

MS-EXCEL

Unit -1

Starting MS Excel

Unit -2

Working with Graphics

Unit -3

Formatting a worksheet

Unit - 4

Charts and other Controls

Unit -1

Starting MS Excel

Learning objectives

After the Completion of this unit you should be able to know

- 1) What is MS Excel and what are its functions
- 2) The tools used in MS Excel 2010 and their use
- 3) Working with MS Excel workbook and Excel worksheet

Introduction

MS Excel is a very good tool for the purpose of accounts and other purposes. This simplifies the work load of a person by many folds. MS Excel apart of being a spread sheet tool helps the user to add new work sheets to a workbook. Sheets can be renamed, deleted from a workbook. Workbooks those that we create can be shared among different people via email. This enables transparency in the work force. Password protection helps us protecting confidential data. So let us get started with MS Excel.

Definition

Excel 2010 is a spread sheet application in the **Microsoft 2010** Office suite that lets you store, manipulate, and analyses data in organized workbooks for home and business tasks.

Rule To Remember:-. An Excel workbook is comprised of Excel worksheets .Each Worksheet is comprised of rows and columns.. Total number of rows are 104857 and total number of columns are 16384 from A to XFD. The intersection between a row and a column is called a cell.
Total cells = $104857 \times 16384 = 1717977088$

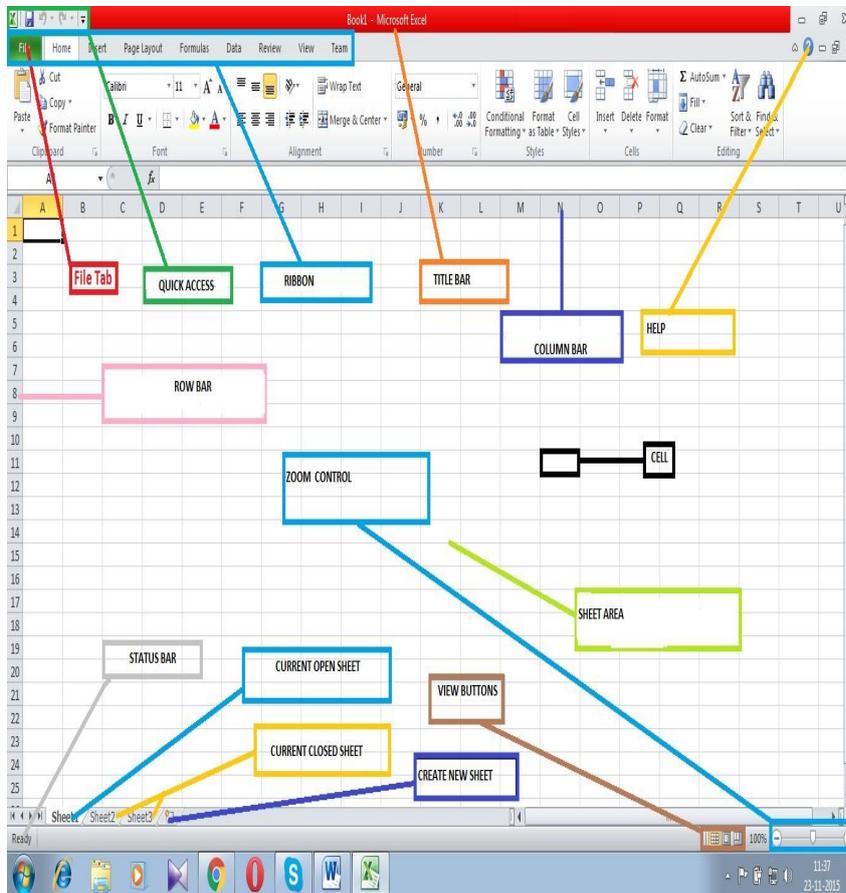
Uses Of MS Excel

Used in data collection, data manipulation and data Analysis which are related to

1. Accounts and financial operations
2. Mathematical operations.
3. Scientific operation.
4. Non Scientific operations.

Working with MS Excel 2010

MSExcel 2010 screen



SCREEN-1

Brief description about the tabs

Brief Description about what is written in screen 1. The above screen shows the following components.

1. File Tab
2. Quick Access Tab
3. Ribbon Tab
4. Title Bar
5. Column bar
6. Help menu
7. Row Bar
8. Cell
9. Sheet Area
10. Zoom control
11. View buttons
12. Create New Sheet
13. Current Closed Sheet

14. Current Open Sheet

15. Status Bar

File Tab:- The file tab is used to

- Create a new file
- Save an existing file
- Open very recent files
- Save an existing file in another format
- Print an existing file

Quick Access Tab:- Quick access tab is used for very fast users who do not have time to go the roundabout process to

- 1) Open
- 2) Save
- 3) Print Preview And Print
- 4) Quick Print
- 5) Spelling
- 6) Undo
- 7) Redo
- 8) Sort Ascending
- 9) Sort Descending
- 10) Open Recent Files
- 11) Show More Commands
- 12) Show Below The Ribbon

Ribbon Tab:- The Ribbon Tab is used for many jobs and we shall be discussing later in this book.

Title Bar :- The title bar is used to show what is the name of the document .When multiple documents are opened at one time the title bar identifies which document is currently active by showing the name of the document at the top.

Column Bar:- The column bar is used to identify in which column the cursor is

Help:- The help menu gives instant help to the new user as to how to use the MS Excel 2010.

Row Bar:- The row bar is used to identify in which row the user is working.

Cell:- The Cell is the intersection of the row and the column.

Sheet Area:- The sheet area shows the current sheet the user is working on.

Zoom Control:- .The zoom control is used to control the zooming effect

of the screen.

View Buttons :- The view buttons option is used to view the page in any of the three formats

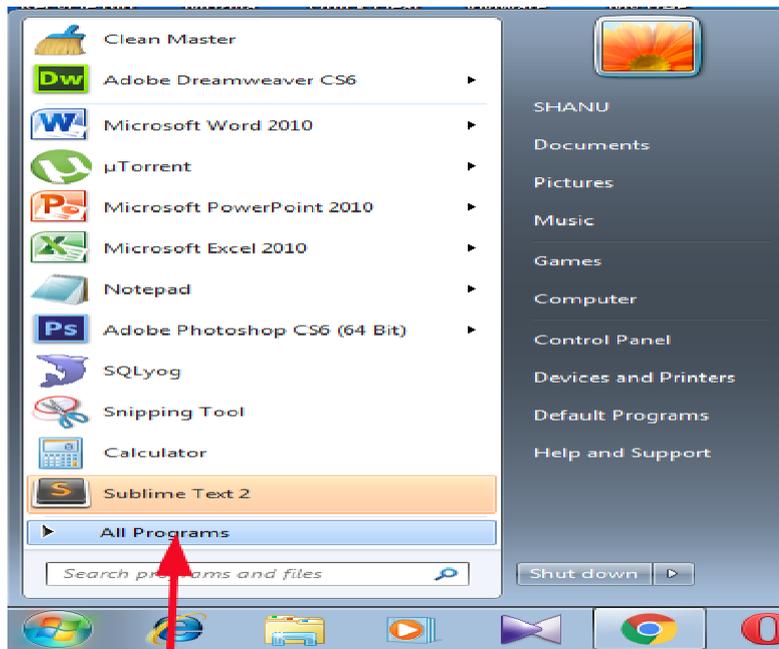
- 1) Normal
- 2) Page Layout
- 3) Page Break

Create New Sheet:- This option is used to create new sheet.

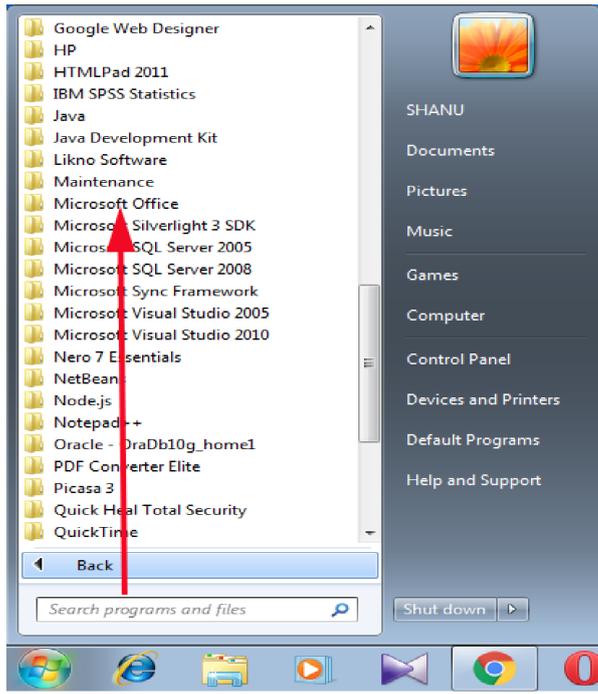
Current Open Sheet:- This option is used to print a current open sheet.

Status Bar :- The status bar shows weather the document is in which state **ready** to take values or **Enter** State when values are being entered.

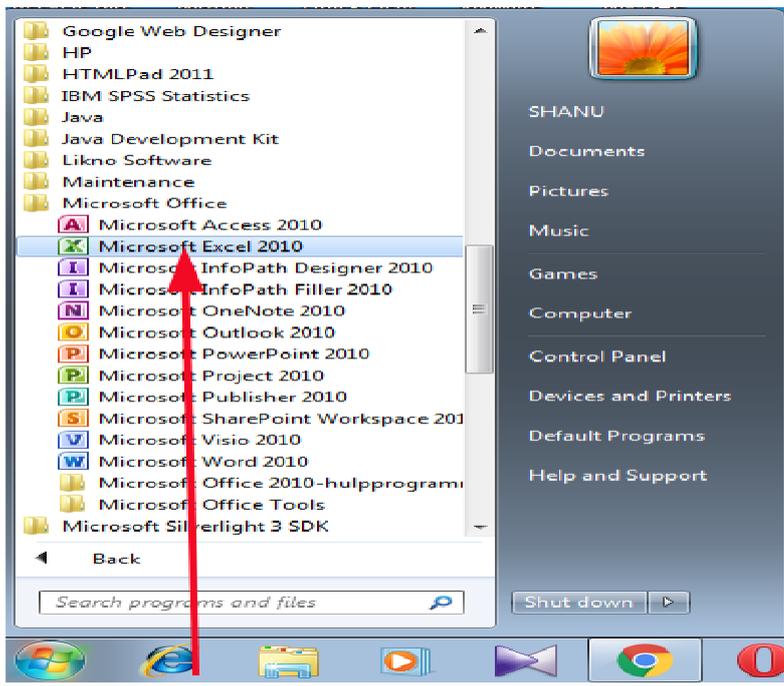
Entering MS Excel 2010Step-1

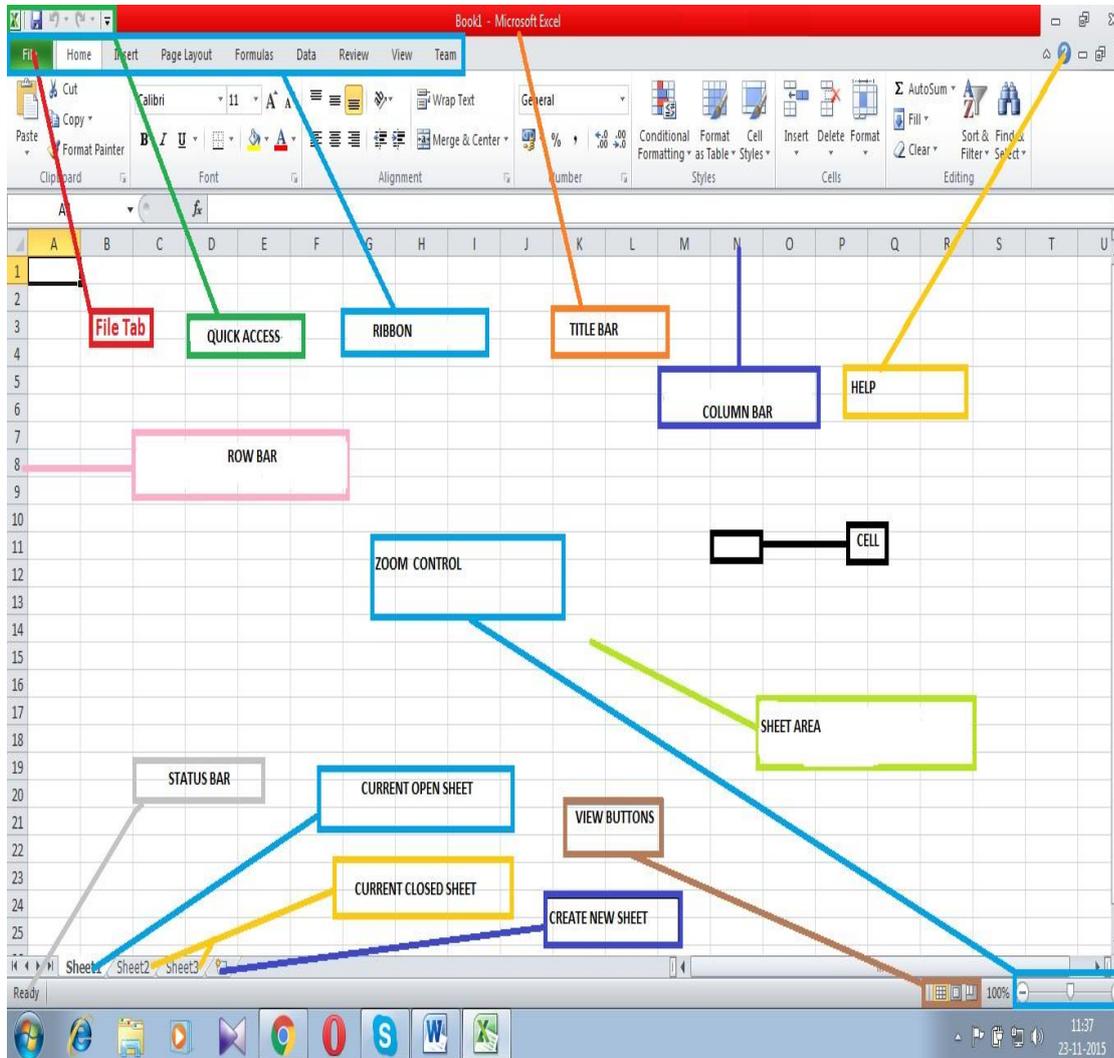


Step-2



Step-3





The above worksheet is comprised of the following controls. These controls are file tab, quick access, ribbon, title bar, row bar, column bar, help, cell, sheet area, zoom control, view buttons, create new sheet, current closed sheet, current open sheet, status bar. Before we dive into learning Excel let us understand what the above controls do in brief.

File tab :- Data that get stored in computer gets stored in the form of files. The file tab helps us create a new file, save the file, closes the current file.

Quick access :- Quick access helps to do things quickly such as quick save, redo and undo as all the controls are available.

Ribbon :- The ribbon is comprised of various controls which are file, home, page layout, formulas, data, review, view, Team. These controls help to create new files, manipulate files and set protection to files.

- **Title bar :-** This bar displays the name of the file.
- **Row bar :-** This bar shows which row we are working on.
- **Column bar :-** This bar shows which column we are working on.
- **Cell :-** The intersection between the row and the column is a cell.
- **Sheet area :-** The sheet on which values are entered.
- **Zoom control :-** This option is used to control the magnification of

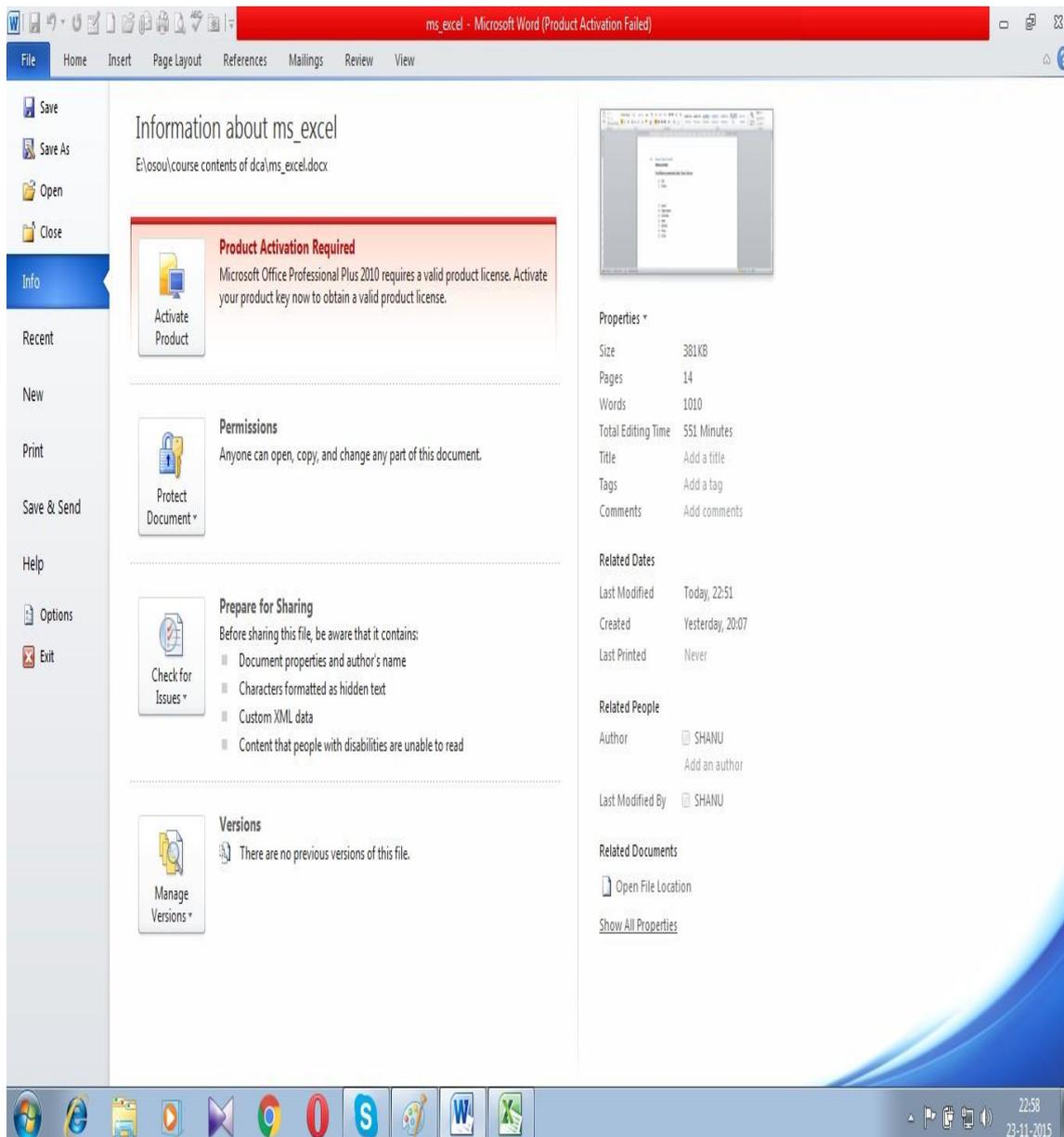
the sheet.

- View buttons :- This options is used view the Excel sheet in different ways such as normal, page layout, page break view.
- Create new sheet :- This option is used to create a new sheet.
- Current closed sheet :- This option is used see the currently closed sheet.
- Current open sheet :- This option is used see the current open sheet.
- Help :- This gives complete help about the Excel worksheet and Excel workbook.

Ribbon

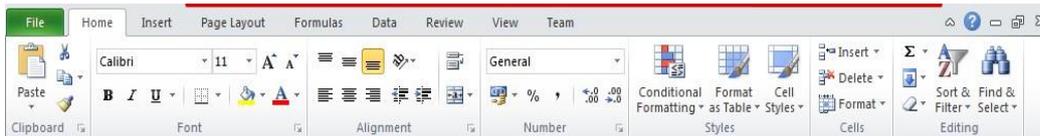
The Ribbon is comprised of tabs. These Tabs are

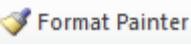
File



The File option is used to create a new file, save file, save in other formats, close the existing file ,print a file, protect a file ,make a file read only.

Home



Sl.N	Picture	Description
1		Copy a selected text
2		Paste a selected text
3		Copies a font format from one place and places it in another place. Suppose A11 CELL IS COMPRISED OF “HELLO HOW ARE YOU” which is a Calibri(Body) font. And B11 Cell is comprised of “Hi there”which is of Adobe Gothic s Placing the mouse at A11 is copy button is clicked and placing at B11 Format Painter is clicked then both A11 and B11 Cells are of the font Calibri(Body)
4		Show office clipboard task pane. Used when multiple objects are copied from a sheet and are to be placed in the same sheet or another sheet.
5		Font type .Used to define the font type. Here the font type is Calibri
6		Font size. used to define the size of the font.

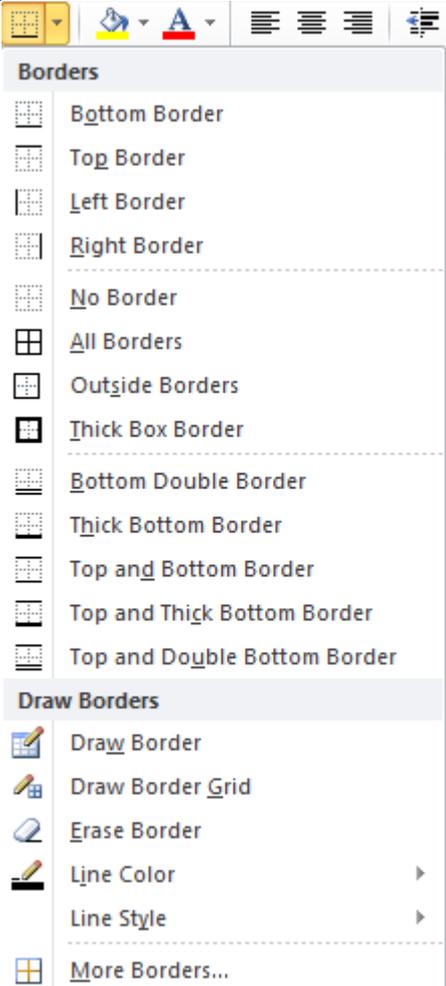
7	A ⁺	Grow Font .Used to increase the font size of the selected character, word ,sentence or paragraph
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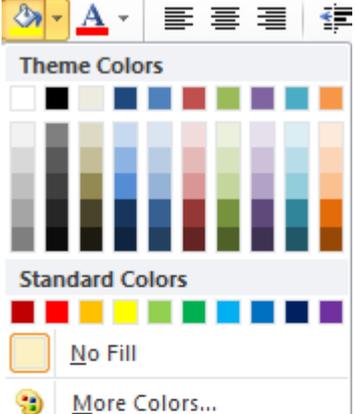
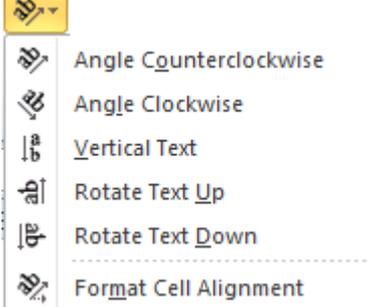
8	A ⁻	Shrink Font .Used to decrease the font size of the selected character, word ,sentence or paragraph
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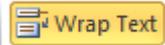
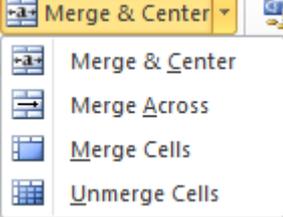
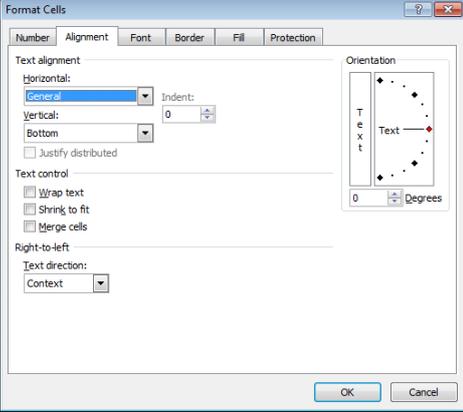
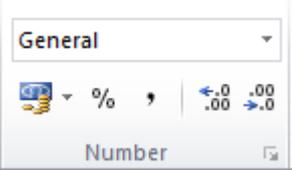
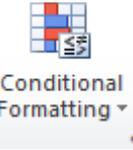
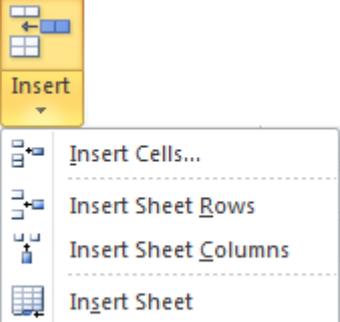
9	B	Used to make the character, word ,sentence or paragraph bold
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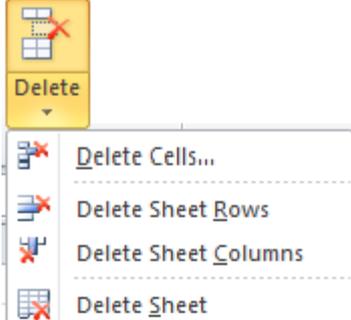
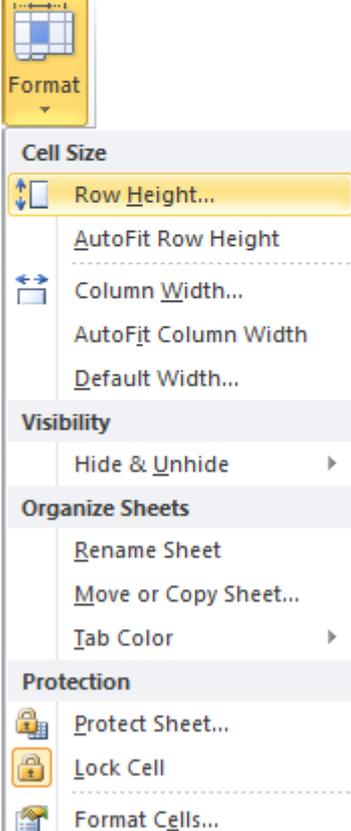
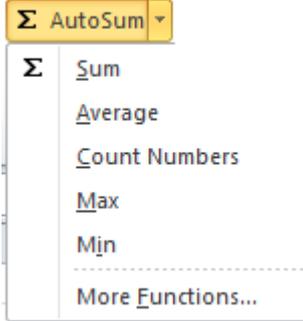
10	<i>I</i>	Used to make the character, word ,sentence or paragraph italicized
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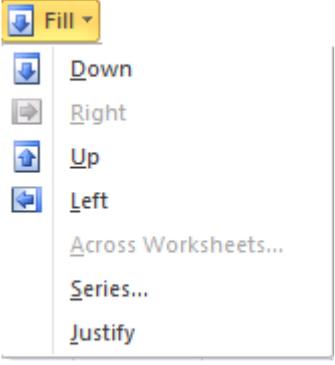
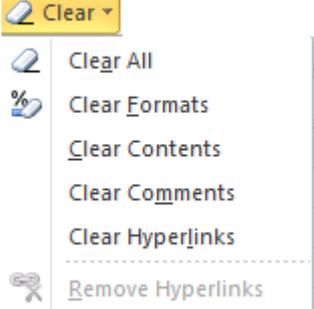
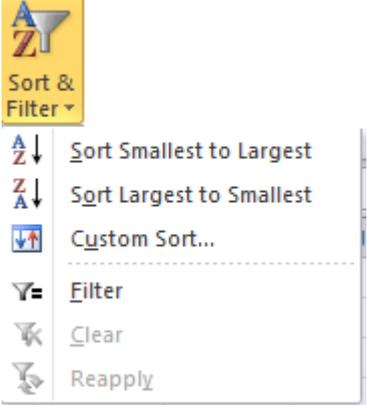
11	<u>U</u>	Used to make the character, word ,sentence or paragraph underlined.
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12		Used to set the borders of a cell or a group of selected cells.
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13		Used to fill the colours in a cell or a group of cells.
14		Used to change the font colours of the text in a cell of a group of selected cells
15		Used to change the formatting of the cells such as sub script, super script, double strike.
16		Top align the selected text of a cell or group of cells selected.
17		Middle align the selected text of a cell or group of cells selected.
18		Bottom align the selected text of a cell or group of cells selected
19		Left align the selected text of a cell or group of cells selected
20		Middle align the selected text of a cell or group of cells selected.
21		Right align the selected text of a cell or group of cells selected.
22		Change the orientation of the text of the cells or group of cells selected.
23		Decrease Indent of a cell or a group of cells selected

24		Increase Indent of a cell or a group of cells selected
25		Wrap a text or unwrap a text of selected cell or group of selected cells
26		Merges and centers the contents of a cell or a group of selected cells .
27	<p style="text-align: center;">Alignment</p> 	Aligns text in cell or group of cells selected
28		Formats the number in the cell, group of selected cells ,column .
29		Conditional formatting is used to identify specific cells among a number of selected cells. for example highlight those numbers that are greater than 70 in a selection.
30		Cell Style changes the style of the cell. Such as the cell and appear Pink or any colour that the user wants.
31		<p>Insert is used to</p> <ol style="list-style-type: none"> 1. Insert cells to a sheet 2. Insert new rows to a sheet 3. Insert new columns to the sheet 4. Add a new sheet to the workbook.

32		<p>Delete option is used to</p> <ol style="list-style-type: none"> 1. Delete cells from a sheet 2. Delete sheet rows from a sheet, 3. Delete sheet columns from a sheet 4. Delete a complete sheet altogether 												
33		<p>The format option is used to format a cell or a group of cells. This involves</p> <ol style="list-style-type: none"> 1. Setting the row height of the cell 2. Setting the column height of the cell 3. Set column width 4. Hide/unhide rows and columns, sheets 5. Cell locking 6. Sheet protection 7. Cell formatting and many more 												
34		<p>The auto sum tool is used to add numbers written in a row or a column. Look the example below</p> <table border="1" data-bbox="794 1563 976 1809"> <thead> <tr> <th></th> <th>A</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>3</td> </tr> <tr> <td>3</td> <td>5</td> </tr> <tr> <td>4</td> <td>7</td> </tr> <tr> <td>5</td> <td>16</td> </tr> </tbody> </table> <p>The number highlighted in Yellow is the sum of all the numbers in Green.</p>		A	1	1	2	3	3	5	4	7	5	16
	A													
1	1													
2	3													
3	5													
4	7													
5	16													

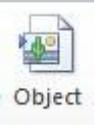
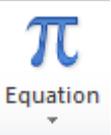
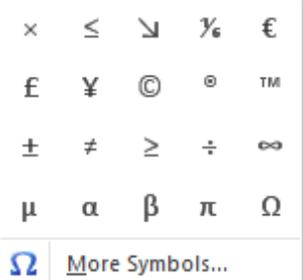
35.		<p>This button is used to fill the cells down, left, right with formulas if given.</p> <table border="1" data-bbox="794 302 981 584"> <thead> <tr> <th></th> <th>A</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>3</td> <td>3</td> </tr> <tr> <td>3</td> <td>5</td> <td>5</td> </tr> <tr> <td>4</td> <td>7</td> <td>7</td> </tr> <tr> <td>5</td> <td>16</td> <td>16</td> </tr> <tr> <td>6</td> <td>31</td> <td>31</td> </tr> </tbody> </table>		A		1	1	1	2	3	3	3	5	5	4	7	7	5	16	16	6	31	31						
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3	5	5																											
4	7	7																											
5	16	16																											
6	31	31																											
36.		<p>This option is used to clear the cell or the group of selected cells.</p>																											
37.		<p>Used for sorting and filtering. Those in Yellow colour show unsorted while those in blue show sorted numbers those in green show filtered items among the sorted items.</p> <table border="1" data-bbox="794 1176 1220 1541"> <tbody> <tr> <td>24</td> <td>1</td> <td></td> </tr> <tr> <td>34</td> <td>4</td> <td></td> </tr> <tr> <td>54</td> <td>5</td> <td></td> </tr> <tr> <td>23</td> <td>23</td> <td></td> </tr> <tr> <td>45</td> <td>24</td> <td></td> </tr> <tr> <td>34</td> <td>34</td> <td></td> </tr> <tr> <td>1</td> <td>34</td> <td></td> </tr> <tr> <td>4</td> <td>45</td> <td></td> </tr> <tr> <td>5</td> <td>54</td> <td></td> </tr> </tbody> </table>	24	1		34	4		54	5		23	23		45	24		34	34		1	34		4	45		5	54	
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38		<p>The purpose of find and replace is to find a particular text in sheet and replace it with a new text.</p>
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Insert

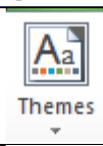
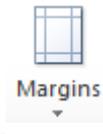
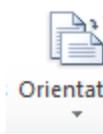
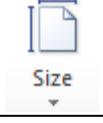
1	 PivotTable	Used To create a Pivot Table
2	 Table	This button is used to create a table from existing entries. The other features include searching for entries out of many.
3	 Picture	This button is used to insert a picture in the excel sheet.
4	 Clip Art	This button is used to insert a clip art into the worksheet.
5	 Shapes	This button is used to insert various shapes into the worksheet.
6	 SmartArt	This button is used to insert a smart art into the worksheet
7	 Column	This button is used to create a chart in the excel worksheet.

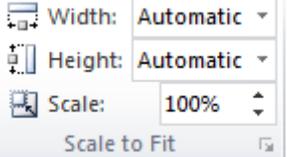
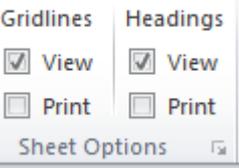
8	 Line	This button is used to create a line graph
9	 Pie	This button is used to create a pie chart in the excel sheet.
10.	 Bar	This button is used create a bar chart in the excel sheet.
11.	 Area	This button is used to create an area chart
12	 Scatter	This button is used to create a scatter chart on an excel sheet.
13	 Other Charts	This button is used to create other charts on the excel sheet
14	 Line	Create a line sparkline based on the column values selected
15	 Column	Create a column sparkling based on the column values selected
16	 Win/Loss	Creates a win/Loss Sparkline
17	 Slicer	Insert slicer to filter data interactively
18	 Hyperlink	This option is used create a hyperlink to link to <ol style="list-style-type: none"> 1. File 2. Webpage 3. Email address
19	 Text Box	This option is used create a text box in the sheet.
20	 Header & Footer	This option is used to create a header and a footer.
21	 WordArt	This option is used to insert a word art into the excel sheet.

22	 Signature Line ▾	Used to insert a digital signature
23	 Object	Used to insert an object. This object could be anything starting from an image to pdf document
24	 Equation ▾	Used to write an equations
25	 Symbol ▾  More Symbols...	Used to insert a symbol.

Page layout

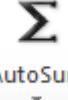
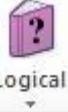
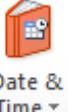
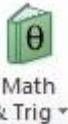
Page layout defines how the page should appear when it presented to someone or self. This starts from excel sheet page designing to Excel sheet page printing. The page layout is comprised of the following

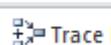
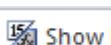
1	 Themes ▾	This option is used to change the themes of the sheet
2	 Margins ▾	This options is used to set the margins of the page that is going to be printed. It comprises of left, right, top, bottom margins
3	 Orientation ▾	This option is used to set the orientation of the page as to landscape or portrait.
4	 Size ▾	This option is used to set the size of the page like A4,A3 etc

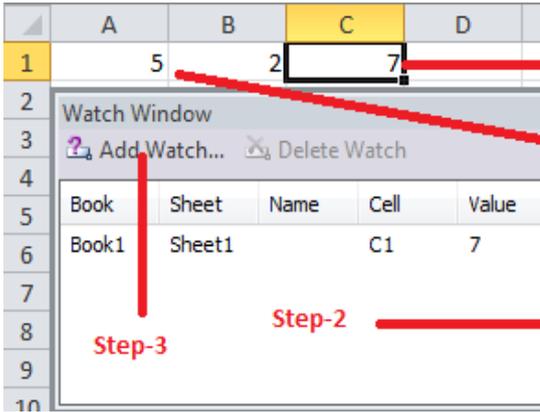
5	 Print Area ▾	Mark a specific area of the sheet for printing
6	 Breaks ▾	This option is used to create a page break so as to ensure where each page will end at the bottom and at the right when a whole worksheet is considered.
7	 Background	Choose an image to be shown at the background of the worksheet.
8	 Print Titles	Specify rows and columns to repeat in each page
9	 Page Setup	Page setup to print
10	 Scale to Fit	Scale to fit maximum contents in a page
11	 Sheet Options	Sheet options as to how the sheet would be visible during viewing and printing
12	 Bring Forward ▾	Bring forward an object one level forward .
13	 Send Backward ▾	Send the object one level backward.
14	 Selection Pane	Make the objects hidden or visible
15	 Align ▾	Aligns the edges of multiple selected objects.
16	 Group ▾	Group multiple objects into one Ungroup an object created from multiple objects.

17.	 Rotate	Rotate a single object.
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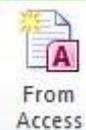
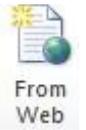
Formulas

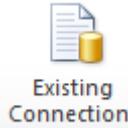
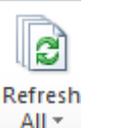
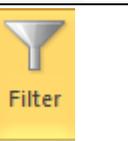
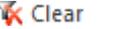
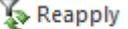
1	 Insert Function	Used To insert a function.
2	 AutoSum	Do simple calculations such as s Sum Average Count Max Min And many more functions.
3	 Recently Used	Make use of very recently used functions which were used while preparing the worksheet.
4	 Financial	All financial functions are available here
5	 Logical	Perform all logical operations.
6	 Text	Perform all textual operations.
7	 Date & Time	Perform all date and time functions
8	 Lookup & Reference	Lookup and Reference functions
9	 Math & Trig	Mathematical and trigonometric functions
10	 More Functions	More functions related to Statistical and Engineering.

11	 Name Manager	Name Manager								
12	 Use in Formula ▾	Use a name in the worksheet rather than use a formula.								
13	 Create from Selection	Create from selection								
14	 Trace Precedents	<p>Trace Precedents Suppose in A1 cell you wrote 1 In B1 cell you wrote 2 In C1 you had written =A1+B1 Now Click on C1 And click the button</p> <p>You get</p> <table border="1" data-bbox="678 772 1061 862"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> </tbody> </table>	A	B	C	1	2	3		
A	B	C								
1	2	3								
15	 Trace Dependents	<p>Show arrows that indicate what cells effect the value of the current selected cell. Suppose in A1 cell you wrote 1 In B1 cell you wrote 2 In C1 you had written =A1+B1 Now Click on A1 And click the button</p>  Trace Dependents <table border="1" data-bbox="678 1288 1125 1366"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <th>1</th> <td>1</td> <td>2</td> <td>3</td> </tr> </tbody> </table>		A	B	C	1	1	2	3
	A	B	C							
1	1	2	3							
16	 Remove Arrows ▾	Remove Arrows drawn by Trace Precedents and trace dependents								
17	 Show Formulas	Show formulas instead of values in the cells								
18	 Error Checking ▾	Check errors in formulas of the cells								
19	 Evaluate Formula	Shows the formula written in in the particular cell.								

20		<p>The watch window is used to see how the values of a cell get changed when one value of the cell is changed as it connected to the cell via a formula. Suppose in A1 cell you wrote 1 In B1 cell you wrote 2 In C1 you had written $=A1+B1$ Now click on Watch window.</p> 
21		<p>Calculation option is set by default to automatic so that changes in one cell can affect the sheet. It can be set to manual so that the effects don't take effect until the calculation option is set to automatic.</p>
22		<p>Calculate now calculates the entire workbook if calculation options is set to manual.</p>
23		<p>Calculates the entire sheet now. Important when calculate options is set to manual.</p>

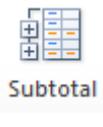
Data

1		Import data from MS Access Database
2		Import data from the Web
3		Import data from the text

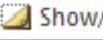
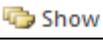
4	 From Other Sources ▾	Import Data from Other sources such as Sql Server Database
5	 Existing Connections	Import Data from Existing Connection
6	 Refresh All ▾	This option updates the data in the excel sheet with that in the database If any new records were added in the table, old records modified or deleted.
7	 Connections	This option is used to add, update, delete connections
8	 Properties	This option is used to modify the properties of the connections
9	 A ↓ Z	Sort Ascending
10	 Z ↓ A	Sort Descending
11	 Sort	Sort on the basis of the criteria.
12	 Filter	Filter items from a selected column or selected group of columns.
13	 Clear	Clear Filter
14	 Reapply	Reapply filter
15	 Advanced	Advanced filtration
16	 Text to Columns	Used to break the words separated by a comma or other delimiter into columns 
17	 Remove Duplicates	Used to remove duplicates in a column,selected columns,selected cells.

Before Removing Duplicates		After Removing Duplicates	
1	1	1	1
2	1	2	2
3	2	3	3
4	2	4	4
5	2	5	5
6	2	6	6
7	3		
8	3		
9	4		
10	4		
11	4		
12	5		
13	5		
14	5		
15	6		
16	6		
17	6		
18	6		

18	 <p>Data Validation ▾</p>	Used to enter valid data into the cell.																															
19	 <p>Consolidate</p>	<p>Consolidate data from multiple ranges into a new range</p> <table border="1"> <thead> <tr> <th>Jan Worksheet</th> <th>Feb worksheet</th> <th>Consolidate in mar worksheet</th> </tr> </thead> <tbody> <tr> <td> <table border="1"> <thead> <tr><th>A</th></tr> </thead> <tbody> <tr><td>1 Name</td></tr> <tr><td>2 shanu</td></tr> <tr><td>3 rahul</td></tr> <tr><td>4 sohan</td></tr> </tbody> </table> </td> <td> <table border="1"> <thead> <tr><th>A</th><th>B</th></tr> </thead> <tbody> <tr><td>1 Name</td><td>Marks</td></tr> <tr><td>2 shanu</td><td>50</td></tr> <tr><td>3 rahul</td><td>50</td></tr> <tr><td>4 sohan</td><td>50</td></tr> </tbody> </table> </td> <td> <table border="1"> <thead> <tr><th>A</th><th>B</th></tr> </thead> <tbody> <tr><td>1 Name</td><td>Marks</td></tr> <tr><td>2 shanu</td><td>100</td></tr> <tr><td>3 rahul</td><td>110</td></tr> <tr><td>4 sohan</td><td>120</td></tr> </tbody> </table> </td> </tr> </tbody> </table>	Jan Worksheet	Feb worksheet	Consolidate in mar worksheet	<table border="1"> <thead> <tr><th>A</th></tr> </thead> <tbody> <tr><td>1 Name</td></tr> <tr><td>2 shanu</td></tr> <tr><td>3 rahul</td></tr> <tr><td>4 sohan</td></tr> </tbody> </table>	A	1 Name	2 shanu	3 rahul	4 sohan	<table border="1"> <thead> <tr><th>A</th><th>B</th></tr> </thead> <tbody> <tr><td>1 Name</td><td>Marks</td></tr> <tr><td>2 shanu</td><td>50</td></tr> <tr><td>3 rahul</td><td>50</td></tr> <tr><td>4 sohan</td><td>50</td></tr> </tbody> </table>	A	B	1 Name	Marks	2 shanu	50	3 rahul	50	4 sohan	50	<table border="1"> <thead> <tr><th>A</th><th>B</th></tr> </thead> <tbody> <tr><td>1 Name</td><td>Marks</td></tr> <tr><td>2 shanu</td><td>100</td></tr> <tr><td>3 rahul</td><td>110</td></tr> <tr><td>4 sohan</td><td>120</td></tr> </tbody> </table>	A	B	1 Name	Marks	2 shanu	100	3 rahul	110	4 sohan	120
Jan Worksheet	Feb worksheet	Consolidate in mar worksheet																															
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2 shanu	100																																
3 rahul	110																																
4 sohan	120																																
20	 <p>What-If Analysis ▾</p>	Used in what if analysis																															
21	 <p>Group ▾</p>	Tie a range of cells together so that they can be colapsed or expanded																															

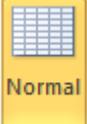
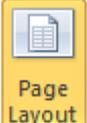
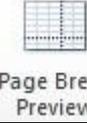
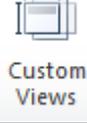
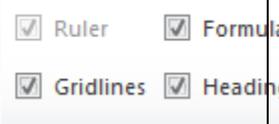
22	 Ungroup	Ungroup a range of cells that were previously grouped
23	 Subtotal	Used to calculate the subtotal
24	 Show Detail	Expand a group of cells
25	 Hide Detail	Collapse a group of cells.

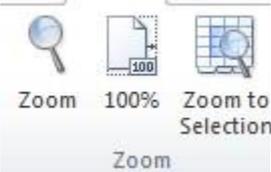
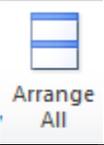
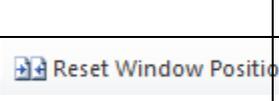
Review

1	 Spelling	Used to do the spell check
2	 Research	Search through reference materials such as encyclopedias and dictionaries
3	 Thesaurus	Suggested words with similar meaning.
4	 Translate	Translate selected text to a different language
5	 New Comment	Add a new comment to the selection.
6	 Edit Comment	Edit the existing comment
7	 Delete	Delete selected comment
8	 Previous	Go to previous comment in sheet
9	 Next	Go to the next comment in sheet
10	 Show/Hide Comment	Show or hide a comment
11	 Show All Comments	Show all comments in the sheet

12	 Show Ink	Show or hide any ink annotations on the sheet
13	 Protect Sheet	Protect sheet
14	 Protect Workbook	Protect workbook
15	 Share Workbook	Allow multiple users to work on the same workbook at the same time.
16	 Protect and Share	Protect and share the workbook so that other users can see but cannot modify as the workbook is locked with password
17	 Allow Users to Edit	Allow specific users to edit ranges
18	 Track Changes	Track all changes done to the document

View

1	 Normal	View a document in normal view.
2	 Page Layout	View a document in page layout view
3	 Page Break Preview	View a document in page break preview
4	 Custom Views	Custom view
5	 Full Screen	View in full screen mode. Press escape key to view in normal view.
6	 <input checked="" type="checkbox"/> Ruler <input checked="" type="checkbox"/> Formula Bar <input checked="" type="checkbox"/> Gridlines <input checked="" type="checkbox"/> Headings	Setting the ruler, formula bar, gridlines, headings.

7		Zoom controls of the sheet
8		View a document in a new window when more than one workbook is opened at one time.
9.		Arrange multiple workbooks to be seen at one time
10.		Freeze top row or first column or both rows and columns of a sheet.
11.		Split a window
12.		Hide a window
13		Unhide a window
14		View two documents side by side if both are open.
15		If both documents are opened side by side this button is clicked one sheet starts scrolling according to the other when the other is scrolled.
16		If both documents are opened side by side this button is clicked it enables both documents to be seen with equal size.
17		Save current layout of all windows as a workspace so that it can be restored later.
18		Switch from one window to the other.
19		Work with Macros

Team

Used to plan team projects, schedule tasks, assign resources, and track changes to data

To add or modify Team Foundation work items by using Microsoft Excel or Microsoft Project, you connect your worksheet or project plan to a team project. Establishing this connection binds the document to the selected Team Foundation Server (TFS), team project collection, and team project to exchange information. If you open Excel or Project from Team Explorer, the document is automatically bound to the team project.

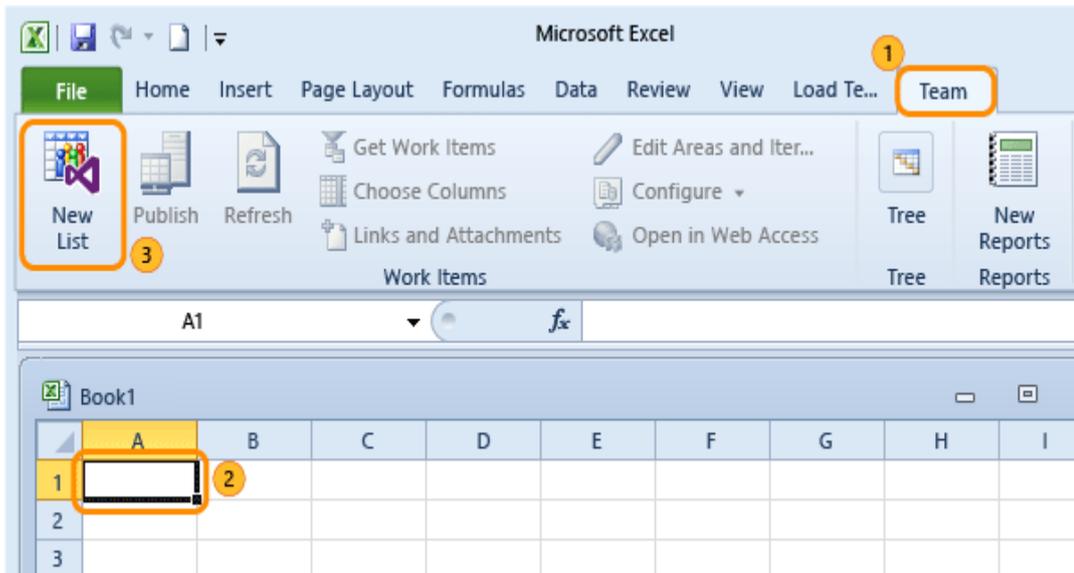
If the team project is moved to a different team project collection in the same instance of TFS, your documents will automatically be reconnected. However, if the team project is moved to a different instance of TFS, you must manually reconnect your documents to the new server.

Requirements

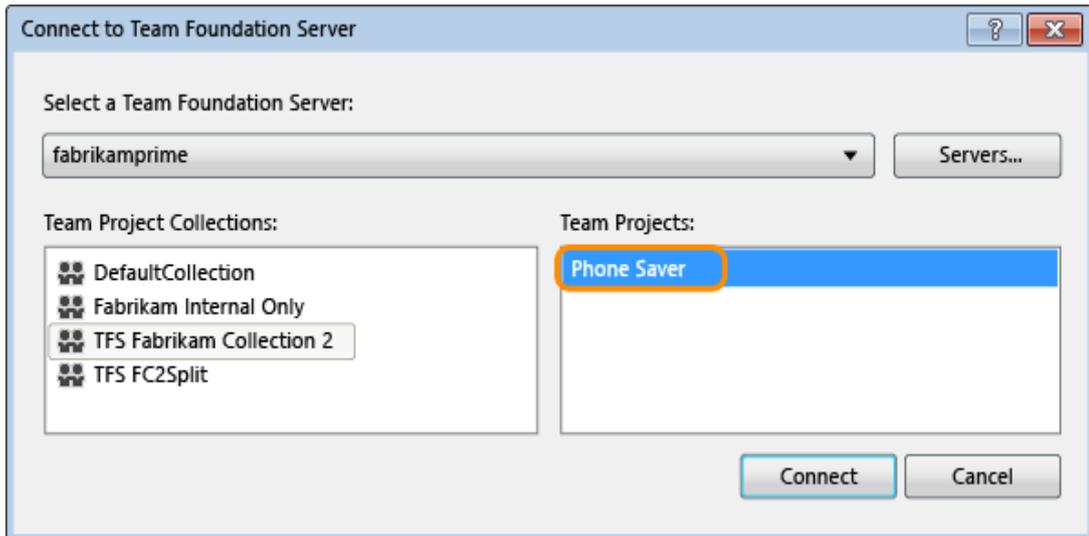
To follow these procedures, you must be a member of the **Readers** group or have your **View work items in this node** permission set to **Allow**. See Permission.

To connect Excel or Project to a Team Project

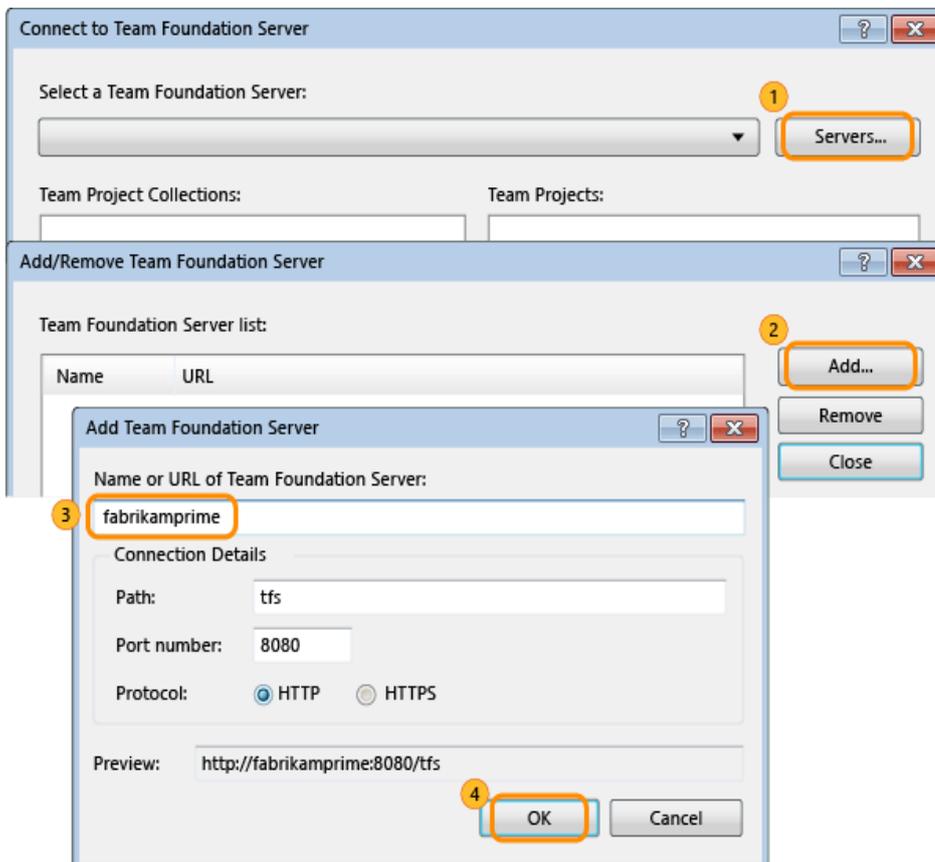
1. Start with a blank worksheet or project plan. If you don't see the **Team** ribbon, see step 2.



2. Connect to TFS and the team project. If you can't connect, get added as a team member.



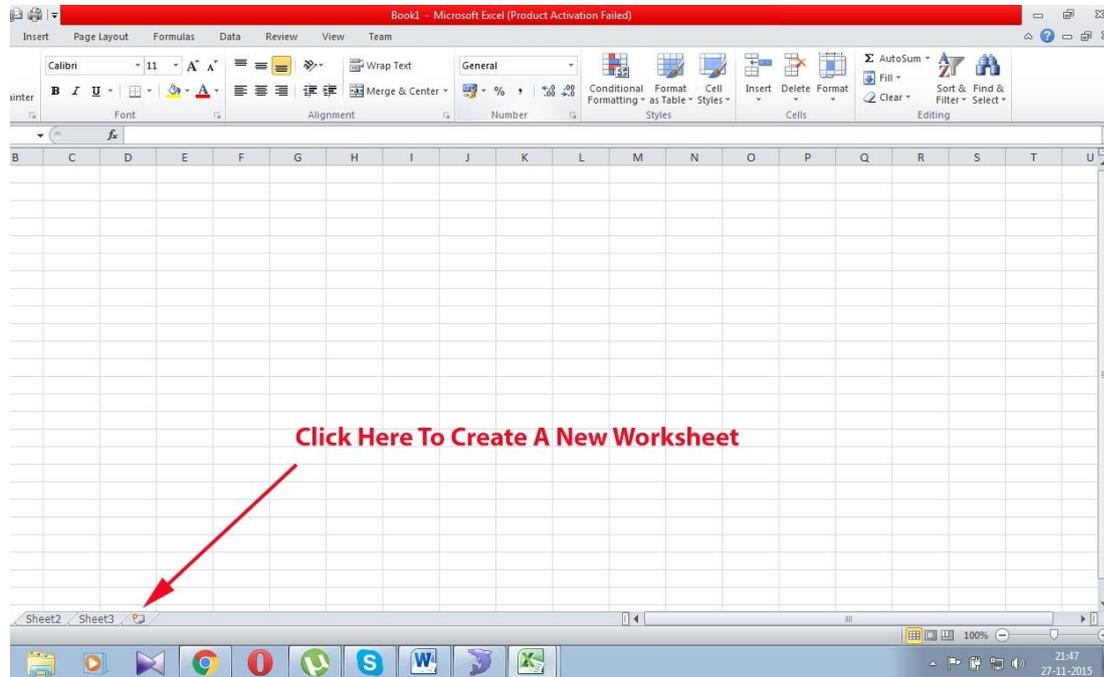
If it is your first time connecting to TFS from Excel or Project, you might have to add TFS to the list of recognized servers.



3. Your worksheet or project plan is now bound to your team project. What this means is that you can add work items to the team project from the Office document or add work items to the Officedocument from the team project.

Working with Excel worksheet

By default Excel is comprised of 3 worksheets. To create a new excel worksheet follow the following steps.



Entering values into worksheet

Open the sheet1 and start entering the values right away as shown below.

	A	B	C	D	E	F
1	Sl.No	Class	section	Name	Age	Gender
2	1	1	A	Ramu	4	M
3	2	1	A	Ajay	4	M
4	3	1	B	Arun	4	M
5	4	1	B	Shyama	4	F

Copy and paste values in the worksheet

To copy and paste the values in the worksheet follow the following steps

Step-1 :- Left click and drag the cells as shown below

	A	B	C	D	E	F
1	Sl.No	Class	section	Name	Age	Gender
2	1	1 A	Ramu	4	M	
3	2	1 A	Ajay	4	M	
4	3	1 B	Arun	4	M	
5	4	1 B	Shyama	4	F	

Step-2 :- Click on the  Copy option

Step:-3:- Click the cell where you want to paste

Step-4:- click the  button

Find and replace values in the worksheet

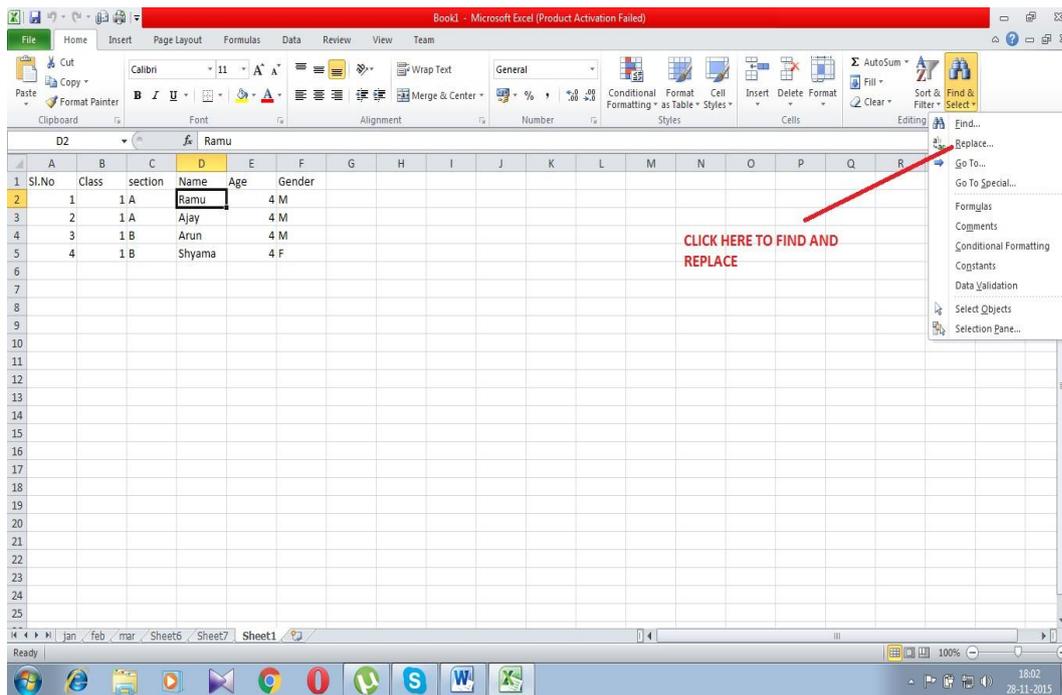
Find and replace a value in MS Excel.

Step-1

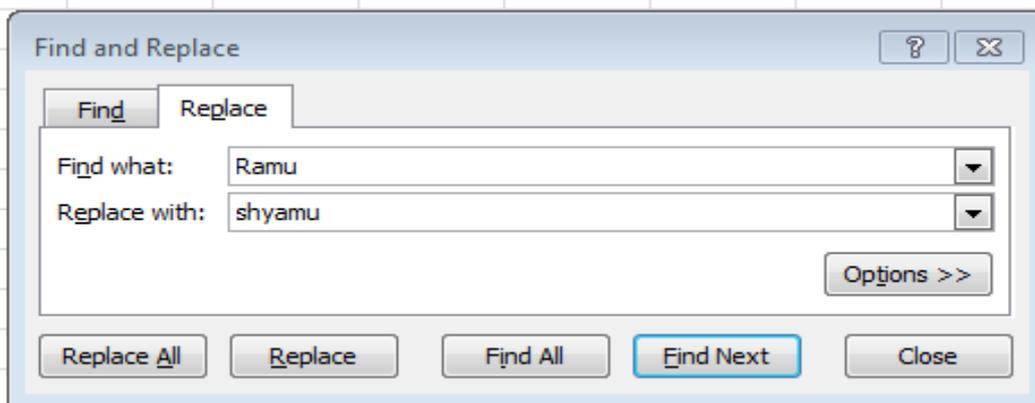
Open the excel sheet as shown below

	A	B	C	D	E	F
1	Sl.No	Class	section	Name	Age	Gender
2	1	1 A	Ramu	4	M	
3	2	1 A	Ajay	4	M	
4	3	1 B	Arun	4	M	
5	4	1 B	Shyama	4	F	

Step-2



Step-3



Step-4

Click on Replace button to replace the text

	A	B	C	D	E	F
1	Sl.No	Class	section	Name	Age	Gender
2	1	1	A	shyamu	4	M
3	2	1	A	Ajay	4	M
4	3	1	B	Arun	4	M
5	4	1	B	Shyama	4	F

Formulas in worksheet

A formula performs calculations using numbers, addresses of cells and mathematical operators. Formulas are the bread and butter of spreadsheets. Without formulas, a spreadsheet would only contain a static never-changing set of numbers.

Formulas in worksheet are used to automatically calculate the value a cell based on the value of other cell or the values of other cells

Let us say in Cell A1 we store **10**

In Cell B1 we store **20**

We click on cell **C1**

And here we write the formula **=A1+B1** as shown below

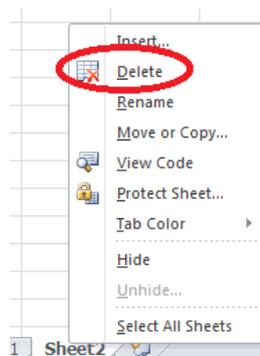
Clipboard		Font			
SUM		=A1+B1			
	A	B	C	D	E
1	10	20	=A1+B1		

Press enter key

C1		=A1+B1			
	A	B	C	D	E
1	10	20	30		

Delete a worksheet

To **Delete** a worksheet **right click** on the **sheet tab sheet2** in the screen and click **delete** option



Data filtering

Data filtering is a process of filtering data in a spreadsheet basing on a set of conditions so that only certain data is displayed. Data filtering is used when a lot of data is present in the worksheet and only specific records are to be seen based on the condition defined.

Step-1

Let us consider the column A as defined below

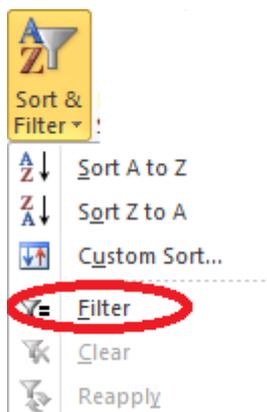
	A
1	Numbers
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	10

Step-2

Click on the cell A1 in which Numbers is written

Step-3

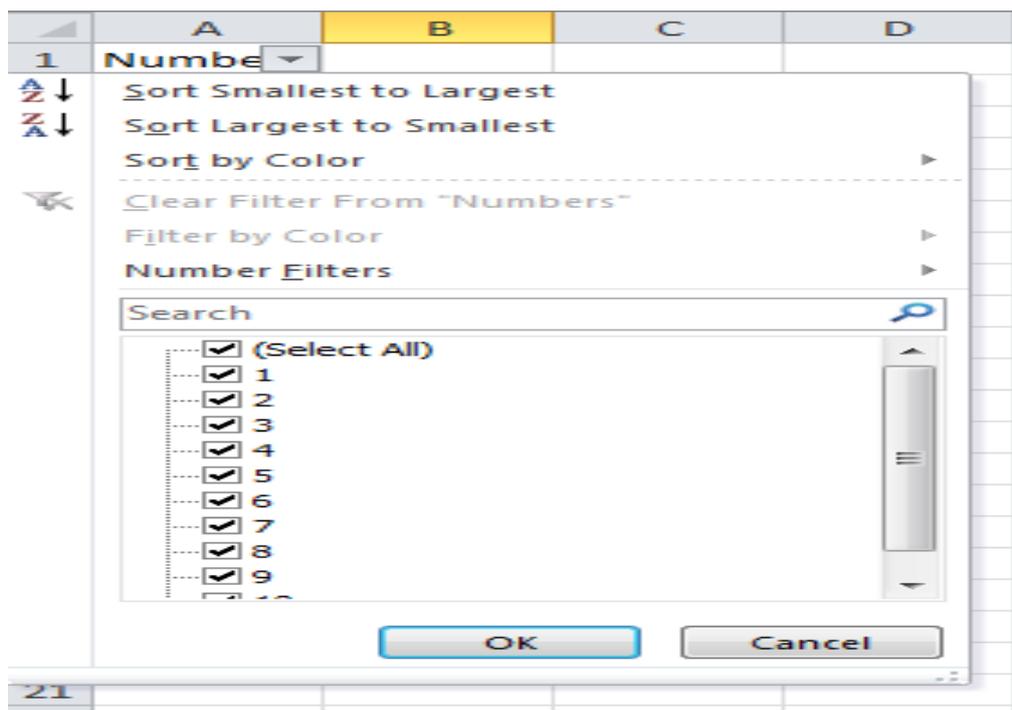
Click on the filter Button



Step-4

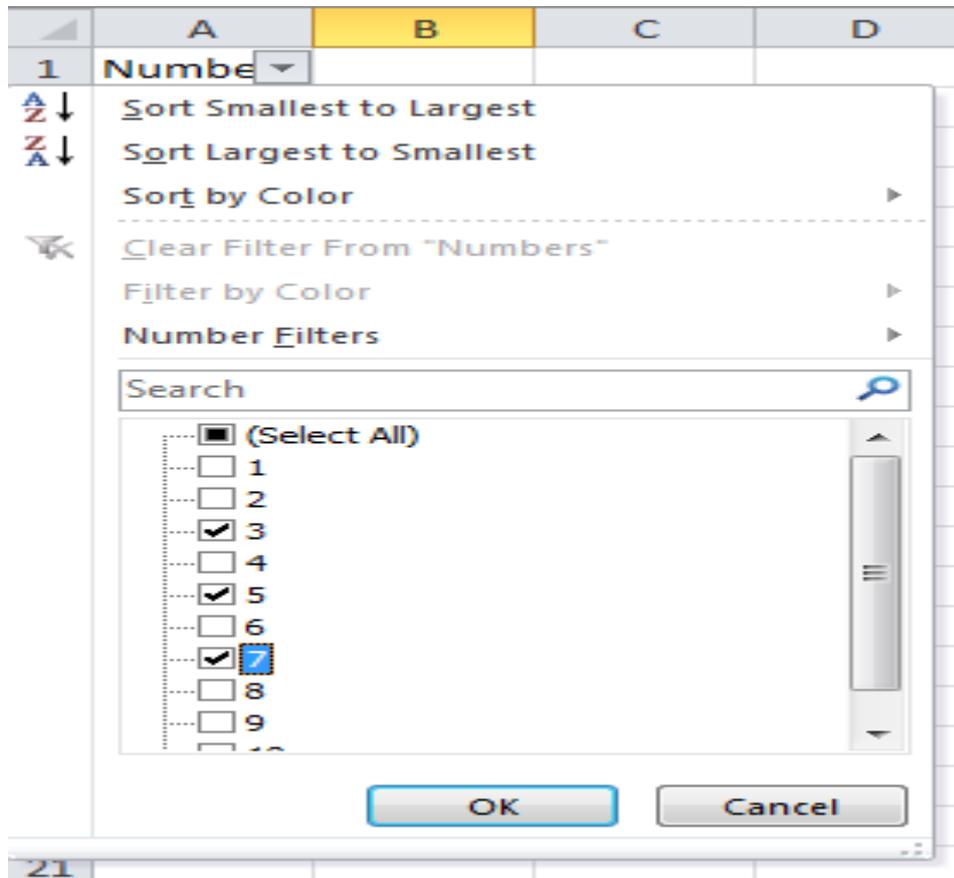
	A
1	Number
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	10

Step-5



Step-6

Select the values that you want to see



Press OK button and see the filtered result.

Step-7

	A
1	Number
4	3
6	5
8	7

Data Sorting

Data sorting is a process by which a collection of items is placed into an order such as ascending or descending.

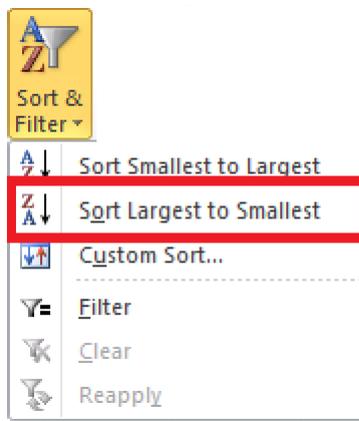
Step-1

Select the cells as shown below

	A
1	Numbers
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	10

Step-2

Sort largest to smallest



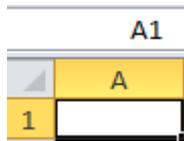
Step-3

	A
1	Numbers
2	10
3	9
4	8
5	7
6	6
7	5
8	4
9	3
10	2
11	1

Using ranges

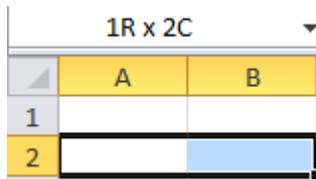
A group of cells is called a range.

A1 :- A range that comprises of one row and one column.



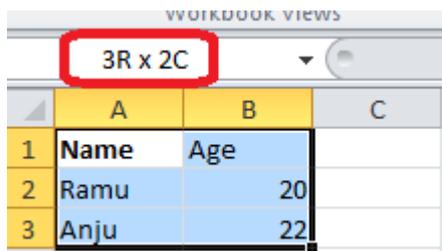
A1	
	A
1	

A2:B2:-A range that is comprised of one row and 2 columns



1R x 2C		
	A	B
1		
2		

The below range shows 3 Rows and 2 Columns



WORKBOOK VIEWS			
3R x 2C			
	A	B	C
1	Name	Age	
2	Ramu	20	
3	Anju	22	

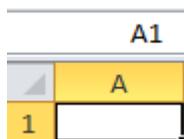
Data validation

Data validation is a feature allows you to set up certain rules that dictate what can be entered into a cell.

Process of Data Validation

Step-1

Select a cell



A1	
	A
1	

Step-2

Go to **Data Tab** on the Ribbon



Click on Data Validation

Step-3

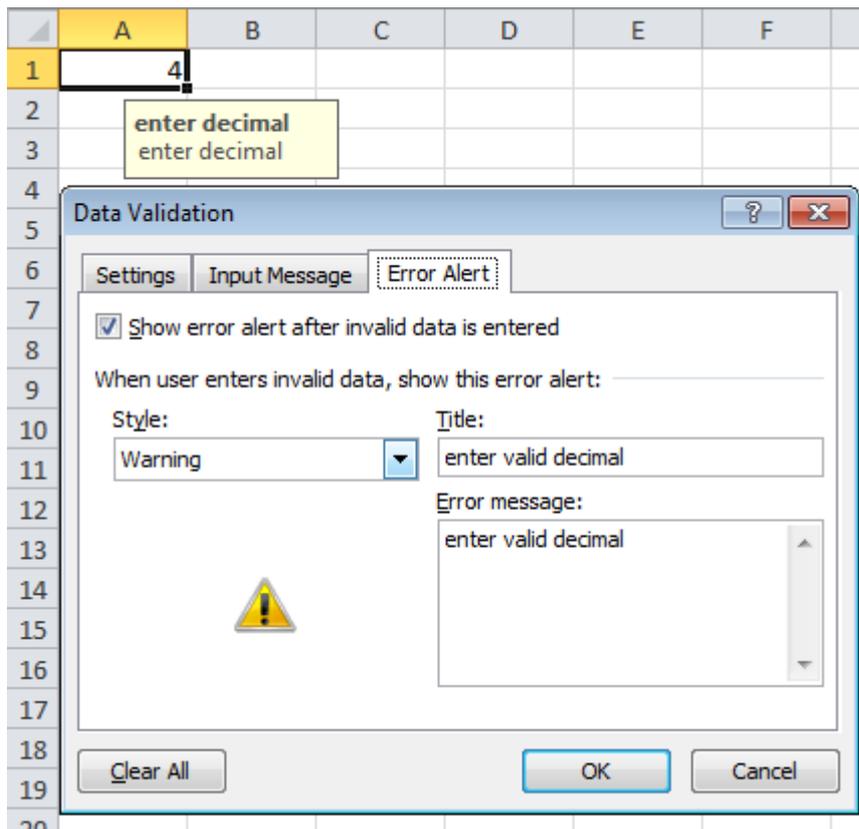
Data Validation Setting

The screenshot shows the 'Data Validation' dialog box with the 'Settings' tab selected. The 'Allow:' dropdown is set to 'Decimal', and the 'Ignore blank' checkbox is checked. The 'Data:' dropdown is set to 'between'. The 'Minimum:' field is set to '0' and the 'Maximum:' field is set to '10'. The 'Apply these changes to all other cells with the same settings' checkbox is unchecked. The 'Clear All', 'OK', and 'Cancel' buttons are visible at the bottom.

Data validation input

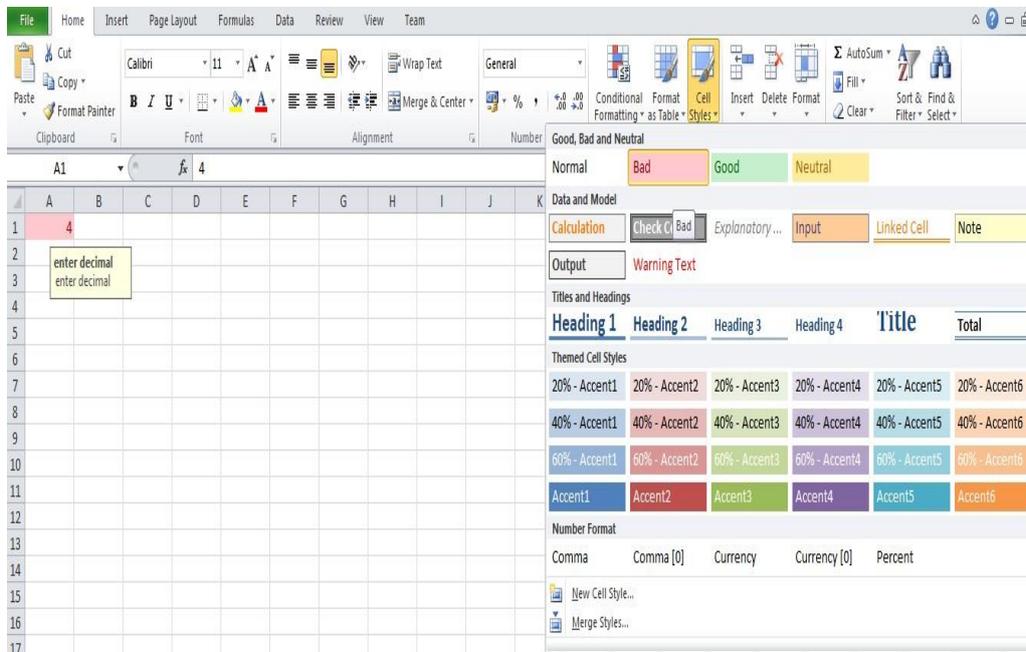
The screenshot shows the 'Data Validation' dialog box with the 'Input Message' tab selected. The 'Show input message when cell is selected' checkbox is checked. The 'When cell is selected, show this input message:' section has a 'Title:' field containing 'enter decimal' and an 'Input message:' text area also containing 'enter decimal'. The 'Clear All', 'OK', and 'Cancel' buttons are visible at the bottom.

Data validation error

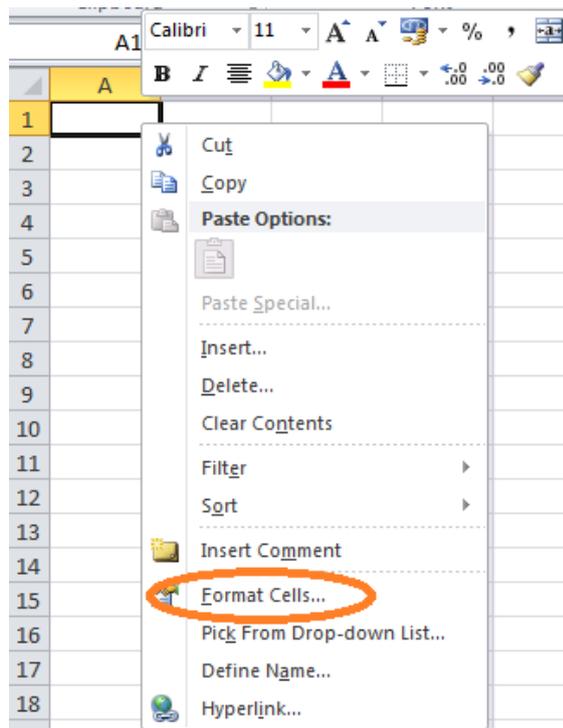


Using styles

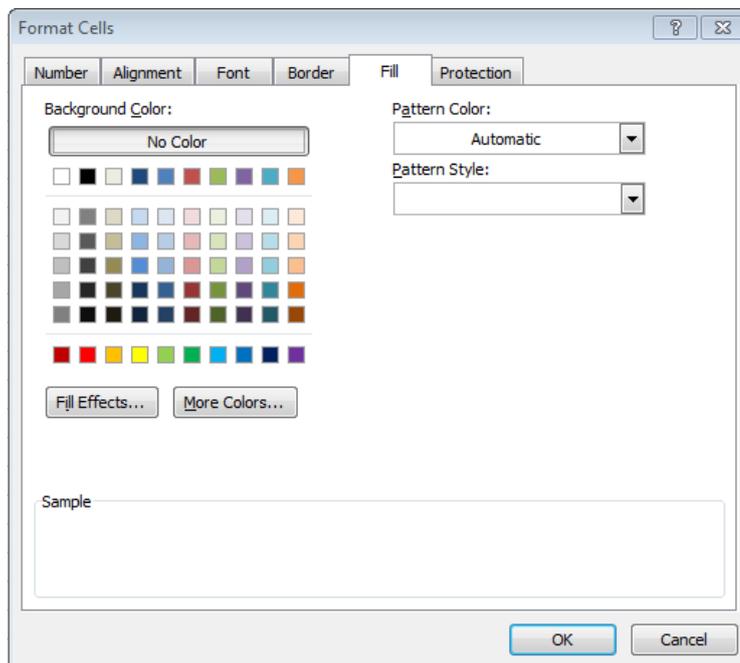
Styles is a process of formatting a cell choosing a cell style



Right click on the cell and you get the following screen as below.



Click on format cells and you get the following screen



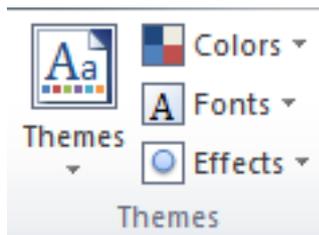
Style is comprised of the following 6 attributes which as defined as below

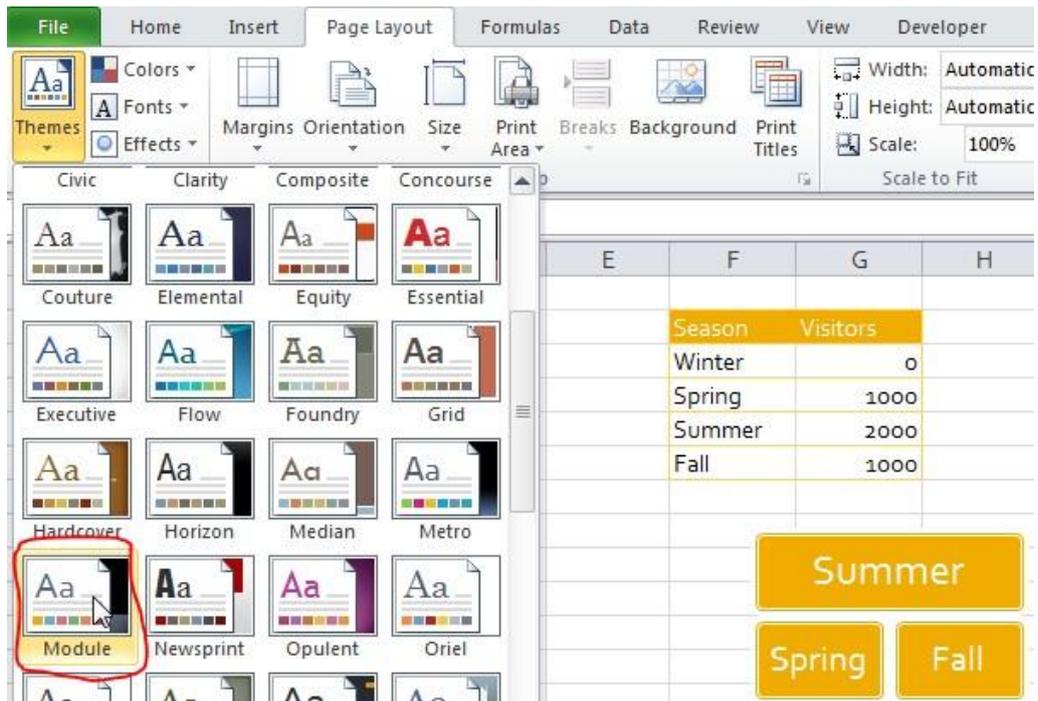
1. Number:-This attribute states what kind of data the cell is going to hold
 - a. General
 - b. Number
 - c. Currency
 - d. Accounting
 - e. Date
 - f. Time
 - g. Percentage
 - h. Fraction
 - i. Scientific
 - j. Text
 - k. Special
 - l. Custom
2. Alignment:-How the text is going to be aligned in the cell.
3. Font:-What is the font that is going to be used for the cell
4. Border :- How to set border around the cell
5. Fill:- how to fill the cell with various colours
6. Protection:- Protect the cell from other person tampering.

Using themes

A theme is an option by which the entire page design and layout can be changed.

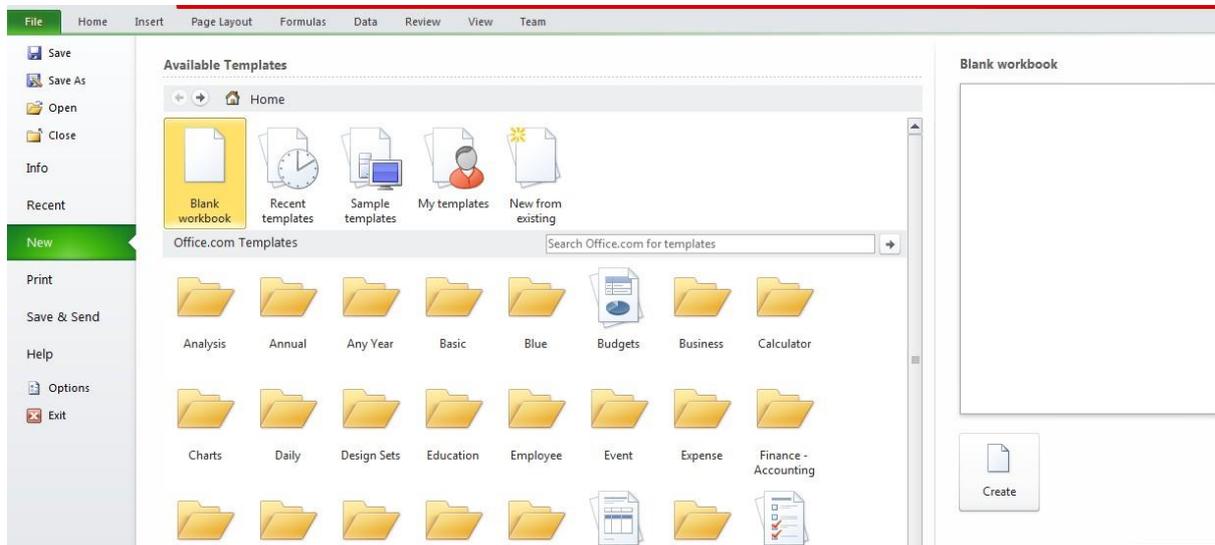
To use themes click on **Page Layout tab** and then click on **themes** to get desired themes as shown below .





Using templates

An Excel template is a workbook by which other workbooks can be created. Select any of the templates below and click on the create button



Using Macros

The macro option is used to simplify very complicated task which you repeat several times while working with the worksheet. It so to say works

like a tape recorder that records all your operations you do to automate a worksheet . Now let us go practical.

Step -1

Using excel create the sheet as shown below and click on the cell h3 which is coloured in yellow

	A	B	C	D	E	F	G	H
1					Subjects			
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total
3	1	Rohit	50	50	50	50	50	
4	2	arun	60	60	60	60	60	
5	3	shyama	70	70	70	70	70	
6	4	aarati	90	90	90	90	90	
7	5	Hema	50	50	50	50	50	

Step-2

Click on views tab and click on macro option as shown below

The screenshot shows the Microsoft Excel interface with the 'View' tab selected in the ribbon. The 'Macros' button is highlighted with a red circle. The spreadsheet below shows the same data as in Step 1, with cell H3 highlighted in yellow.

Step-3

The screenshot shows the 'Record Macro' dialog box in Excel. The 'Macro name' field contains 'SUM', the 'Store macro in' dropdown is set to 'This Workbook', and the 'Description' field is empty.

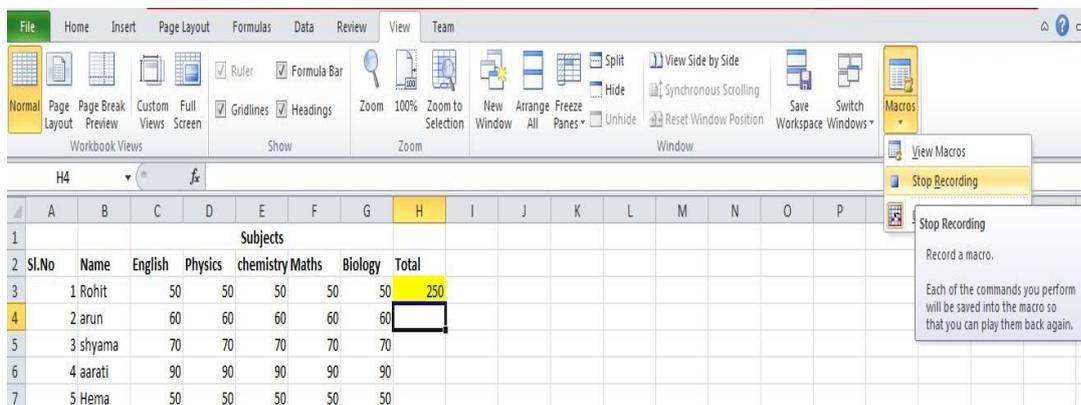
Step-4

Change the macro name .Here I have named it to SUM

	A	B	C	D	E	F	G	H	
1			Subjects						
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total	
3	1	Rohit	50	50	50	50	50	+F3+G3	
4	2	arun	60	60	60	60	60		
5	3	shyama	70	70	70	70	70		
6	4	aarati	90	90	90	90	90		
7	5	Hema	50	50	50	50	50		

Step-5

Press enter key at the h3 cell which is coloured in yellow.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1			Subjects														
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total									
3	1	Rohit	50	50	50	50	50	250									
4	2	arun	60	60	60	60	60										
5	3	shyama	70	70	70	70	70										
6	4	aarati	90	90	90	90	90										
7	5	Hema	50	50	50	50	50										

Step-6

Click on H4 which I have coloured in orange.

	A	B	C	D	E	F	G	H	
1			Subjects						
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total	
3	1	Rohit	50	50	50	50	50	250	
4	2	arun	60	60	60	60	60		
5	3	shyama	70	70	70	70	70		
6	4	aarati	90	90	90	90	90		
7	5	Hema	50	50	50	50	50		

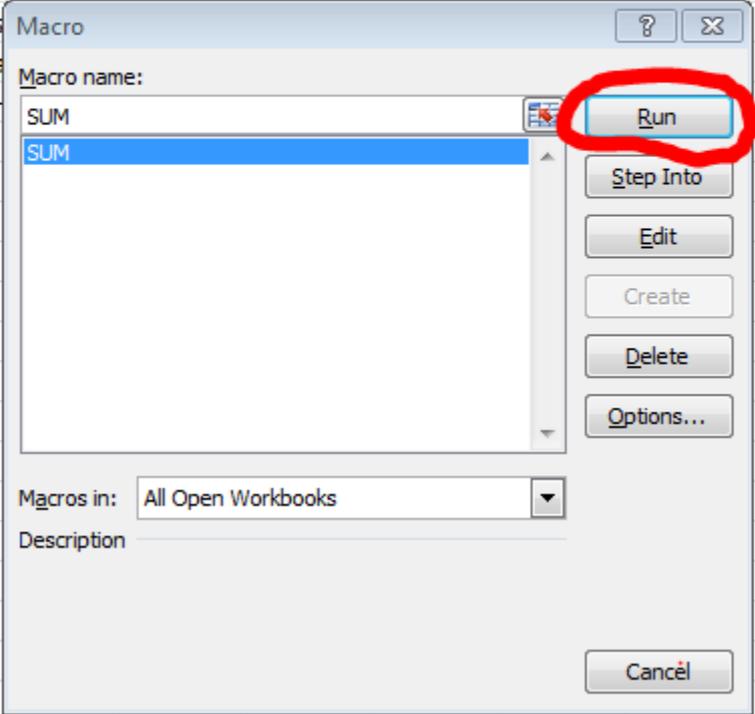
Step-7

Click on view macros under macros tab

Step-8

Placing the cursor on the orange cell click the run button

	A	B	C	D	E	F	G	H
1			Subjects					
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total
3	1	Rohit	50	50	50	50	50	250
4	2	arun	60	60	60	60	60	



Macro

Macro name: SUM

Run

Step Into

Edit

Create

Delete

Options...

Macros in: All Open Workbooks

Description

Cancel

Step-9

View the Output as shown below

	A	B	C	D	E	F	G	H
1			Subjects					
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total
3	1	Rohit	50	50	50	50	50	250
4	2	arun	60	60	60	60	60	300
5	3	shyama	70	70	70	70	70	
6	4	aarati	90	90	90	90	90	
7	5	Hema	50	50	50	50	50	

Repeat steps 6 to 9 to calculate other cells as below

Step-10

The rest are shown in green which is completed

	A	B	C	D	E	F	G	H
1			Subjects					
2	Sl.No	Name	English	Physics	chemistry	Maths	Biology	Total
3	1	Rohit	50	50	50	50	50	250
4	2	arun	60	60	60	60	60	300
5	3	shyama	70	70	70	70	70	350
6	4	aarati	90	90	90	90	90	450
7	5	Hema	50	50	50	50	50	250

Unit -2

Working with graphics

Learning objectives

After the Completion of this unit you should be able to know

- 1) What is a picture tool and how to use picture tool
- 2) What is a clip art and how to use clip art
- 3) What is a shape and how to use shape
- 4) What is a smart art and how to use smart art
- 5) What is a word art and how to use word art

Introduction

Apart of working with numbers and text a person needs to add graphics.

These graphics are picture, clip art, shape, smart art and word art.

Graphics can be inserted, edited, rotated, deleted from the worksheet.

Definition

- Graphical tool:- A graphical tool used to insert, modify, update, delete, show picture, clip art, shape, smart art ,word art, smart art.
- Picture :- A graphical tool used to insert, modify, update, delete, show visual representation of a person, object, or a scene
- Clip art:- A graphical tool that comprises of a collection of pictures or images that can be used to insert, modify, update, delete, show into a document or another program.
- Shape :- A graphical tools that is used insert, edit, update delete graphical objects of various dimensions.
- Smart art :- A graphical tool used to create simple and effective diagrams
- Word art :- WordArt is a text styling utility available in Microsoft Office applications such as Microsoft Word, Excel, PowerPoint and Publisher which helps in providing special effects like outlines,

gradient glow, shadow, bevel, textures and 3-D effects to the text, effects which are unavailable in the standard font formatting tools.

Graphics

The various graphics that can be used in MS Excel 2010 are

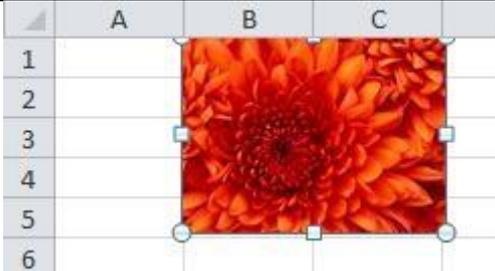


2.3.1 Picture

The Picture option is used to

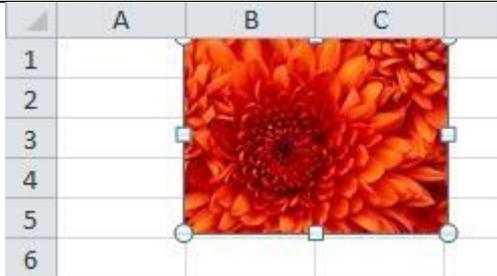
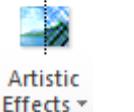
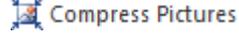
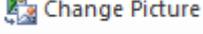
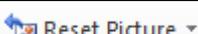
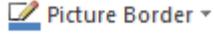
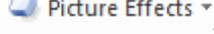
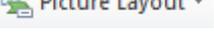
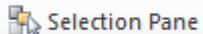
1. Add a picture
2. Modify the existing picture
3. Delete the existing Picture

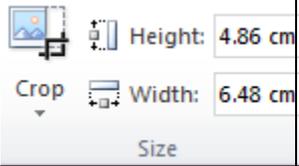
Add a picture

Step-1	Place the cursor on the cell where you want to add the picture say B1	
Step-2	Click on the insert tab and click on	 Picture
Step-3	Click on the insert button shown in the picture to insert.	
Step-4	View the inserted picture in cell B2 after	

	resizing sing,	
--	-------------------	--

Modify and delete existing picture

Step-1	Select the picture that you want to modify	
Step-2	Make Corrections As shown Below	
1	 Remove Background	Remove background of the picture
2	 Corrections	Make corrections in the picture
3	 Color	Change the colour of the picture
4	 Artistic Effects	Bring Artistic Effects on the picture
5	 Compress Pictures	Compress the picture
6	 Change Picture	Change the picture from one picture to the other.
7	 Reset Picture	Reset picture
8		Change picture style.
9	 Picture Border	Used To change Picture border
10	 Picture Effects	Used to change picture effects.
11	 Picture Layout	Used to change the picture layout and change to smart art graphics
13	 Selection Pane	Selection pane Used to hide or show image.

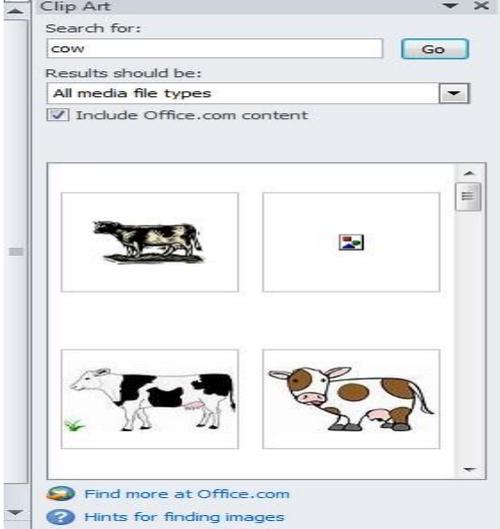
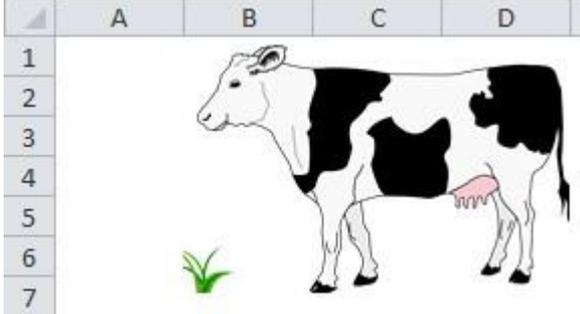
14		Group :- Used to group 2 images into 1 Regroup :- Regroup 2 images into 1 if they were ungrouped Ungroup :- Ungroup group images
15		Used to crop an image removing unwanted scenes from the image.
16	To delete image	Select image and press del key on the keyboard.
17	Align	Align a picture left ,right,top,bottom ,snap to grid .Used in handling multiple images
17	Bring Forward	Used in multiple images. To use this option add 4 images on the worksheet side by side. Select all the images by pressing control key with the left finger and left clicking the images with the mouse with the right hand. Select align left option.Click bring forward option to bring an image behind another image to the front.
18	Send Backward	Used in multiple images. To use this option add 4 images on the worksheet side by side. Select all the images by pressing control key with the left finger and left clicking the images with the mouse with the right hand. Select align left option.Click bring forward option to bring an image behind another image to send behind.

Working with clip art

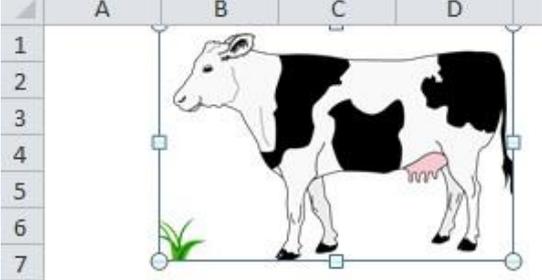
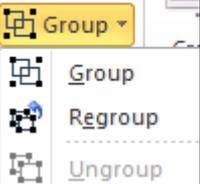
The Clip art option is used to

- 1.Add a Clip art.
2. Modify the existing clip art
- 3.Delete the existing clip art

Add a clip art

Step-1	Place the cursor on the cell where you want to add the clipart say B1
Step-2	Click on the insert tab and click on 
Step-3	Type the image you want to insert. Here I type cow and get the list of image 
Step-4	Click on the image to get the image on the cell. 

Modify and delete existing clip art

Step-1	Select the picture that you want to modify	
Step-2 Make Corrections As shown Below		
1	 Remove Background	Remove background of the picture
2	 Corrections	Make corrections in the picture
3	 Color	Change the colour of the picture
4	 Artistic Effects	Bring Artistic Effects on the picture
5	 Compress Pictures	Compress the picture
6	 Change Picture	Change the picture from one picture to the other.
7	 Reset Picture	Reset picture
8		Change picture style.
9	 Picture Border	Used To change Picture border
10	 Picture Effects	Used to change picture effects.
11	 Picture Layout	Used to change the picture layout and change to smart art graphics
13	 Selection Pane	Selection pane Used to hide or show image.
14		Group :- Used to group 2 images into 1 Regroup :- Regroup 2 images into 1 if they were ungrouped Ungroup :- Ungroup group images

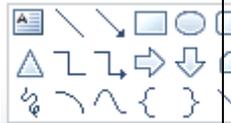
15	 Height: Width: Size	Used to crop an image removing unwanted scenes from the image.
16	To delete image	Select image and press del key on the keyboard.
17	Align	Align a picture left ,right,top,bottom ,snap to grid .Used in handling multiple images
17	Bring Forward	Used in multiple images. To use this option add 4 images on the worksheet side by side. Select all the images by pressing control key with the left finger and left clicking the images with the mouse with the right hand. Select align left option.Click bring forward option to bring an image behind another image to the front.
18	Send Backward	Used in multiple images. To use this option add 4 images on the worksheet side by side. Select all the images by pressing control key with the left finger and left clicking the images with the mouse with the right hand. Select align left option.Click bring forward option to bring an image behind another image to send behind.

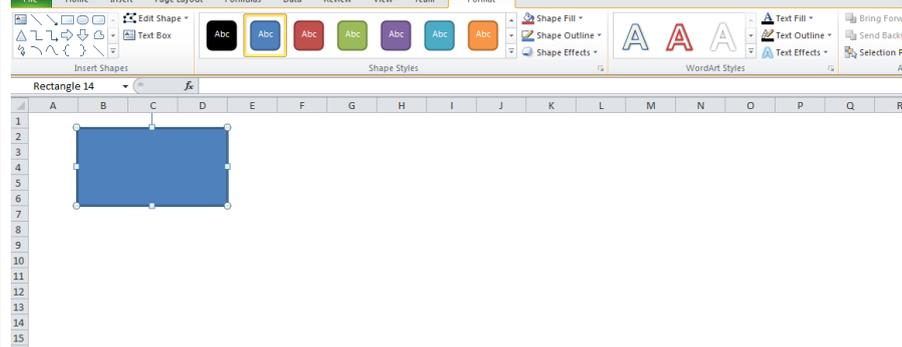
Working with shapes

The Shapes option is used to

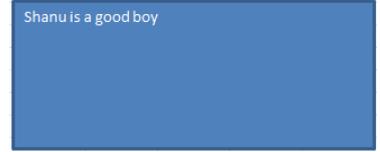
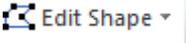
1. Add a shape.
2. Modify the existing shape.
3. Delete the existing shape.

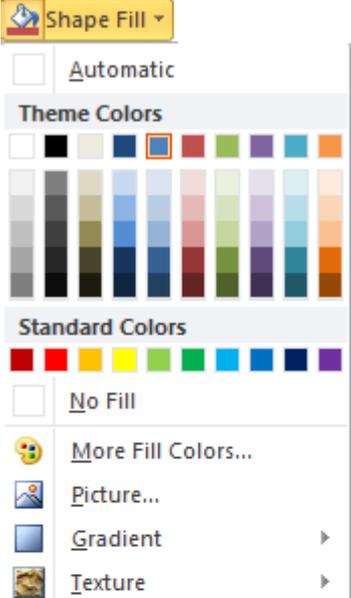
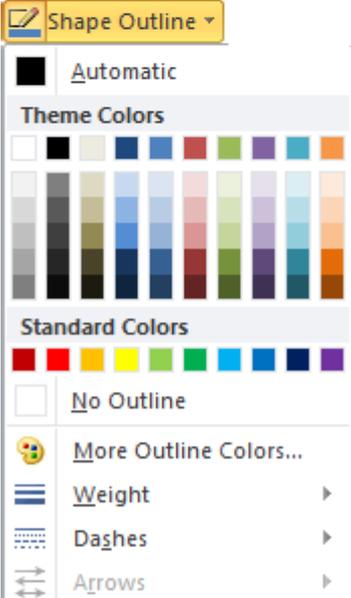
Add a shape

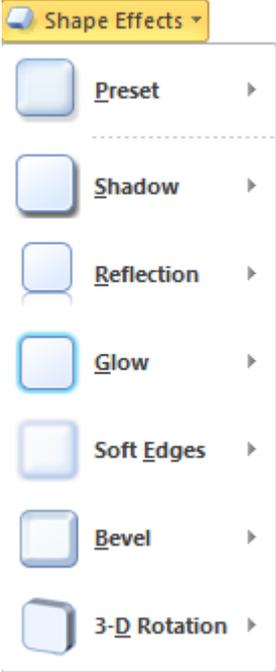
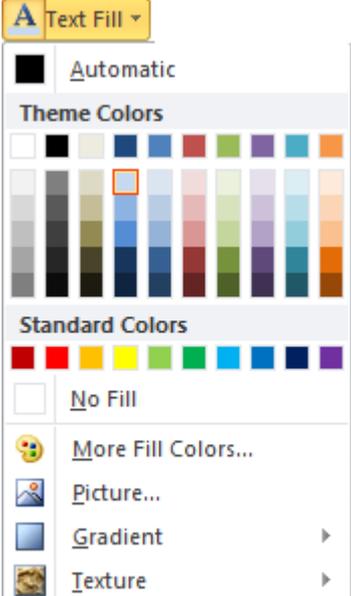
Step-1	Place the cursor on the cell where you want to add the clipart say B1	
Step-2	Click on the insert tab and click on	
		

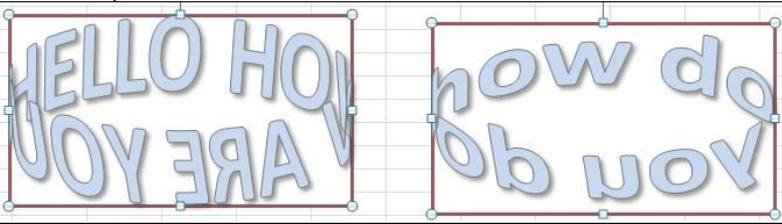
Step-3	Select the shape that you want to enter
Step-4	

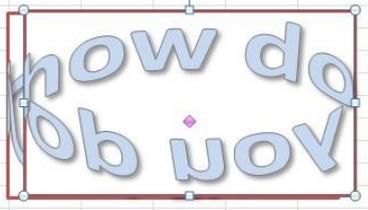
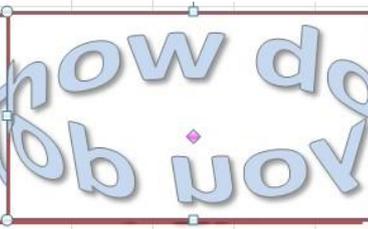
Modify and delete the existing shape

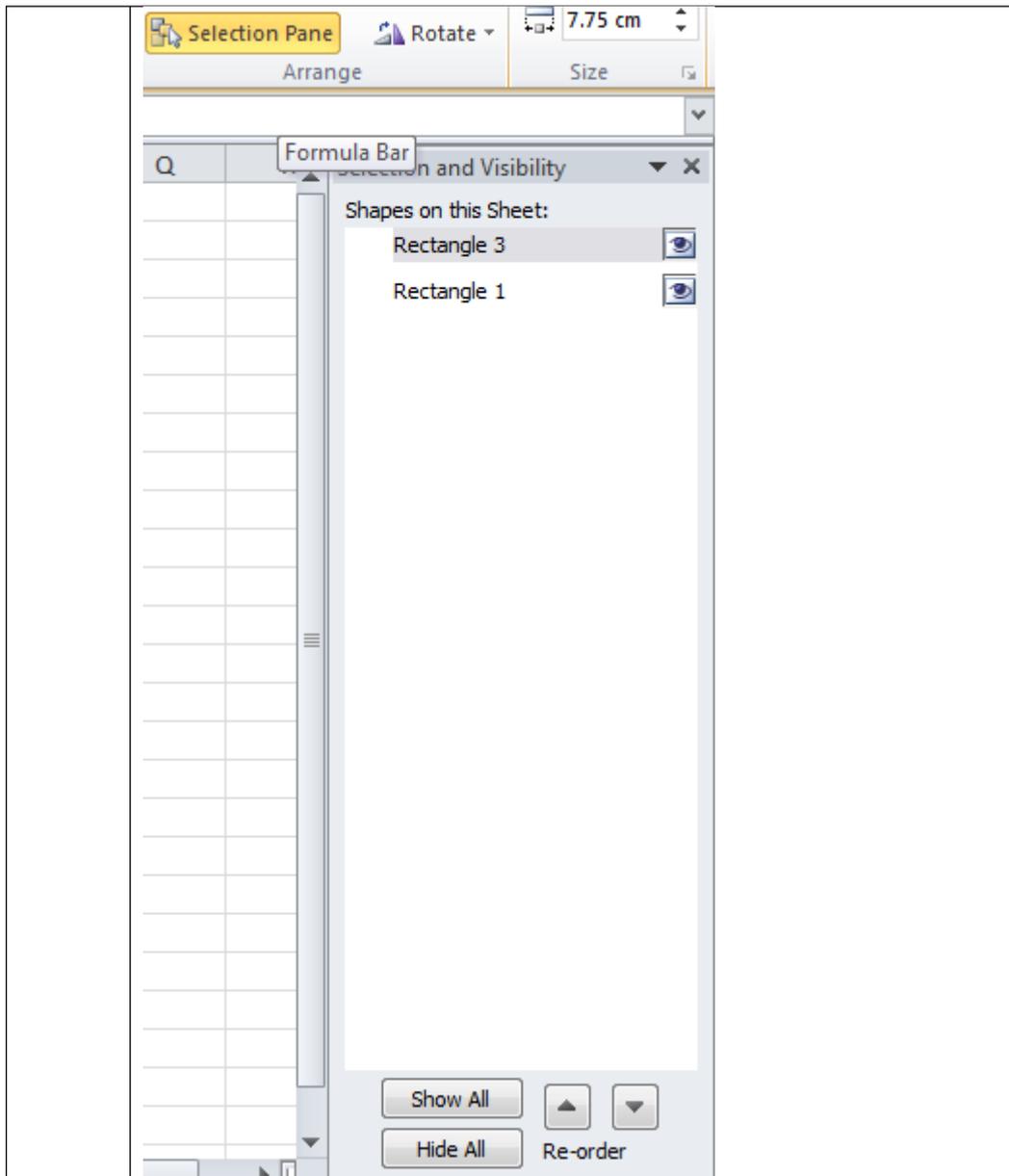
Step-1	Select the shape that you want to modify	
Step-2	Make Corrections As shown Below	
1	To Insert Text	<p>To insert text click on the text and start typing.</p> 
2		This option is used to edit the shape
3		This option is used to insert a text box inside the shape
4		Used To Change The Shape Style

5		<p>This option is used to change the spale fill of the object drawn on the sheet</p>
6		<p>Create a shape outline of the object</p>

	 <p>The image shows the 'Shape Effects' menu in Microsoft Word. It includes options for Preset, Shadow, Reflection, Glow, Soft Edges, Bevel, and 3-D Rotation, each with a corresponding icon and a right-pointing arrow.</p>	<p>Insert shape effects to the shape object created.</p>
7	 <p>The image shows the 'WordArt Styles' gallery in Microsoft Word, displaying three different styles for the letter 'A' in various colors and fonts.</p>	<p>Used to change the word art style as shown below</p>  <p>The image shows the text 'HELLO HOW ARE YOU' in a red, outlined WordArt font style.</p>
8	 <p>The image shows the 'Text Fill' menu in Microsoft Word. It includes options for Automatic, Theme Colors, Standard Colors, No Fill, More Fill Colors..., Picture..., Gradient, and Texture.</p>	<p>Change the text fill of the shape object inserted.</p>

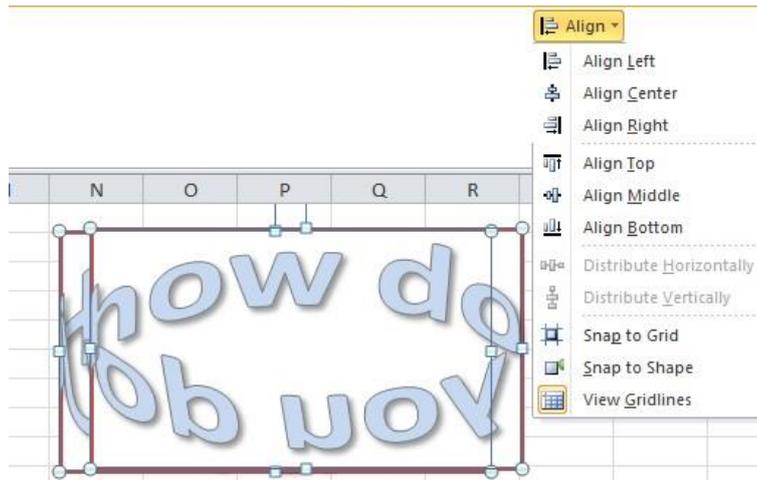
9		Used To change Picture border
10		Used to change the text effects as shown below 
11		Bring the selected object forward so that it is hidden by fewer objects that are in front of it.
		Sent the selected object backward so that it is hidden by objects that are in front of it.
Consider 2 text objects .One containing HELLO HOW ARE YOU and the other containing HOW DO YOU DO .		
		
Stack HOW DO YOU DO over HELLO HOW ARE YOU		

	
	<p>Now Click on  Send Backward ▾ after clicking how do you do you find HELLO HOW ARE YOU on the top and HOW DO YOU DO behind</p>
	
	<p>Now select the object that is behind and click bring forward as shown below</p>
	
	<p>Now click on  Bring Forward ▾</p>
	
<p>13</p>	 Selection Pane
	<p>Selection pane Used to hide or show image. Sequence objects as shown below</p>



14  Align ▾

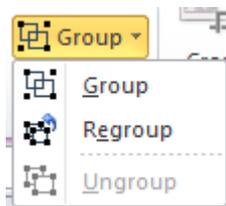
The align option is used to align multiple objects that you select by pressing the **ctrl** and left mouse click as shown below and click on align left as shown below.



Below shows neatly stacked objects one over the other with **left align option**



15

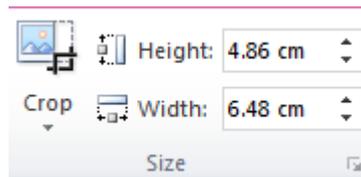


Group :- Used to group 2 shapes into 1

Regroup :- Regroup 2 shapes into 1 if they were ungrouped

Ungroup :- Ungroup group shapes

16



Used to crop an image removing unwanted scenes from the shape.

17 **To delete shape**

Select image and press del key on the keyboard.

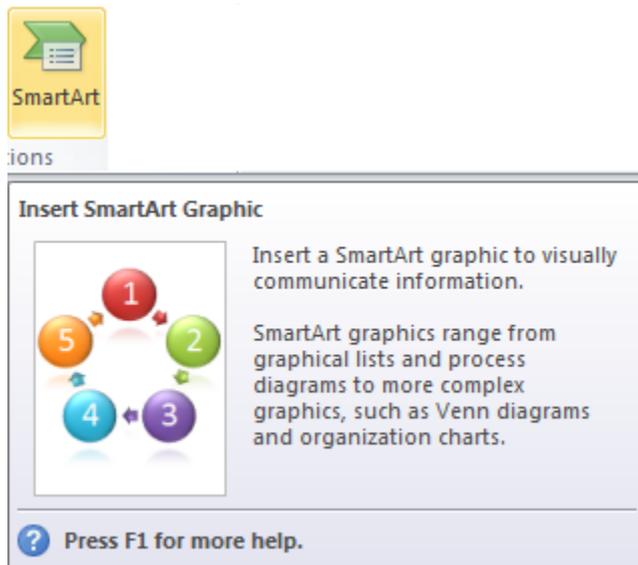
18



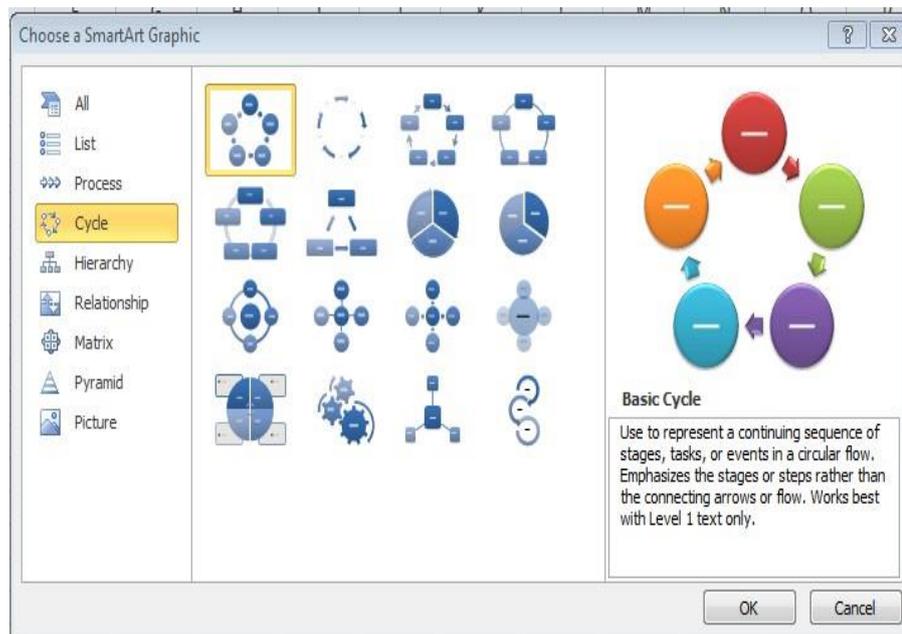
Rotate a shape.

Working with Smart Art

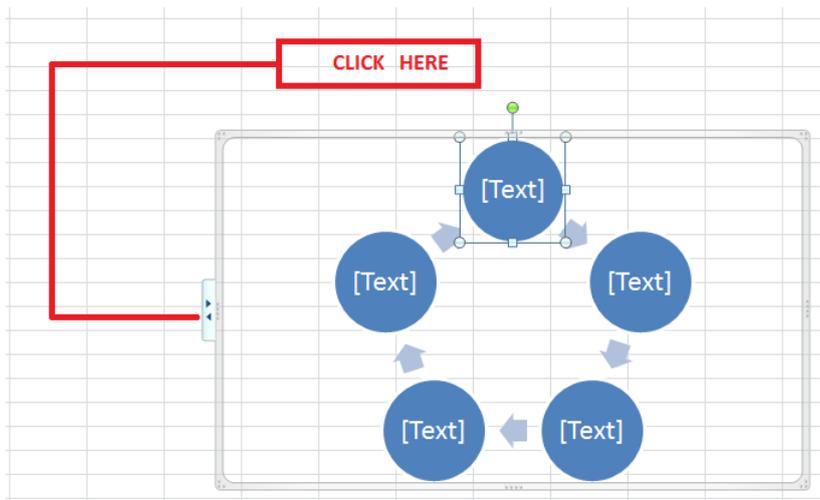
Step-1



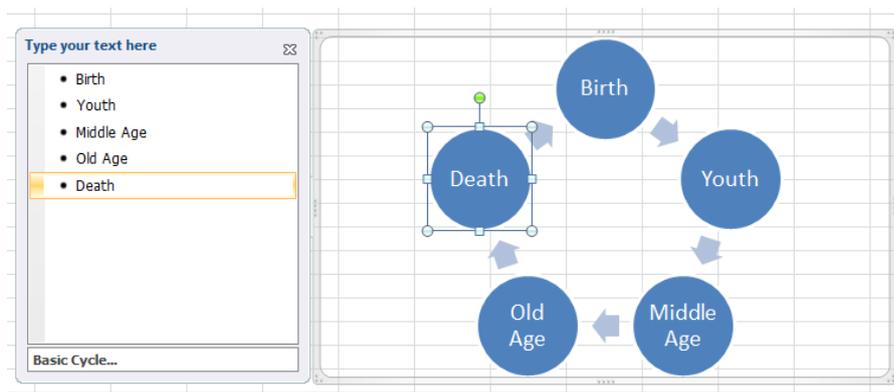
Step-2



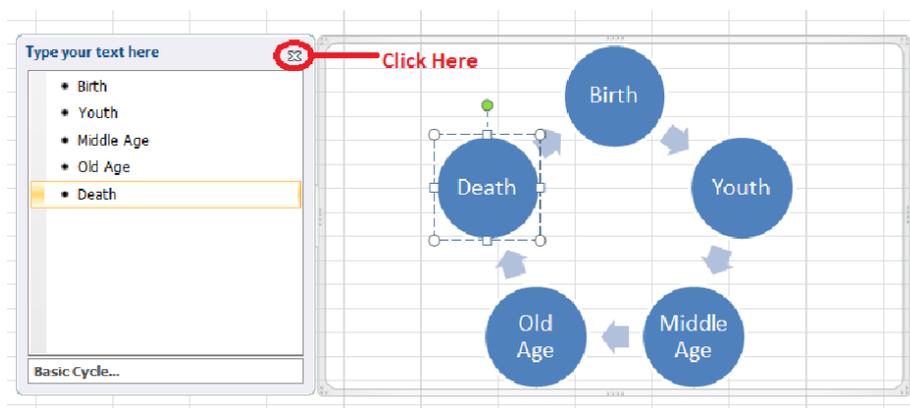
Step-3



Step-4

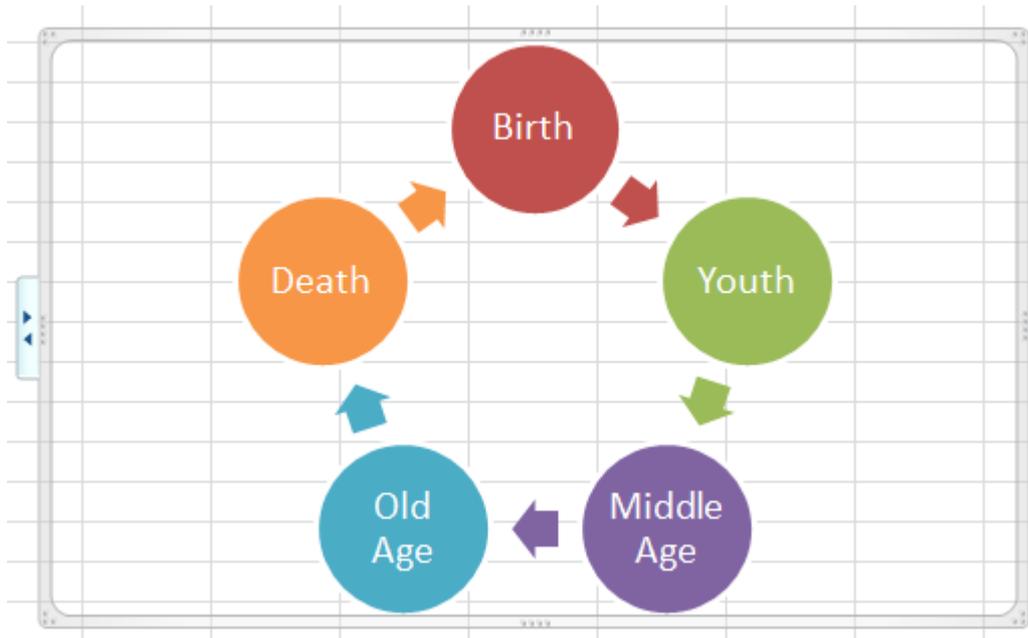


Step-5



Step-6

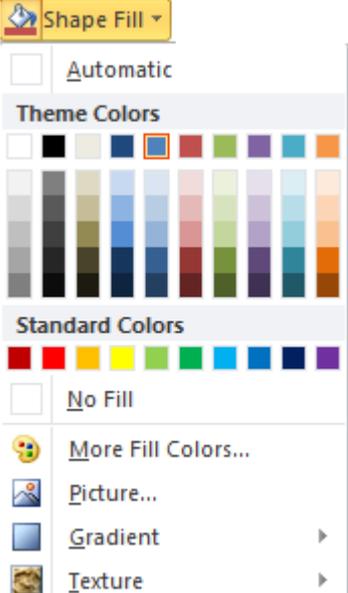
Click

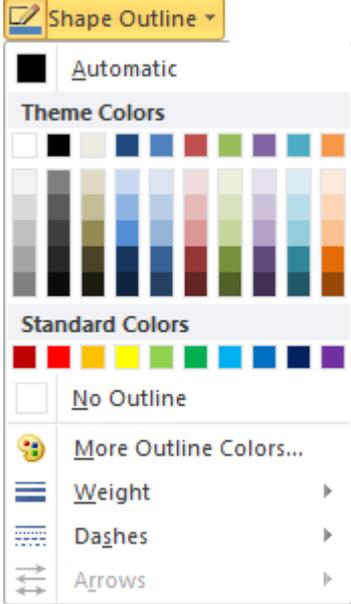
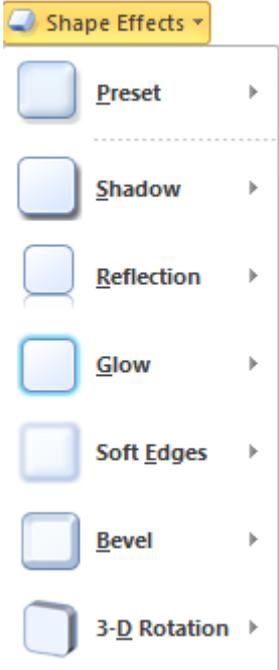


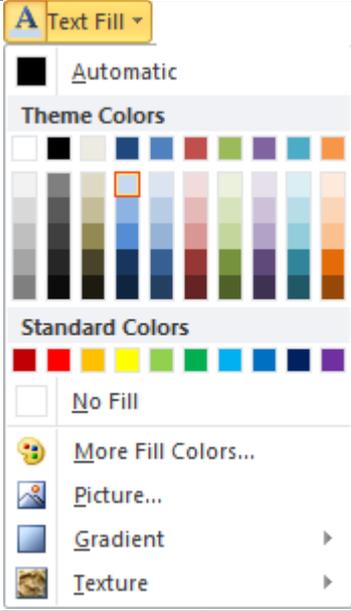
Working with Word Art

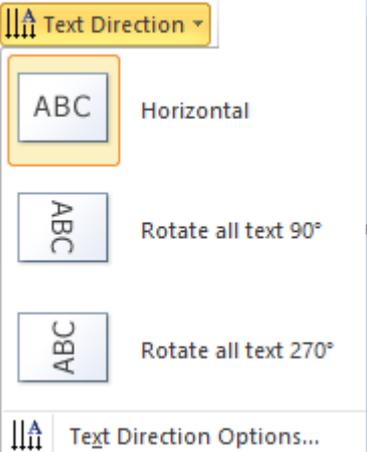
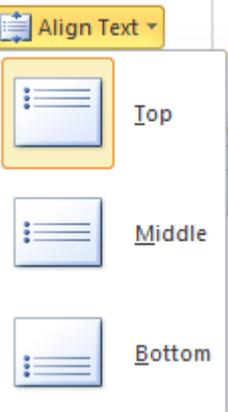
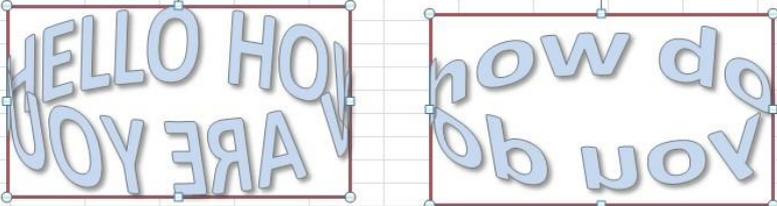
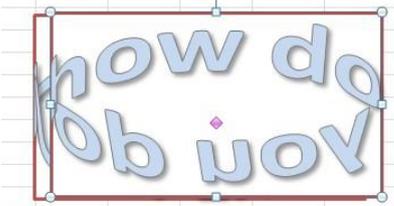
Used to insert decorative text into your document.

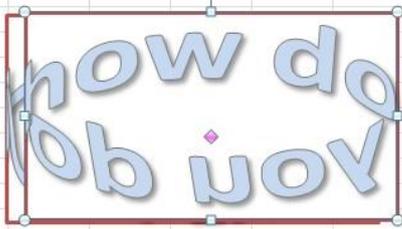


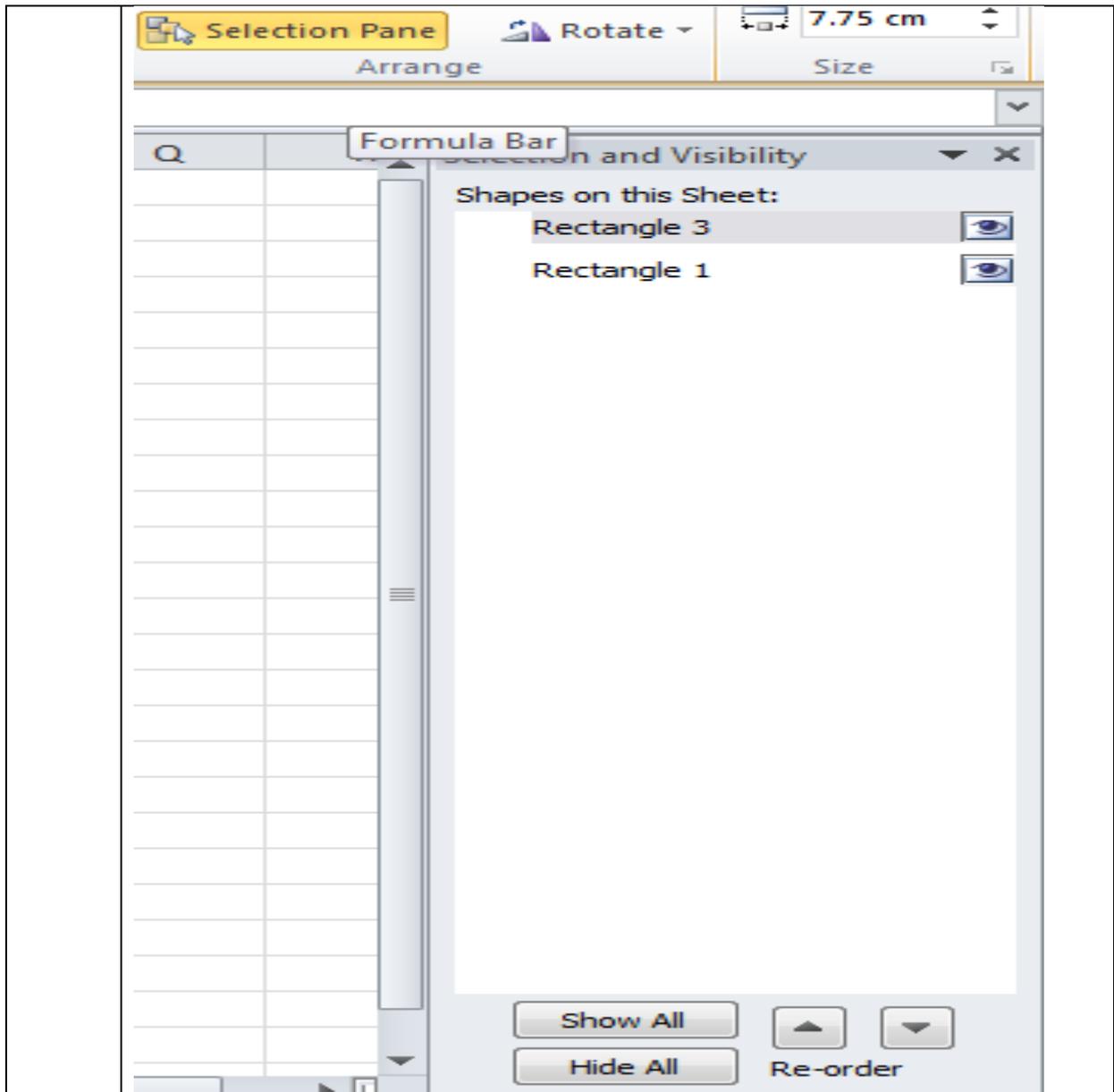
1	To Insert Text	To insert text click on the text and start typing. 
2	 Edit Shape ▾	This option is used to edit the shape
3	 Draw Text Box	This option is used to insert a text box
4		Coloured outline
5		This option is used to change the shape fill of the object drawn on the sheet

6	 <p>The 'Shape Outline' menu is open, showing options for color (Automatic, Theme Colors, Standard Colors, No Outline, More Outline Colors...), weight, dashes, and arrows.</p>	Create a shape outline of the object
7	 <p>The 'Shape Effects' menu is open, showing options for Preset, Shadow, Reflection, Glow, Soft Edges, Bevel, and 3-D Rotation.</p>	Insert shape effects to the shape object created.
8	 <p>The 'WordArt Styles' menu shows three preview options for the letter 'A'.</p>	Used to change the word art style as shown below  <p>The text 'HELLO HOW ARE YOU' is displayed in a red-outlined box, demonstrating the word art style.</p>

9		Change the text fill of the shape object inserted.
10		Used To change Picture border
11		<p>Used to change the text effects as shown below</p> 

12		Used to set the text direction
12		Aligns text to top, middle , bottom.
12		Bring the selected object forward so that it is hidden by fewer objects that are in front of it.
		Sent the selected object backward so that it is hidden by objects that are in front of it.
Consider 2 text objects .One containing HELLO HOW ARE YOU and the other containing HOW DO YOU DO .		
		
Stack HOW DO YOU DO over HELLO HOW ARE YOU		
		
Now Click on  Send Backward after clicking how do you do you find HELLO HOW ARE YOU on the top and HOW DO YOU DO behind		

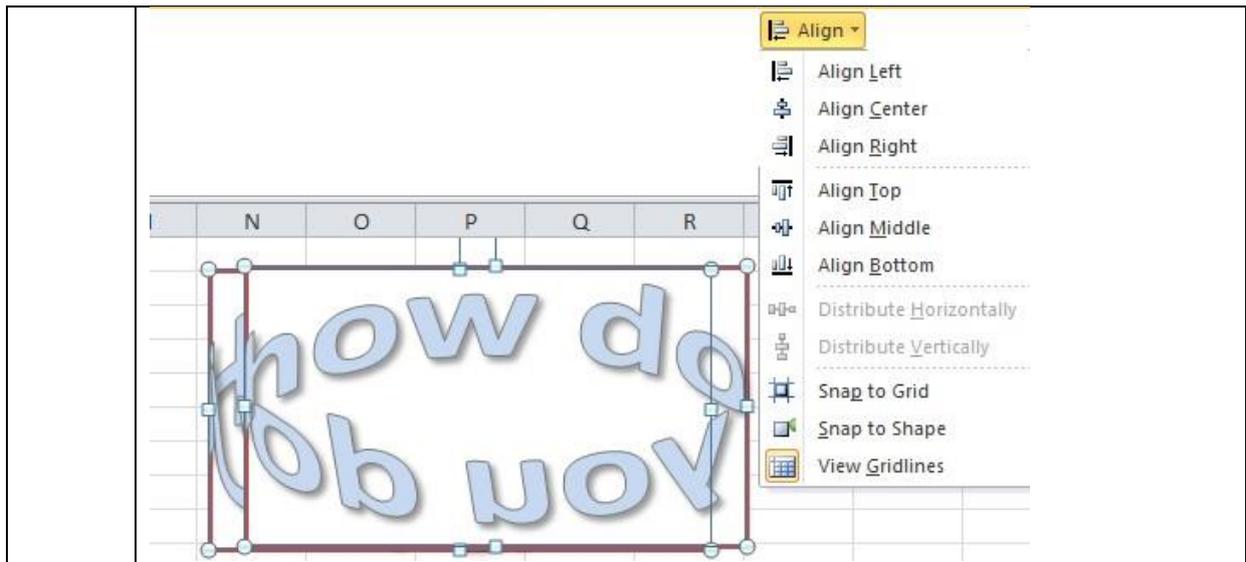
		
<p>Now select the object that is behind and click bring forward as shown below</p>		
		
<p>Now click on  Bring Forward ▾</p>		
		
<p>13</p>	 Selection Pane	<p>Selection pane Used to hide or show image. Sequence objects as shown below</p>



14

Align ▾

The align option is used to align multiple objects that you select by pressing the ctrl and left mouse click as shown below and click on align left as shown below.



Below shows neatly stacked objects one over the other with **left align option**



15		<p>Group :- Used to group 2 shapes into 1 Regroup :- Regroup 2 shapes into 1 if they were ungrouped Ungroup :- Ungroup group shapes</p>
16		<p>Used to crop an image removing unwanted scenes from the shape.</p>
17	<p>To delete shape</p>	<p>Select image and press del key on the keyboard.</p>
18		<p>Rotate a shape.</p>

Unit -3

Formatting a worksheet

Learning objectives

After the Completion of this unit you should be able to know.

1. Formatting a worksheet
2. Text decoration

Structure

Introduction

Definition

Formatting a worksheet

Text decoration

Let us sum up

References

Check your progress – possible answers

Introduction

MS Excel worksheet which is used to enter values has to be formatted to meet the needs of the user. Formatting of the worksheet is done in the following ways that we are going to discuss in this unit. These include adjusting the margins of the worksheet. The margins are top, bottom, left, right. Setting margins effect the worksheet layout and its printing. Page orientations are of two types. These are Portrait and Landscape. Inserting page breaks inserts page breaks in the worksheet. Setting background changes the background of a worksheet. Freeze panes are used when scrolling very large worksheets. Freeze panes help in keeping rows and columns steady while the one scrolls across the sheet. The best example is payroll of 10000 employees in a worksheet. Conditional formatting formats the cells based on a particular condition.

We shall be learning about setting cell type. This involves incorporating what kind of cell a cell is as cells are of various types. These are general, number, currency, accounting, date, time, percentage, fraction, scientific, text, special and custom. In this unit we shall also be learning about the fonts and how to implement fonts. Fonts are defined by font type and font size. Text decoration is done to beautify the text. Text beautification can be

done by making the text bold, italic, underline, double underline, strikethrough, cell rotation is a feature where in contents of the cell are rotated as per the need of the user. Setting colors is used to set the colour of the cell. These are of two types which are fore color and back color. Text alignment is used to align the text as per the needs of the user. Merge and wrap are used to merge the cells and wrap the text in it. Borders and shades are used to set the border of the cell and change the fill colour of cell. So let us get started.

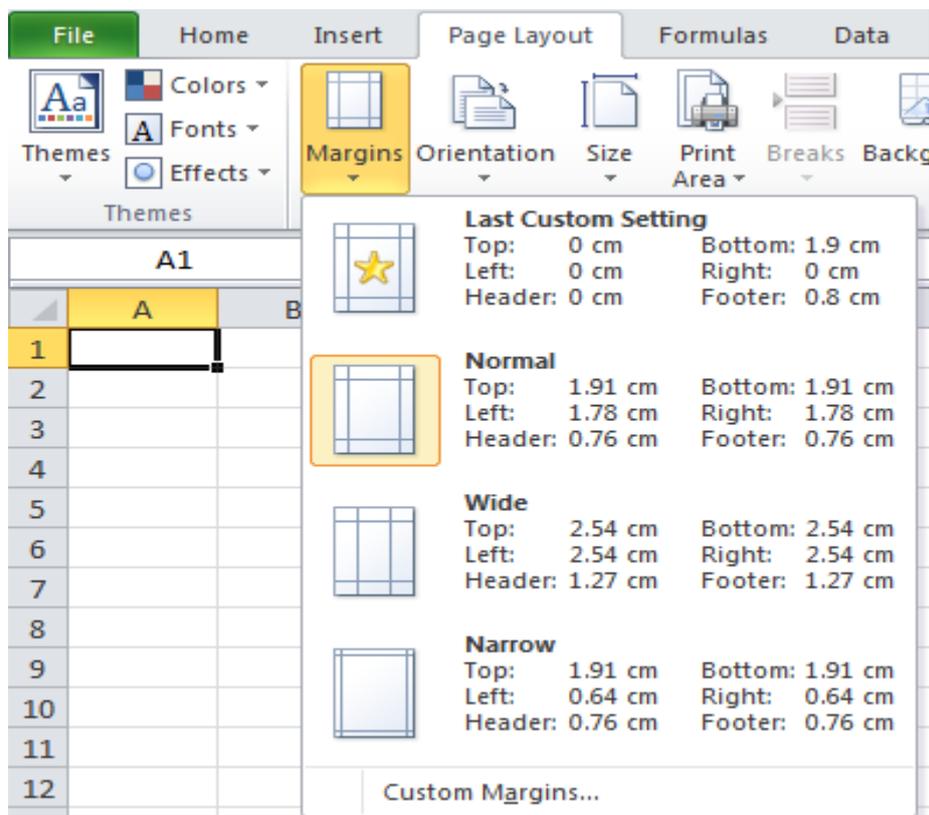
Definition

Formatting a worksheet means changing the design, style, type in cell of the worksheet by the user as per the requirement and need.

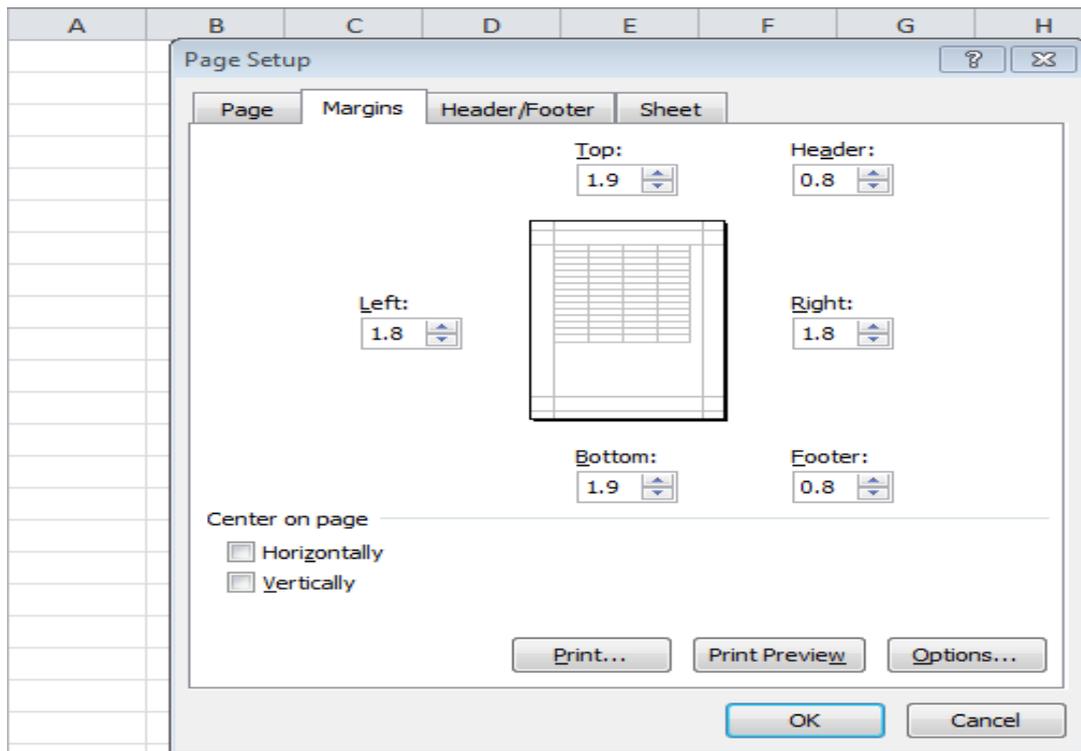
Formatting a worksheet

Adjusting margins in a worksheet

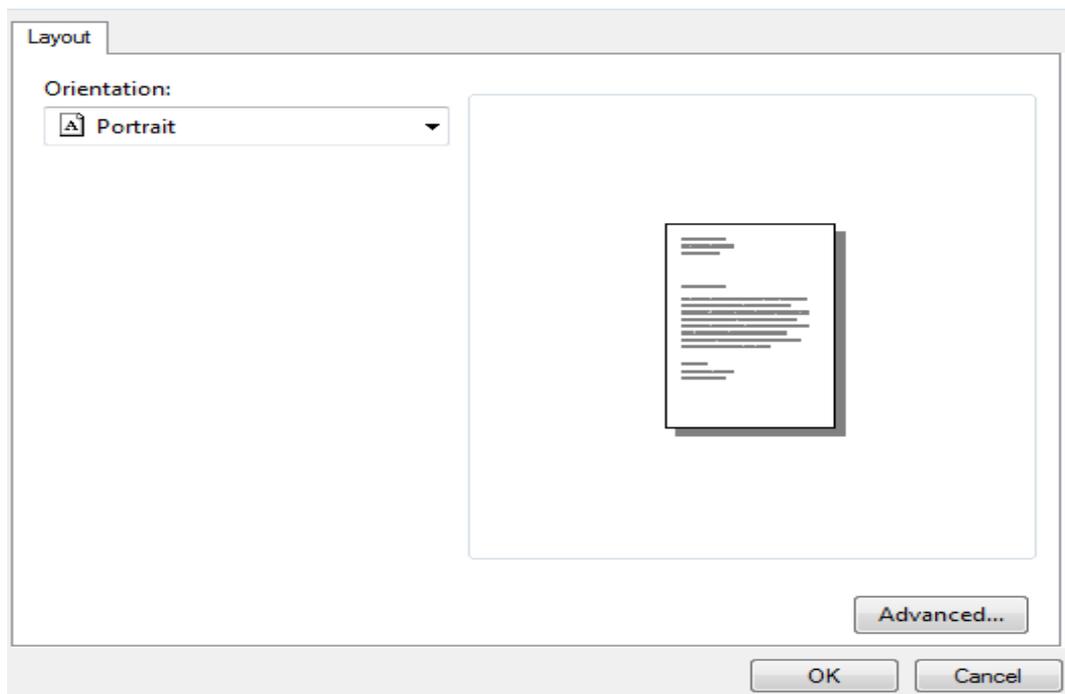
Margins define how much space to be left from the 4 corners of the sheet. These include top, bottom, left, right .To adjust the margins of a worksheet click on page layout ->margins



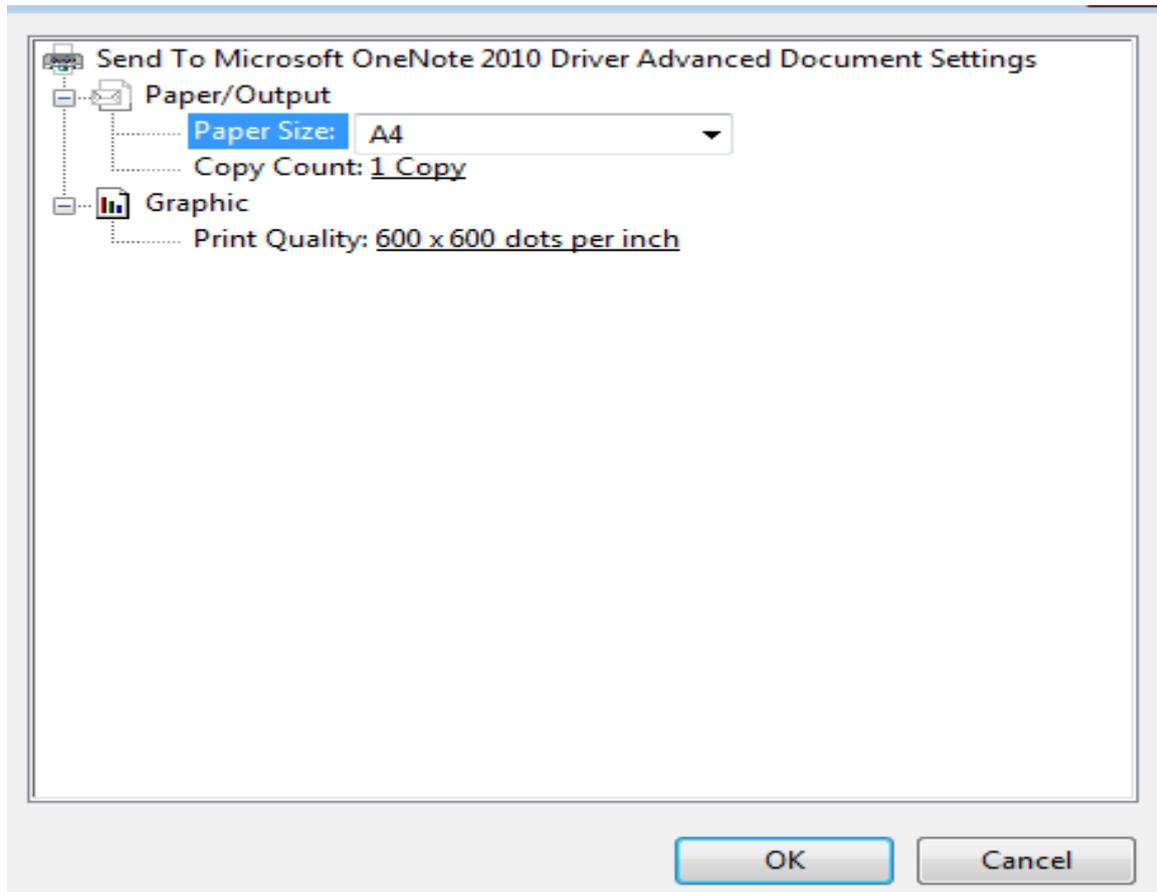
Click on custom margins and set the print settings as below



The above option has options such as center on page horizontally and vertically. These options are used to center on page vertically and horizontally. Print option prints the sheet. Print preview option shows a print preview of the sheet before printing. The options page is used to set the page orientation to portrait and landscape as shown below

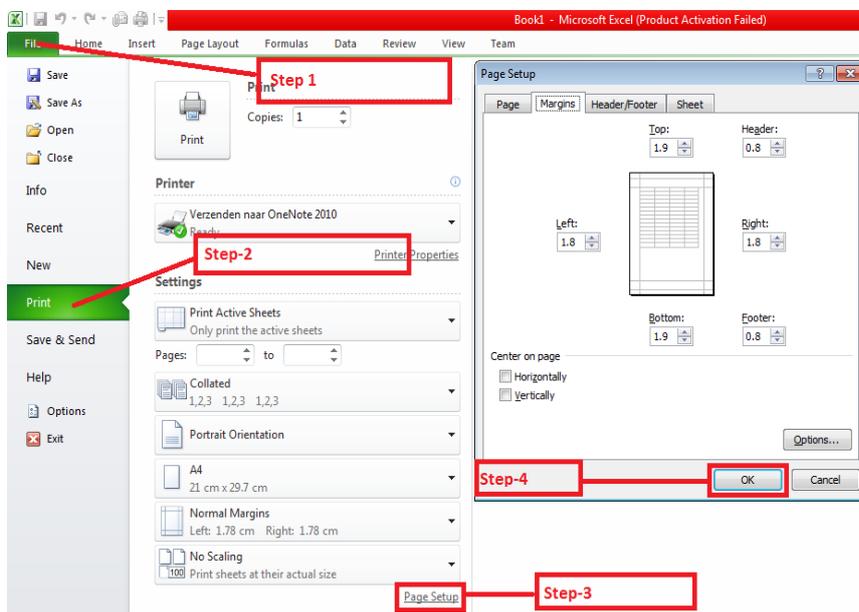


Clicking on the advanced button



The above screen shows on which paper the printing is going to take place such as A4,A3 and setting the print quality.

Another way to adjust margins on a worksheet

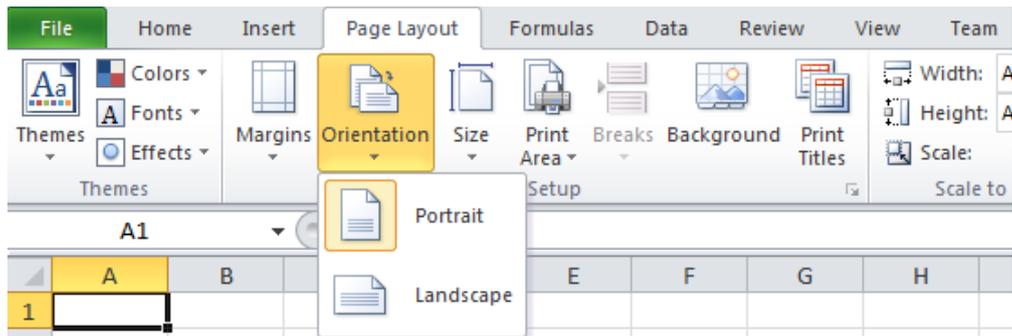


Page orientation in a worksheet

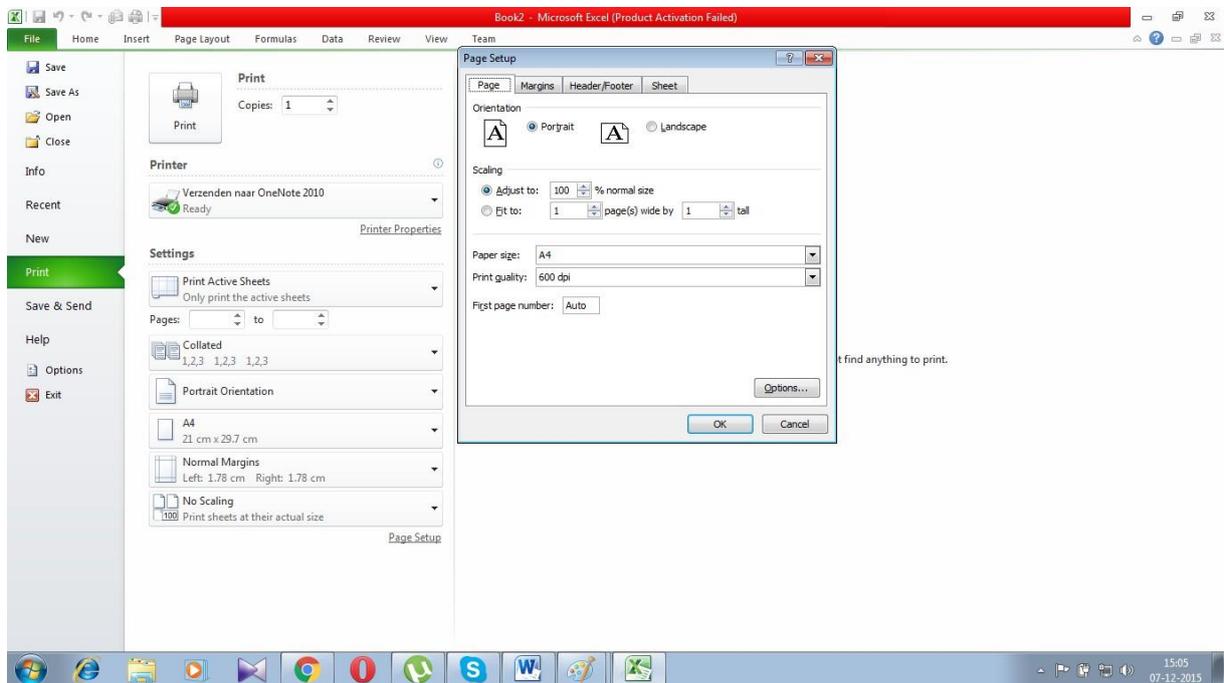
Page orientation in a worksheet can be

1. Portrait
2. Landscape

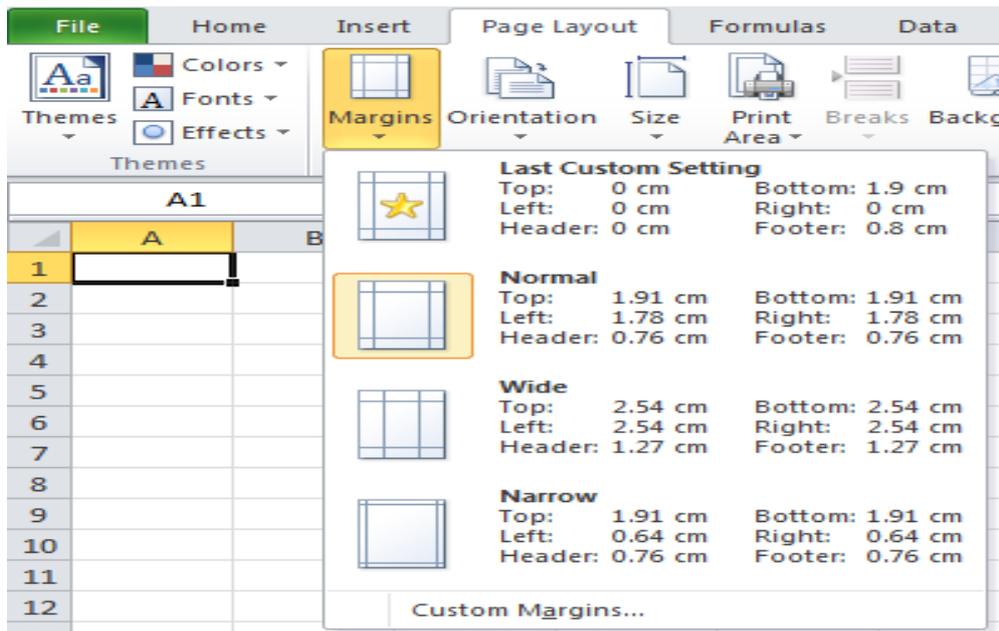
One way for page orientation



Second way for page orientation

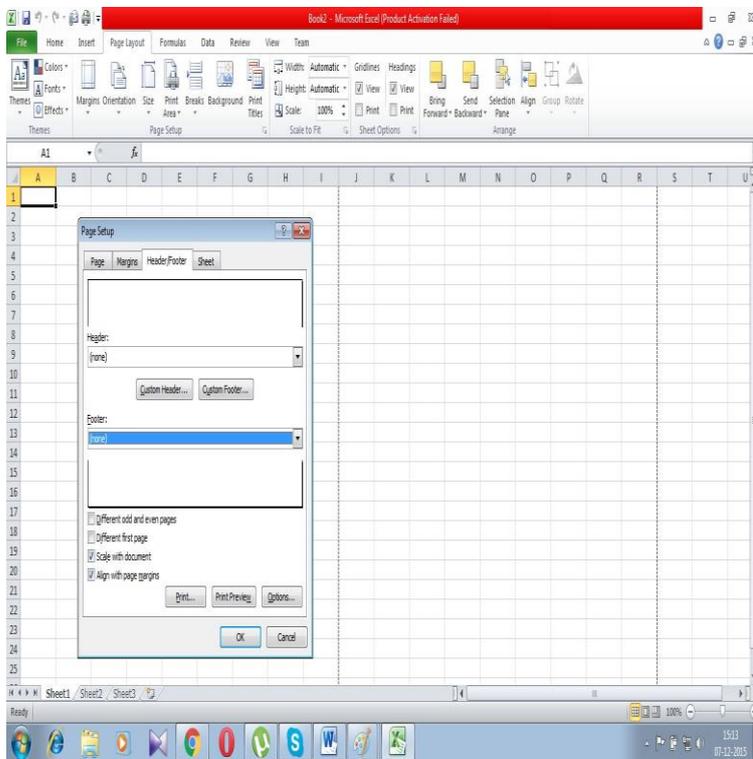


Setting header and footer in a worksheet One Way



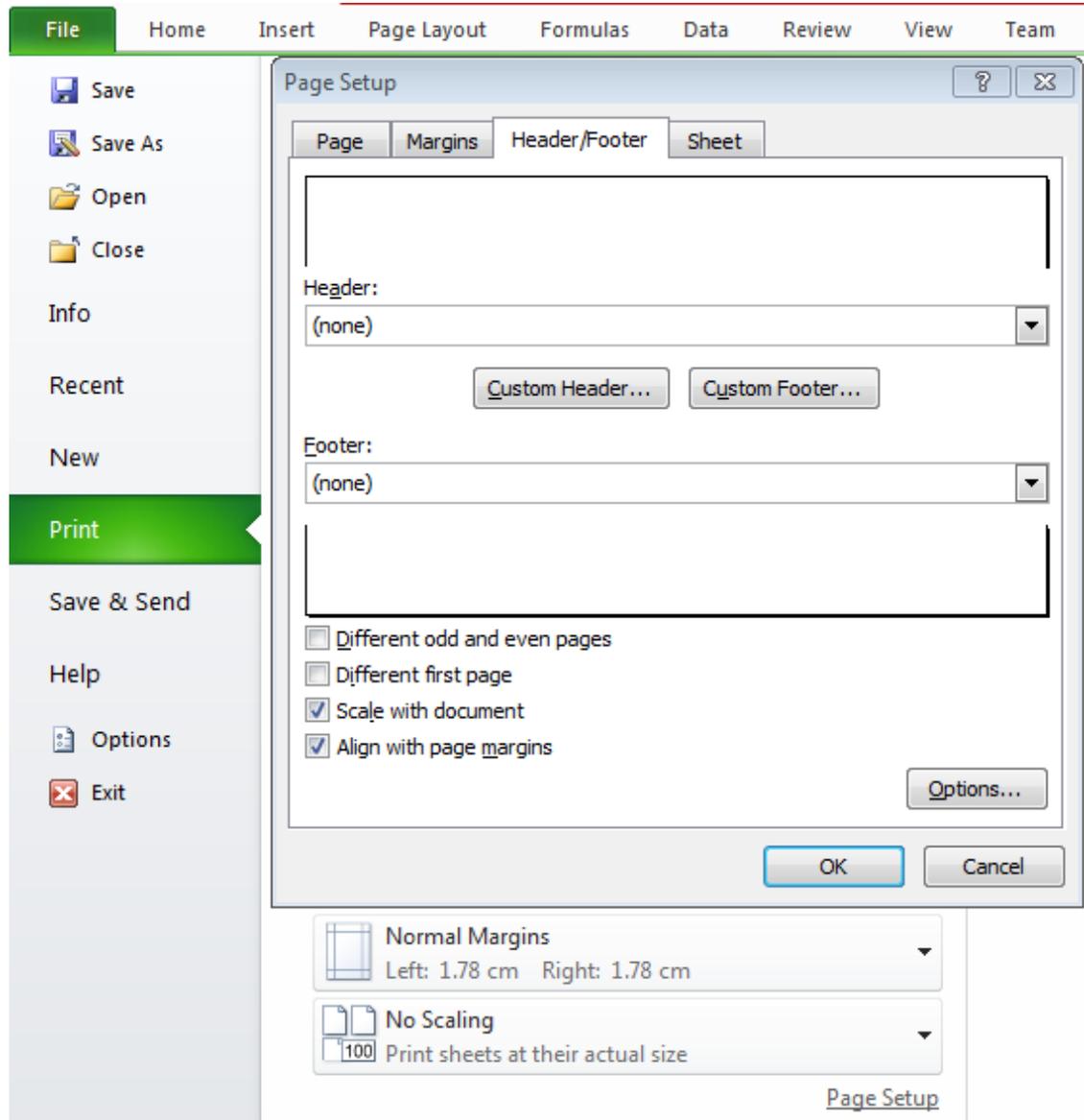
Click on **Custom Margins** and see as below

You can set your own header /footer by clicking custom header and custom footer or select header and footer from the drop down.



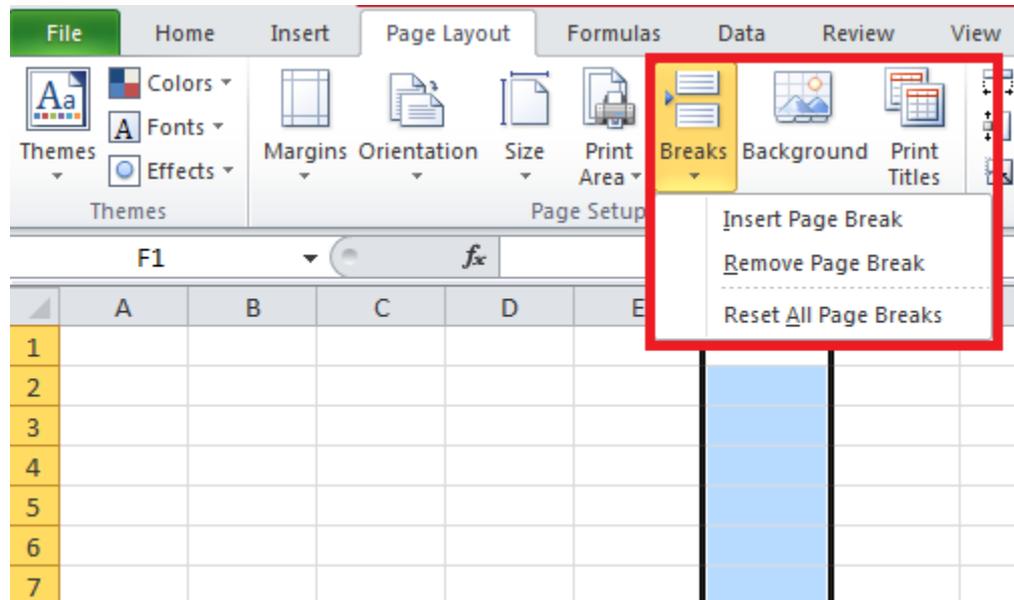
Another Way

Click on print and page setup



Inserting page breaks in a worksheet

The page breaks is used to create a page breaks on the worksheet.



Insert page break

Click any of the row numbers shown in yellow color in the above figure and click insert page break. This inserts a page break which means rest of the content would be printed in the subsequent page.

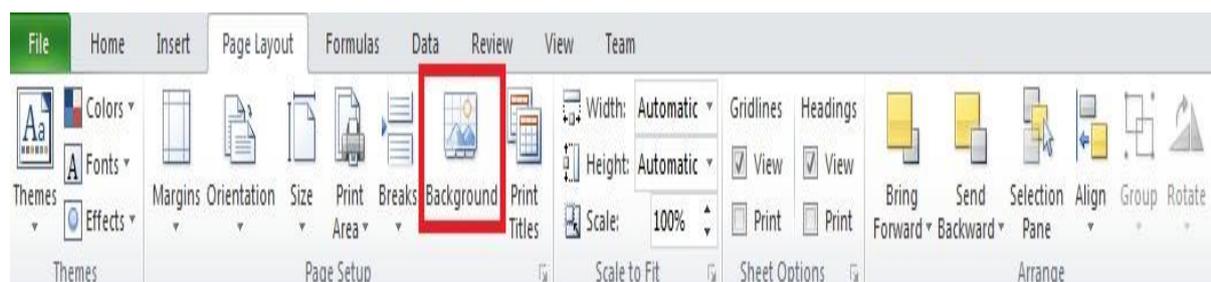
Remove page break

To remove the page break click the row where the page break was done and click remove page break

Reset page break

It removes all the page breaks that were done manually and resets the page break according to the margin of the page defined.

Setting background in a worksheet



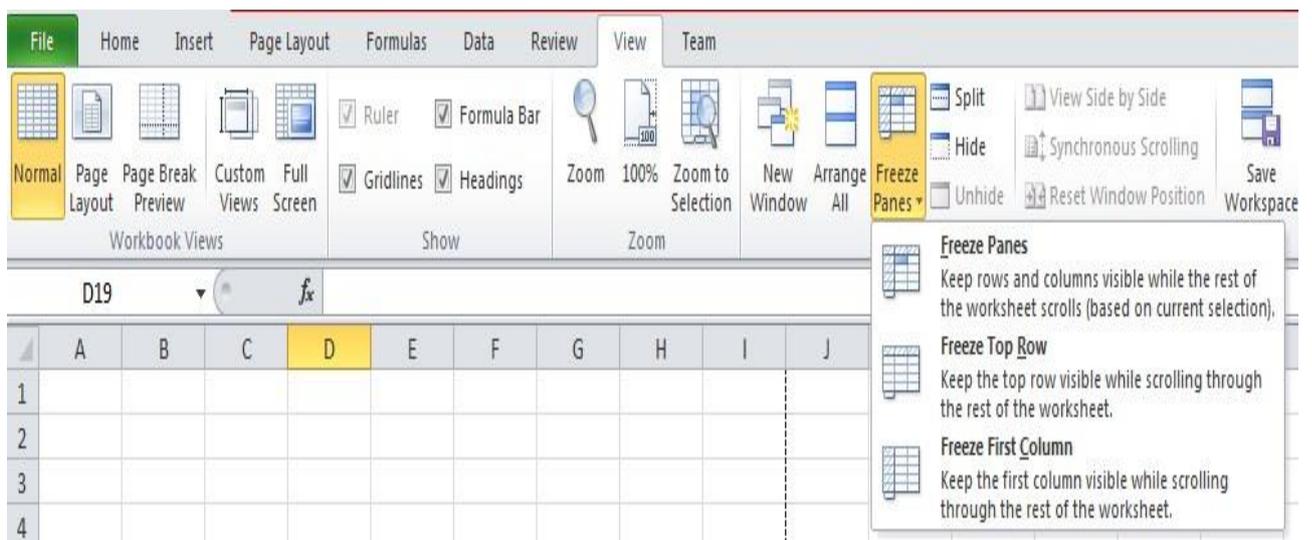
The background is set to set the background of the worksheet as shown below

	A	B	C	D	E	F	G	H	I
3	Class	Name	Sum of Age	Sum of Height	Sum of height +age				
4	Class 1	Archana	3	3	6				
5		Pallavi	7	3	10				
6		Rahul	4	3	7				
7		Renuka	6	4	10				
8		Rohit	5	4	9				
9	Class 1 Total		25	17	42				
10	Class 2	Alaka	5	4	9				
11		Arun	8	3	11				
12		Kartik	7	4	11				
13		Sohit	6	3	9				
14		Susheel	9	4	13				
15	Class 2 Total		35	18	53				
16	Grand Total		60	35	95				
17									
18									
19									
20									
21									
22									

Freeze panes in a worksheet

Why use freeze panes in a worksheet

If the worksheet is very big and so big that after scrolling a few rows and after scrolling few columns one loses track of the row header and column header. In such cases freeze panes are used

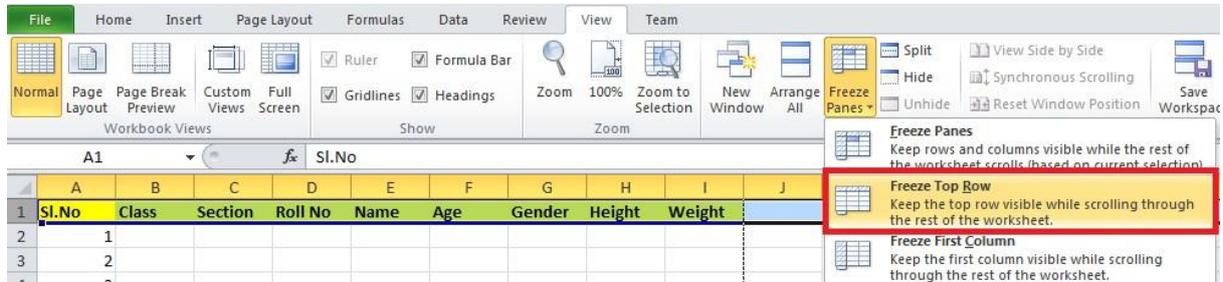


The freeze panes option is used to freeze the

1. Freeze top row
2. Freeze first column
3. Freeze panes

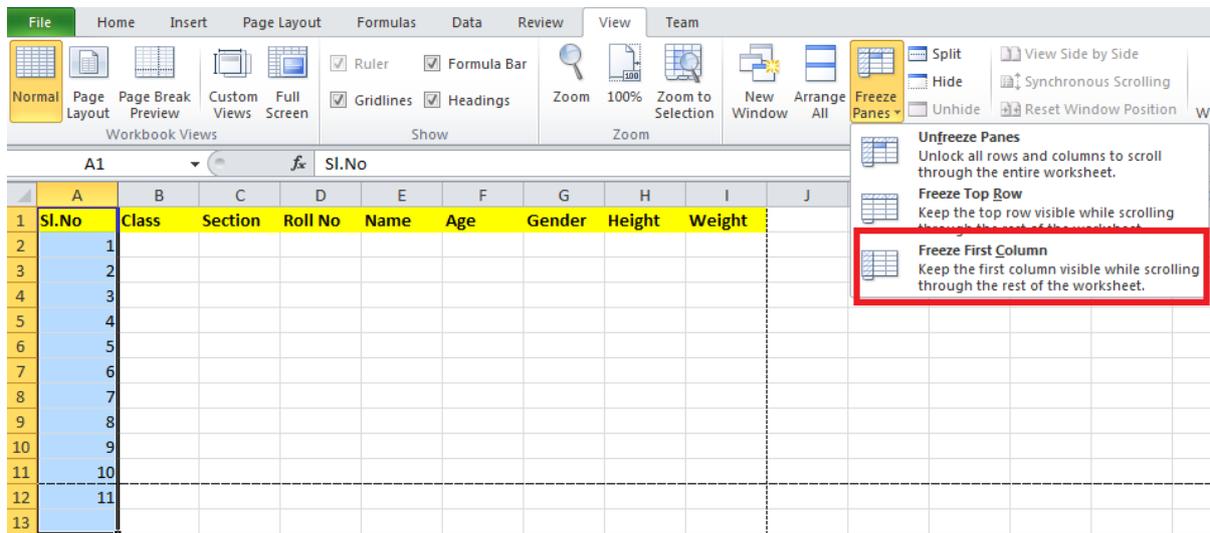
Freeze top row

To freeze the top row select the top row as shown in the diagram and click freeze top row



Freeze first column

This option is used to freeze the first column of the worksheet as shown below.



Freeze Panes

This option is used to keep the rows and columns visible while the rest of the worksheet is scrolling

1	SI.No	Class	Section	Roll No	Name	Age	Gender	Height	Weight		
2	1										
3	2										
4	3										
5	4										
6	5										
7	6										
8	7										
9	8										
10	9										
11	10										
12	11										
13											
14											

Conditional formatting

Conditional formatting is used to format a range of values based on a condition

Step-1

The screenshot shows the Microsoft Excel interface with the Conditional Formatting menu open. The spreadsheet data is as follows:

1	SI.No	Class	Section	Roll No	Name	Age	Gender	Height	Weight
2	1								
3	2								
4	3								
5	4								
6	5								
7	6								
8	7								
9	8								
10	9								
11	10								
12	11								
13									
14									

The Conditional Formatting menu is open, showing the following options:

- Highlight Cells Rules
 - Greater Than...
 - Less Than...
 - Between...
 - Equal To...
 - Text that Contains...
 - A Date Occurring...
 - Duplicate Values...
- Top/Bottom Rules
- Data Bars
- Color Scales
- Icon Sets
- New Rule...
- Clear Rules
- Manage Rules...

Step-2

	A	B	C	D	E	F	G	H	I
1	SI.No	Class	Section	Roll No	Name	Age	Gender	Height	Weight
2	1								
3	2								
4	3								
5	4								
6	5								
7	6								
8	7								
9	8								
10	9								
11	10								
12	11								

Greater Than

Format cells that are GREATER THAN:

6 with Light Red Fill with Dark Red Text

OK Cancel

Step-3

	A	B	C	D	E	F	G	H	I
1	SI.No	Class	Section	Roll No	Name	Age	Gender	Height	Weight
2	1								
3	2								
4	3								
5	4								
6	5								
7	6								
8	7								
9	8								
10	9								
11	10								
12	11								
13									

- **New Rule** : Used in New Formatting Rule, where you define a custom conditional formatting rule to apply to the cell selection.
- **Clear Rules** : Used to clear rules from selected cells or the entire sheet.
- **Manage Rules** : Add ,Edit ,delete rules for conditional formatting.

Format cell

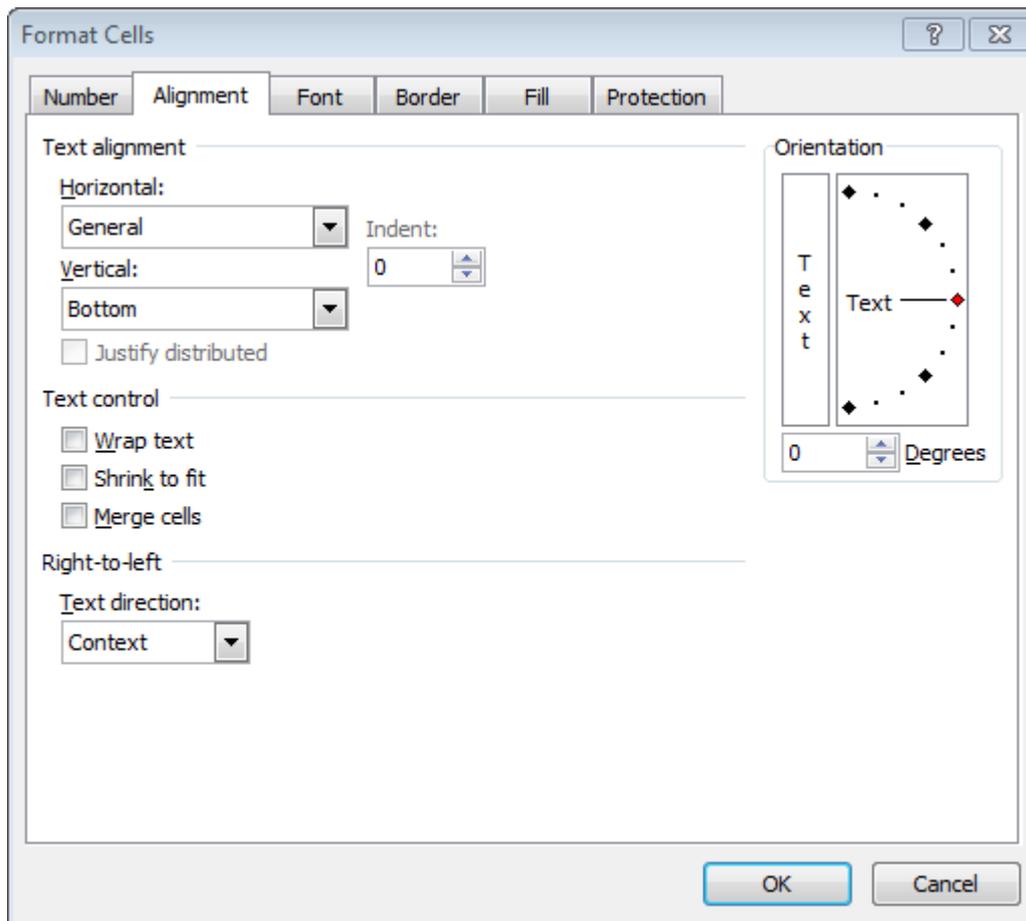
Right click on the cell to set the cell type. This option is used in setting the cell type and formatting cells. This is comprised of the following options. These are number, alignment, font, border, fill, protection.

3.3.8.1 Number

This option is used to set the cell type as shown below. This option is applicable to a particular cell, a column, set of selected columns, row, set of selected rows, set of selected cells., the entire worksheet. This option is used for faster data entry where the user may miss writing Rs in front of the amount where the amount is being entered.

The image shows a screenshot of the Microsoft Excel interface. The ribbon at the top includes the 'Number' group, which is highlighted. A red arrow points from the 'Number' button in the ribbon to the 'Number' category in the 'Format Cells' dialog box. The dialog box is open, showing the 'Number' category selected in the 'Category' list. The 'Decimal places' are set to 2. The 'Negative numbers' list shows three options: '-1234.10', '1234.10' (highlighted), and '-1234.10'. A red arrow points from the text 'Cell Type' to the 'Number' category in the dialog box. The background shows a worksheet with columns C through L and rows 1 through 4. Cell D1 is highlighted in yellow. The text 'gender', 'm', and 'f' are visible in cells C1, C2, and C3 respectively. A black box is drawn around cell D2.

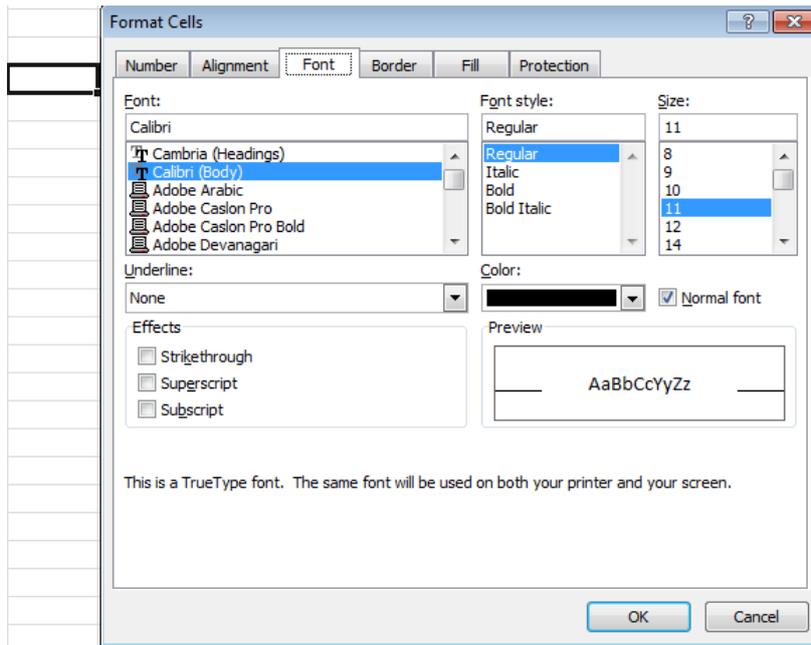
Alignment



The alignment can be done horizontally and vertically. Apart of it the text direction can be changed by few degrees. The text control is used to wrap the text when a lot text is entered into a particular cell. Shrink to fit reduces the size of the text in order to fit the text into one cell. The merge cells option is used to merge one or more cells into 1 cell and the text direction.

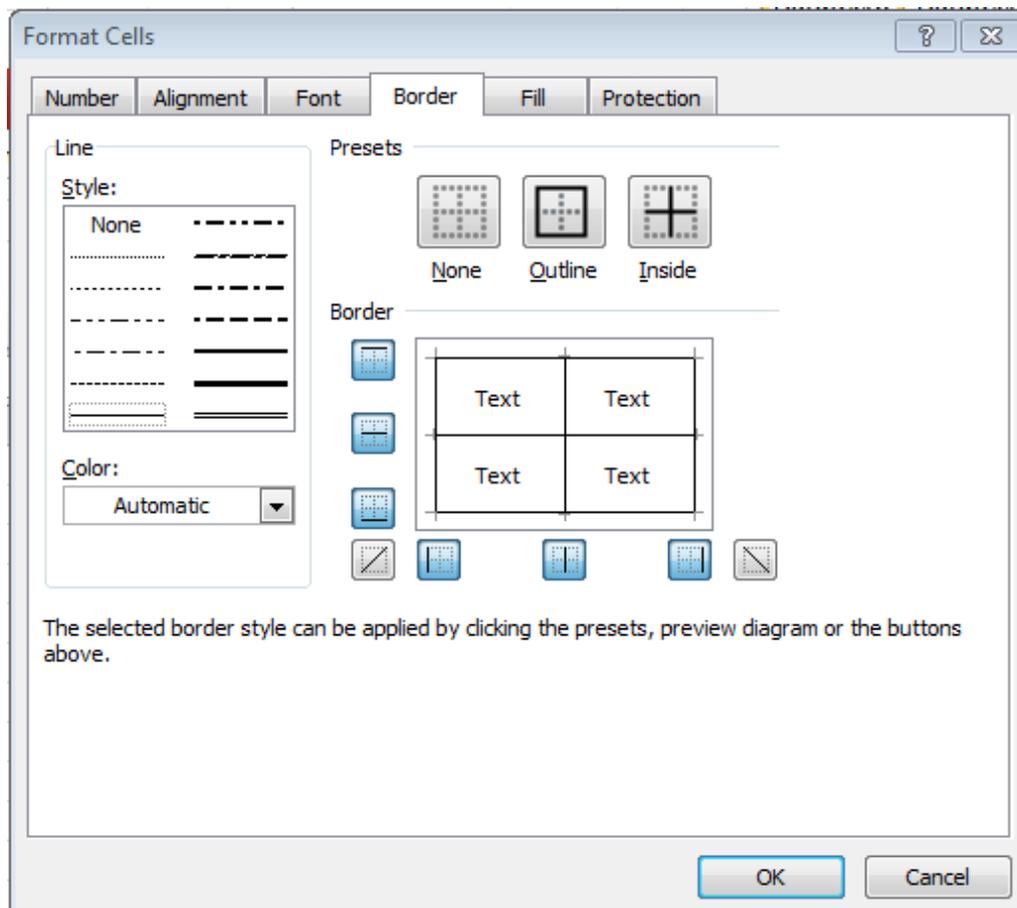
Font

This option is used to set the type of fonts of a cell. Fonts are defined by font name, font style and font size. Right click on the cell to set the fonts. The font option is used to set the font name, font style and font size. Below it shows the underline style which are none, single, double, double accounting. The font color can be changed by changing the font color. Apart of this there are options to subscript text, superscript text and strikethrough. The color of the font can be changed here.



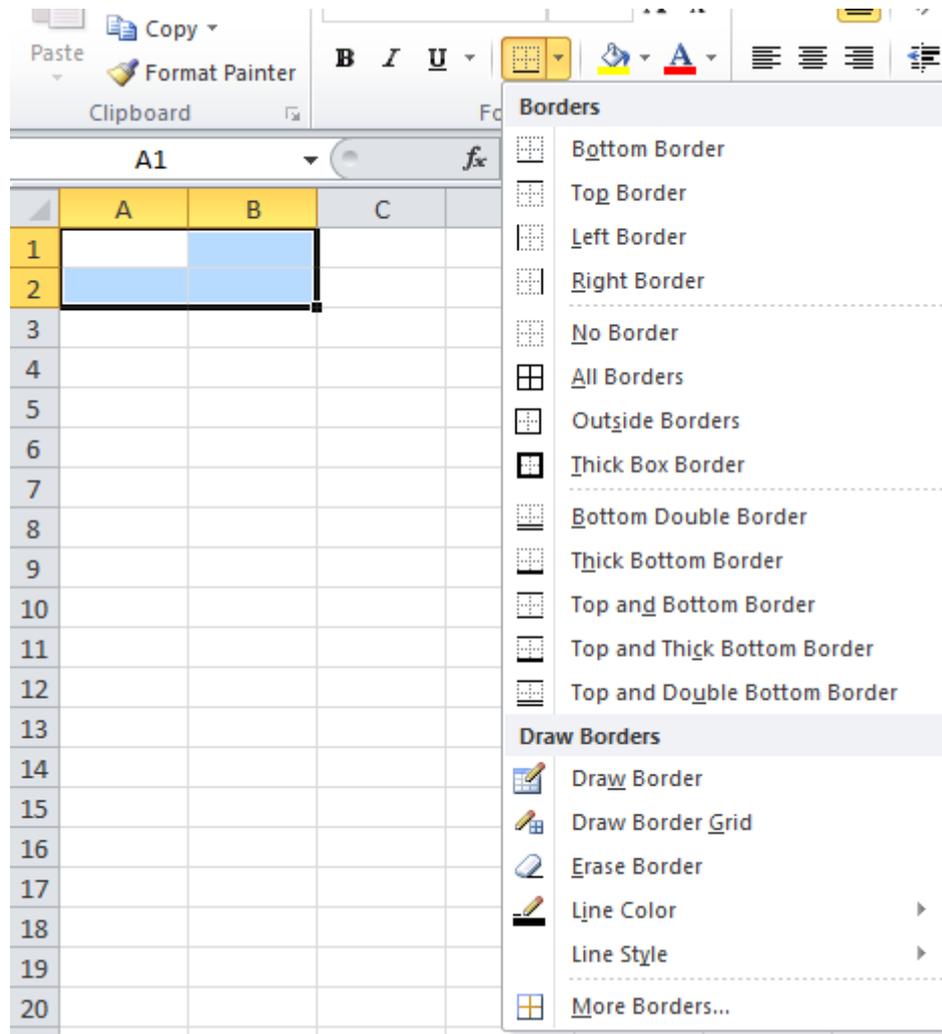
3.3.8.4 Border

This option is used set the border around the cell or a group of cells



The border option is comprised of line style which defines the line of the borders of the cells. The color option is used to define the colour of the border. There are options such as presets which define where the border would be inside, outside, both inside and outside and none. Borders those that are not required can be removed as per user requirement.

Another way to set the borders is as below

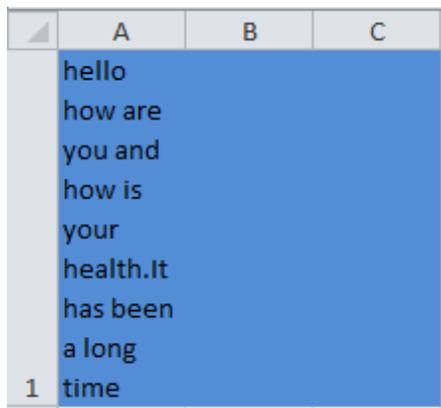
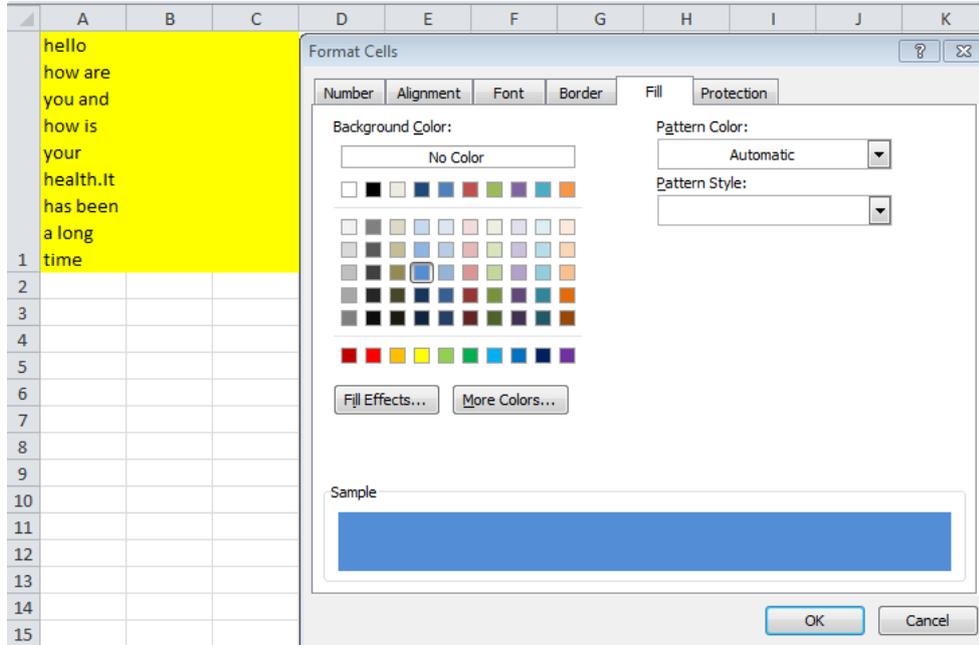


Another way to set the border is as below

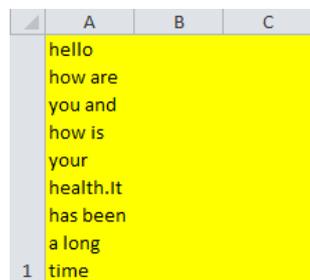
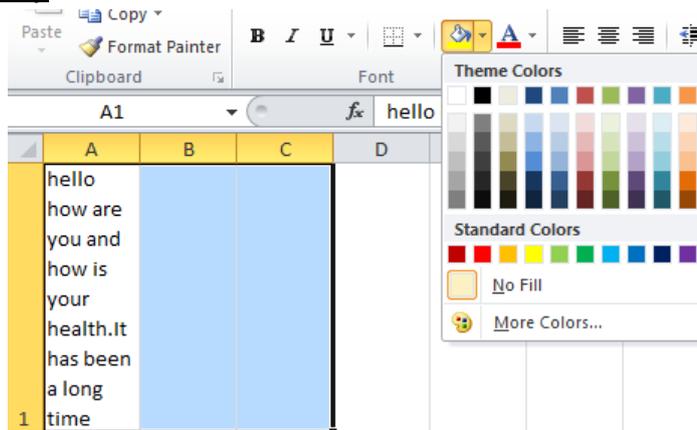
3.3.8.5 Fill

The shading or fill can be applied to a cell or a group of cells in 2 ways and they are

One Way



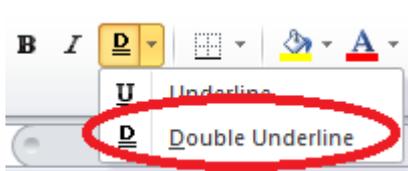
Another way



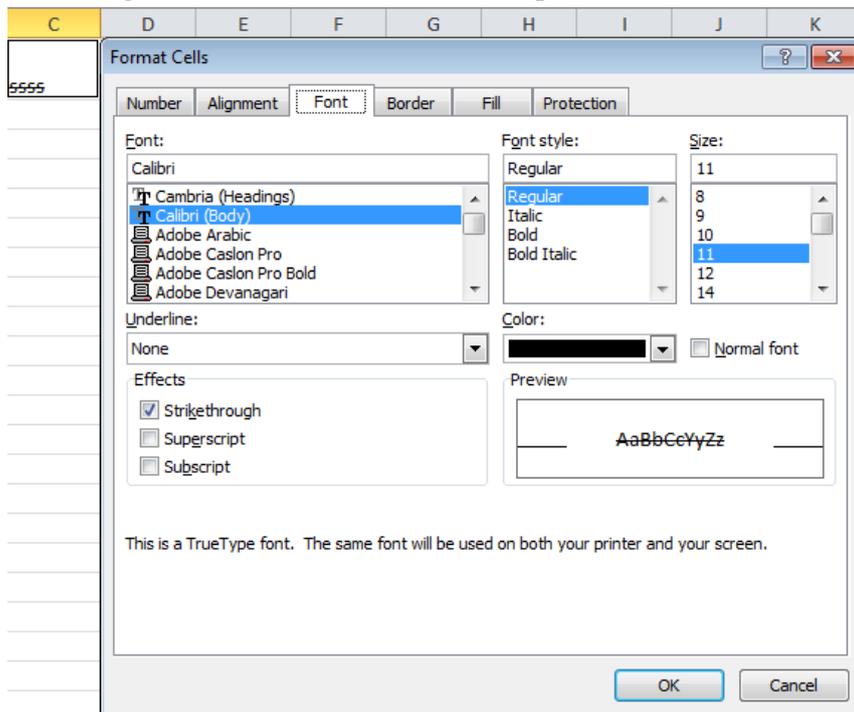
Text decoration

Text decoration is changing the look and feel of the text. Text direction is done in following 7 ways. They are

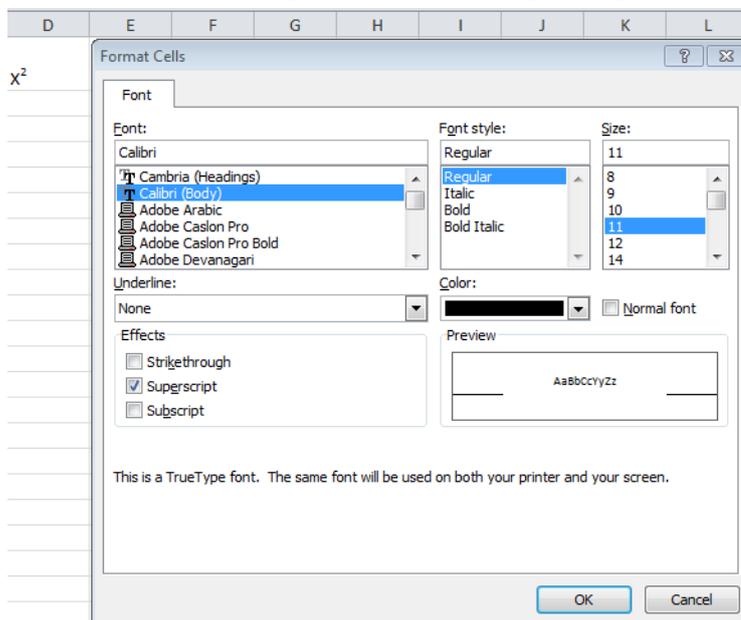
1. **Bold** :- Ctrl + B :- This option is used to make the text **bold**.
Another way to do this is click the Home Tab ->Click B in the Font group.
2. **Italic**:-Ctrl + I :- This option is used to make the text *italic*.
Another way to do this is click
The Home Tab->Click I in the Font group
3. **Underline**:-Ctrl +U :- This option is used to underline the text.
Another way to do this is click
The Home Tab->Click U in the Font group
4. **Double Underline** :-This option is used to double underline the text. To do this click on the home tab



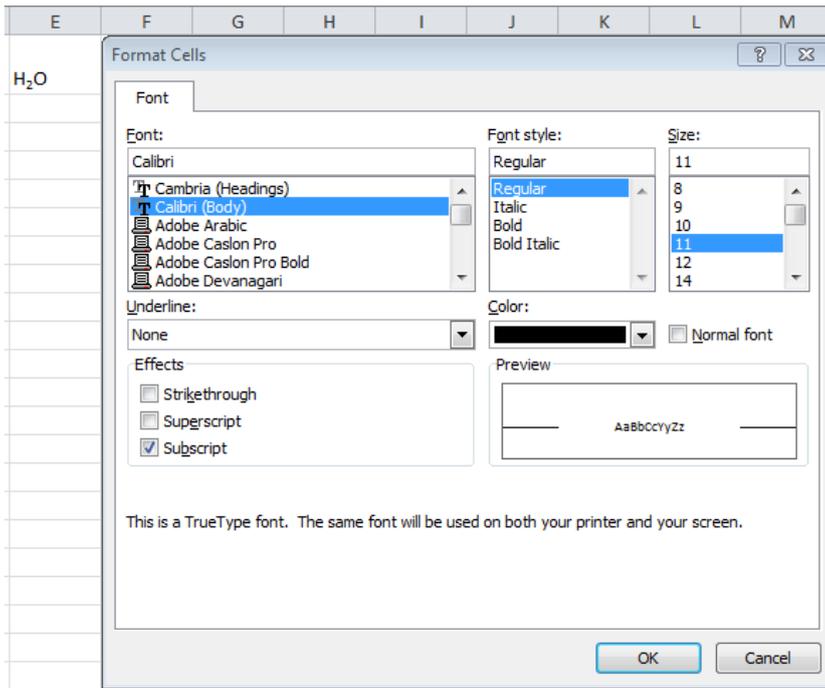
5. **Strike through :-** This option is used to strike through the text. To do this right click on the cell and select option.



6. **Superscript :-** This option is used to superscript the text as below.



7. **Subscript:-** The option is used to subscript the text in the cell. As below



Unit -4

Charts and other Controls

Learning objectives

After the Completion of this unit you should be able to know

- 1) How to design various kinds of charts
- 2) Text decoration

Introduction

Charts are very important in order show pictorially the growth and development of a business. This chart shows in which sectors a business has achieved maximum revenue while in which sectors the business needs development. Apart of charts there are other controls such as zoom in and zoom out which helps to zoom in and zoom out the worksheet. Special symbols control help to add special symbols in a worksheet wherever required. The comment option is used to add comment to the cell.

Definition

Chart :- A chart, also called a graph, is a graphical representation of data, in which "the data is represented by symbols.

Symbol :- A character that is not a letter of a number is a symbol.

Comment :- A comment a written statement the expresses the opinion about a cell.

Special symbol :- A character that is not a letter, number.

4.3 Working with charts

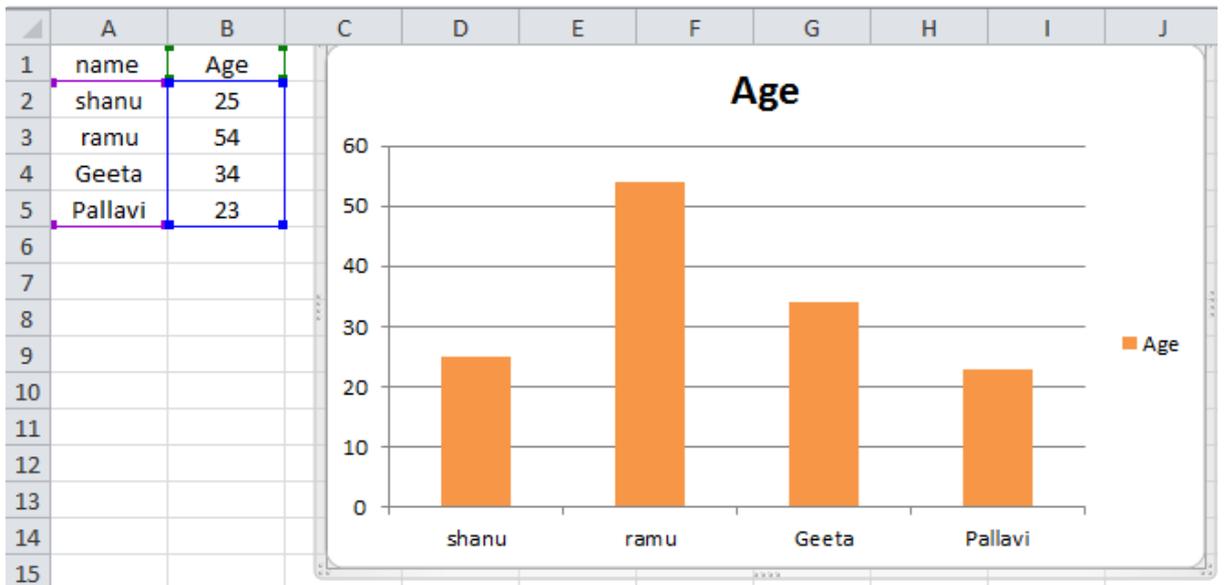
4.3.1 Creating chart

To Create a chart in Excel first create a excel entry as shown below

	A	B
1	name	Age
2	shanu	25
3	ramu	54
4	Geeta	34
5	Pallavi	23

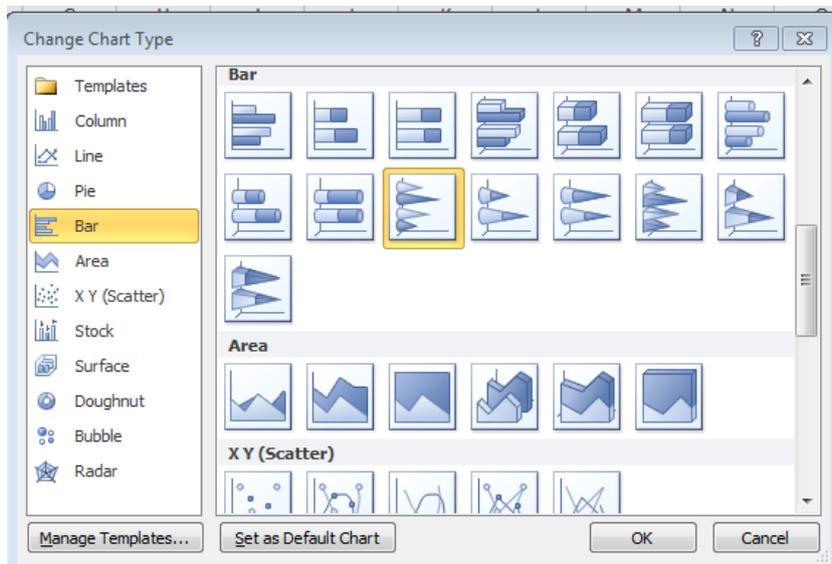
Click on insert tab and select any of the charts defined below

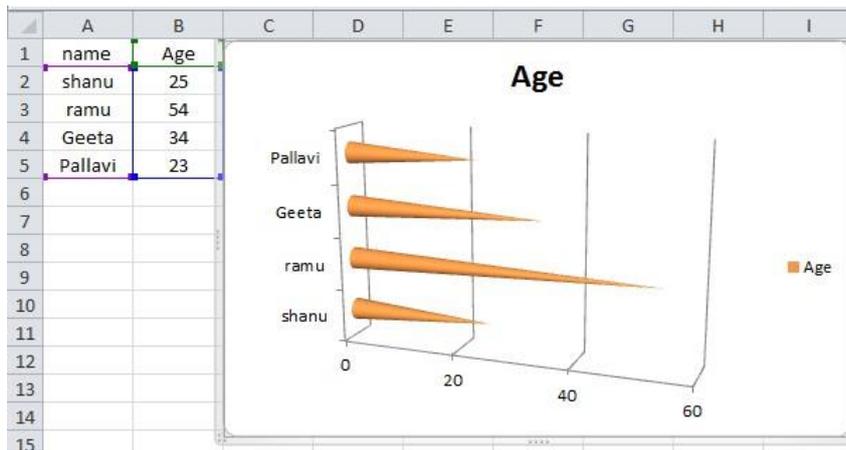




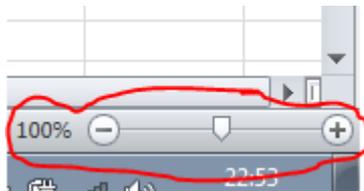
4.3.2 Manipulating a chart

To manipulate a chart select





Zoom In Out

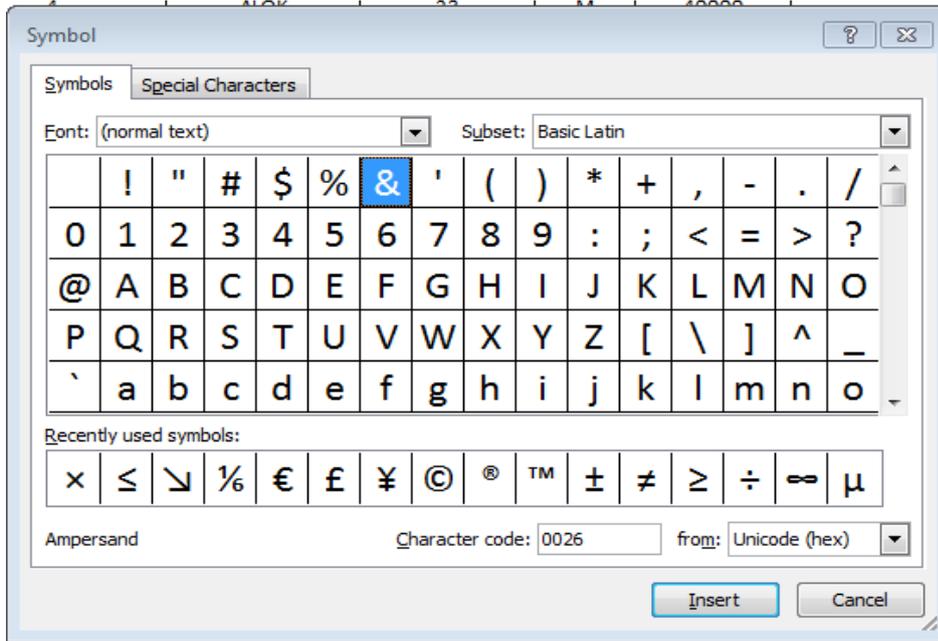


The zoom in out control is used to magnify the excel sheet and reduce magnification of the excel sheet. The + symbol increases the magnification and - symbol reduces the magnification. You can also drag the zoom control left to reduce the magnification and right to increase the magnification.

Special symbols

Click on the insert special symbol click the insert tab and click the





Comments

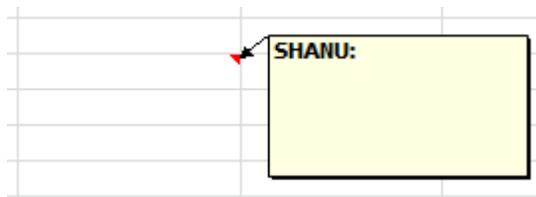
Insert Comments

To comment a cell follow the following steps.

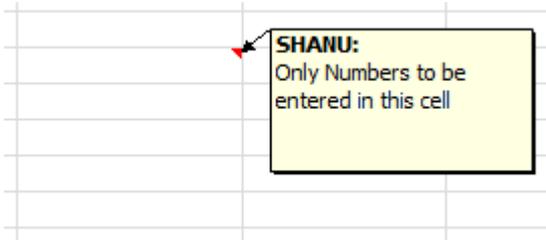
Step-1

Click on the cell and press Shift +F2 To add comment or go to Review ->New Comment.

Step-2



Step-3



Step-4

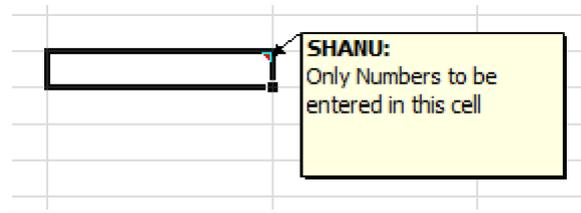
Once done click on another cell



View Comment

Step-1

Click on the cell marked with a red dot

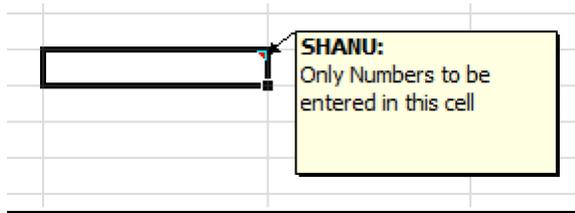


Edit Comment

Step-1

To Edit the comment click the cell





Delete CommentStep-1

To delete the existing comments click



Previous Comment

To go to previous comment click



Next Comment

To go to next comment click



Show CommentStep-1

Click on the cell

Step-2

Click on show/hide comment to show/hide comment

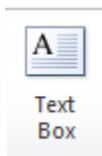


Show all comments

Click 

Adding Textbox

To insert a textbox click on Insert Tab and click the Text Box as shown below



Undo changes

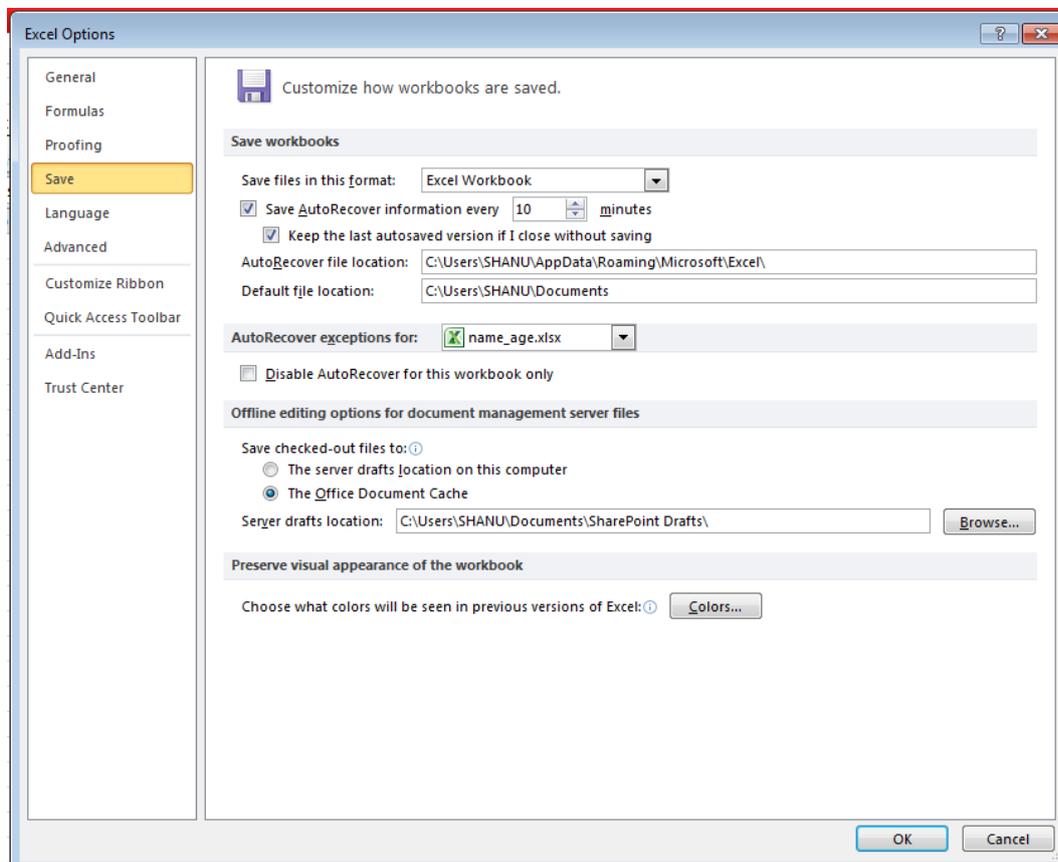
Undoing changes in an unsaved worksheet

To undo changes on a cell click on the cell and press Ctrl +Z.

Undo changes in a saved document

Undo changes is a process to get back to the previous values of worksheet or a workbook. In case of worksheet the option to undo changes is ctrl + z .In case of workbook there is an auto save which saves the work every 1 minute to time defined by the user. This option is achieved by clicking on file => option =>save. Here clicking on the 2 checkboxes

- Save auto recover every 10 minutes
- Keep the last auto saved version if I close without saving
- Auto recover file location
- Default file location



Have the above two check boxes checked and set the auto recover time to 10 minutes. This way the file is saved in auto recovery every 10 minutes. If anything goes wrong you can recover the workbook from the workbook you prepared 10 minutes ago.