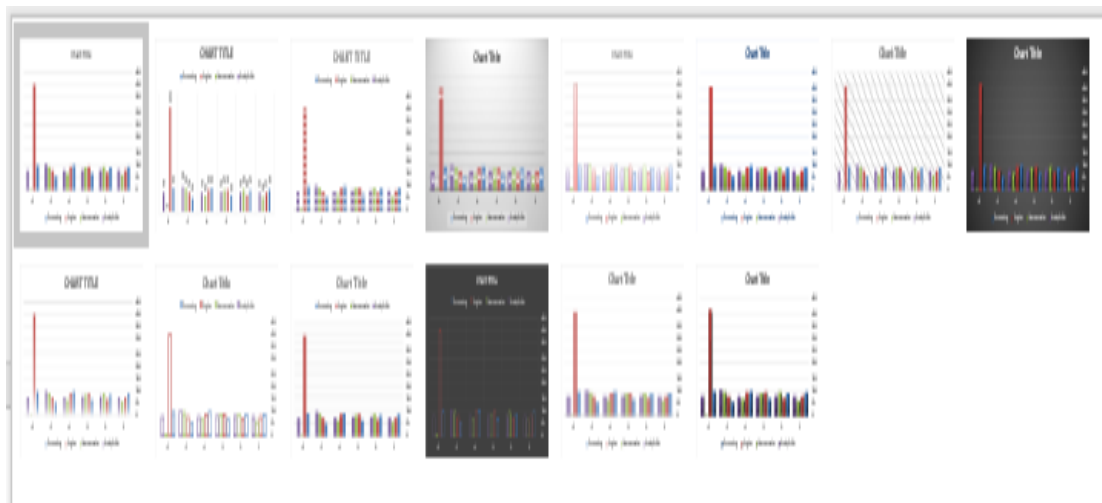


## Apply a predefined chart style

1. Click anywhere in the chart that you want to format by using a predefined chart style.

This displays the Chart Tools, adding the Design, Layout, and Format tabs.

2. On the Design tab, in the Chart Styles group, click the chart style that you want to use.



## Formulas and functions in a worksheet

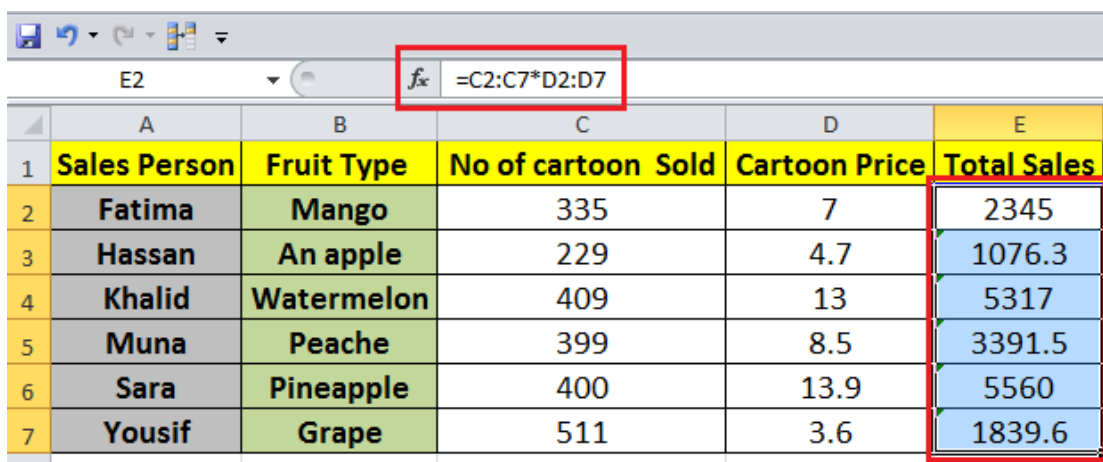
An array formula is a formula that can perform multiple calculations on one or more of the items in an array. You can think of an array as a row of values, a column of values, or a combination of rows and columns of values. Array formulas can return either multiple results or a single result.

### Create a multi-cell array formula

1. Copy the entire table below and paste it into cell A1 in a blank worksheet in Excel.

	A	B	C	D	E
1	Sales Person	Fruit Type	No of cartoon Sold	Cartoon Price	Total Sales
2	Fatima	Mango	335	7	
3	Hassan	An apple	229	4.7	
4	Khalid	Watermelon	409	13	
5	Muna	Peaches	399	8.5	
6	Sara	Pineapple	400	13.9	
7	Yousif	Grape	511	3.6	

2. To see Total Sales of fruits for each salesperson, select E2:E7, enter the formula `=C2:C7*D2:D7`, and then press Enter.



	A	B	C	D	E
1	Sales Person	Fruit Type	No of cartoon Sold	Cartoon Price	Total Sales
2	Fatima	Mango	335	7	2345
3	Hassan	An apple	229	4.7	1076.3
4	Khalid	Watermelon	409	13	5317
5	Muna	Peaches	399	8.5	3391.5
6	Sara	Pineapple	400	13.9	5560
7	Yousif	Grape	511	3.6	1839.6

## Sort, link and consolidate spreadsheets

Sort sheet organizes all of the data in your worksheet into one column. Related information across each row is kept together when the sort is applied.

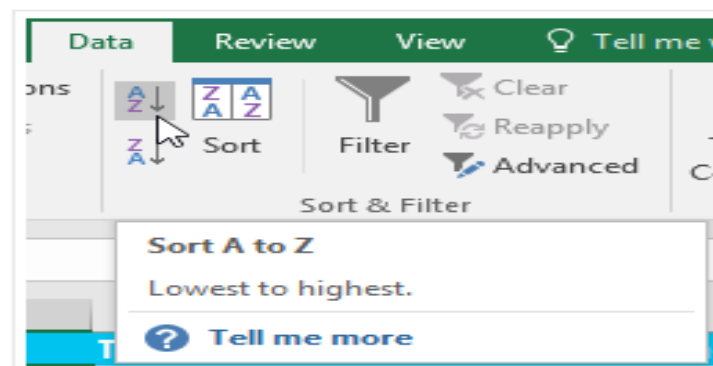
Sort range sorts the data in a range of cells, which can be helpful when working with a sheet that contains several tables.

### To sort a sheet

1. Select a cell in the column you want to sort by. In our example, we'll select cell C2.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	105	Christiana	Chen	Medium	Check Bounced
3	105	Derek	MacDonald	Large	Cash
4	105	Esther	Yaron	Small	Pending
5	105	Melissa	White	Small	Debit Card
6	105	Nathan	Albee	Medium	Check
7	105	Sidney	Kelly	Medium	Check
8	110	Gabriel	Del Toro	Medium	Cash
9	110	Kris	Ackerman	Large	Money Order

2. Select the Data tab on the Ribbon, then click the A-Z command to sort A to Z, or the Z-A command to sort Z to A. In our example, we'll sort A to Z.



3. The worksheet will be sorted by the selected column. In our example, the worksheet is now sorted by last name.

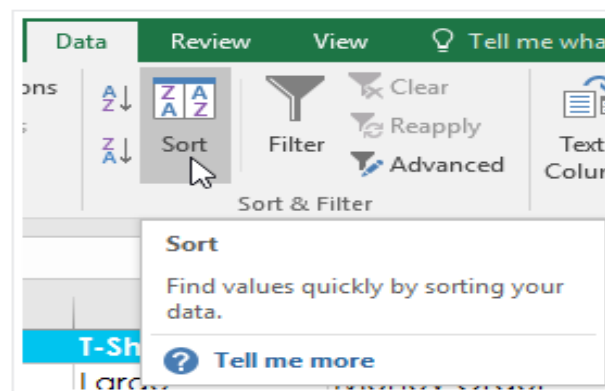
	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	110	Kris	Ackerman	Large	Money Order
3	105	Nathan	Albee	Medium	Check
4	220-B	Samantha	Bell	Medium	Check
5	110	Matt	Benson	Medium	Money Order
6	105	Christiana	Chen	Medium	Check Bounced
7	110	Gabriel	Del Toro	Medium	Cash
8	220-A	Brigid	Ellison	Small	Cash
9	220-A	Juan	Flores	X-Large	Pending

## To sort a range

1. Select the cell range you want to sort. In our example, we'll select cell range G2:H6.

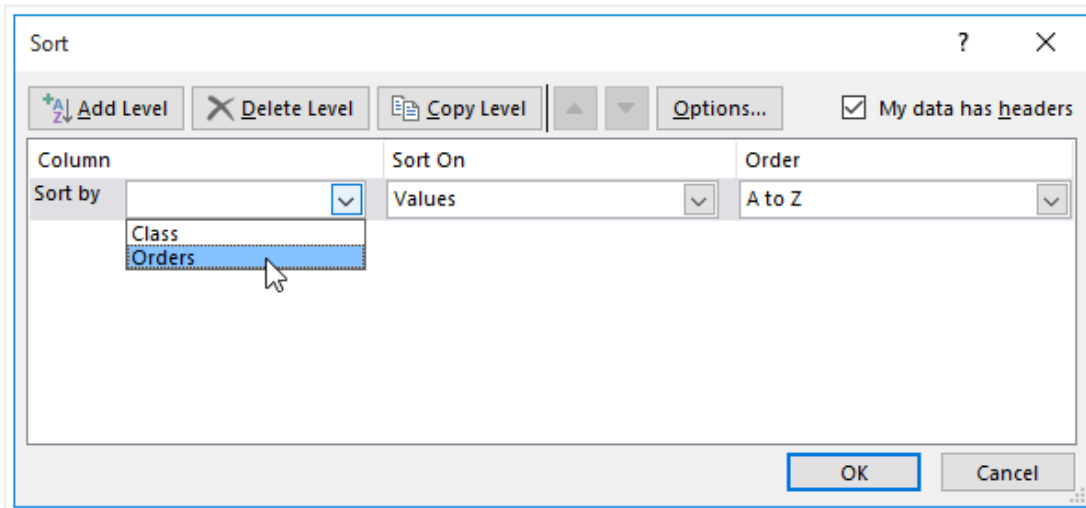
F	G	H	I
	Total Orders (by Grade)		
	Class	Orders	
	Freshmen	5	
	Sophomore	7	
	Junior	10	
	Senior	5	

2. Select the Data tab on the Ribbon, then click the Sort command.

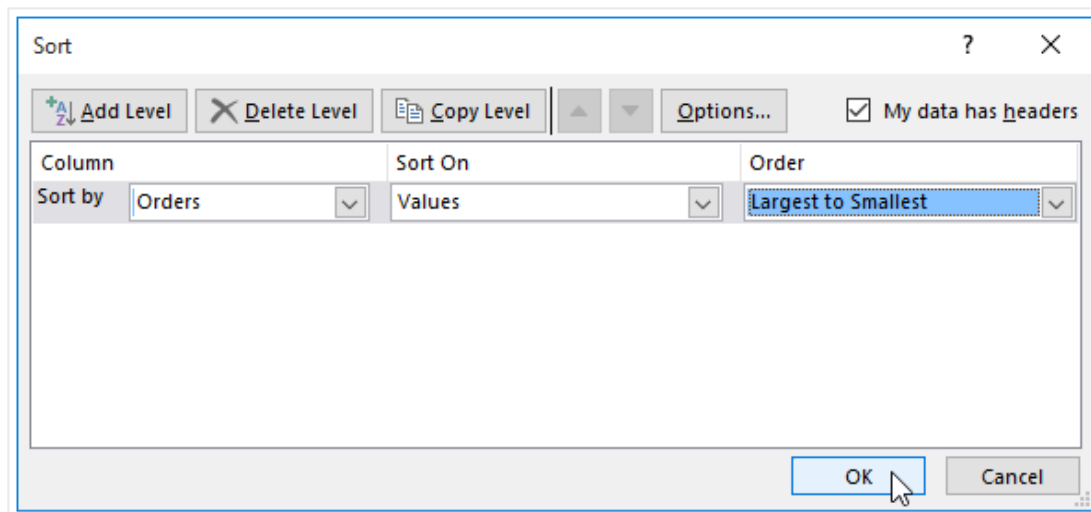




3. The Sort dialog box will appear. Choose the column you want to sort by. In our example, we want to sort the data by the number of T-shirt orders, so we'll select Orders.



4. Decide the sorting order (either ascending or descending). In our example, we'll use Largest to Smallest.
5. Once you're satisfied with your selection, click OK.



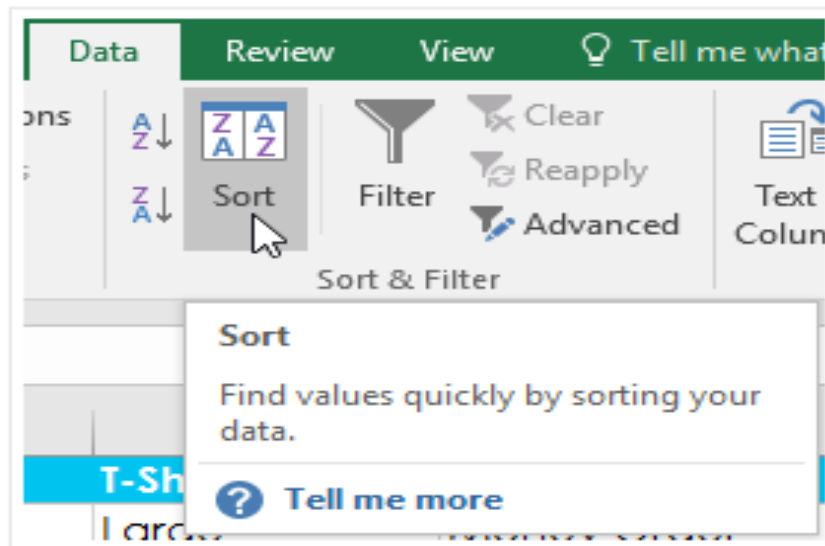
6. The cell range will be sorted by the selected column. In our example, the Orders column will be sorted from highest to lowest. Notice that the other content in the worksheet was not affected by the sort.

## To create a custom sort

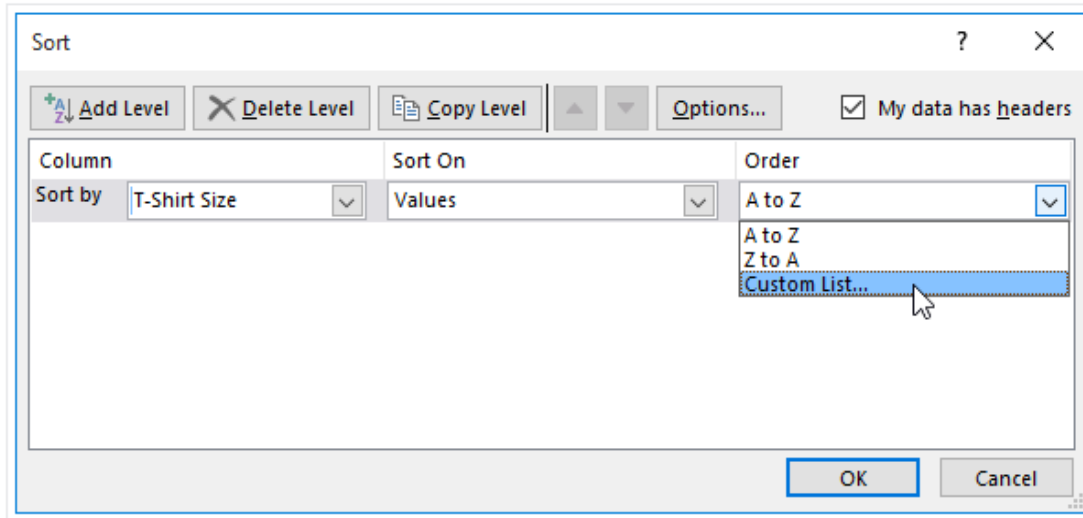
1. Select a cell in the column you want to sort by. In our example, we'll select cell D2.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	110	Kris	Ackerman	Large	Money Order
3	105	Nathan	Albee	Medium	Check
4	220-B	Samantha	Bell	Medium	Check
5	110	Matt	Benson	Medium	Money Order
6	105	Christiana	Chen	Medium	Check Bounced
7	110	Gabriel	Del Toro	Medium	Cash
8	220-A	Brigid	Ellison	Small	Cash
9	220-A	Juan	Flores	X-Large	Pending
10	220-B	Tyrese	Hanlon	X-Large	Debit Card

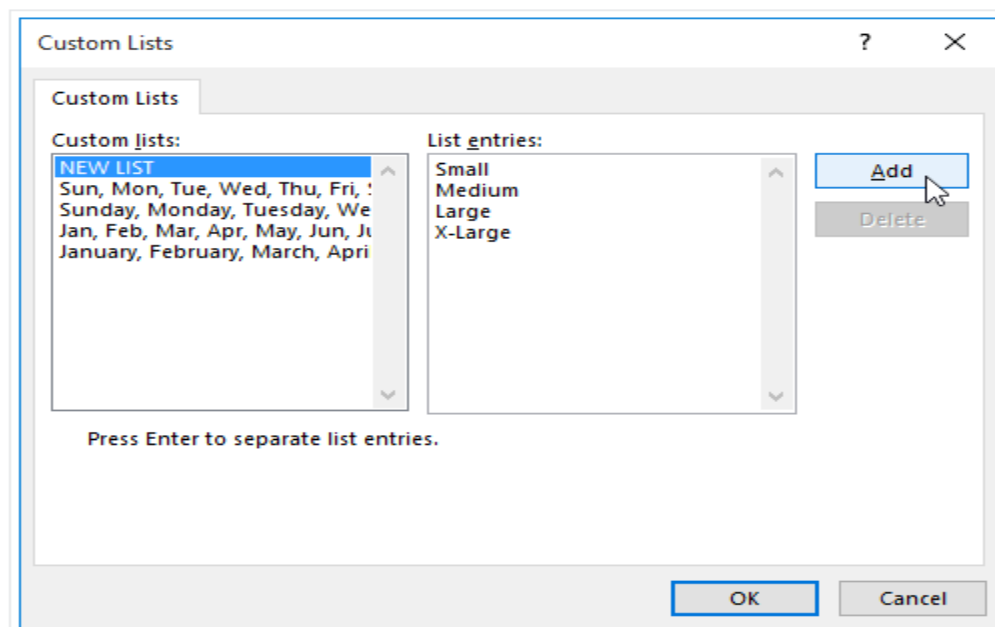
2. Select the Data tab, then click the Sort command.



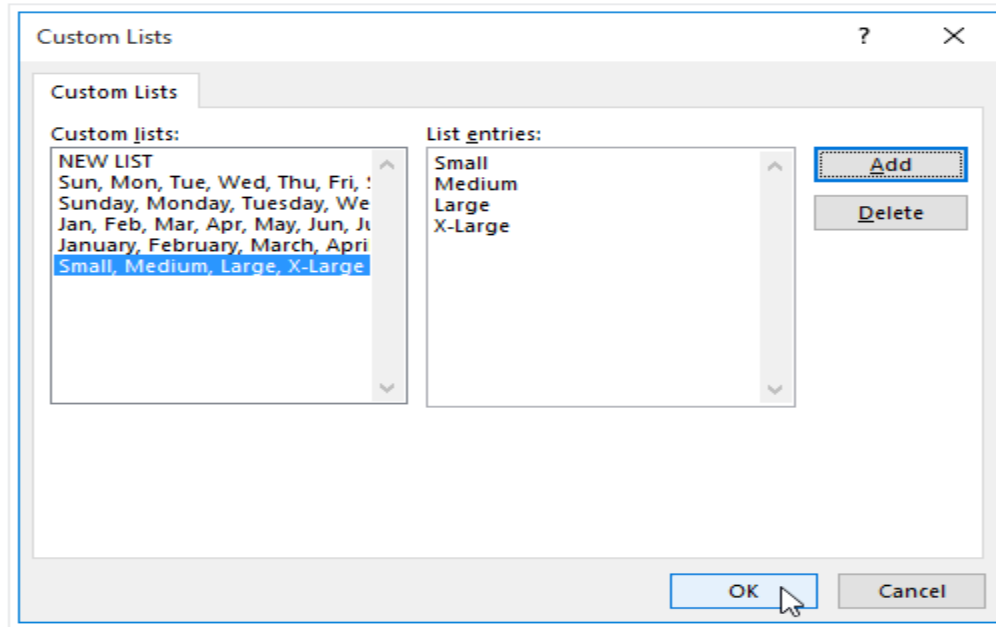
3. The Sort dialog box will appear. Select the column you want to sort by, then choose Custom List... from the Order field. In our example, we will choose to sort by T-Shirt Size.



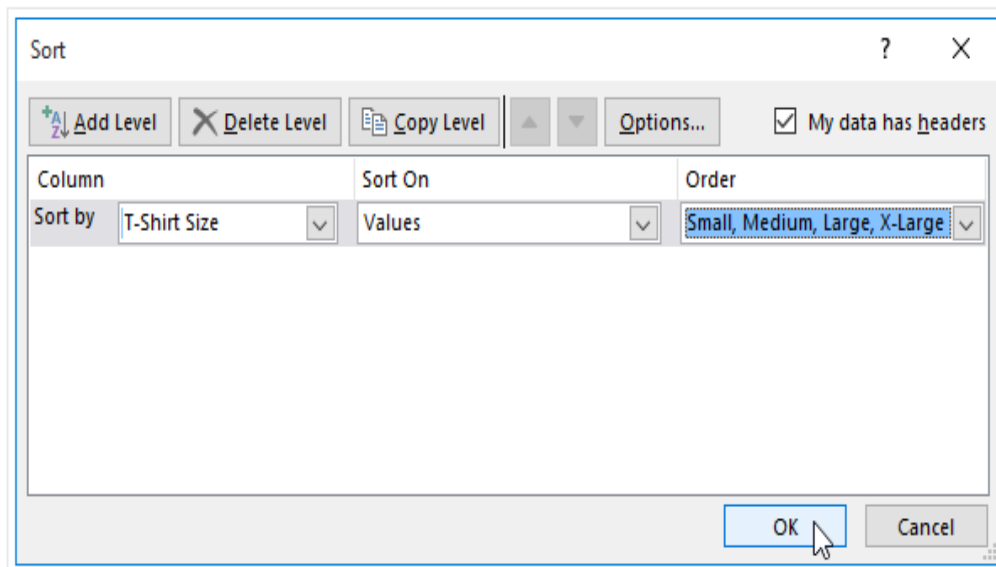
4. The Custom Lists dialog box will appear. Select NEW LIST from the Custom Lists: box.
5. Type the items in the desired custom order in the List entries: box. In our example, we want to sort our data by T-shirt size from smallest to largest, so we'll type Small, Medium, Large, and X-Large, pressing Enter on the keyboard after each item.



6. Click Add to save the new sort order. The new list will be added to the Custom lists: box. Make sure the new list is selected, then click OK.



7. The Custom Lists dialog box will close. Click OK in the Sort dialog box to perform the custom sort.



8. The worksheet will be sorted by the custom order. In our example, the worksheet is now organized by T-shirt size from smallest to largest.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	220-A	Brigid	Ellison	Small	Cash
3	220-B	Michael	Lazar	Small	Cash
4	135	Anisa	Naser	Small	Check Bounced
5	220-A	Christopher	Peyton-Gomez	Small	Check
6	220-B	Malik	Reynolds	Small	Cash
7	220-B	Wendy	Shaw	Small	Cash
8	105	Melissa	White	Small	Debit Card
9	105	Esther	Yaron	Small	Pending
10	105	Nathan	Albee	Medium	Check
11	220-B	Samantha	Bell	Medium	Check
12	110	Matt	Benson	Medium	Money Order
13	105	Christiana	Chen	Medium	Check Bounced
14	110	Gabriel	Del Toro	Medium	Cash
15	105	Sidney	Kelly	Medium	Check
16	220-B	Avery	Kelly	Medium	Debit Card
17	220-A	Chevonne	Means	Medium	Money Order
18	135	James	Panarello	Medium	Check
19	135	Chantal	Weller	Medium	Debit Card
20	110	Kris	Ackerman	Large	Money Order
21	105	Derek	MacDonald	Large	Cash

## Hyperlinks in worksheets

Create a hyperlink to an existing file or web page:

1. On a worksheet, click the cell where you want to create a hyperlink.

You can also select an object, such as a picture or an element in a chart, that you want to use to represent the hyperlink.

2. Do one of the following:


- On the Insert tab, in the Links group, click Hyperlink.



- Right-click the cell or graphic, and then click Hyperlink, or you can press Ctrl+K.

3. Under Link to, click Existing File or Web Page.

4. Do one of the following:

- To enter the name and location of a known file or web page that you want to link to, type that information in the Address box.
- To locate a web page, click Browse the Web , open the web page that you want to link to, and then switch back to Excel without closing your browser.
- To select a file, click Current Folder, and then click the file that you want to link to.
- You can change the current folder by selecting a different folder in the Look in list.

5. If you want to create a hyperlink to a specific location in the file or on the web page, click Bookmark, and then double-click the bookmark that you want to use.

6. The file or web page that you are linking to must have a bookmark.

7. In the Text to display box, type the text that you want to use to represent the hyperlink.

8. To display helpful information when you rest the pointer on the hyperlink, click ScreenTip, type the text that you want in the ScreenTip text box, and then click OK.

9. Click OK.



## **Create a hyperlink to a new file**

1. On a worksheet, click the cell where you want to create a hyperlink.
2. You can also select an object, such as a picture or an element in a chart, that you want to use to represent the hyperlink.
3. Do one of the following:
  - On the Insert tab, in the Links group, click Hyperlink.
4. Right-click the cell or graphic, and then click Hyperlink, or you can press Ctrl+K.
5. Under Link to, click Create New Document.
6. In the Name of the new document box, type a name for the new file.
7. Under When to edit, click Edit the new document later or edit the new document now to specify when you want to open the new file for editing.
8. In the Text to display box, type the text that you want to use to represent the hyperlink.
9. To display helpful information when you rest the pointer on the hyperlink, click ScreenTip, type the text that you want in the ScreenTip text box, and then click OK.
10. Click OK.

## **Create or remove a hyperlink to an email address**

1. On a worksheet, click the cell where you want to create a hyperlink.

You can also select an object, such as a picture or an element in a chart, that you want to use to represent the hyperlink.

2. Do one of the following:

- On the Insert tab, in the Links group, click Hyperlink.



- Right-click the cell or graphic, and then click Hyperlink, or you can press Ctrl+K.

3. Under Link to, click E-mail Address.

4. In the E-mail address box, type the email address that you want to use.

5. In the Subject box, type the subject of the email message.

6. In the Text to display box, type the text that you want to use to represent the hyperlink.

7. To display helpful information when you rest the pointer on the hyperlink, click ScreenTip, type the text that you want in the ScreenTip text box, and then click OK.

8. Click OK.

### **Remove a hyperlink to an email address**

If email addresses of contacts become clickable hyperlinks, you can deactivate them as you would for any other hyperlink.

1. On a worksheet, click the cell where you want to remove the hyperlink.
2. You can also select an object, such as a picture or an element in a chart, that you want to use to represent the hyperlink.
3. Right-click the cell, and then click Remove Hyperlink.

### **Consolidate data in multiple worksheets**

To summarize and report results from separate worksheets, you can consolidate data from each into a master worksheet. The worksheets can be in the same workbook as the master worksheet or in other workbooks.

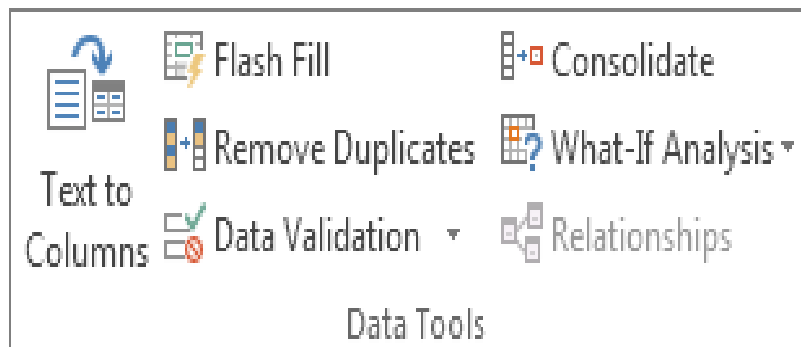
There are two ways to consolidate data: by Category or by Position.



1. Consolidation by position: When the data in the source areas is arranged in the same order and uses the same labels. Use this method to consolidate data from a series of worksheets, such as departmental budget worksheets that have been created from the same template.
2. Consolidation by category: When the data in the source areas is not arranged in the same order but uses the same labels. Use this method to consolidate data from a series of worksheets that have different layouts but have the same data labels.

### Consolidation steps

1. If you haven't already, then in each worksheet that contains the data that you want to consolidate, set up your data by doing the following:
  - Make sure that each range of data is in list format, so that each column has a label in the first row and contains similar data, and there are no blank rows or columns within the list.
  - Put each range on a separate worksheet, but don't enter anything in the master worksheet where you plan to put the consolidation - Excel will fill this in for you.
  - Make sure that each range has the same layout.
2. In the master worksheet, click the upper-left cell of the area where you want the consolidated data to appear.
3. On the Data tab, in the Data Tools group, click Consolidate.



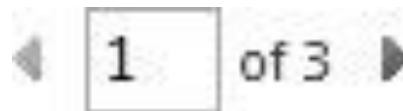


4. In the Function box, click the summary function that you want Excel to use to consolidate the data. The default function is SUM.
5. Select your data
6. In the Consolidate dialog box, click Add, and then repeat to add all of the ranges that you want.
7. Automatic vs. Manual updates: If you want Excel to update your consolidation table automatically when the source data changes, select the Create links to source data check box. If unchecked, you can update the consolidation manually.
8. Press OK, and Excel will generate the consolidation for you. It will be unformatted, so it's up to you to format, but you only need to do that once, unless you rerun the consolidation.

### Various print options

To Print your work

1. Click File, and then click Print, or press Ctrl+P.
2. Preview the pages by clicking the Next Page and Previous Page arrows.



The preview window displays the pages in black and white or in color, depending on your printer settings.

If you don't like how your pages will be printed, you can change page margins or add page breaks.

3. Click Print.

### Edit a function

You can use the Insert Function button in Excel 2016 to edit formulas that contain functions right from the Formula bar. Select the cell with the formula and function to edit before you select the Insert Function button (the one sporting the fx that appears immediately in front of the current cell entry on the Formula bar).

As soon as you select the Insert Function button, Excel opens the Function Arguments dialog box where you can edit its arguments .

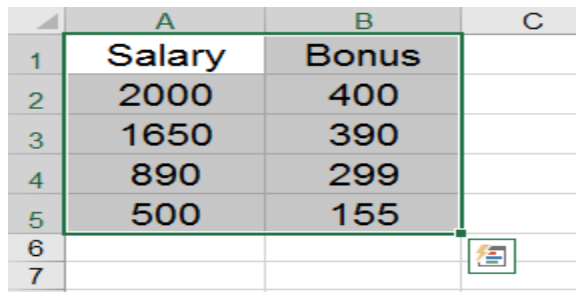
Excel automatically adds any cell or cell range that you highlight in the worksheet to the current argument. If you want to replace the current argument, you need to highlight it and remove its cell addresses by pressing the Delete key before you highlight the new cell or cell range to use as the argument.

### Analysis of data using graphs and charts

used to take a bit of work to analyze your data, but now it only takes a few steps. You can instantly create different types of charts, including line and column charts, or add miniature graphs (called spark lines). You can also apply a table style, create PivotTables, quickly insert totals, and apply conditional formatting.

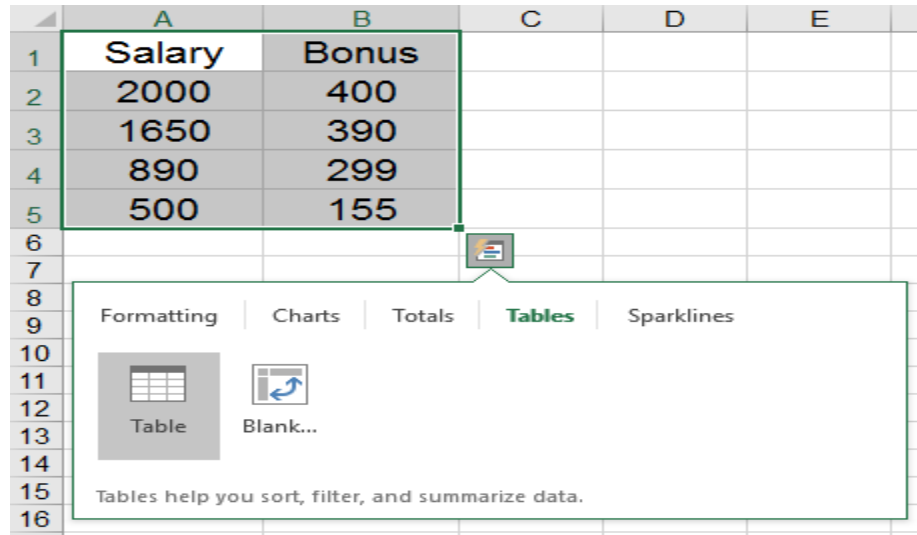
A simple way to access Excel's power is to put your data in a table. That lets you quickly filter or sort your data.


1. Select your data by clicking the first cell and dragging to the last cell in your data.

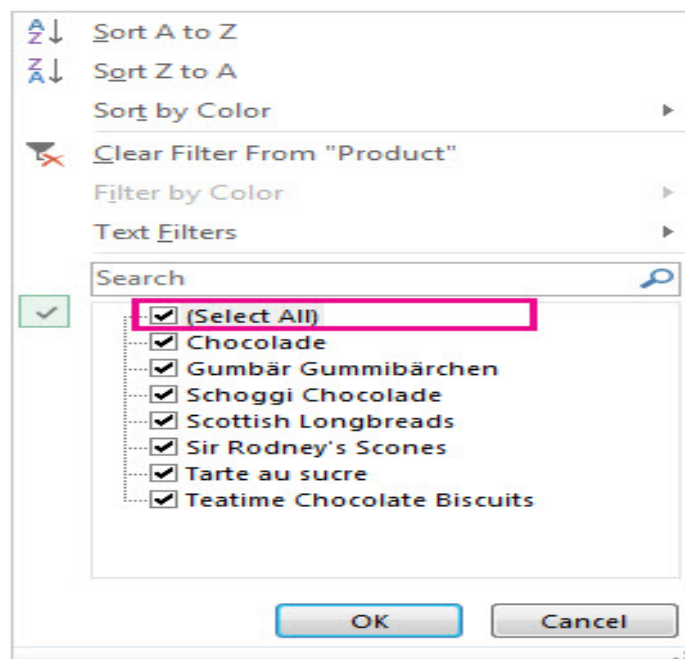


	A	B	C
1	Salary	Bonus	
2	2000	400	
3	1650	390	
4	890	299	
5	500	155	
6			
7			

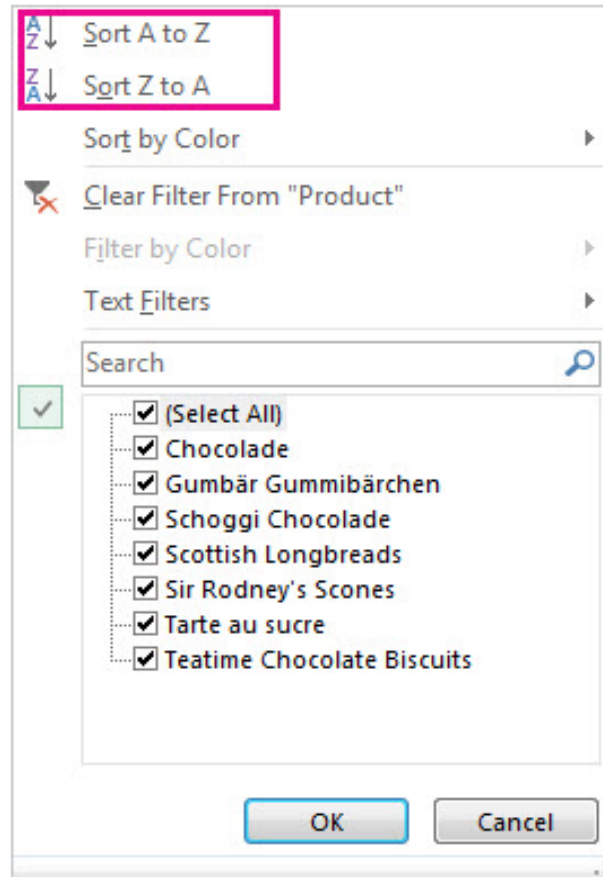
2. Click the Quick Analysis button in the bottom-right corner of the selection.
3. Click Tables, move your cursor to the Table button to preview your data, and then click the Table button.



4. Click the arrow  in the table header of a column.
5. To filter the data, clear the Select All check box, and then select the data you want to show in your table.




6. To sort the data, click Sort A to Z or Sort Z to A.



7. Press OK

### Show totals for your numbers

Quick Analysis tools let you total your numbers quickly. Whether it's a sum, average, or count you want, Excel shows the calculation results right below or next to your numbers.

1. Select the cells that contain numbers you want to add or count.
2. Click the Quick Analysis button  in the bottom-right corner of the selection.
3. Click Totals, move your cursor across the buttons to see the calculation results for your data, and then click the button to apply the totals.



	A	B	C	D	E
1	Salary	Bonus			
2	2000	400			
3	1650	390			
4	890	299			
5	500	155			
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Formatting

Charts

Totals

Tables

Sparklines

Sum

Average

Count

% Total

Running...


Sum

Formulas automatically calculate totals for you.

## Add meaning to your data

Conditional formatting or sparklines can highlight your most important data or show data trends. Use the Quick Analysis tool for a Live Preview to try it out.

Select the data you want to examine more closely.

Click the Quick Analysis button  in the bottom-right corner of the selection.

Explore the options on the Formatting and Sparklines tabs to see how they affect your data.

	A	B	C	D	E
1	Salary	Bonus			
2	2000	400			
3	1650	390			
4	890	299			
5	500	155			
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Formatting

Charts

Totals

Tables

Sparklines

Data Bars

Color...

Icon Set

Greater...


Top 10%

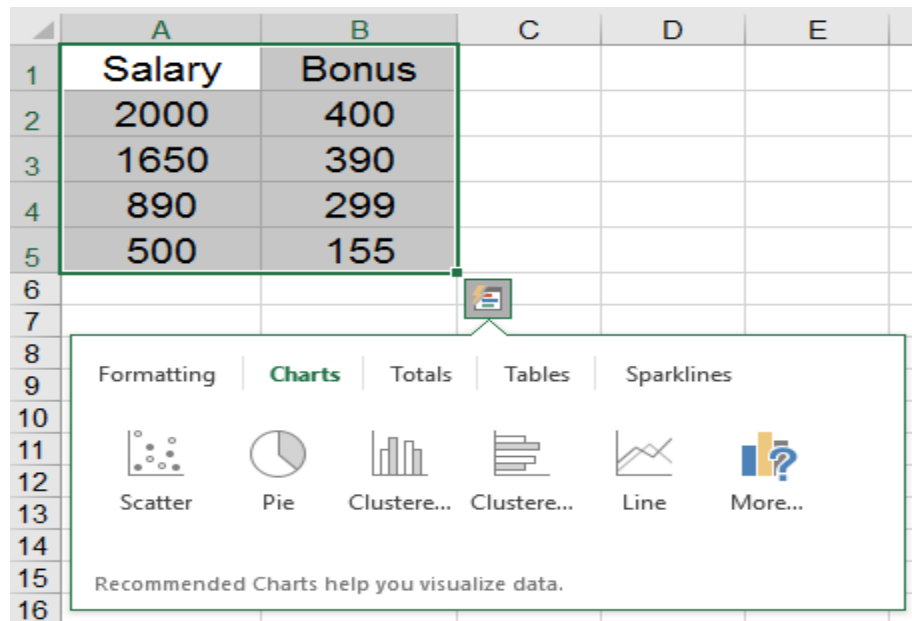
Clear...

Conditional Formatting uses rules to highlight interesting data.

## Show your data in a chart

The Quick Analysis tool recommends the right chart for your data and gives you a visual presentation in just a few clicks.

1. Select the cells that contain the data you want to show in a chart.
2. Click the Quick Analysis button  in the bottom-right corner of the selection.



Click the Charts tab, move across the recommended charts to see which one looks best for your data, and then click the one that you want.



## Exercise

### Exercise 1

1. Recreate below worksheet

	A	B	C	D	E	F
1	Name	Salary	Double	Half	Increase	Decrease
2	ALI	2400				
3	HASSAN	1350				
4	FATIMA	800				
5	MUNA	654				
6	KHALIL	2201				
7	KHADIJA	799				
8	YOUSIF	1499				
9	NOOR	1555				
10	HANEEN	1444				

2. Find double of the salary to all names
3. Find half of the salary to all names
4. Increase 127 \$ to all salaries
5. Decrease 209 \$ from all salaries

### Exercise 2

1. Recreate below worksheet

	A	B	C	D	E	F
1	AL Omani Institute					
2	Name	Salary	Housing-allowance	Transport-allowance	Tax Deduction	Net-salary
3	Adnan	350				
4	Omer	400				
5	Ruba	342				
6	Ghassan	650				
7	Muna	300				
8	Nader	505				

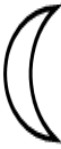






2. Find:

- Housing-allowance = 29.5%
- Transport-allowance = 16%
- Tax-Deduction = 7.5%
- Net-Salary

### Exercise 3

1. Recreate below worksheet

	A	B	C	D	E	F	G	H
1			<b>Printing Office</b>					
2	<b>BOX 1</b>				<b>BOX 2</b>			
3								
4								
5								
6								
7								
8								
9	<b>NO</b>	<b>Name</b>	<b>Salary</b>	<b>Housing Allowance</b>	<b>Transport Allowance</b>	<b>Increase 31.6 O.R</b>	<b>Total</b>	
10	1	Khadija	1100					
11	2	Noora	995					
12	3	Omer	800					
13	4	Ali	567					
14	5	Muna	555					
15	6	Ahmed	509					

2. Find:

- Housing Allowance = 44.5% to all names
- Transport Allowance = 20% to all names
- Increase 31.6 O.R to all names
- Select cells A9 to D15, then add column Chart in Box1
- Select cells E9 to G15, then add Pie Chart in Box2

**Exercise 4**

A Candy factory wins 15,000 O.R Per month.

Use MS Excel to explain how wins in the following cases:

- In the Week
- In the Day
- In the Hour

**Exercise 5**

The worksheet shown top basketball league in Brazil.





- Each team played 15 games
- In case the team "win the match"- will get three points
- In case the team "tie"- will get one point
- In case the team "loss"- will get zero point

Use MS Excel, then calculate the number of points for each team.

	A	B	C	D	E	F	G
1	<b>Top basketball league in Brazil</b>						
2	<b>No</b>	<b>Team name</b>	<b>number of matches</b>	<b>win</b>	<b>Tie</b>	<b>Los</b>	<b>Points</b>
3	<b>1</b>	B.J	15	7	5	3	
4	<b>2</b>	B.B.S	15	7	5	3	
5	<b>3</b>	B.N.B	15	8	0	7	
6	<b>4</b>	Brz	15	5	5	5	
7	<b>5</b>	TOM	15	8	5	2	
8	<b>6</b>	NTNT	15	5	10	0	
9	<b>7</b>	Andr.B	15	10	0	5	
10	<b>8</b>	FEFE	15	9	6	0	

### Exercise 6

1. Recreate the worksheet below.
2. Insert the flight logo from the Internet.
3. Calculate Oman Air ticket prices in cases:

	A	B	C	D	E	F	G	H	I	J
1	Country	Logos		Tickets Prices for Adults and Childs						
2	Thailand				Adult	Child	Adult	Child	Adult	Child
3					One ticket	One ticket	12 Tickets	12 Tickets	30 tickets	30 Tickets
4					213	177				
5	British				Adult	Child	Adult	Child	Adult	Child
6					One ticket	One ticket	12 Tickets	12 Tickets	30 tickets	30 Tickets
7					305	211				
8	USA				Adult	Child	Adult	Child	Adult	Child
9					One ticket	One ticket	12 Tickets	12 Tickets	30 tickets	30 Tickets
10					600	475				
11	Australia				Adult	Child	Adult	Child	Adult	Child
12					One ticket	One ticket	12 Tickets	12 Tickets	30 tickets	30 Tickets
13					490	300				

- 12 tickets (Adult) to Thailand
- 12 tickets (Child) to Thailand
- 30 tickets (Adult) to Thailand
- 30 tickets (Child) to Thailand

#### 4. Calculate Etihad Air ticket prices in cases:

- 12 tickets (Adult) to British
- 12 tickets (Child) to British
- 30 tickets (Adult) to British
- 30 tickets (Child) to British

#### 5. Calculate Gulf Air ticket prices in cases:

- 12 tickets (Adult) to USA



- 12 tickets (Child) to USA
- 30 tickets (Adult) to USA
- 30 tickets (Child) to USA

**6. Calculate Qatar Air ticket prices in cases:**

- 12 tickets (Adult) to Australia
- 12 tickets (Child) to Australia
- 30 tickets (Adult) to Australia
- 30 tickets (Child) to Australia

## **CHAPTER 2**

### **Presentation**

**The general objectives of this component are to equip students with the essential skills that they need to create professional presentations during their studies and an understanding of**

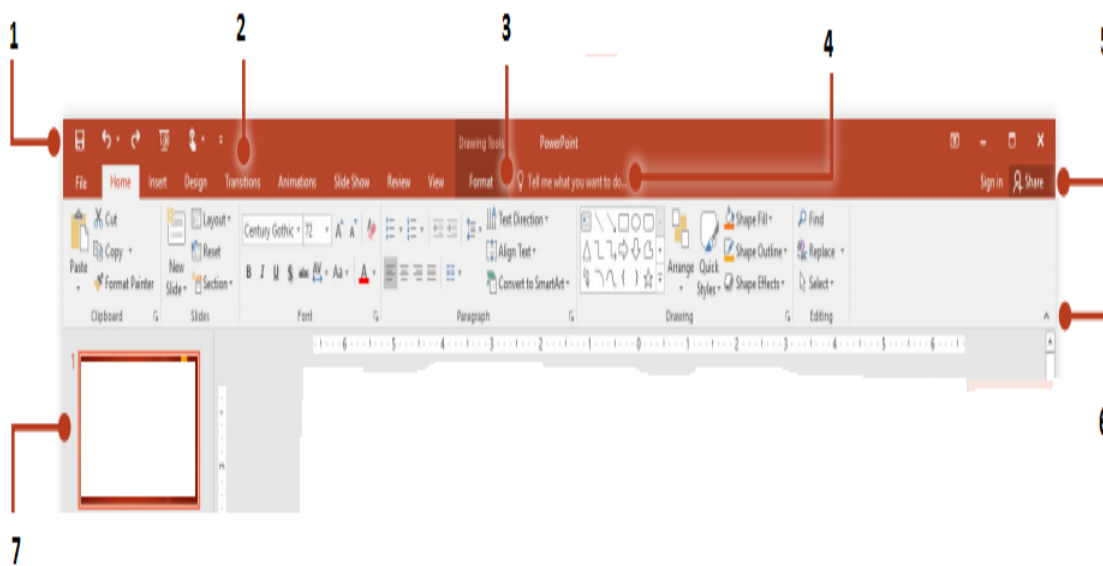
**presentation packages so that they can utilize them for presenting information in an effective manner during their studies and in the future.**

- a) Recognize, open, modify, navigate, save and close a presentation application file.
- b) Identify and use different design layouts and presentation view modes.
- c) Use the help system effectively.
- d) Demonstrate how to use display/hide toolbars.
- e) Identify and use different types of menus in a presentation application.
- f) Explain the difference between master slide and other slides.
- g) Explain Animation and Color scheme.
- h) Explain the main formatting features to improve the appearance of the slides.
- i) Demonstrate the ability to use various print options to print the presentation slides.
- j) Demonstrate the ability to insert pictures and objects to enhance the outlook of the presentation.
- k) Demonstrate the use of adding notes, header and footer, updated dates and automatic numbering for the presentation.
- l) Demonstrate the ability to duplicate, move slides within the presentation and between open presentations.
- m) Demonstrate the use of transition and animation effects.
- n) Demonstrate the use of proofing tools to correct the content of the presentation.

## Working with Microsoft PowerPoint 2016

PowerPoint 2016 is the presentation program in the newest Microsoft Office suite that allows you to create amazing slide presentations that can integrate images, video, narration, charts, and more.

### Quick Start Guide in MS PowerPoint 2016

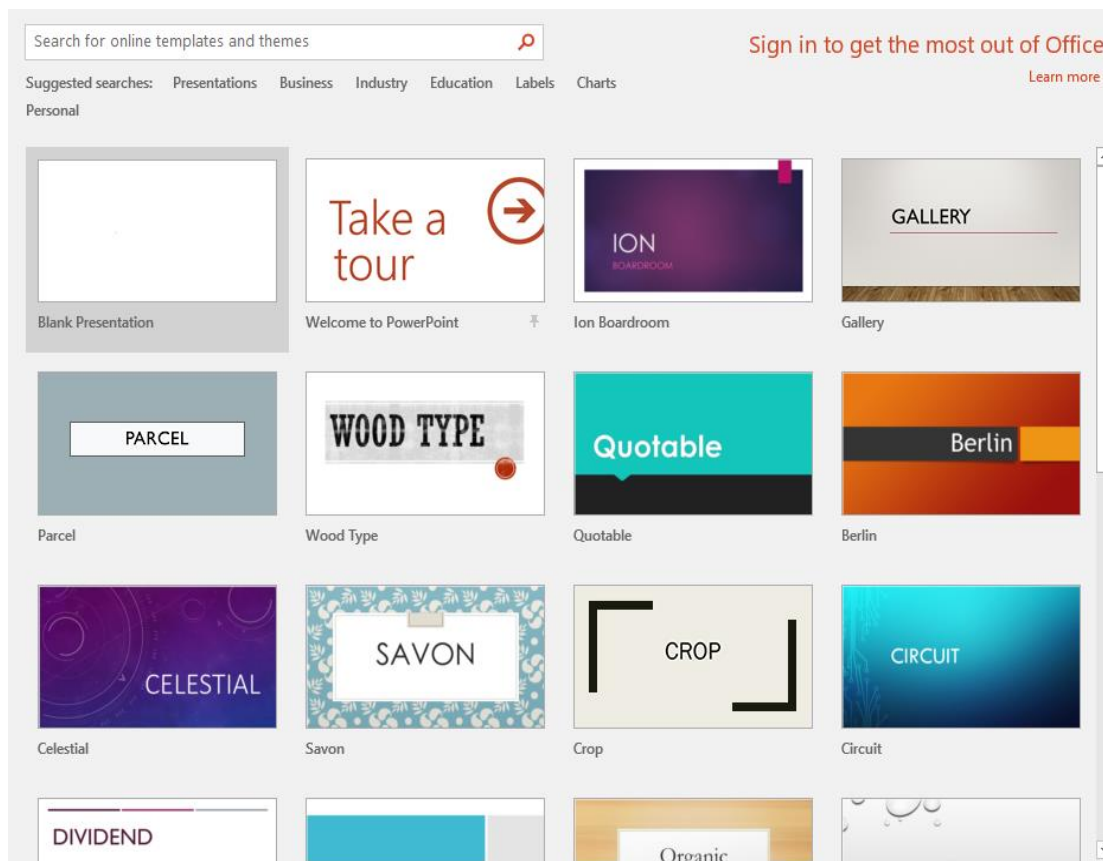


1. Quick Access Toolbar: Keep favorite commands permanently visible.
2. Explore the ribbon: See what PowerPoint can do by clicking the ribbon tabs and exploring available tools.
3. Discover contextual commands: Select text, pictures, or other objects in a presentation to reveal additional tabs.
4. Find whatever you need: Look up PowerPoint commands, get Help, or search the Web
5. Share your work with others: Invite other people to view and edit cloud-based presentations.
6. Show or hide the ribbon Click the pin icon to keep the ribbon displayed or hide it again by clicking the arrow.



## Themes

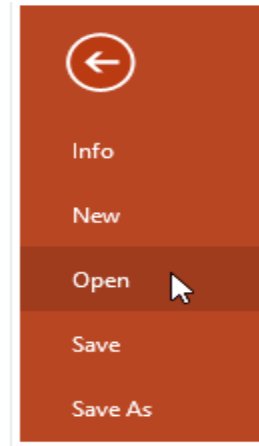
To give your presentations a designer-quality look — a look that includes one or more slide layouts with coordinating colors, a matching background, fonts, and effects, you'll want to apply a theme. Themes can also be applied to tables, SmartArt graphics, shapes, or charts in your slides.



**Open, modify, navigate, save and close a presentation application file**

### To open a presentation

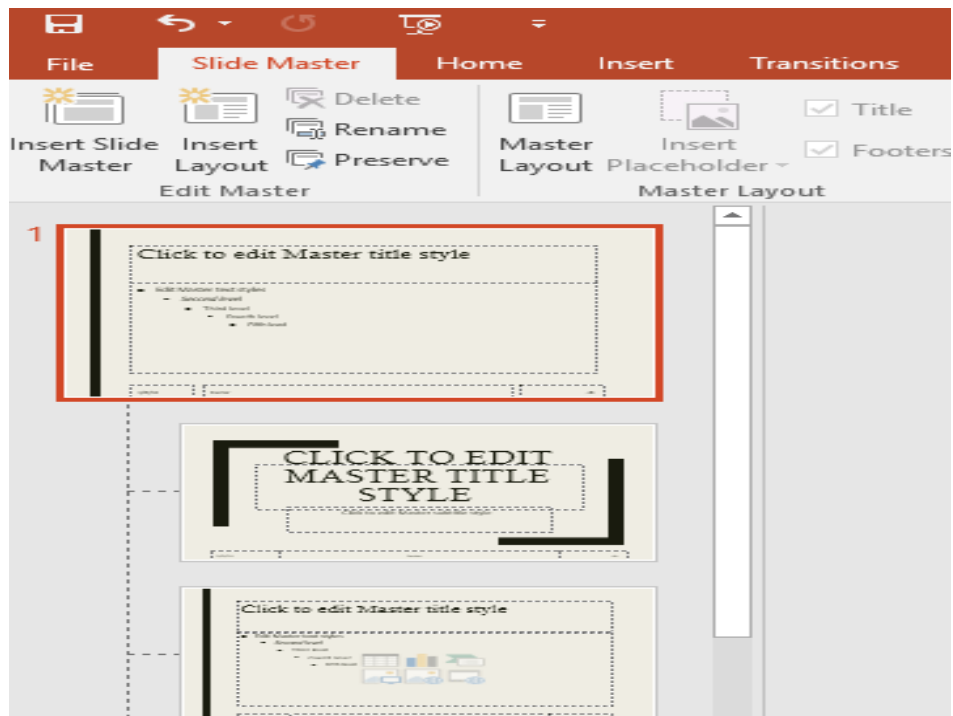
1. Select the File tab to go to Backstage view, then click Open.



2. The Open dialog box will appear. Locate and select your presentation, then click Open.

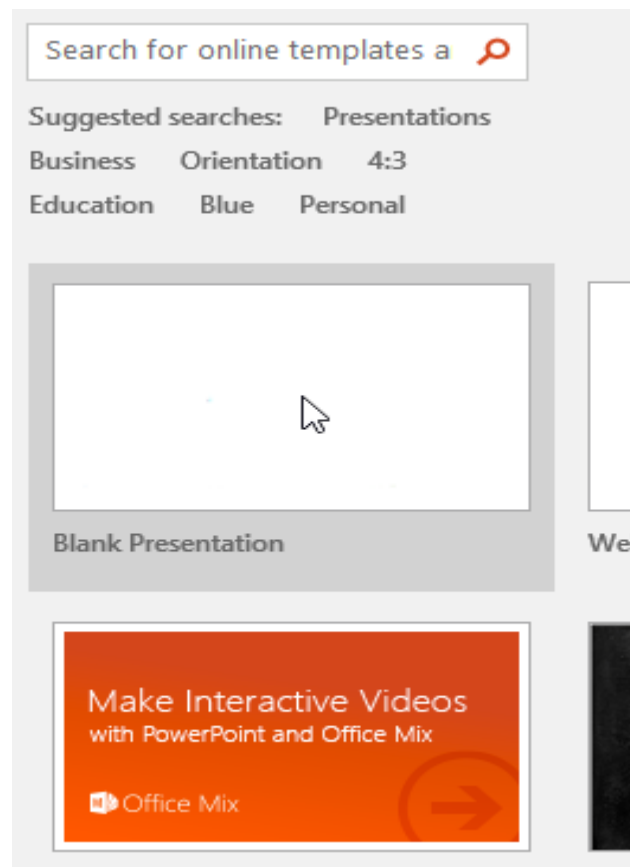
### To modify a presentation

Slide Master view is a special feature in PowerPoint that allows you to quickly modify the slides and slide layouts in your presentation. From there, you can edit the slide master, which will affect every slide in the presentation. You can also modify individual slide layouts, which will change any slides using those layouts.



## To navigate a presentation

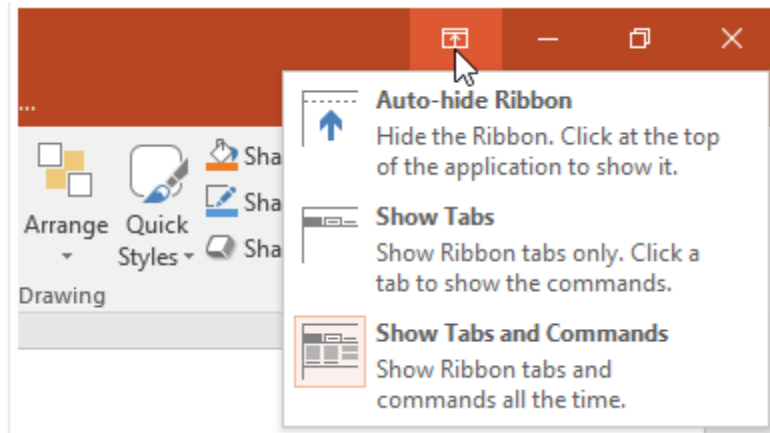
When you open PowerPoint for the first time, the Start Screen will appear. From here, you'll be able to create a new presentation, choose a template, and access your recently edited presentations. From the Start Screen, locate and select Blank Presentation to access the PowerPoint interface.



Click the buttons in the interactive below to become familiar with the PowerPoint interface.

## Showing and hiding the Ribbon

The Ribbon is designed to respond to your current task, but you can choose to minimize it if you find that it takes up too much screen space. Click the Ribbon Display Options arrow in the upper-right corner of the Ribbon to display the drop-down menu.



- **Auto-hide Ribbon:** Auto-hide displays your workbook in full-screen mode and completely hides the Ribbon. To show the Ribbon, click the Expand Ribbon command at the top of screen.
- **Show Tabs:** This option hides all command groups when they're not in use, but tabs will remain visible. To show the Ribbon, simply click a tab.
- **Show Tabs and Commands:** This option maximizes the Ribbon. All of the tabs and commands will be visible. This option is selected by default when you open PowerPoint for the first time.

### To save a presentation

1. Select the File tab to go to Backstage view, then click Save.
2. The Save dialog box will appear.
3. Enter the file name, then click Save.

### To close a presentation

1. Select the File tab to go to Backstage view, then click Close.

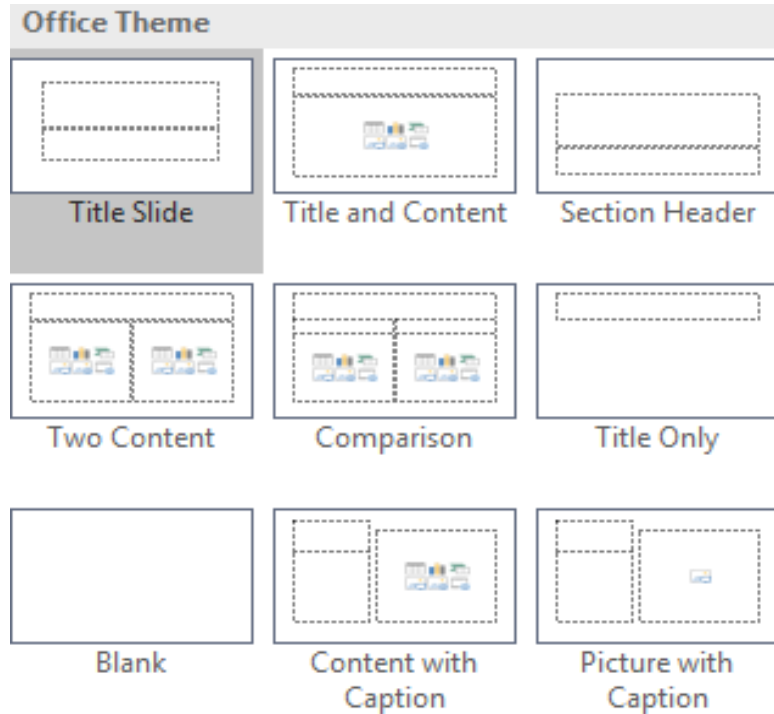
## Design layouts and presentation view modes

Each slide layout contains placeholders for text, videos, pictures, charts, shapes, clip art, a background, and more, and they also contain the formatting, such as theme colors, fonts, and effects.

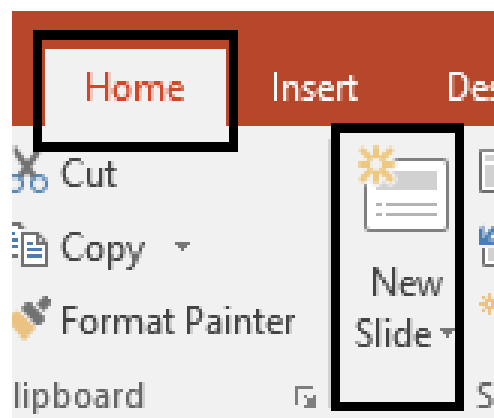


## Slide Layout

- 1 - Press right click on slide outline
- 2 - Press clicks on Layout
- 3 - Select the any slide



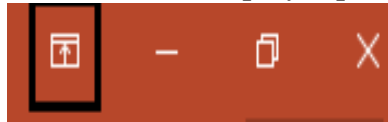
To add new slide, press Home menu, then new slide



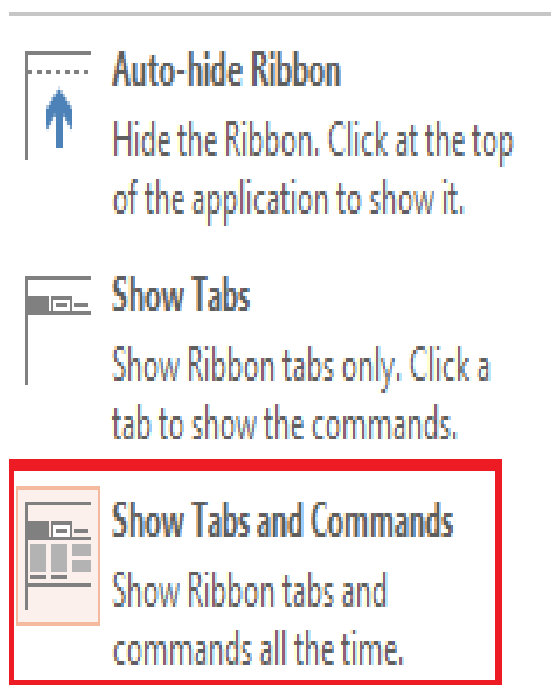
## Display/hide toolbars

### To display toolbars

1. At the top-right corner, click the Ribbon Display Options icon



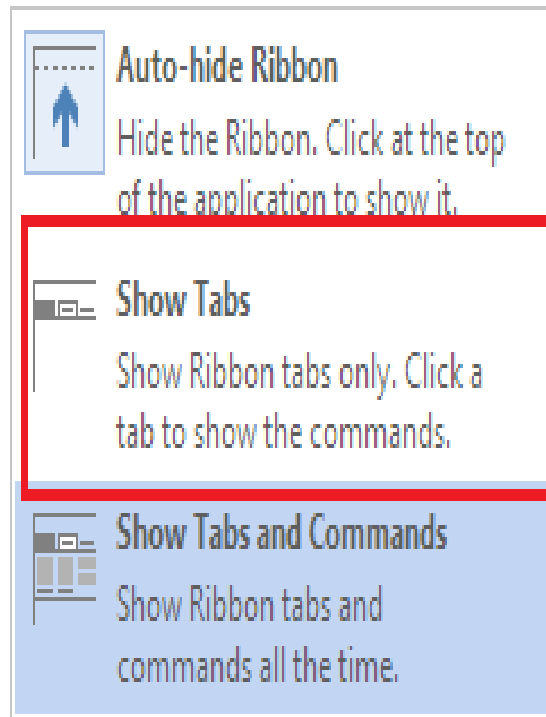
2. Click Show Tabs and Commands.



### Display only the ribbon tabs

You can set Office programs to show only the ribbon tabs, so you see more of your document, and you can still quickly switch among the tabs.

1. At the top-right corner, click the Ribbon Display Options icon.
2. Click Show tabs.



### Menus in a presentation application

The key feature of the new ribbon interface in MS PowerPoint 2016 is that all the menus and has been grouped under different tabs.

#### File Menu









The following tabs list all features and command for File Menu:





Save	Saves the current Presentation
Save As	Save the Presentation as a different file.
Open	Open an existing Microsoft PowerPoint Presentation.
Close	Close the Presentation
New	New Microsoft PowerPoint Presentation
Print	Print the current PowerPoint Presentation
Exit	Exit MS PowerPoint















## Home Menu





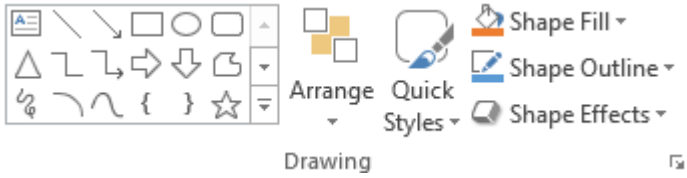






The following tabs list all features and command for home menu:







1. Clipboard	2. Slides	3. Font
4. Paragraph	5. Drawing	6. Editing

<b>1. Clipboard</b>	
	This command will cut (delete) the currently selected element.
	The Copy command will copy the currently selected element (text, image, etc) into the office clipboard.
	This will paste (insert) into the current document the last element to be stored in the Office Clipboard.
	Format painter: Like the look of a particular selection? You can apply that look to other content in the document.
<b>2. Slides</b>	
 New Slide ▾	New slide: Add a slide to your presentation.
 Layout ▾	Slide layout: Change the layout of your slide.

 Reset	Reset: Reset the position, size, and formatting of the slide placeholders to their default settings.
 Section ▾	Section: Organize your slides into sections.
<b>3. Font</b>	
Calibri Light (He ▾	Font: Pick a new font for your text.
60 ▾	Font Size: Change the font Size of your text.
A <sup>+</sup>	Increase font size: Make your text a bit bigger.
A <sup>−</sup>	Decrease font size: Make your text a bit smaller.
Aa ▾	Change case: Change the selected text to uppercase, lowercase or other common capitalizations.
	Clear all formatting: Remove all formatting from the selection, leaving only the normal, unformatted text.
<b>B</b>	Bold: Make your text bold.
<i>I</i>	Italic: Italicize your text.
<u>U</u>	Underline: Underline your text.
<del>abc</del>	Strikethrough: Cross something out by drawing a line through it.

	Character spacing: Adjust the spacing between characters.
	Font color: Change the color of your text.
4. Paragraph	
	Bullets: Create a bulleted list.
	Numbering: Create a numbered list.
	Decrease list level: Decrease the indent level.
	Increase the indent level.
	Line spacing: Control how much space appears between lines of text.
	Align left: Align your content to the left.
	Center: Center your content.
	Align right: Align your content with the right margin.
	Justify: Distribute your text evenly between the margins.
	Left-to-right text direction: Set the text to read from left to right.
	Right-to-left text direction: Set the text to read from right to left.

	Add or remove columns: Split your text into two or more columns.
 Text Direction ▾	Text direction: Change the orientation of text to vertical, stacked, or rotate it to the desired direction.
 Align Text ▾	Align text: Change how your text is aligned within the text box.
 Convert to SmartArt	Convert to SmartArt graphic: SmartArt is way for you to communicate information visually, rather than within just text.
<b>5. Drawing</b>	
	Drawing
 Arrange	Arrange: Arrange objects on the slide by changing their order, position, and rotation.
 Quick Styles ▾	Shape quick styles: Quickly add a visual style to the selected shape or line.
 Shape Fill ▾	Shape fill: Fill the selected shape with a solid color, gradient, picture, or texture.
 Shape Outline	Shape outline: Pick the color, width, and line style for the outline of your shape.
 Shape Effects	Shape effects: Apply a visual effect to the selected shape, such as shadow, glow, reflection, or 3-D rotation.

<b>6. Editing</b>	 Find  Replace  Select Editing
 Find	Find: Find and replace text using advanced search options, such as match case and whole words only.
 Replace	Replace: Search for text you'd like to change and replace it with something else.
 Select	Select: Select text or objects in your document.

## Insert Menu

The following tabs list all features and command for Insert menu:

1. Slides	2. Tables	3. Images	4. Illustrations
5. Add-ins	6. Links	7. Comments	8. Text
9. Symbols	10. Media		


































<b>1. Slides</b>	 New Slide Slides
 New Slide	New slide: Add a slide to your presentation.
<b>2. Tables</b>	 Table Tables

 Table	Add a table: A table is a great way to organize information within your document.
<b>3. Images</b>	
 Pictures	Pictures: Insert pictures from your computer or from other computers that you're connected to.
 Online Pictures	Online picture: Find and insert pictures from a variety of online sources.
 Screenshot	Take a screenshot: Quickly add a snapshot of any window that's open on your desktop to your document.
 Photo Album ▾	New photo album: Create a beautiful presentation for your favorite photo collection.
<b>4. Illustrations</b>	
 Shapes	Shapes: Insert ready-made shapes, such as circles, squares, and arrows.
 SmartArt	Insert a SmartArt graphic: Insert a SmartArt graphic to visually communicate information.

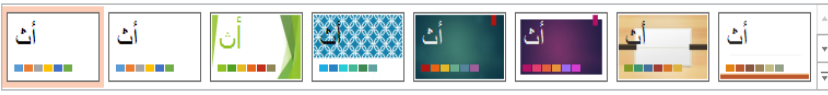


 Chart	Add a chart: Make it easy to spot patterns and trends in your data by inserting a bar, area, or line chart.
<b>5. Add-ins</b>	 Store  My Apps ▾ Add-ins
 Store	Browse office store: Explore apps in the office store.
 My Apps	Insert an app: Insert an app into your document and use the web to enhance your work.
<b>6. Links</b>	  Hyperlink Action Links
 Hyperlink	Add a hyperlink: Create a link in your document for quick access to webpages and files.
 Action	Action: Give the selected object an action to carry out when you click it or mouse over it.
<b>7. Comments</b>	 Comment Comments
 Comment	Insert comment: Add a note about this part of the document.
<b>8. Text</b>	      Text Box Header & Footer WordArt Date & Time Slide Number Object Text






 Text Box	Draw a text box: Draw a text box anywhere.
 Header & Footer	Header & footer: The content of the header and footer repeats at the top and bottom of each printed page.
 WordArt	Insert WordArt: Add some artistic flair to your document using a WordArt text box.
 Date & Time	Date & time: Quickly add the current date or time.
 Slide Number	Insert slide number: Number the slides in your presentation for easy reference.
 Object	Object: Embedded objects are documents or other files you have inserted into this document.
<b>9. Symbols</b>	
 Equation	Insert equation: Add common mathematical equations to your document, such as the area of a circle or the quadratic formula.
 Symbol	Symbol: Add symbols that are not on your keyboard.

<b>10. Media</b>	
 Video	Insert video: What's everyone's favorite slide?  The one with the video.
 Audio	Insert audio: Insert audio from your computer or a variety of online sources. You can also record audio with a microphone.
 Screen Recording	Insert screen recording: Record your computer screen and related audio before inserting the recording onto your slide.

## Design Menu

The following tabs list all features and command for Design menu:




1. Themes	2. Variants	3. Customize
<b>1. Themes</b>	 Themes	
	Themes	
<b>2. Variants</b>	 Variants	






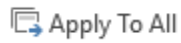
	Variants
<b>3. Customize</b>	  Slide Size ▾    Format Background Customize
 Slide Size ▾	Slide size: Change the size of the slides in this presentation.
 Format Background	Format background: Fine-tune the formatting for your background or hide design elements from the current design.

## Transitions Menu

The following tabs list all features and command for Transitions menu:

1. Preview	2. Transition to This Slide	3. Timing
------------	-----------------------------	-----------


<b>1. Preview</b>	 Preview Preview
 Preview	Preview transitions: Play the transition to this slide.
<b>2. Transition to This Slide</b>	 Transition to This Slide


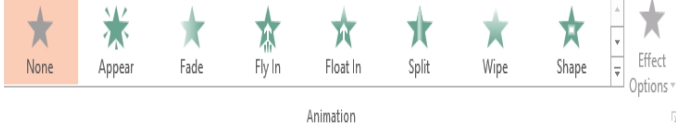


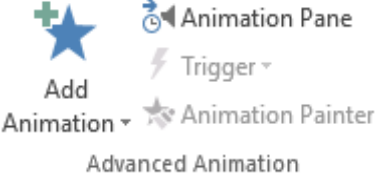




	None
	Effect options: Change to a variation of the selected transition.
<b>3. Timing</b>	
	Sound: Pick a sound to play during the transition from the previous slide to this one.
	Duration: Specify the length of transition.
<input checked="" type="checkbox"/> On Mouse Click	On mouse click: Wait until a mouse click to move to the next slide.
<input type="checkbox"/> After: 00:00.00	On mouse click: Wait until a mouse click to move to the next slide.
	Apply to all: Apply the current slide's transition, effects, and timing settings to the entire presentation.







## Animations Menu

The following tabs list all features and command for Animations menu:

1. Preview	2. Animation	3. Advanced Animation	4. Timing
------------	--------------	-----------------------	-----------

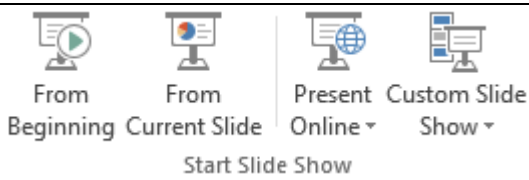
<b>1. Preview</b>	
-------------------	---












 Preview	Preview Animations
<b>2. Animation</b>	 Animation
 Appear	Appear
 Effect Options	Effect options: Apply an animation effect to the selected object.
<b>3. Advanced Animation</b>	 Advanced Animation
 Add Animation	Add animation: Choose an animation effect to add to the selected objects.
 Animation Pane	Animation pane: Open the animation pane to view and edit the timeline of animations on this slide.
 Trigger	Trigger: Set a special start condition for an animation.
 Animation Painter	Animation painter: Like the animation of a particular object.




<b>4. Timing</b>	
	Animation timing: Animation can start after a mouse click, at the same time as the previous animation, or after the previous animation is done.
	Animation duration: Specify the length of an animation.
	Animation delay: Play the animation after a certain number of seconds.
	Move earlier: Move the current animation to play earlier.
	Move later: Move the current animation to play later.

## Slide Show Menu

The following tabs list all features and command for Slide Show menu:

1. Start Slide Show	2. Set Up	3. Monitors
<b>1. Start Slide Show</b>		
















 From Beginning	Start from beginning: Start the show from the first slide.
 From Current Slide	Start from this slide: Jump right into the show at this slide.
 Present Online ▾	Present the slide show online with the default presentation service.
 Custom Slide Show ▾	Custom slide show: Show only the slides you choose.
<b>2. Set Up</b>	<div>     <div> <input checked="" type="checkbox"/> Play Narrations  <input checked="" type="checkbox"/> Use Timings  <input checked="" type="checkbox"/> Show Media Controls </div> </div> <div> Set Up Slide Show   Hide Slide   Rehearse Timings   Record Slide Show ▾   Set Up </div>
 Set Up Slide Show	Set up show: Set up advanced options for the slide show, such as kiosk mode.
 Hide Slide	Hide slide: Hide the current slide so that it won't appear when you're presenting.
 Rehearse Timings	Rehearse timings: Practice makes perfect. Start the full-screen slide show to figure out the perfect timing for each slide.











 Record Slide Show ▾	Start recording from beginning: Record narrations, ink, laser pointer gestures, and slide and animation timings for playback.
<input checked="" type="checkbox"/> Play Narrations	Play narrations: Play back audio narrations and laser pointer gestures during your slide show.
<input checked="" type="checkbox"/> Use Timings	Use timings: Play back slide and animation timing during your slide show.
<input checked="" type="checkbox"/> Show Media Controls	Show media controls: Show the controls for playing audio and video clips when you hover over the clips during the slide show.
<b>3. Monitors</b>	 <input checked="" type="checkbox"/> Use Presenter View Monitors
	Show presentation on: Let PowerPoint automatically choose which monitor displays your slide show or pick one yourself.
<input checked="" type="checkbox"/> Use Presenter View	Use presenter view: Presenter view shows the full screen slide show on one monitor and a ‘speaker view’ on another monitor showing a preview of the next slide, your speaker notes, a timer, and more.




## Review Menu

The following tabs list all features and command for Review menu:

1. Proofing	2. Language	3. Comments	4. Compare
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<b>1. Proofing</b>	   Spelling Research Thesaurus  Proofing
 Spelling	Spelling
 Research	Research: Use resources, such as dictionaries, encyclopedias and translation services to get the info you need.
 Thesaurus	Thesaurus: At a loss for words. Let us suggest another way to say what you mean.
<b>2. Language</b>	  Translate Language Language
 Translate	Translate: Translate text into a different language by using bilingual dictionaries and online services.
 Language	Language: Choose the language for proofing tools such as spelling check.
<b>3. Comments</b>	     New Delete Previous Next Show Comment Comments  Comments

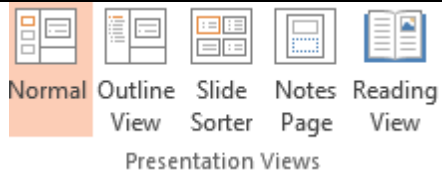


 New Comment	Insert comment: Add a note about this part of the document.
 Delete	Delete comment: Delete the selected comment.
 Previous	Previous comment: Jump to the previous comment.
 Next	Next comment: Jump to the next comment.
 Show Comments ▾	Show comments: Show the comments pane to view, add, and delete comments.
<b>4. Compare</b>	
 Compare	Compare: Compare and combine another presentation with your current presentation.
 Accept	Accept change: If you like this change, accept it.
 Reject	Reject change: Reject the current change.
 Previous	Previous change: Jump to the previous tracked change.









 Next	Next change: Jump to the next tracked change.
 Reviewing Pane	Reviewing pane: Show the reviewing pane when reviewing changes.
 End Review	End review: End the presentation review, applying the current accept and reject decisions.

## View Menu











The following tabs list all features and command for View menu:

1. Presentation View	2. Master Views	3.Show
4. Direction	5. Zoom	6. Color/Grayscale
7. Window	8. Macros	










<b>1. Presentation View</b>	
 Normal	Normal view: Edit your presentation slide by slide and navigate with thumbnails by using the normal view.
 Outline View	Outline view: Edit and jump between your slides in the outline pane.


 Slide Sorter	Slide sorter view: See thumbnails of all the slides in your presentation to easily rearrange them.
 Notes Page	Notes page view: See how your presentation will look when printed out with notes.
 Reading View	Reading view: Play your slide show in the PowerPoint window to see animations and transitions without switching to a full= screen slide show.
<b>2.Master Views</b>	 Slide Master   Handout Master   Notes Master Master Views
 Slide Master	Slide master view: Master slide control the look of your entire presentation, including colors, fonts, backgrounds, effects and just about everything else.
 Handout Master	Handout master view: Customize how your presentation will look as a printed handout.
 Notes Master	View notes master: Customize how your presentation will look when printed out with your notes.
<b>3. Show</b>	<input type="checkbox"/> Ruler <input type="checkbox"/> Gridlines <input type="checkbox"/> Guides  Show   Notes
<input type="checkbox"/> Ruler	Ruler: Show rulers next to your document.



 Gridlines	Gridlines: Show gridlines in the background of your document for perfect object placement.
 Guides	Guides: Show adjustable drawing guides to which you can align objects on the slide.
 Notes	Notes pane: Add speaker notes to your slides for quick reference during a presentation.
<b>4. Direction</b>	 View Direction ▾ Direction
 View Direction ▾	View direction: Change the direction of the view between left-to-right and right-to-left.
<b>5. Zoom</b>	 Zoom    Fit to Window Zoom
 Zoom	Zoom: Zoom to the level that's right for you.
 Fit to Window	Fit to window: Zoom your presentation so that the slide fills the window.
<b>6.Color/ Grayscale</b>	 Color Grayscale Black and White Color/Grayscale
 Color	Color: View your presentation in full color.




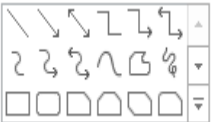




 Grayscale	Grayscale: View this presentation in grayscale, and customize how the colors are translated into grayscale.
 Black and White	Black and white: View this presentation in black and white, and customize how the colors are translated into black and white.
<b>7. Window</b>	
 New Window	New window: Open a second window for your document so you can work in different places at the same time.
 Arrange All	Arrange all: Stack your open widows so you can see all of them at once.
 Cascade	Cascade windows: See all your open windows overlapped on the screen.
 Move Split	Move split: Move the splitters which separate the different panes of the window.
 Switch Windows ▾	Switch windows: Quickly switch to another open window.
<b>8. Macros</b>	 Macros  Macros










 Macros	View macros: See a list of macros you can work with.
---	--










## Format Menu

The following tabs list all features and command for Format menu:

1. Insert Shape	2. Shape Styles	3. WordArt Styles
4. Arrange	5. Size	

<b>1.Insert Shape</b>	
	Insert Shape
	Edit shape: Change the shape of this drawing, convert it to a freeform shape, or edit the warp points to determine how text warps around the drawing.
	Draw a text box: Draw a text box anywhere.
	Merge shapes: Merge the selected shapes into one or more new geometric shapes.
<b>2.Shape Styles</b>	

	Shape Style
 Shape Fill ▾	Shape fill: Fill the selected shape with a solid color, gradient, picture, or texture.
 Shape Outline ▾	Shape outline: Pick the color, width, and line style for the outline of your shape.
 Shape Effects ▾	Shape effects: Apply a visual effect to the selected shape, such as shadow, glow, reflection, or 3-D rotation.
<b>3.WordArt Styles</b>	<div data-bbox="560 825 1193 993">  <div data-bbox="982 825 1193 951"> Text Fill ▾  Text Outline ▾  Text Effects ▾ </div> </div>
	WordArt Styles
 Text Fill ▾	Text Fill: Fill the text with a solid color, gradient, picture, or texture.
 Text Outline ▾	Text Outline: Customize the outline of your text by choosing the color, width and line style.
 Text Effects ▾	Text Effects: Turn your work into a work of art.
<b>4. Arrange</b>	<div data-bbox="649 1612 1096 1801"> <div data-bbox="649 1612 917 1707"> Bring Forward ▾  Send Backward ▾ </div> <div data-bbox="950 1612 1096 1707"> Align ▾  Group ▾ </div> <div data-bbox="649 1707 917 1801"> Selection Pane  </div> <div data-bbox="950 1707 1096 1801"> Rotate ▾ </div> </div>

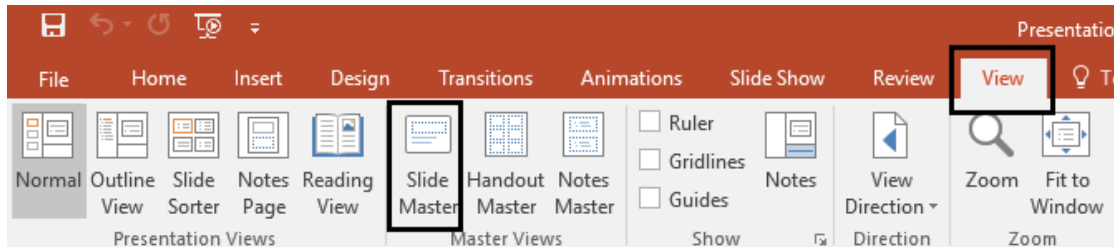
 Bring Forward ▾	Bring Forward: Bring the selected object forward one level so that it's hidden behind fewer objects.
 Send Backward ▾	Send Backward: Send the selected object back one level so that it's hidden behind more objects.
 Selection Pane	Display the selection Pane: See a list of all your objects.
 Align ▾	Align Objects: Change the placement of your selected objected on the page.
 Group ▾	Group Objects: Join objects together to move and format them as if they were single object.
 Rotate ▾	Rotate Objects: Rotate or flip the selected object.
<b>5. Size</b>	
 6.63 cm ▴ ▾	Shape the height of the shape or picture.
 25.4 cm ▴ ▾	Shape Width: Change the width of the shape or picture.

### Master slides and other slides

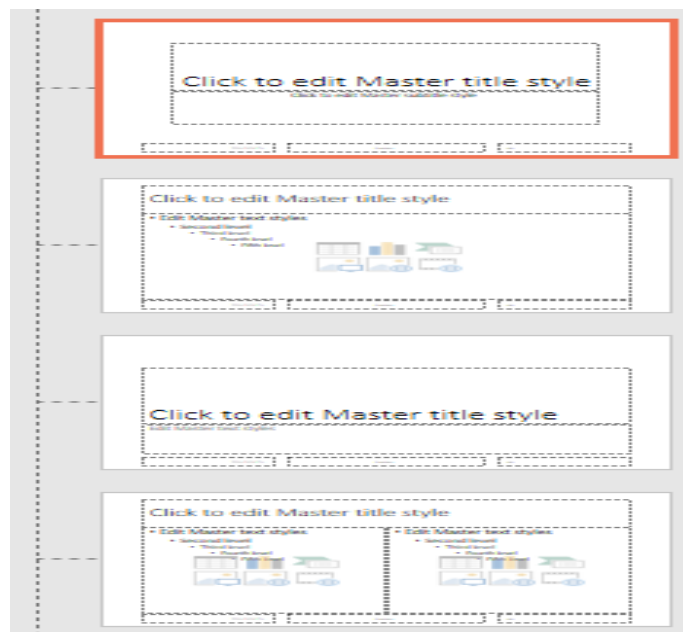
Slide masters are designed to help you create great looking presentations in less time, without a lot of effort. When you want all your slides to contain the same fonts and images, you can make those changes to Slide Master, and they'll be applied to all your slides.

## To create a master slide

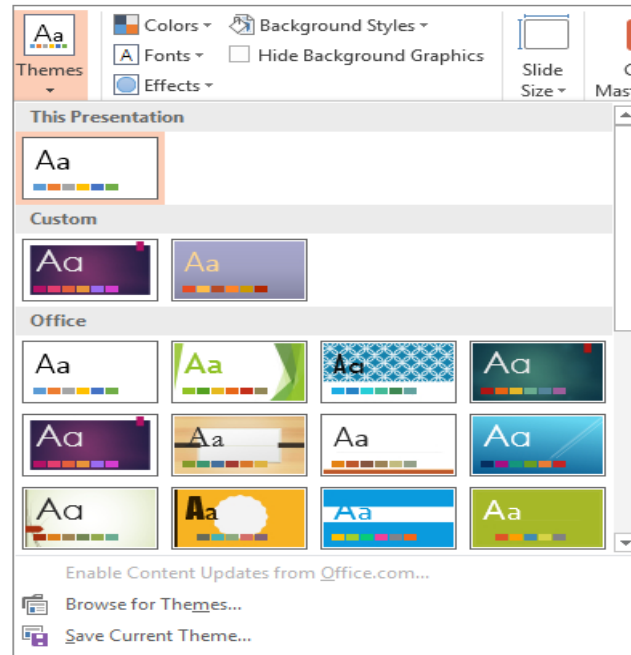
1. Open a blank presentation, and then on the View tab, in the Master Views group, choose Slide Master.



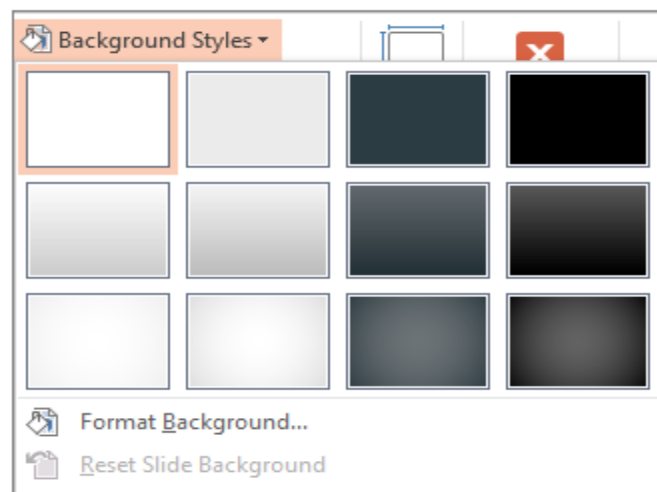
The slide master is the largest slide image at the top of the slide thumbnail list, to the left of your slides. Associated slide layouts are positioned beneath the slide master.



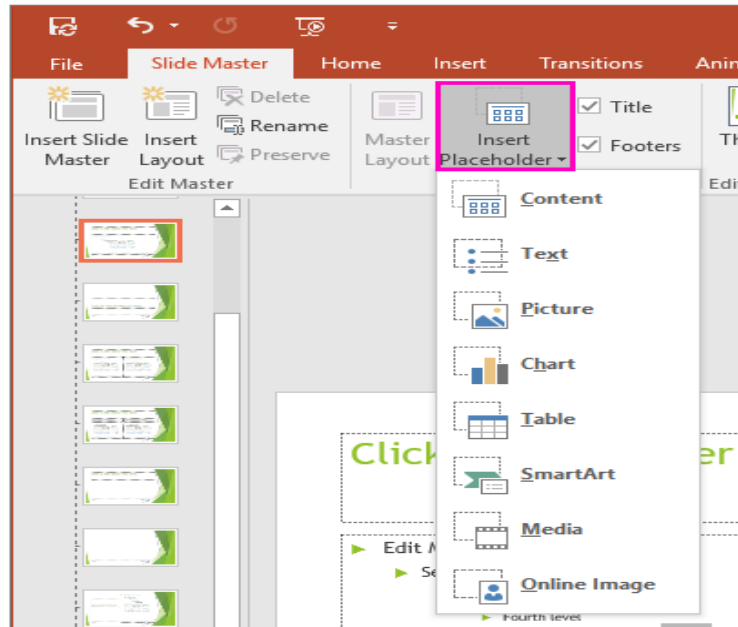
2. To make changes to the slide master or slide layouts, on the Slide Master tab, do any of the following:
3. To add a colorful theme with special fonts and effects, click Themes, and choose a theme from the gallery. Use the scrollbar on the right to see more themes.



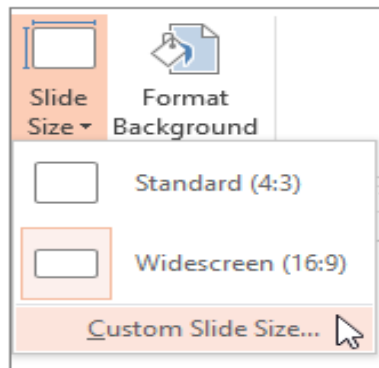
4. To change the background, click Background Styles, and choose a background.



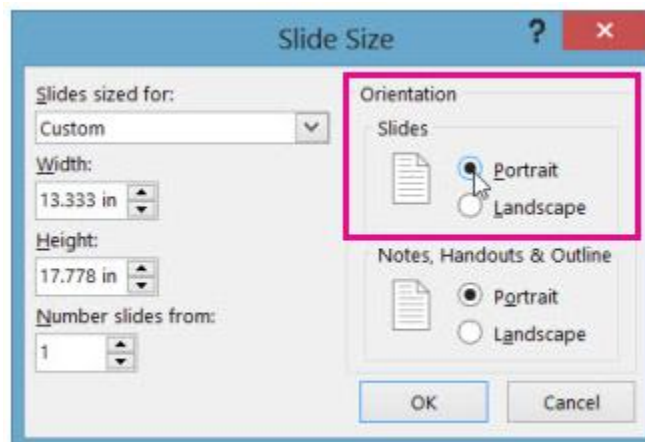
- To add a placeholder (to hold text, a picture, chart, video, sound, and other objects), in the thumbnail pane, select the slide layout that you want to hold the placeholder, and do the following:
- Click Insert Placeholder and select the type of placeholder you want to add.



- To set the page orientation for all of the slides in your presentation, click Slide Size then Custom Slide Size.



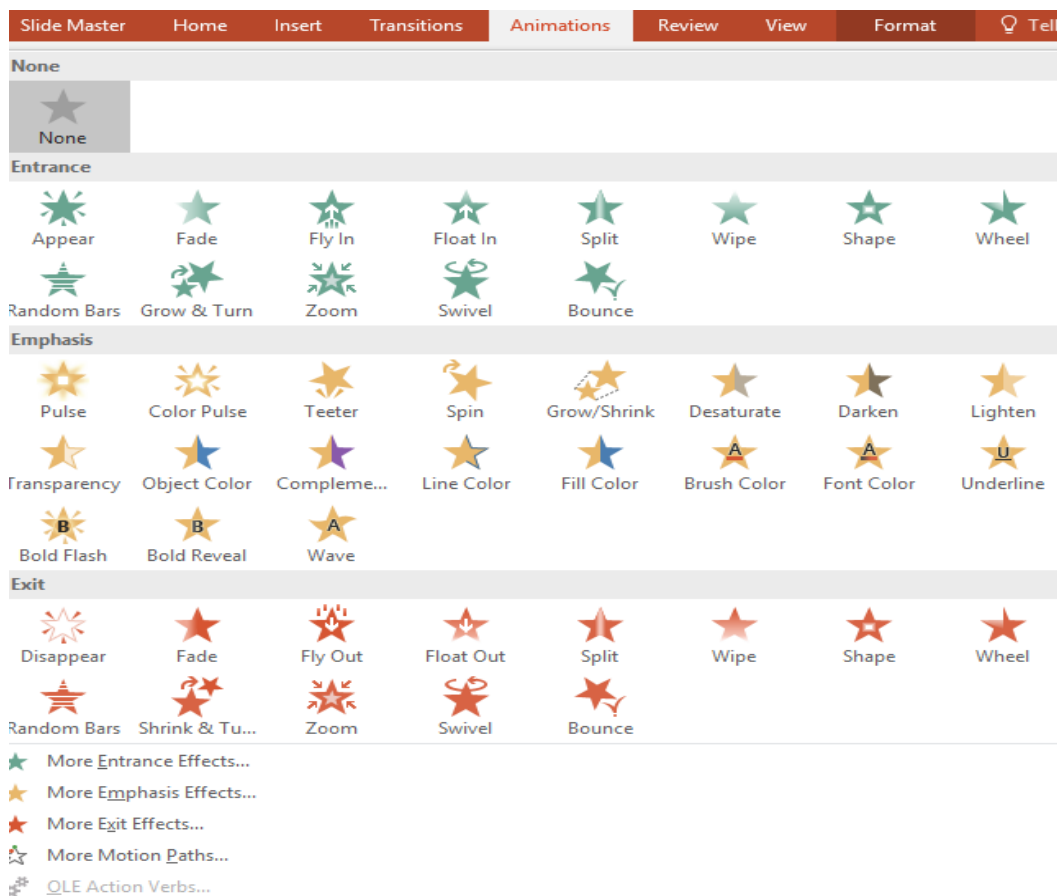
- Under Orientation, choose Portrait or Landscape.



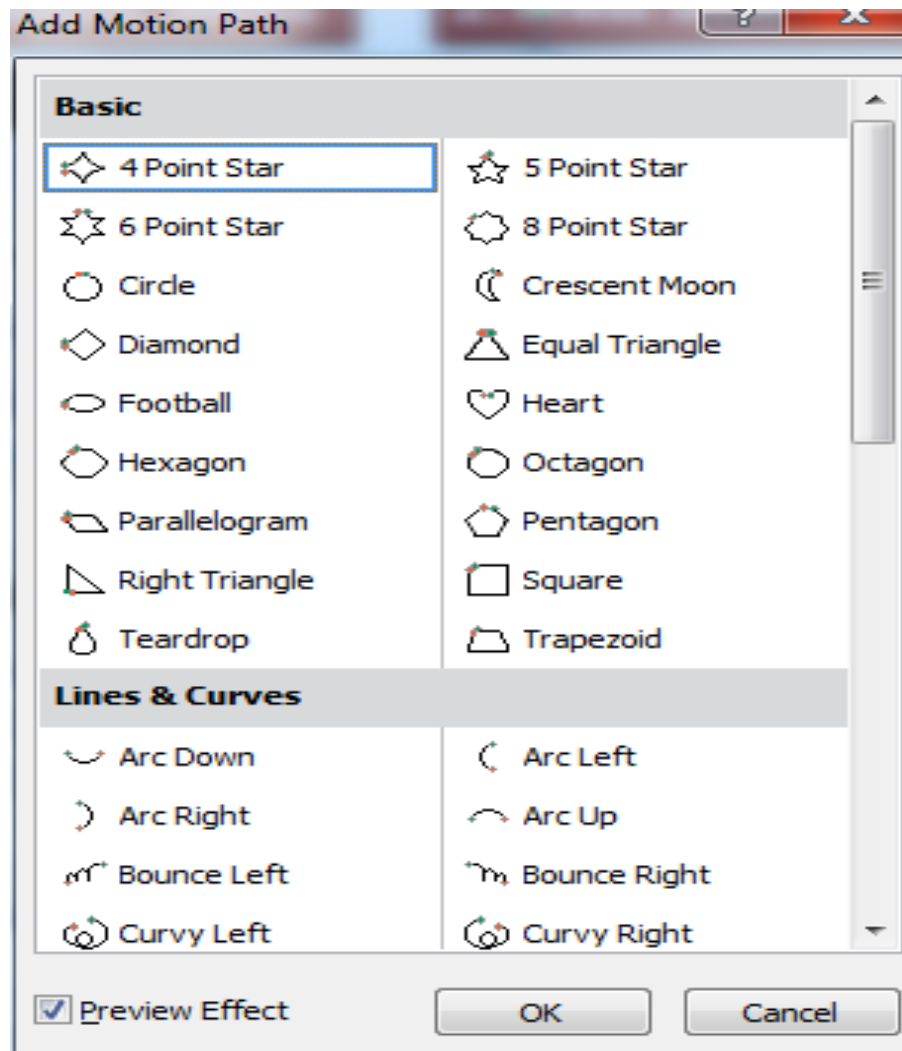
## Animations and color scheme

You can apply animation effects (motion) to text, pictures, shapes, SmartArt, graphics, and more, so they play in your slide show. Build a slide presentation that animates bullet points or even production credits.

1. To add animation to your slide, press animations menu, then select the animation style.
2. To show more types of animations, press More Motion Paths




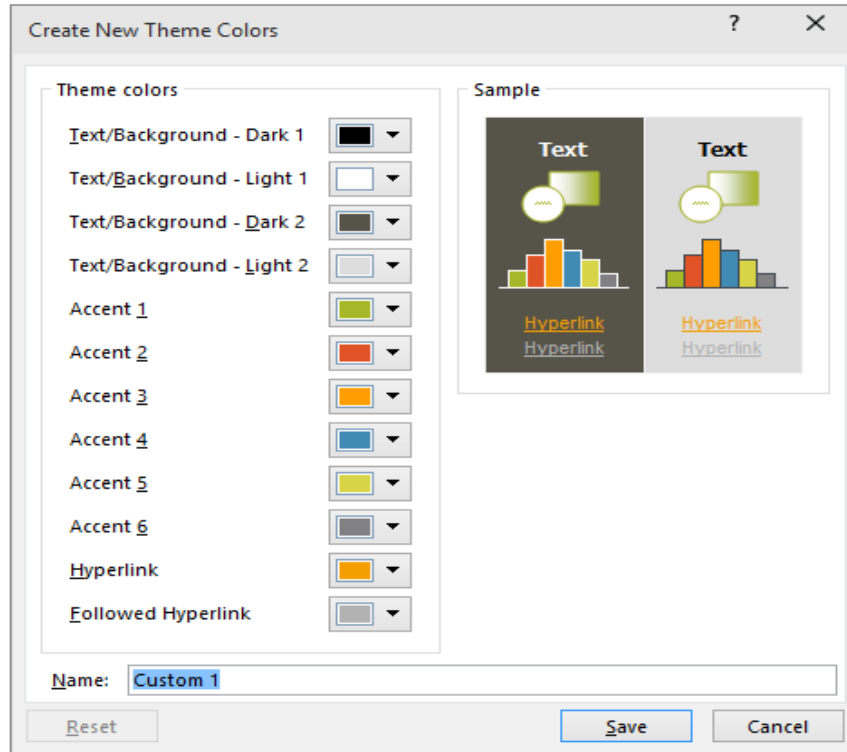
3. Select the motion path



## Change theme colors

Theme colors contain four text and background colors, six accent colors, and two hyperlink colors. Under Sample, you can see how the text font styles and colors look before you settle on your color combination.

1. On the View tab, select Slide Master > Colors , and then Customize Colors.
2. In the Create New Theme Colors dialog box, under Theme colors, do one of the following:



3. Click the button next to the name of the theme color element (for example, Accent 1 or Hyperlink) that you want to change, and then choose a color under Theme Colors.

or

Click More Colors, and do one of the following:

- On the Standard tab, select a color.
- On the Custom tab, enter a color formula number for the exact color that you want.

Repeat all of the theme color elements that you want to change.

4. In the Name box, type an appropriate name for the new combination of theme colors, and then select Save.



## Print options

Even though PowerPoint presentations are designed to be viewed on a computer, there may be times when you want to print them. You can even print custom versions of a presentation, which can be especially helpful when presenting your slide show. The Print pane makes it easy to preview and print your presentation.

**Print layouts:** PowerPoint offers several layouts to choose from when printing a presentation. The layout you choose will mostly depend on why you're printing the slide show. There are four types of print layouts.

**Full Page Slides:** This prints a full page for each slide in your presentation. This layout is most useful if you need to review or edit a printed copy of your presentation.

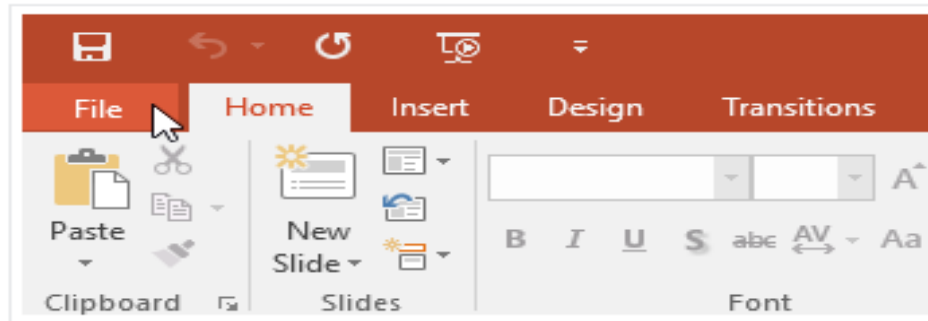
**Notes Pages:** This prints each slide, along with any speaker notes for the slide. If you've included a lot of notes for each slide, you could keep a printed copy of the notes with you while presenting.

**Outline:** This prints an overall outline of the slide show. You could use this to review the organization of your slide show and prepare to deliver your presentation.

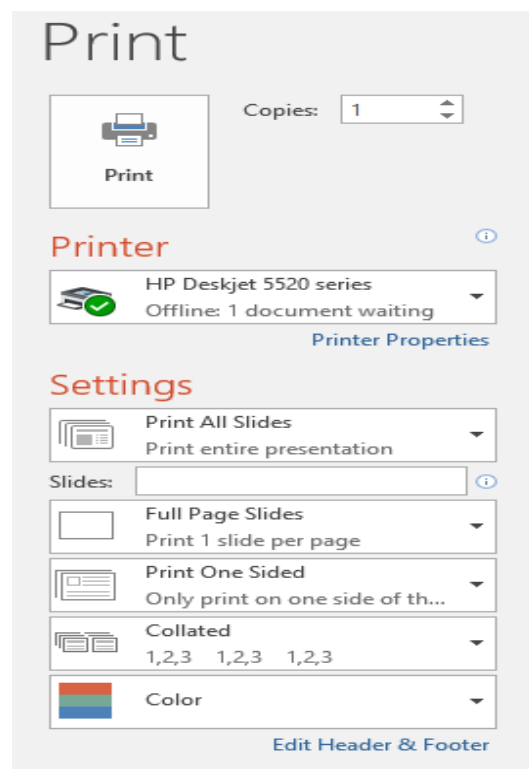
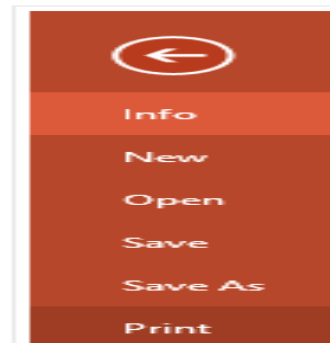
**Handouts:** This prints thumbnail versions of each slide, with optional space for notes. This layout is especially useful if you want to give your audience a physical copy of the presentation. The optional space allows them to take notes on each slide.

### To access the Print pane

Select the File Tab. Backstage view will appear.



Select Print. The Print pane will appear.



## To print a presentation

1. Select the File tab. A backstage view will appear.
2. Select Print. The Print pane will appear.
3. Choose the desired printer and print range.
4. Choose the desired print layout and color settings.
5. When you're done modifying the settings, click Print.

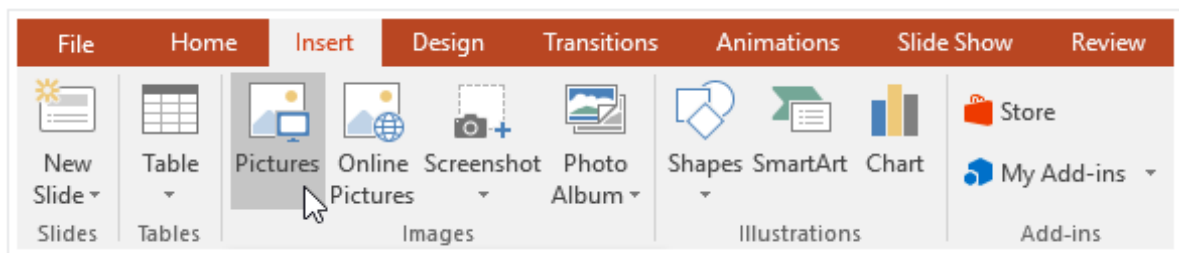


## Insert pictures and objects to enhance the outlook of the presentation

Adding pictures can make your presentations more interesting and engaging. You can insert a picture from a file on your computer onto any slide. PowerPoint even includes tools for finding online pictures and adding screenshots to your presentation.

### To insert a picture from a file

1. Select the Insert tab, then click the Pictures command in the Images group.



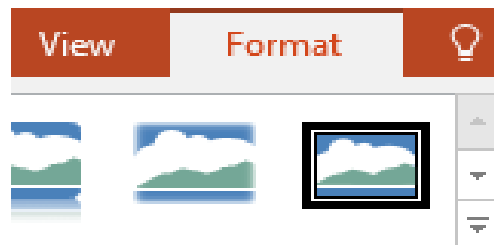
2. A dialog box will appear. Locate and select the desired image file, then click Insert.
3. The picture will appear on the currently selected slide.

You can also click the Pictures command in a placeholder to insert images.



### To crop an image

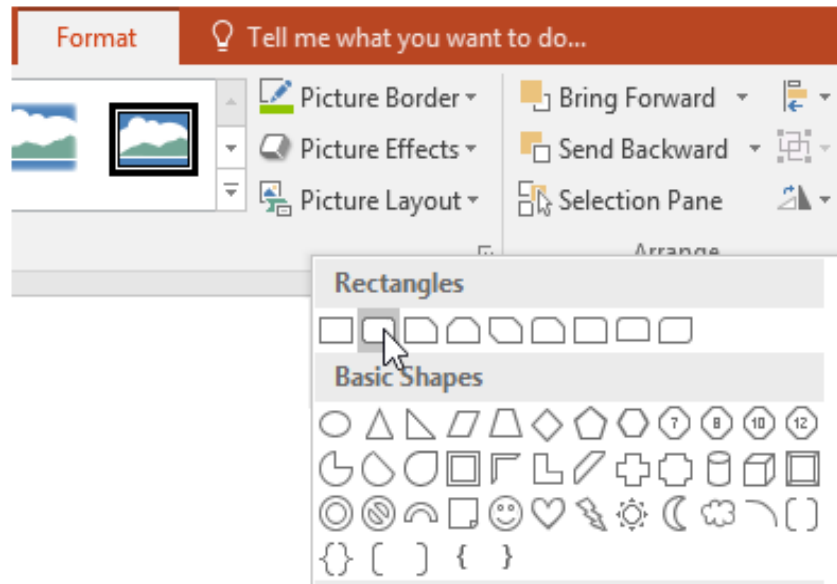
1. Select the image you want to crop. The Format tab appears.
2. On the Format tab, click the Crop command.



3. Cropping handles will appear around the image. Click and drag one of the handles to crop the image. Make sure the mouse is right over the black cropping handle, so you don't accidentally select a resizing handle.

### To crop an image to a shape

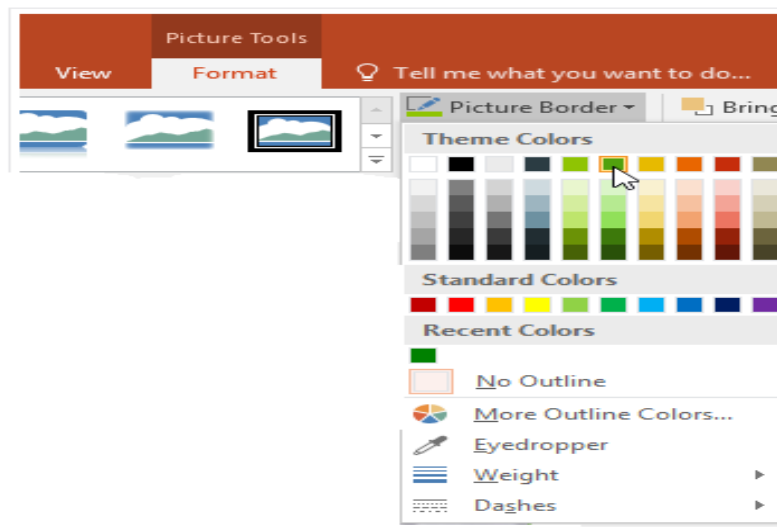
1. Select the image you want to crop, then click the Format tab.
2. Click the Crop drop-down arrow. Hover the mouse over Crop to Shape, then select the desired shape from the drop-down menu that appears.



3. The image will appear formatted

### To add a border to an image

1. Select the image you want to add a border to, then click the Format tab.
2. Click the Picture Border command. A drop-down menu will appear.
3. You can select a color, weight (thickness), and whether the line is dashed.

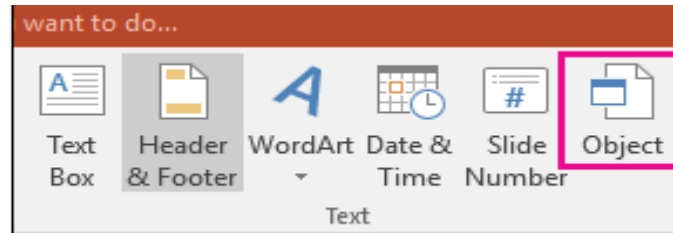


4. The border will appear around the image.

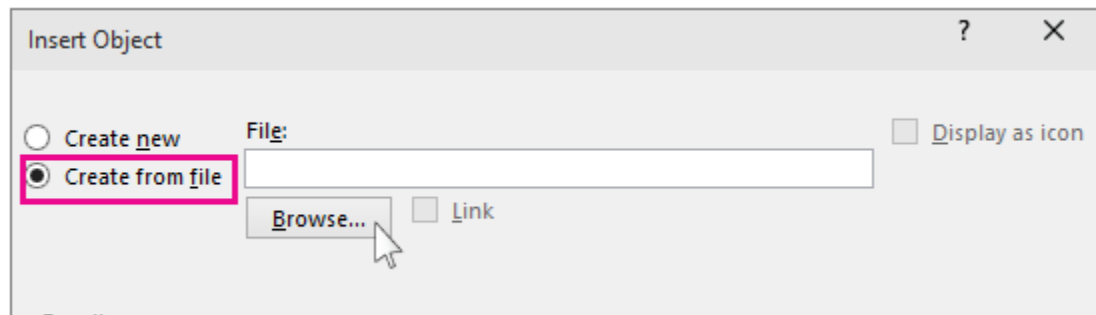


## Insert objects

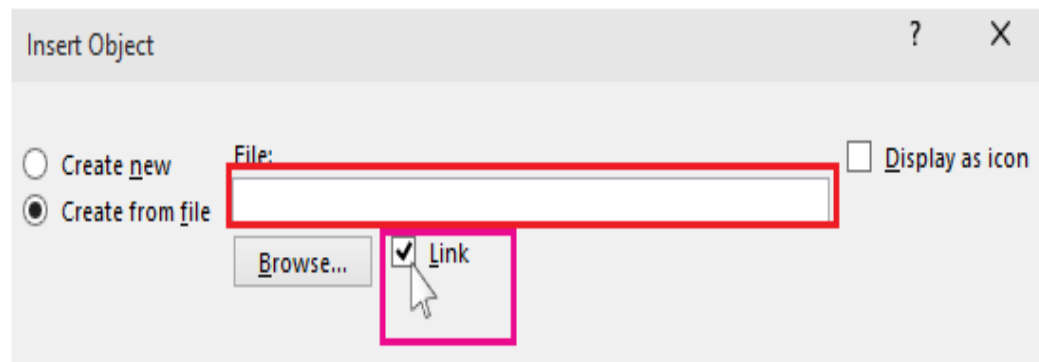
1. on the Insert tab, click or tap Object.



2. In the Insert Object dialog box, select Create from file.



3. Click or tap Browse, and in the Browse box, find the object you want to insert
4. Before you close the Insert Object box, select Link, and click OK.

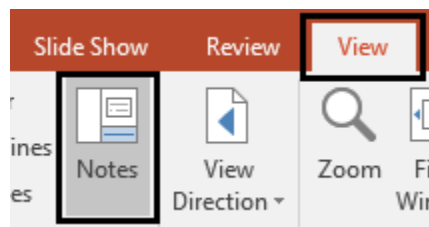


## **Adding notes, header and footer, updated dates and automatic numbers for the presentation**

Notes are like an adjunct attachment to your PowerPoint 2016 slides. They don't appear on the slides themselves but are displayed separately. Each slide in your presentation has its own page of notes.

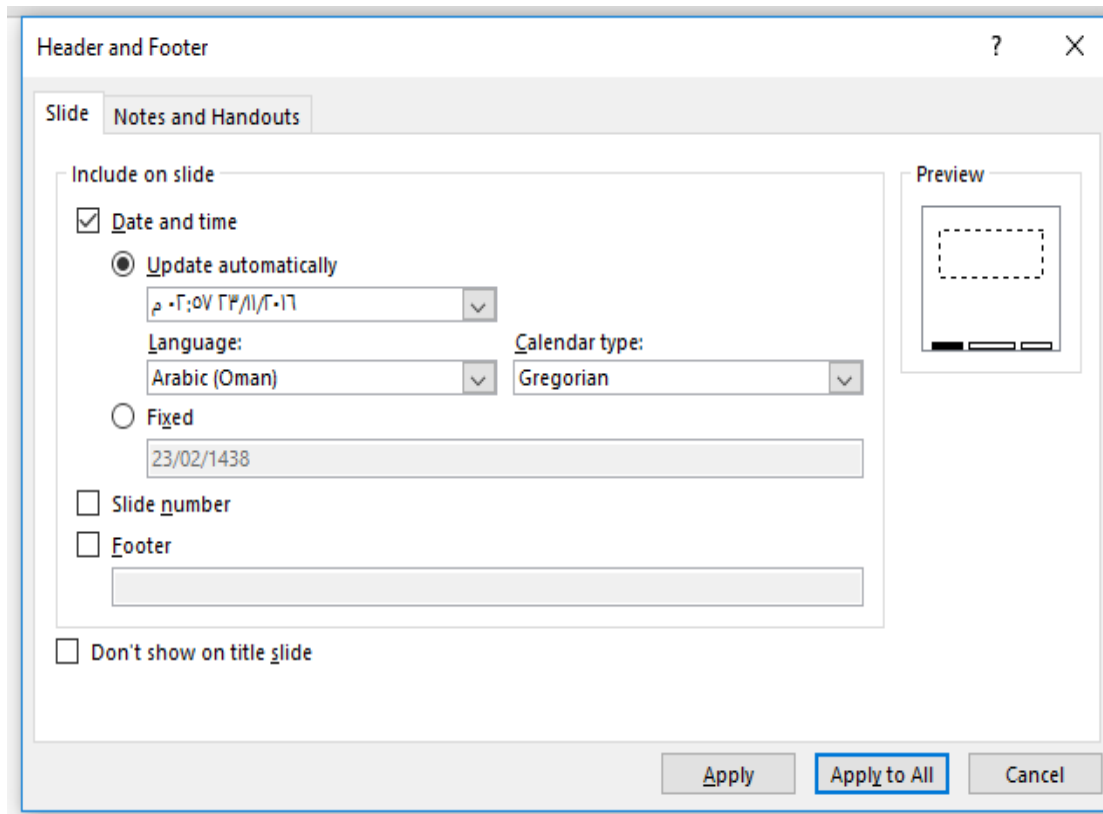
### **To add notes to a slide**

1. In Normal View, move to the slide to which you want to add notes.
2. Click and drag the Notes pane border, if necessary, to bring the notes text into view.
3. Click the notes text object, where it reads Click to add notes.
4. Type the note.



### **Add a header or footer**

1. On the Insert tab, in the Text group, click Header & Footer.
2. In the Header and Footer dialog box, on the Slide tab, select the Footer check box, and then type the text that you want to appear in the center bottom of the slide.
3. To keep the text in the footer from appearing on the title slide, select the Don't show on title slide check box.



4. Do one of the following:

- To display footer information on the selected slide only, click Apply.
- To display footer information on all of the slides in your presentation, click Apply to All.

### **Adding updated dates**

1. Select the View tab on the Ribbon. Choose the Normal view. Select the first slide of the slideshow.
2. Click on the Insert tab and go to the Text group. Click on the little Date and Time icon which gives you options to insert the current date and time into the PowerPoint document.



3. Choose the date and time format from the dropdown.

### Adding automatic numbers

To add number only one slide or number all slides but the first slide






1. On the Insert tab, in the Text group, click Header & Footer.
2. In the Header and Footer dialog box, click the Slide tab.
3. Do one of the following:
  - To number the slide that you have selected, select the Slide number check box, and then click Apply. Repeat this step for each individual slide that you want to number.
  - To number all slides but the first slide, select the Slide number check box, select Don't show on title slide, and then click Apply to All.

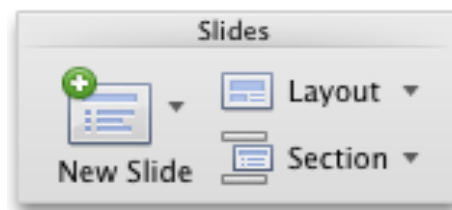
## Duplicate, move slides within the presentation and between open presentations

Duplicate a slide in a presentation

1. In the navigation pane, select the slide or slides that you want to duplicate.

### To select slides in the navigation pane

- On the View menu, click Normal.
  - In the top of the navigation pane, click the Slides  tab, and then click a slide. Depending on the width of the navigation pane, you will either see the  and  named tabs or the Slides  and Outline  icon tabs. To select multiple slides, hold down **⌘** as you click the slides. Or, if you organized your slides into sections, select a whole group of slides by clicking the section title.
2. On the Home tab, under Slides, click the arrow next to New Slide, and then click Duplicate Selected Slides.



Copying slides from one presentation to another is an easy way to create presentations without having to start from scratch.






### Do any of the following

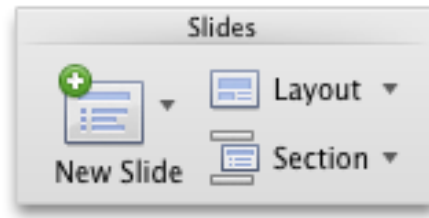
Copy all slides

1. Open an existing presentation or create a new presentation that you want to insert slides into.

2. In the navigation pane, click the slide that you want to insert the other slides after.

### To select slides in the navigation pane

- a. On the View menu, click Normal.
- b. In the top of the navigation pane, click the Slides  tab, and then click a slide. Depending on the width of the navigation pane, you will either see the  and  named tabs or the Slides  and Outline  icon tabs.
3. On the Home tab, under Slides, click the arrow next to New Slide, and then click Insert Slides from Other Presentation.








4. Select the presentation that you want to insert, click Insert all slides, and then click Insert.

### Copy selected slides

1. Open an existing presentation or create a new presentation that you want to insert slides into.
2. In the navigation pane, click the slide that you want to insert the other slides after.

### To select slides in the navigation pane

- a. On the View menu, click Normal.
- b. In the top of the navigation pane, click the Slides  tab, and then click a slide. Depending on the width of the navigation pane, you will either see the  and  named tabs or the Slides  and Outline  icon tabs. To select multiple slides, hold down ⌘ as you click the slides. Or, if you

organized your slides into sections, select a whole group of slides by clicking the section title.

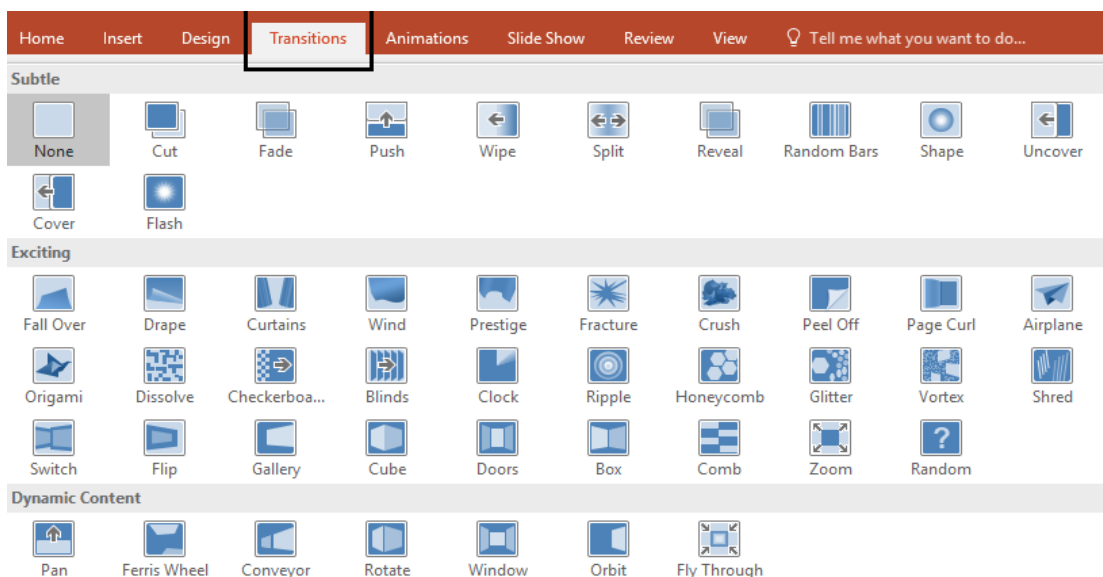
3. On the Home tab, under Slides, click the arrow next to New Slide, and then click Insert Slides from Other Presentation.
4. Select the presentation that you want to insert, click Select slides to insert, and then click Insert.
5. Click the slides that you want, and then click Insert.

To move a slide, click and drag it to a new location. Point to the slide and then hold down the mouse button. Drag the slide to its new location and press the button. PowerPoint adjusts the display to show the new

## Transition and animation effects

### To apply a transition

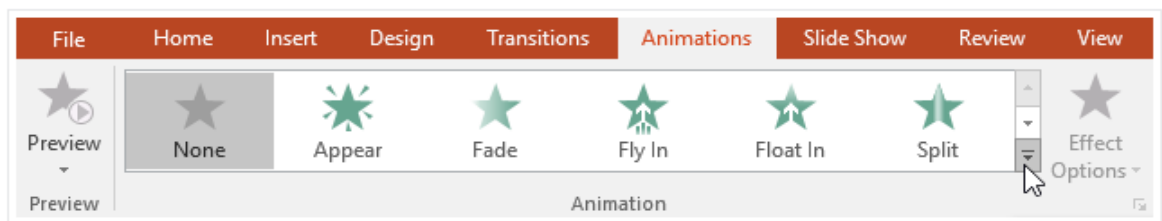
1. Select the desired slide from the Slide Navigation pane.
2. Click the Transitions tab, then locate the Transition to Slide group.
3. Click the More drop-down arrow to display all transitions.
4. Click a transition to apply it to the selected slide.



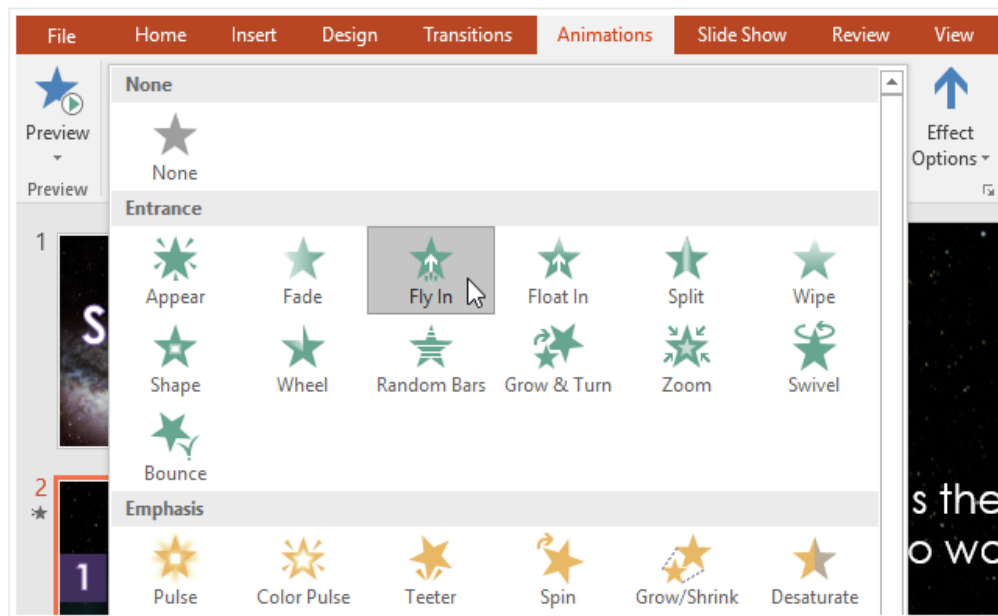
In PowerPoint, you can animate text and objects such as clip art, shapes, and pictures. Animation—or movement—on the slide can be used to draw the audience's attention to specific content or to make the slide easier to read.

### To apply an animation

1. Select the object you want to animate.
2. On the Animations tab, click the More drop-down arrow in the Animation group.

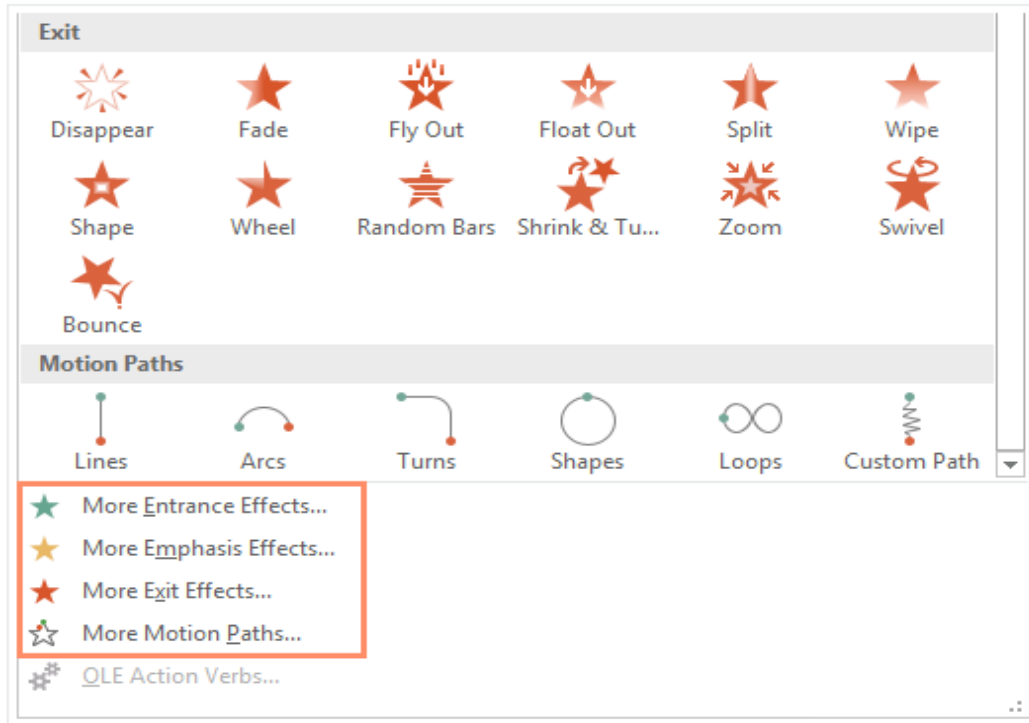


3. A drop-down menu of animation effects will appear. Select the desired effect.



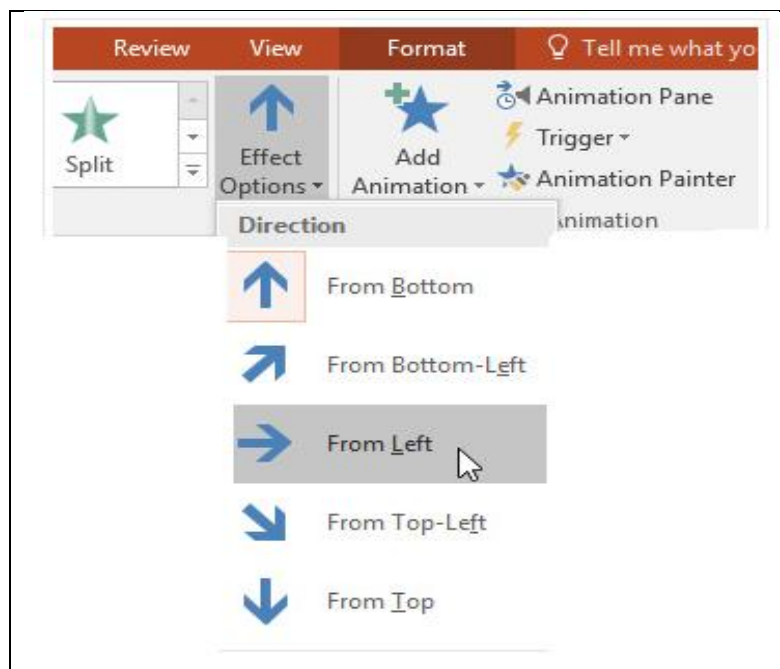
4. The effect will apply to the object.

At the bottom of the menu, you can access even more effects.



## Effect options

Some effects will have options you can change. For example, with the Fly In effect you can control which direction the object comes from. These options can be accessed from the Effect Options command in the Animation group.

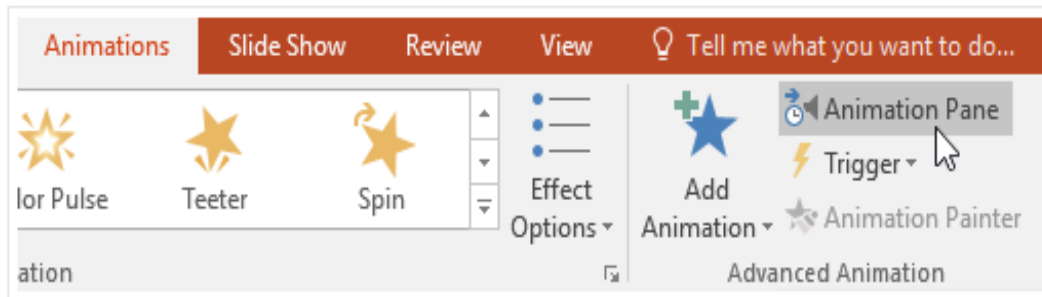


## To remove an animation

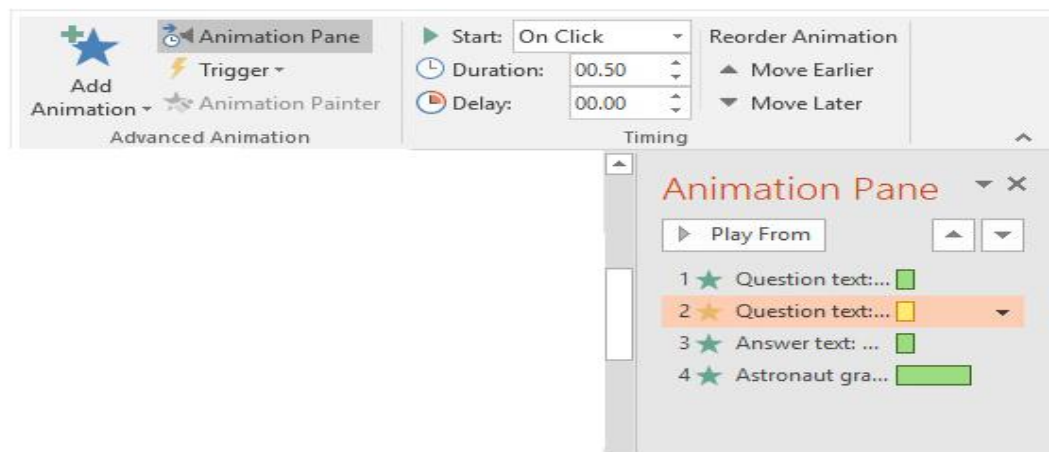
1. Select the small number located next to the animated object.
2. Press the Delete key. The animation will be deleted.

## To open the Animation Pane

1. From the Animations tab, click the Animation Pane command.

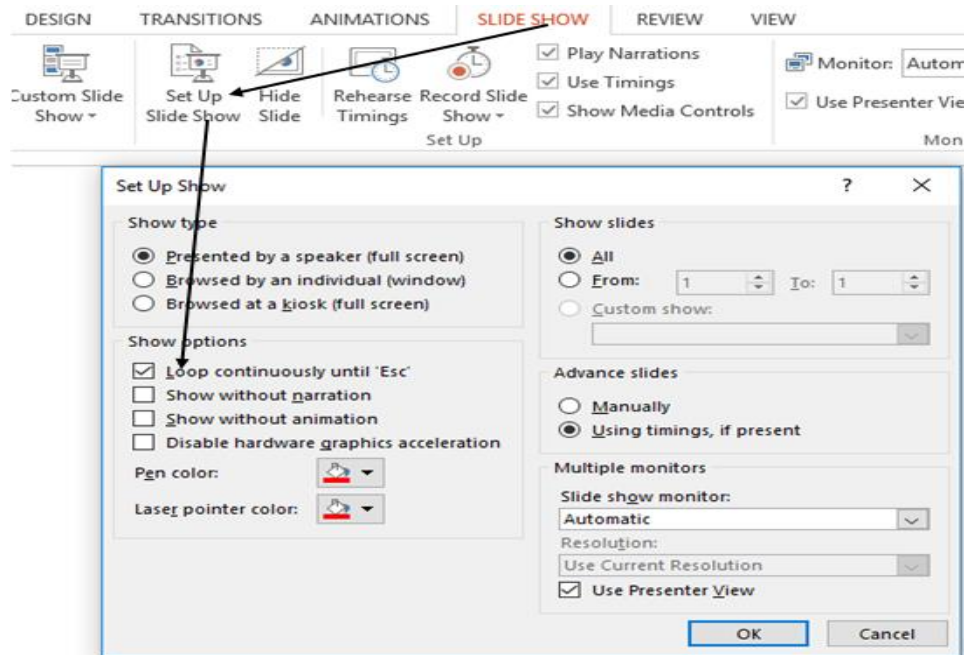


2. The Animation Pane will open on the right side of the window. It will show all of the effects for the current slide in the order in which they will appear.



## Set Up Slide Show

3. If you want the slides working without stop, press slide show menu, then Set up Slide Show, then selects 'Loop Continuously until 'Esc''

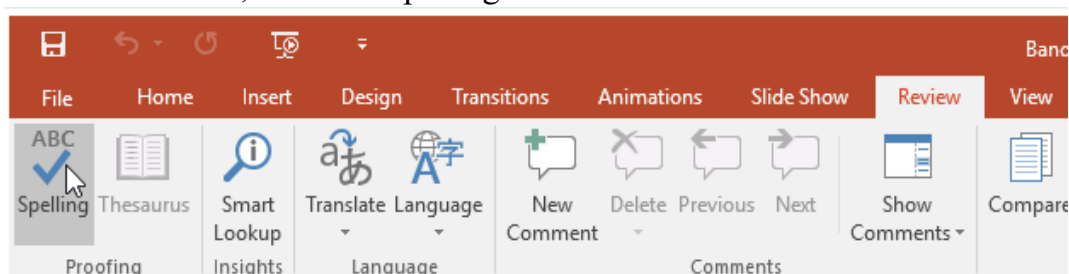


## Proofing tools to correct the content of the presentation

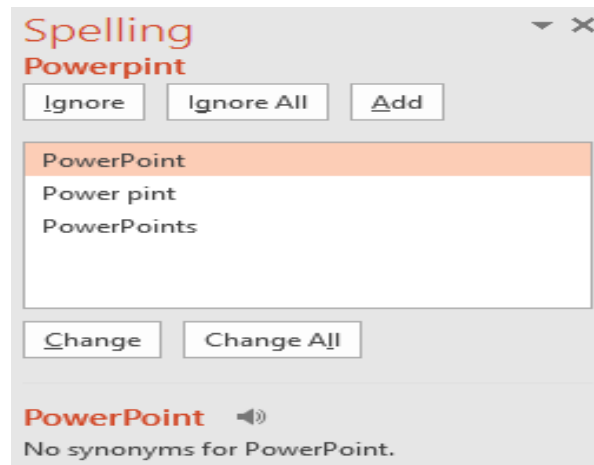
Worried about making mistakes when you type? Don't be. PowerPoint provides you with several proofing features—including the Spelling and Grammar tool—that can help you produce professional, error-free presentations.

### To run a spell check:

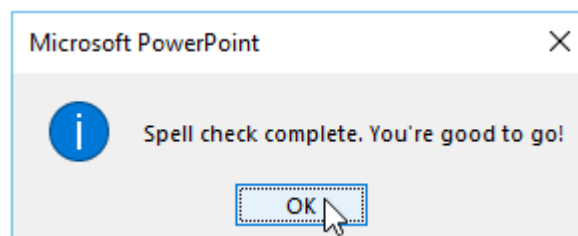
1. From the Review tab, click the Spelling command.



2. The Spelling pane will appear on the right. For each error in your presentation, PowerPoint will try to offer one or more suggestions. You can select a suggestion and click Change to correct the error.



3. PowerPoint will move through each error until you have reviewed them all. After the last error has been reviewed, a dialog box will appear confirming that the spelling check is complete. Click OK.



### Ignoring spelling "errors"

The spell check is not always correct. It may sometimes think a word is spelled incorrectly when it's not. This often happens with people's names and proper nouns, which may not be in the dictionary. If PowerPoint says something is an error, you can choose not to change it using one of three options:

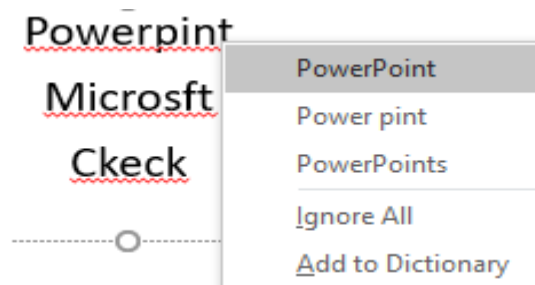
- Ignore: This will skip the word without changing it.
- Ignore All: This will skip the word without changing it, and it will also skip all other instances of the word in your presentation.



- **Add:** This adds the word to the dictionary so it will never come up as an error again. Make sure the word is spelled correctly before choosing this option.

### **Automatic spell check**

1. Right-click the underlined word. A menu will appear.
2. Click the correct spelling from the list of suggestions.





## Exercises

### Exercise 1

Create a presentation in MS PowerPoint with below details:

#### Slide1

1. Slide = Blank
2. Design = Angles
3. Use WordArt and type: Microsoft Word
4. Add "Fly In" Animation to the WordArt
5. From Shapes add "Smiley Face"
6. Add Heard animation to the Shape

#### Slide2

1. Slide = Blank
2. Design = Wheel
3. Add "Funny Face" from Shapes
4. Add 5 Point Star Animation to Funny Face
5. From SmartArt add "Pyramid list", then type: English, Computing and Mathematics.
6. Add Funnel Animation to SmartArt

### Exercise 2

Create a new presentation with below details:

1. Slide = Blank
2. Design = Water Droplets
3. Insert Pie chart, then in excel sheet add below records:

A	B	C
English	Computing	Maths
89	92	85

4. Add Crescent Moon Animation to Pie Chart



## 5. Add Design

### Exercise 3

Create below presentation:

1. Slide = Blank
2. Design = Angles
3. Use WordArt and type: Keyboard
4. Add Fly in Animation to the WordArt
5. From Shapes add: Smiley Face
6. Add Heart animation to the Shape

## **CHAPTER 3**

### **Internet, WWW and Email**

**The general objective of this component is to introduce students to the fundamentals of computer networks and communication systems which assist in providing the students with the tools for searching and accessing information remotely and using electronic mails for communicating with other people.**

a) Network and Internet Fundamentals:

- Identify network fundamentals, types and the benefits and risks of network computing.
- Understand the history and jargon associated with the Internet.

b) Browsing the Internet:

- Identify the purpose of a browser in accessing information on the World Wide Web (WWW) and navigate the Web.
- Understand how to deal with web browser tools such as: Bookmark, display and hide built-in toolbars, deleting browsing history and print web pages.
- Be able to search the Internet for information using search engines such as: Google, Yahoo, Ask Me, etc.

c) Electronic Mail:

- Understand how electronic mail works including the components of electronic mail message, electronic mail address, and electronic mail options.
- Create an e-mail account, read and send electronic mail messages, reply and forward electronic mail message, Use of Cc – Bcc, and manage attachments.
- Create a new address list, add, delete, and update a mail address to an address list.
- Manage the inbox through sorting messages, creating folders and finding message.

- Identify the sent items, deleted items, and Junk E-Mail folders.
- Identify the security issues with electronic mail.
- d) Identify how computers are used in different areas of work, school and home:
  - Identify risks to personal and organizational data.
  - Understand the protected web sites, use of digital certificates, encryption – decryption, uses of firewall and how to get protected from Hackers etc.
  - Describe the effect of IT on our lives and on society generally.

## Network and Internet Fundamentals

### Network fundamentals

A network is a group of computers connected to each other to share resources.

### Types of network computing

Types of networks:

#### 1. Local Area Networks (LAN)



Networking capability to a group of computers in close proximity to each other such as in an office building, a school, or a home. A LAN is useful for sharing resources like files, printers, games or other applications.

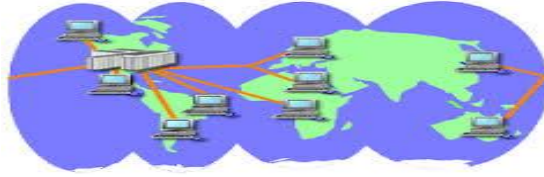
#### 2. Wireless LAN (WLAN)



AWLAN provides wireless network communication over short distances using radio or infrared signals instead of traditional network cabling.

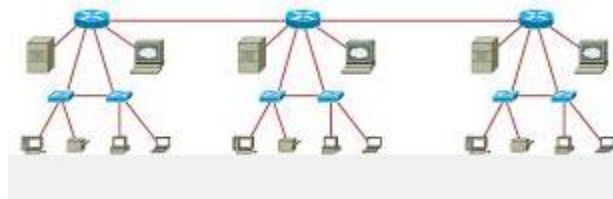
A WLAN typically extends an existing wired local area network.

### 3. Wide Area Network (WAN)



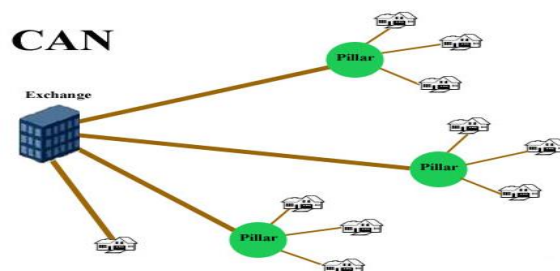
Is a network that links two or more computers or devices using wireless technologies. This diagram illustrates a hypothetical wide area network (WAN) configuration that joins LANs in three metropolitan locations. Wide area networks cover a large geographic area like a city, a country or multiple countries.

### 4. MAN (Metropolitan Area Network)



(MAN) is a network that interconnects users with computer resources in a geographic area or region larger than that covered by even a large local area network (LAN) but smaller than the area covered by a wide area network (WAN).

### 5. CAN (Controller Area Network)



A Controller Area Network (CAN bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other in applications without a host computer.

## Benefits of network computing

1. It enhances communication and availability of information.
2. It allows for more convenient resource sharing.



3. It makes file sharing easier.
4. It is highly flexible.
5. It is an inexpensive system.
6. It increases cost efficiency.

### **Risk of network computing**

1. It lacks independence.
2. It poses security difficulties.
3. It lacks robustness
4. It allows for more presence of computer viruses and malware
5. Its light policing usage promotes negative acts
6. It requires an efficient handler
7. It requires an expensive set-up

### **History and jargon associated with the internet**

The internet is made up of millions of computers linked together around the world in such a way that information can be sent from any computer to any other 24 hours a day.

This Internet Timeline begins in 1962, before the word 'Internet' is invented. The world's 10,000 computers are primitive, although they cost hundreds of thousands of dollars. They have only a few thousand words of magnetic core memory, and programming them is far from easy.

Domestically, data communication over the phone lines is an AT T monopoly. The 'Picture phone' of 1939.

But the four-year old Advanced Research Projects Agency (ARPA) of the U.S. Department of Defense, a future-oriented funder of 'high-risk, high-gain' research, lays the groundwork for what becomes the ARPANET and, much later, the Internet.

By 1992, when this timeline ends:



- the Internet has one million hosts
- the ARPANET has ceased to exist
- computers are nine orders of magnitude faster
- network bandwidth is twenty million times greater

### **Basic jargon associated with the internet**

Web	The Web is the most popular content on the Internet. The Web is viewed through web browser software.
http	technical acronym that means 'hypertext transfer protocol', the language of web pages.
Browser	A browser is a free software package that lets you view web pages, graphics, and most online content.
HTML	Hypertext Markup Language is the programmatic language that web pages are based on.
URL	URLs, or 'uniform resource locators', are the web browser addresses of internet pages and files.
IP Address	Your computer's 'internet protocol' address is a four-part or eight-part electronic serial number.
Email	It is the sending and receiving of typewritten messages from one screen to another.
Blogs	A blog ('web log') is a modern online writer's column.
ISP	ISP is an Internet Service Provider. That is the private company or government organization that plugs you into the vast Internet around the world.
Download	Downloading is a broad term that describes when you make a personal copy of something you find on the Internet or World Wide Web.



Router	A router, or in many cases, a router-modem combination, is the hardware device that acts as the traffic cop for network signals into your home.
P2P	P2P file sharing ('peer-to-peer') is the most voluminous Internet activity today.
E-commerce	E-commerce is 'electronic commerce': the transacting of business selling and buying online.
Bookmark	A bookmark (aka "favorite") is a marker that you can place on web pages and files.
Ports	'Network ports' are thousands of tiny electronic 'lanes' that comprise your network connection.

## Browsing the Internet

### **Purpose of a browser in accessing information on the World Wide Web (WWW)**

The main purpose of a web browser is to locate, retrieve and display information from the World Wide Web.

A web browser (commonly referred to as a browser) is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Identifier (URI/URL) and may be a web page, image, video or other piece of content.

The World Wide Web (abbreviated WWW or the Web) is an information space where documents and other web resources are identified by Uniform Resource Locators (URLs), interlinked by hypertext links, and can be accessed via the Internet.

### **Navigate the Web**

Your browser is equipped with many useful features to assist you in navigating through the Web.



## Menu bar

The menu bar, located at the very top of the screen, can be accessed using the mouse. When you hold down the mouse button over an item in the main menu, a sub menu is “pulled down” that has a variety of options.

## Tool bar

The tool bar is located at the top of the browser; it contains navigational buttons for the Web. Basic functions of these buttons include:

Command	Function
Home	Opens or returns to starting page
Back	Takes you to the previous page
Forward	Takes you to the next page
Print	Prints current page
Stop	Stops loading a page
Reload	Refresh/redisplays current page
Search	Accesses search engine

## Location bar

The location bar, below the tool bar, is a box labeled “Location,” “GoTo,” or “Address.” You can type in a site’s address and press the Return or Enter key to open the site.

## Status bar

The status bar is located at the very bottom of the browser window. You can watch the progress of a web page download to determine if the host computer has been contacted and text and images are being downloaded.



## **Scroll bar**

The scroll bar is the vertical bar located on the right of the browser window. You can scroll up and down a web page by placing the cursor on the slider control and holding down the mouse button.

## **Web browser tools such as: Bookmark, display and hide built-in toolbars**

Internet Browser - Computer Definition. A software application used to locate and display Web pages.

Popular Internet browsers are:

- Netscape Navigator
- Microsoft's Internet Explorer.
- Chrome
- Mozilla Firefox
- Opera

Bookmarking a web page for future reference can be a time saver. Once a web page has been added to your Favorites simply click Favorites in the browser top menu bar or the Favorites icon at the top of the browser window, navigate to the bookmarked page you wish to visit and click the shortcut in the Favorites list.

## **Bookmark a Web Page in Internet Explorer**

1. Go to the page you want to bookmark/add to your favorites.
2. Click Favorites in the top menu bar then Add to Favorites.
3. The Add Favorite dialogue box appears. The title from the web page will be in the name box. Click the Create In button if your dialogue box does show a list.
4. Now you have 3 options:



- You can click Ok to add to the general list or
- Click one of your existing folders then click Ok or
- Click New Folder to create a new folder to put the link in – See

### **Show a toolbar**

1. Right-click the menu bar or any toolbar.
2. Click the name of the toolbar that you want to show on the shortcut menu.

### **Keyboard accessible method**

1. On the Tools menu, click Customize.
2. Click the Toolbars tab.
3. Select the check box next to the name of the toolbar that you want to display.

### **Hide a toolbar**

Right-click the toolbar, and then clear the check box next to the name of the toolbar that you want to hide.

### **Keyboard accessible method:**

1. On the Tools menu, click Customize.
2. Click the Toolbars tab.
3. Clear the check box next to the name of the toolbar that you want to hide.

### **Deleting browsing history**

Your browsing history is the info that Internet Explorer stores on a PC as you surf the web. To help improve your experience, this includes info you've entered into forms, passwords,



and sites you've visited. However, if you're using a shared or public PC, you may not want Internet Explorer to save your history.

### **View your browsing history and delete specific sites**

By viewing your browsing history, you can choose to delete specific sites, or return to a webpage that you've already visited.

1. In Internet Explorer, select the Favorites button.
2. Select the History tab and choose how you want to view your history by selecting a filter from the menu. To delete specific sites, right select a site from any of these lists and then select Delete. Or return to a page by selecting any site in the list.

### **Delete browsing history in Internet Explorer 11 and Internet Explorer 10**

1. In Internet Explorer, select the Tools button, point to Safety, and then select Delete browsing history.
2. Choose the types of data or files you want to remove from your PC, and then select Delete.

### **Print web page**

To print just a few paragraphs of a web page:

1. Use the mouse to select the portion you're after.
2. Choose Print from Internet Explorer's Tools menu to open the Print dialog box.
3. In the Page Range box, choose the Selection option, Print dialog box.

To print all Web Page:

1. On the tab bar in Internet Explorer- Press the small arrow besides the print button, then press print to Print the web page

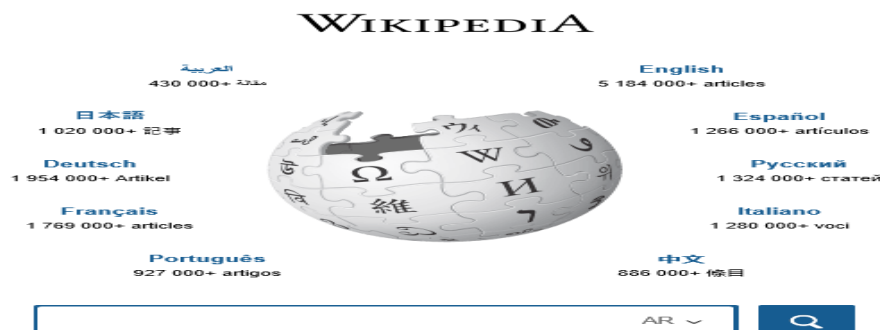
2. To preview the page before printing, Press print preview

## Search engine

A search engine is a software program or script available through the Internet that searches documents and files for keywords and returns the results of any files containing those keywords. Today, there are thousands of different search engines available on the Internet, each with their own abilities and features.

### Some popular search engines

- [www.google.com](http://www.google.com)
- [www.bing.com](http://www.bing.com)
- [www.wikipedia.org](http://www.wikipedia.org)
- [www.yahoo.com](http://www.yahoo.com)





## **Electronic Mail**

### **Components of electronic mail message, address and options**

Electronic mail, or email, has become one of the most popular forms of communication. Not only does email save time and money, it can also be a great tool for personal as well as business communications. A basic email message is made up of seven parts.

#### **Recipient's Address**

The first thing you need to enter when composing an email is the recipient's address. This is entered before you compose the body of the email.

#### **CC and BCC**

Another option when sending a message to multiple recipients is to use the Cc, or carbon copy, and Bcc, blind carbon copy fields. When using the Cc feature, all recipients can see the email addresses of everyone the message was sent to.

#### **Date and Time Stamp**

The date and time an email was sent is usually included automatically somewhere in the message.

#### **Subject line**

The subject line is the first part of your email that the recipient will see. When entering the subject line be sure to include important information such as what the email is about.

#### **Body**

The body is where you actually write the message that you want sent. Your message can be anything from a professional memo to a note to friend or family member.



## **Attachment**

Attachments are similar to enclosures in traditional mail. If you have files that you want to share with your recipient's, you can include them as attachments to the email.

## **Signature**

Some email systems allow you to enter a signature that will appear automatically at the bottom of every message you send.

## **Create an e-mail account**

Steps to create email account:

- Click on the Free Sign-Up Button
- Enter all mandatory fields (First Name, Last Name, Gender, etc.)
- Type in your desired Email Address
- Choose a secure Password (at least 8 characters, mixing letters, numbers, lower and upper case, and using special characters)
- Select your Security Question, type in your Answer
- Verify your registration by typing the numbers in the captcha picture
- Click the "Accept" Button underneath

## **Setting up a Gmail account**

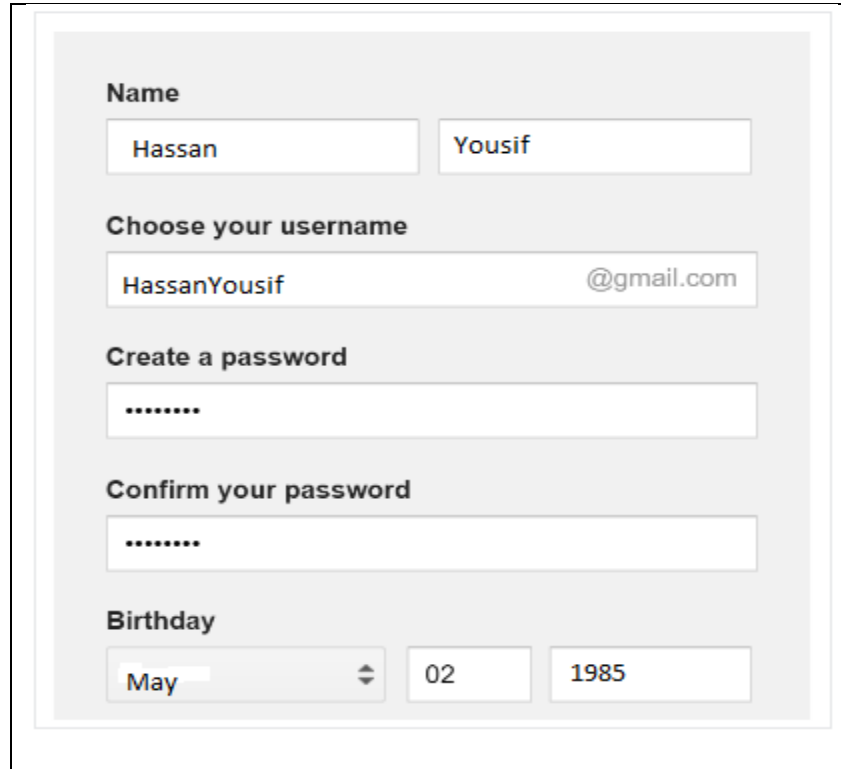
To create a Gmail address, you'll first need to create a Google account. Gmail will redirect you to the Google account signup page. You'll need to provide some basic information like your name, birth date, gender, and location. You will also need to choose a name for your new Gmail address. Once you create an account, you'll be able to start adding contacts and adjusting your mail settings.

## **To create an account**

1. Go to [www.gmail.com](http://www.gmail.com).



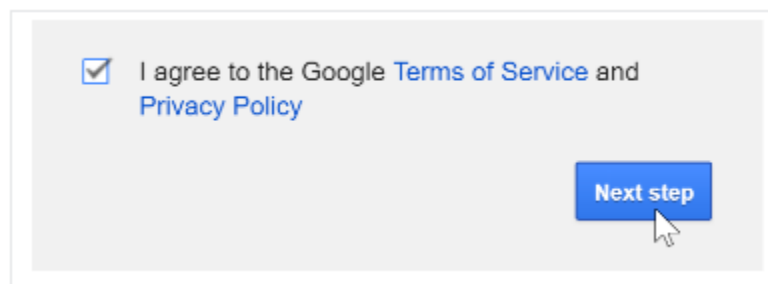
2. Click Create account.
3. The signup form will appear. Follow the directions and enter the required information.



The image shows a Google account creation form. It contains the following fields and labels:

- Name:** Two input boxes, the first containing "Hassan" and the second containing "Yousif".
- Choose your username:** A single input box containing "HassanYousif@gmail.com".
- Create a password:** An input box with masked characters ".....".
- Confirm your password:** An input box with masked characters ".....".
- Birthday:** Three input boxes: a dropdown menu showing "May", a box with "02", and a box with "1985".

4. Review Google's Terms of Service and Privacy Policy, click the check box, then click Next step.




The image shows a screen for agreeing to Google's Terms of Service and Privacy Policy. It includes a checked checkbox and a "Next step" button.

☒ I agree to the Google [Terms of Service](#) and [Privacy Policy](#)

[Next step](#)

5. Here, you'll have an opportunity to set up recovery options. Recovery options are helpful if you forget your password or if someone tries to access your account. If you don't want to set up recovery options at this time, click Done.



Without recovery options, you could lose access to your account if you forget your password or your account is stolen.  
[Learn more about recovery options.](#)

**Recovery phone**

**Recovery email**

6. Your account will be created, and the Google welcome page will appear.

### **Signing in to your account**

1. Go to [www.gmail.com](http://www.gmail.com)
2. Type your username (your email address) and password, then click Sign in.



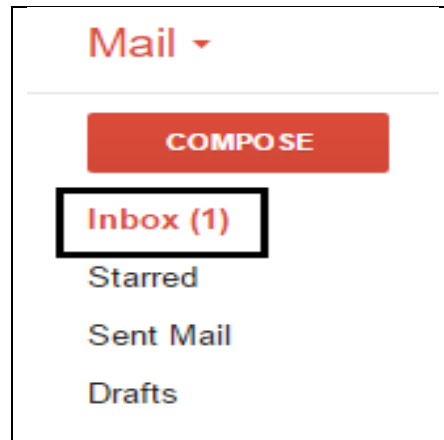
## To sign out

In the top-right corner of the page, locate the circle that has your first initial (if you've already selected an avatar image, it will show the image instead). To sign out, click the circle and select Sign out

## Read and send electronic mail messages

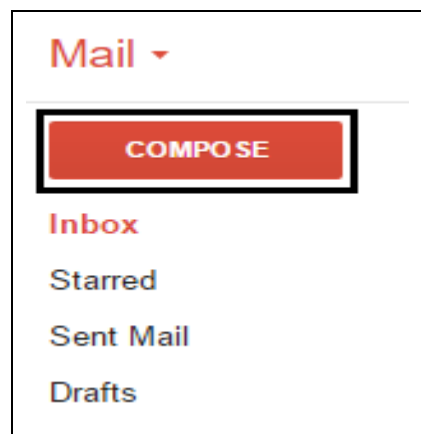
### To Read Email

1. Log into your email provider's website.
2. Find an email to open.
3. Press Inbox, then click to the title of the email, then read your emails



### To Send Email

1. Open Gmail.
2. In the top left, click Compose





3. In the "To" field, add recipients. If you want, you can also add recipients in the "cc" and "bcc" fields.
4. Add a subject.
5. Write your message.
6. At the bottom of the page, click Send.

## Replay and forward electronic mail messages

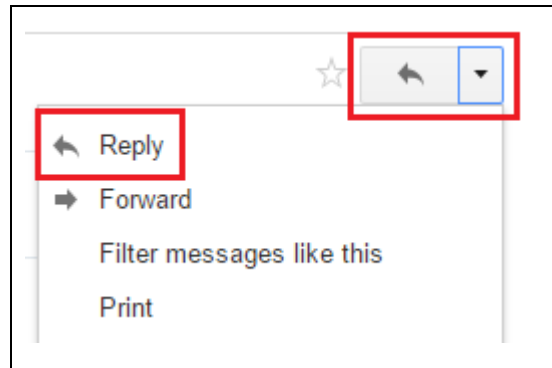
You can reply only to the person who sent you an email, or to everyone who received the email.

### Reply to messages


1. Open Gmail.



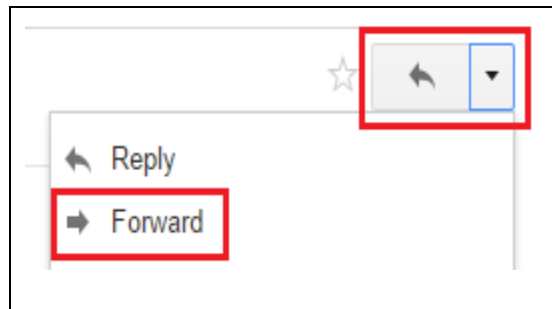
2. Open the message.
3. Below the message, click Reply or Reply to all.



### Make "Reply all" your default setting

1. Open Gmail.
2. In the top right, click Settings .
3. Click Settings.
4. In the "Default reply to behavior" section, select Reply all.

You can still choose to reply to just one person, but "Reply to all" will be the first option.



### To Forward

- Click the Settings gear in your Gmail's top right corner.
- Select Settings from the menu that comes up.
- Go to the Forwarding and POP/IMAP tab.
- Click Add a forwarding address.

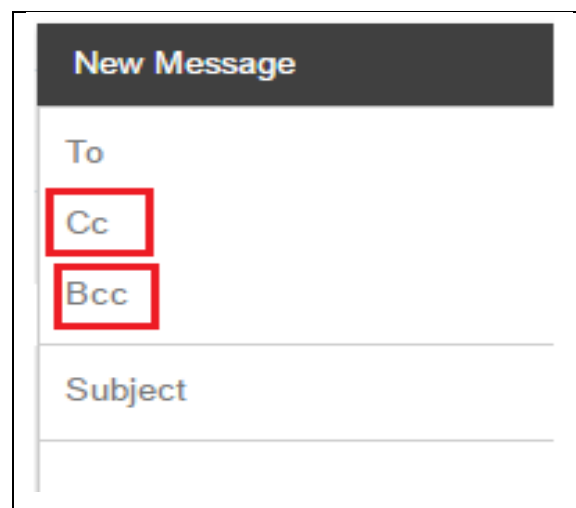


- Enter the address to which you want to forward future Gmail emails under Please enter a new forwarding email address:.
- Click Next.
- Now click OK.

## Use of Cc-Bcc

There are primarily three ways to send an email to several recipients in one go – using the To, Cc and Bcc fields. By default, you see only the first, but the other two can be made visible by clicking on their links.

In any of these fields – whether it's To: Cc: or Bcc – you can enter more than one email address and separate it by commas. The difference is just one. Recipients who have been copied using bcc will not be able to view the email addresses of other recipients.




Both Cc and Bcc forward a copy of the message to everyone you've listed. The main difference between Cc or Carbon copy and Bcc (Blind carbon copy) is that, with the latter, the recipients do not get to know each other.

## Attachments


### Attach a file

1. Open Gmail.




2. Click Compose.
3. Click Attach  .
4. Choose the files you want to upload.
5. Click Open.

### **Remove an attachment**

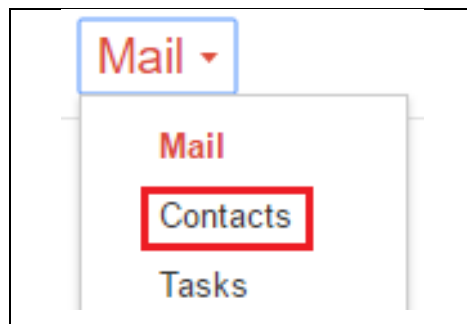
After you add an attachment, you can remove it. To the right of the attachment name, click Close  .

### **Open & download attachments in Gmail**

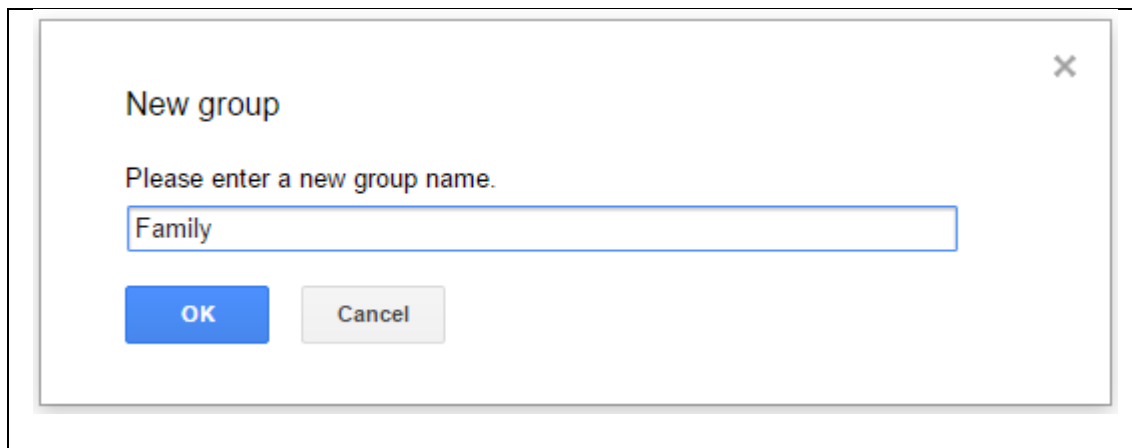
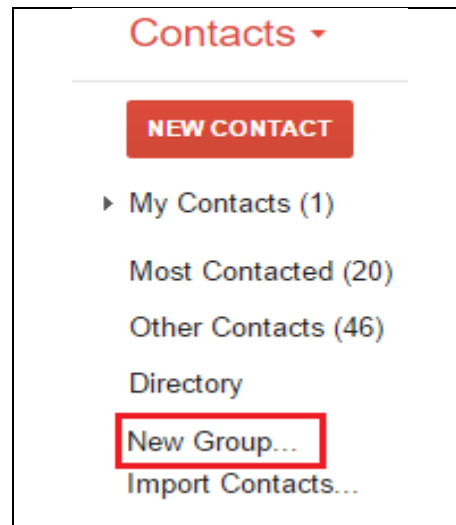
1. Open Gmail.
2. Open an email message.
3. Hover your mouse over the thumbnail, then click Download .

### **Create a new address list, add, delete and update a mail address to an address list**

1. Open Gmail, and click a "Mail" button on the left
2. Click Contacts option



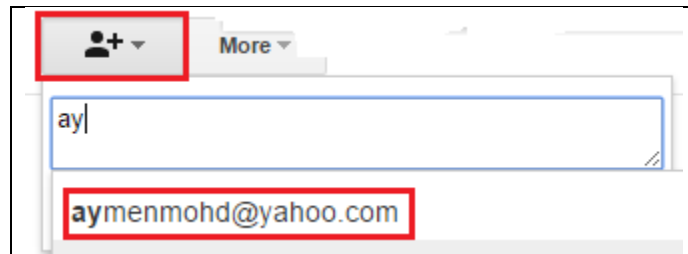
3. Click 'New Group' option to open it, give a name to a new group, then click OK to create it



4. Click on the 'Family' group to open it.



5. Click on the icon it will open a window to start adding contacts to this group, then Click Add button.




6. Continue the same procedure until you enter all your contacts

### To delete contacts from Gmail


1. Sign in to Gmail.
2. At the top left, click Gmail then Contacts.
3. Select the contact in the Contacts list.
4. Click More, then click Delete contact.

### If you're using the new Google Contacts preview

1. Open Contacts preview.
2. Click the name of the contact.
3. Near the contact's photo, click the three-dot menu .
4. Click Delete.

### Manage the inbox

#### Add a label to a message

1. Open Gmail.
2. Open a message.
3. At the top, click Label .
4. Add a label or create a new label to add to the message.
5. Click Apply.



## **Create, edit & delete labels**


### **To create label:**

1. Open Gmail.
2. On the left, click More.
3. Click Create new label.
4. Name your label.
5. Click Create.

### **To edit labels**

1. Open Gmail.
2. On the left side of the page, hover your cursor over your label's name.
3. Click the Down arrow ▼
4. Click Edit.
5. Make changes to your label.
6. Click Save.

### **Move a message to another label**

1. Open Gmail.
2. Open the email you want to move or select it in your inbox.
3. Click Move to .
4. Select the label you want to move the email to.

### **Delete items and junk E-Mail folders**

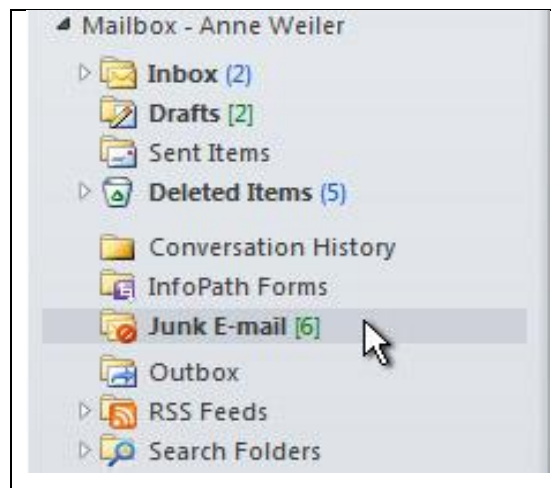
If you're deleting, archiving, or reporting spam, you can take action on several messages at a time by selecting them in your inbox. Simply place a check mark next to each message



you want to manage, then click the desired button. You can also click the top check mark to select all of the messages that are currently visible.

Depending on the protection level that you set for the Junk Email Filter, some legitimate email messages might be moved to the Junk E-mail folder. You should periodically review the messages in the Junk E-mail folder so that you aren't missing any messages that you want to see.

1. In Mail, in the Navigation Pane, click the Junk E-mail folder.



2. Click any message that you don't want to be marked as junk, then on the Home tab, in the Delete group, click Junk, and then click Not Junk.
3. To quickly delete all of the messages in the Junk E-mail folder and move them to the Deleted Items folder, in the Folder List, right-click the Junk E-mail folder, and then click Empty Folder.

### **Security issues with electronic mails**

E-mail is now the most widely used method of communication between businesses and individuals; unfortunately, it is not the safest and most reliable. Virus-infected e-mails and wiretapping on network lines are the main reasons that affect the reliability of e-mail.



## Encrypting Messages

Preventing e-mail messages from getting into the wrong hands can be avoided by encrypting the information being transmitted. To encrypt a message, the user needs to have a copy of the intended recipient's digital certificate.

If the user wishes to send an encrypted message and does not have the intended recipient's digital certificate, the best and the simplest way is to ask the intended recipient to send a signed message so that the e-mail client can encrypt the message according to recipient's cipher (cryptographic algorithm) preferences.

## Viruses

Viruses and other types of malicious code are often spread as attachments to electronic mail messages. Before opening any attachments, it is advisable the user knows the source of the attachment.

If the user must open an attachment before the source can be verified, do so in an isolated environment. If the user is unsure of how to proceed, then it is best to contact the network administrator.

Do not run programs of unknown origin, regardless of who sent the program.

It is also advisable that users do not send programs of unknown origin to friends or coworkers simply because they are amusing -- it might be a Trojan horse.

### **Identify how computers are used in different areas of work, school and home**

#### **Risks to personal and organizational data**

Computer security, also known as cyber security or IT security, is the protection of computer systems from the theft or damage to the hardware, software or the information on them, as well as from disruption or misdirection of the services they provide.

It includes controlling physical access to the hardware, as well as protecting against harm that may come via network access, data and code injection, and due to malpractice by



operators, whether intentional, accidental, or due to them being tricked into deviating from secure procedures.

### **Protected web sites**

Theft of customer information, such as addresses and payment card details.

Website defacement and denial of service attacks by criminals attempting to disrupt your business, typically to extort money.

### **Protect Your Website**

If you are hosting your own website rather than using a third-party hosting company, ensure that the hardware and software is secure:

- Use the latest version of any web platform or ecommerce software. Old versions may have flaws that hackers can exploit.
- Use strong, protected passwords throughout the system. Do not leave any password set to its default value. Change passwords periodically.
- Maintain regular backups of your website.
- Where the platform offers the option of two-factor authentication, use it.
- Make sure the server is protected by an effective firewall and antivirus/antispyware software.
- Monitor log files carefully to spot any attempts at intrusion.
- Never store customers' private information and credit card details on a public ecommerce server.
- Protect your SSL details and keep them confidential.
- Consider using a professional penetration testing firm to test the defaces on your ecommerce server.



## **Firewall and how to get protected from Hackers etc.**

### **Steps to Avoid Viruses & Malware**

1. Install Anti-Virus Software – This should not even have to be listed because if you don't have any anti-virus software installed, you're asking for trouble! If your reason for not installing anti-virus software is because it's too expensive, then that reason can be shot down because there are several free anti-virus programs out there that are considered better than commercial software packages.
2. Update All Software – Installing an anti-virus program by itself is not enough. There are hundreds of new threats that are found daily, and the anti-virus programs release updates regularly to combat these new threats.
3. Install only Trusted Software – If you're not sure what a piece of software does from its name, then don't install it.
4. Avoid P2P File Sharing Software – If used with great caution, P2P software is quite useful for movies, songs and software, but if you're not very technically savvy, you might end up downloading a song that has a keystroke logger attached to it that will send anything you type to some other computer over the Internet.
5. Delete Unknown Emails – If you receive emails from random people, do not bother to open the email, just delete it.
6. Do not click on Ads – Avoid clicking on ads if you can. Especially those ads where something is flying around and if you shoot the duck, you win some prize! Ads have become more sophisticated in that they try to make the ad interactive so that you'll be tempted to play it like a game.
7. Run Virus Scans Regularly – If you're not in the mood to scan every day, at least run a scan once a week.



8. Be careful what you attach to your computer – This is a more common way to transfer viruses than you might think.
9. Avoid Shady Web Sites – If you need to look at porn, then make sure you do it in a virtual environment.
10. Turn On or Install a Firewall – If you're running Windows, make sure firewall is turned on.

### **Describe the effect of IT on our lives and on society generally**

Computer technology affects lives positively by enhancing communication, facilitating access to information and revolutionizing business activities. It also promotes learning and the process of building professional relationships through networking.

Technology and human life cannot be separated; society has a cyclical co-dependence on technology. We use technology; depend on technology in our daily life and our needs and demands for technology keep on rising. Humans use technology to travel, to communicate, to learn, to do business and to live in comfort. However, technology has also caused us concerns.

### **Impact of technology on society**

Technology has without doubt an impact on society. As a matter of fact, we experience this effect in our daily lives. It has an effect on the growth of the economy, our culture and our living standards. It is however important to note that the benefits are a double-edged sword with some being detrimental and other being beneficial. One should be very careful and get to know how the effects on society get to effect the business activities and operations.

### **Positive impact of technology**

Technology impacts our daily lives. Our environments are all so full of technology to the point that most of the time we take it for granted and never actually notice the level of impact that it has on us until we have no telephone, transport, water or electricity.



Advancements in technology have greatly increased our living standards. Despite the fact that we are currently experiencing very high inflation rates, and the rates of unemployment are very high, generally, people are feeding better, are dressing better and are as a matter of fact living more comfortable lives.

### **Negative impacts of technology**

With every advancement that is made in the technological world, creative destruction results. For example, television impacts negatively on the movies and synthetic fibers impact the cotton fibers negatively.

**Exercises****Exercise 1**

Answer all questions

1. What is a network
2. What are the Types of networks
3. What are the Benefits of network computing
4. What is the Risk of network computing
5. What are Popular Internet browsers?
6. What is the Search engine
7. What is the popular search engine
8. What are the Components of electronic mail
9. What are the Cc and Bcc in email account

**Exercise 2**

Define the basic jargon associated with the internet

Web	
http	
Browser	
HTML	
URL	
IP Address	
Email	



Blogs	
ISP	
Download	
Router	
P2P	
E-commerce	
Bookmark	
Ports	

Exercise 3
------------

Define below:

- Menu bar
- Tool bar
- Home
- Back
- Forward
- Print
- Stop
- Reload
- Search
- Location bar
- Status bar
- Scroll bar



#### Exercise 4

How you:

1. Show a toolbar
2. Hide the Show a toolbar
3. Deleting browsing history
4. Delete browsing history in Internet Explorer
5. Print web page
6. Attach a file in Gmail
7. Remove an attachment in Gmail
8. Protect web sites

#### Exercise 5

Describe the effect of IT on our lives and on society generally