



## **Teaching & Learning Technologies Center**

# **TUTORIAL**

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## **Microsoft Office Excel 2007**

### **Contact Information**

**Teaching & Learning Technologies Center**

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**What is Microsoft Excel?**

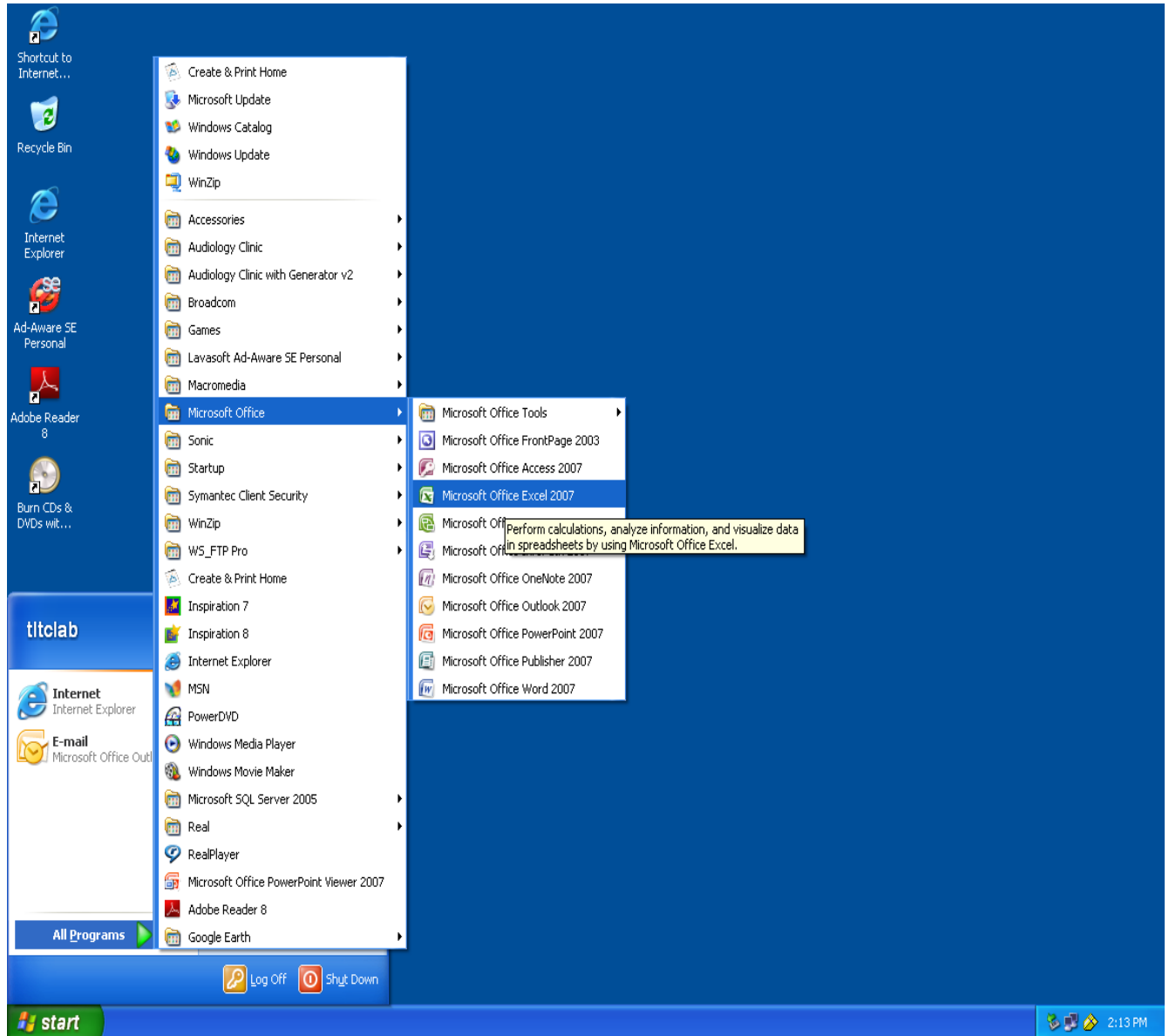
Microsoft Excel is a spreadsheet application program offered in the Microsoft office software package. This program allows you to perform calculations and use graphic tools, pivot tables, and a macro programming language called VBA. In addition, Excel can also be used to create charts and graphs.

After finishing this course you should be able to do the following:

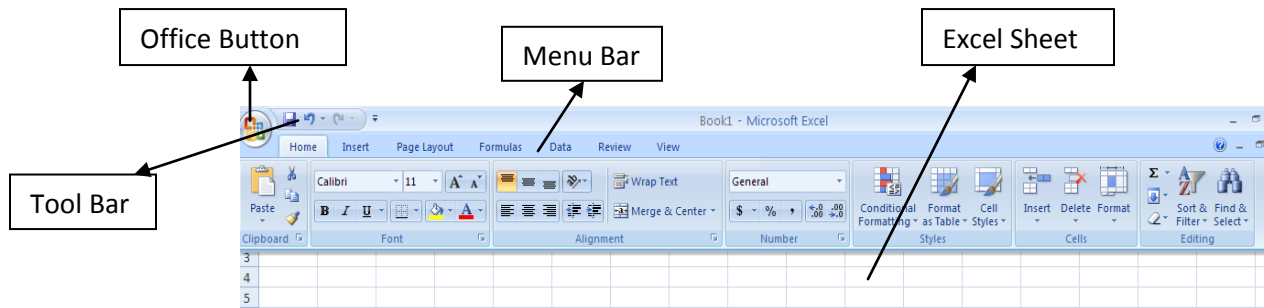
- . • Start Excel
- . • Identify the items on the Excel program screen
- . • Know how to use Toolbars
- . • Customize Toolbars
- . • Work with Sheets
- . • Create a New spreadsheet
- . • Open an existing saved excel sheet
- . • Save a sheet
- . • Convert Excel to PDF
- . • Rename a sheet
- . • Work on multiple sheets
- . • Enter the data
- . • Insert and Delete rows/columns
- . • Create Tables
- . • Draw charts
- . • Inserting Picture/Hyperlinks/Symbols
- . • Enter a formula
- . • Import, Filter and Sort the data
- . • Freeze/Unfreeze Worksheets
- . • Use Pivot tables

**Starting Excel:**

1. Go to the **Start** Button on the Desktop and press it. Click on **All Programs**.
2. Then click on Microsoft Office, then Microsoft Office Excel 2007.
3. This opens the Excel 2007 program.



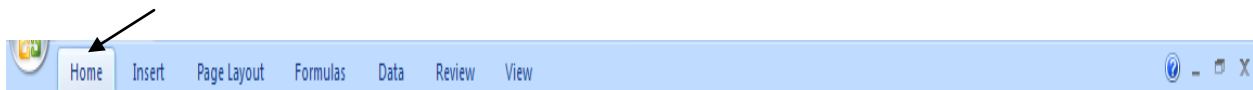
### Identifying the items on the Excel program screen:



#### Menu bar:

1. Menu bar contains all the operators which the user wishes to perform on their Data.
2. By clicking on each tab user and view the operator.

Example: By clicking on **Home** tab user can see the operators which allow changing the Font type, size and color.



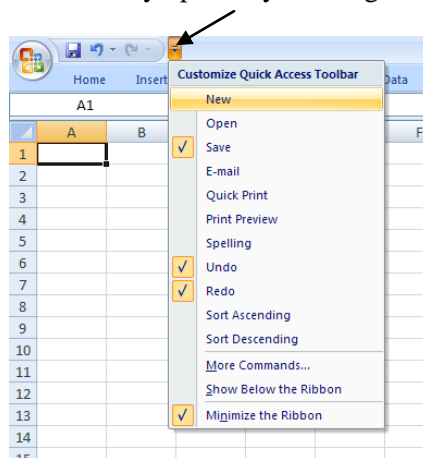
#### Toolbars:

1. A wide variety of toolbars displaying buttons which make editing quicker and easier are available.
2. Usually **Toolbars** have only three options: Save, Undo and Redo. Users have an option of adding any tool they wish to have in Toolbar by simply Customizing the Toolbar.



#### Customizing Toolbars:

1. By clicking on the small down arrow present beside Toolbar users can Customize Toolbar.
2. From the available options, user can select any option by clicking on them.

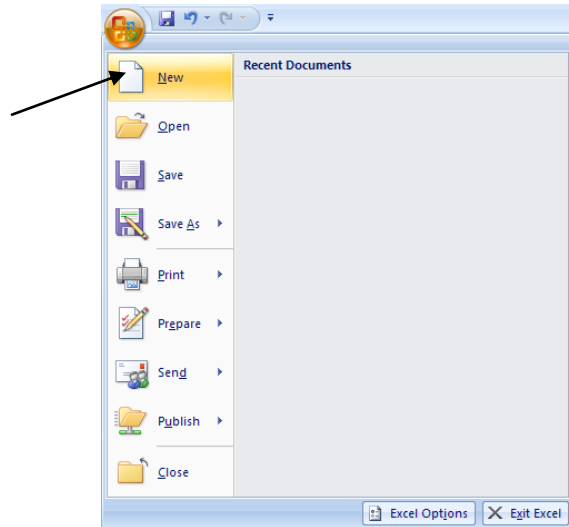


## How to Work with Sheets:

### Creating a New Sheet:

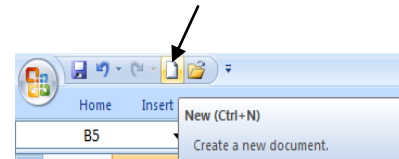
In order to create a New sheet on the menu bar you may either:

a) Click on the New button after clicking office button.



**OR**

b) Choose **New** from then Tool bar.



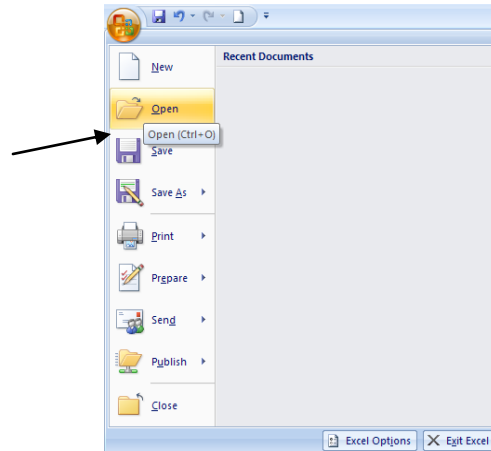
**OR**

c) Press **Ctrl+N** (press the **Ctrl** key while pressing “**N**”) on the keyboard.

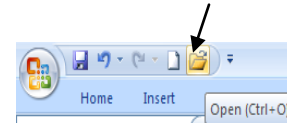
**Open an existing saved sheet:**

In order to open an existing saved file, you may either:

- Click on the **Open** file button after clicking office button.

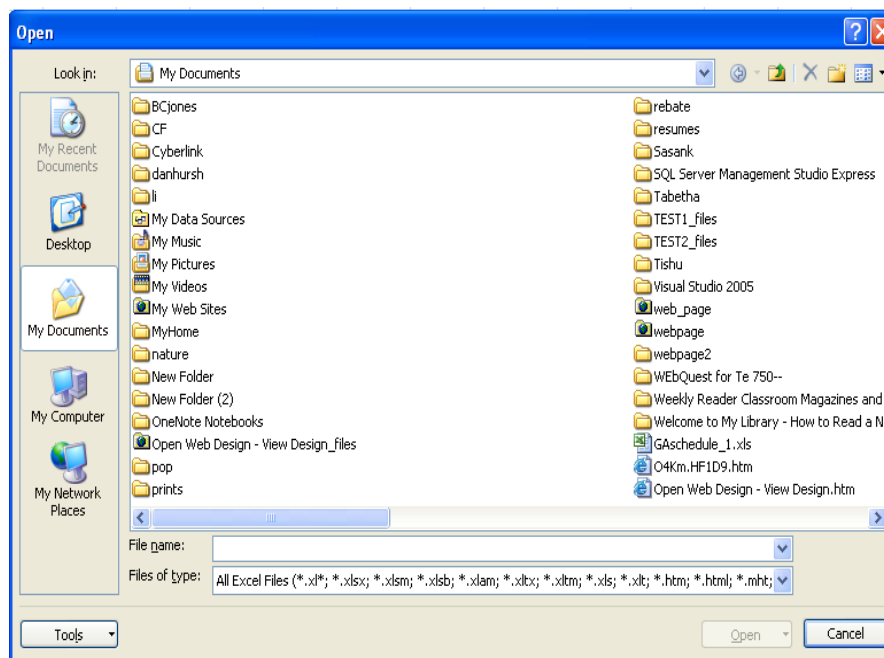
**OR**

- Choose **Open** from then Tool bar.

**OR**

- Press **Ctrl+O** on the keyboard.

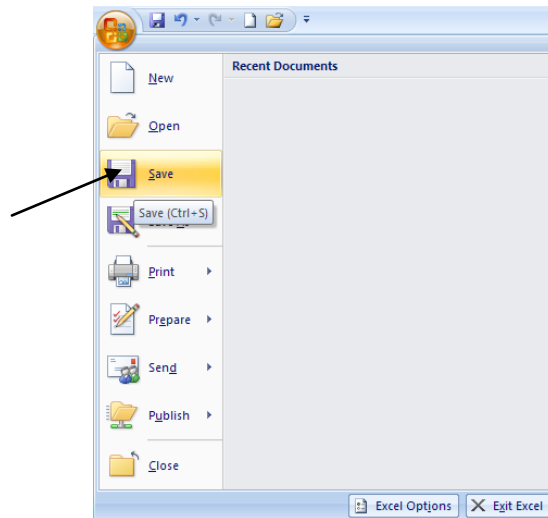
Each of these methods will show an Open dialog box. Choose the file and click the **Open** button.



**Save a sheet:**

In order to save a document, you may either

a). Click the Save button after clicking office button.

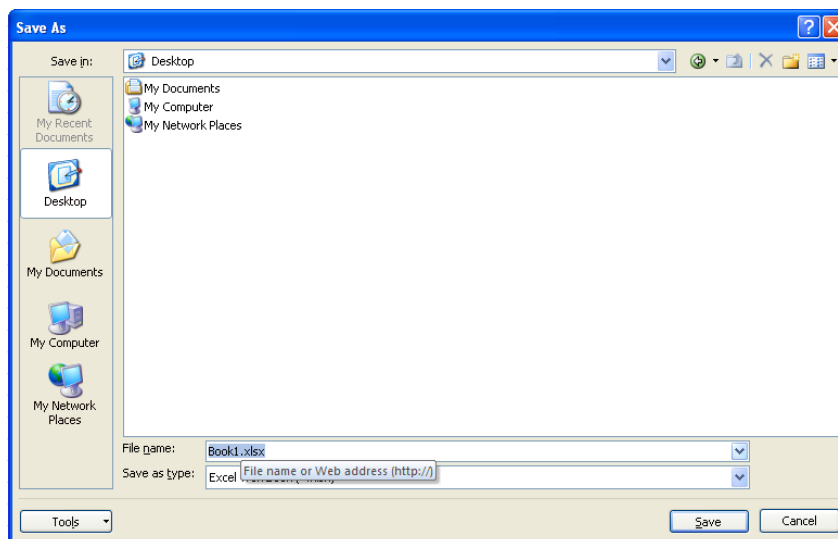
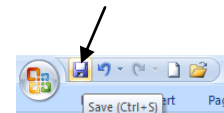
**OR**

b). Select **Save** from the Tool bar.

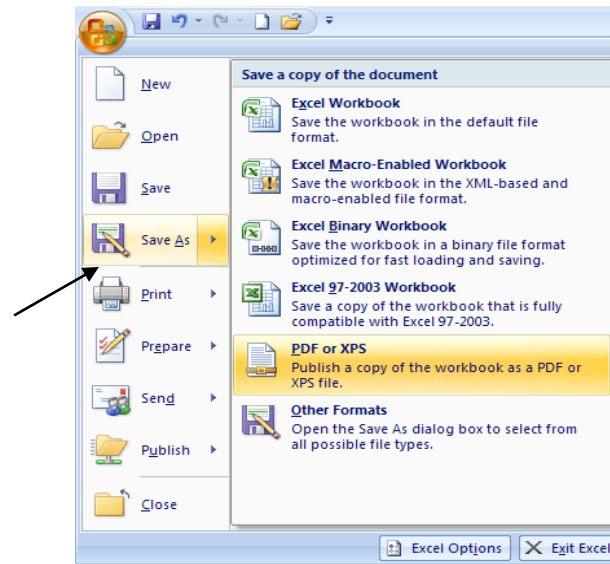
**OR**

c). Press **Ctrl+S** on the keyboard.

In either case you will get a Save As dialog box. Navigate to where you want to save the document where it says **Save in** by clicking on the arrow and then give the desired file name where it says File name. Then click on **Save**.



**Convert to PDF:** To convert the excel sheets to .pdf click on the **office** button and then **save as**, now select **PDF or XPS**.

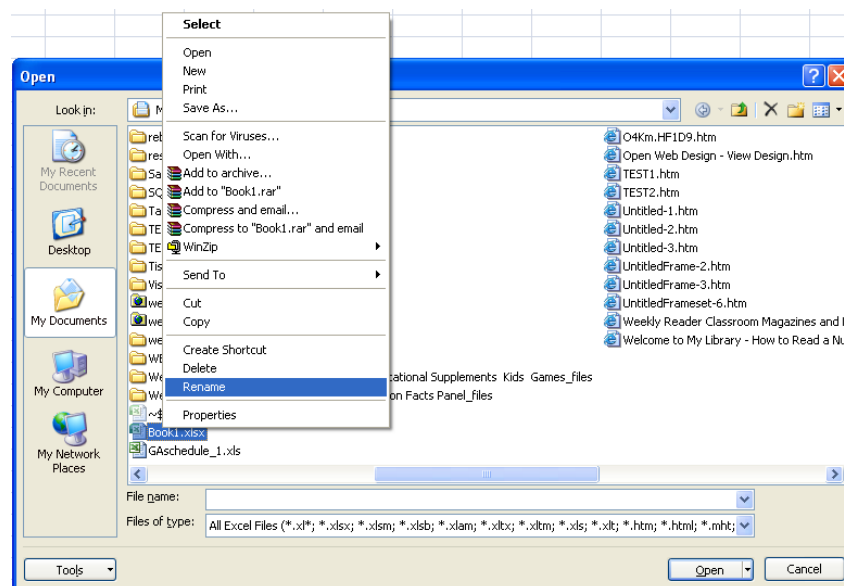


**NOTE:** This feature requires add-in or plug-in which is available for download from [Microsoft](http://Microsoft).

### Renaming Excel Sheets:

In order to rename a saved sheet

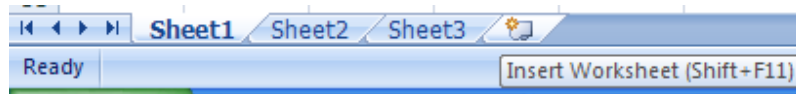
- a) Select **Open** from the tool bar and find the file that you want to rename.
- b) Right click on the document name with the mouse and select **Rename** from the shortcut menu that appears.





**Working with multiple sheets:**

You can work with multiple sheets by clicking on Insert worksheet icon present at left side bottom of the screen.

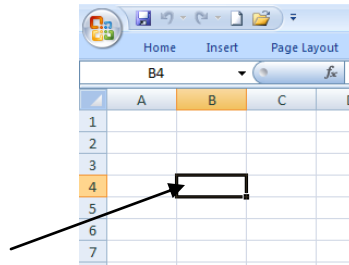
**OR**

**Press Shift + F11**( press the **Ctrl** key while pressing “**F11**”) on the keyboard.

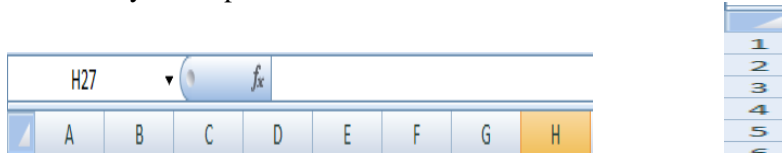
## Enter, Edit, Analyze and Report the data:

### Enter the Data:

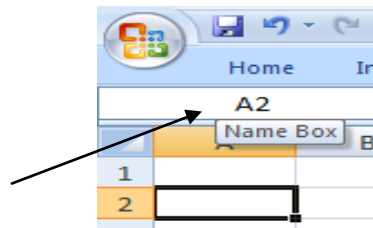
1. The Excel sheets are divided into grids called “**cells**” where you can enter the Data.



2. The columns are indicated by the Alphabets and the Rows with the numbers.

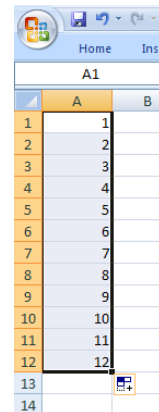
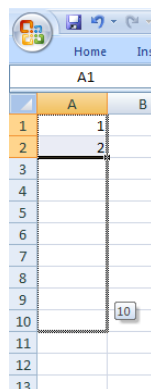
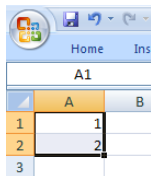


3. Whenever you select a particular cell its location is displayed in Name box.

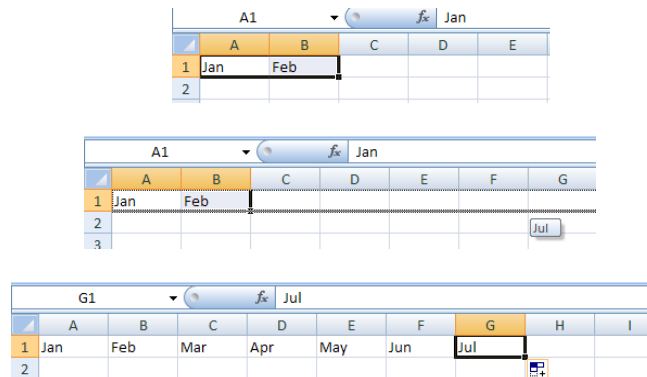


4. In Order to enter the data easily you have to click and drag the mouse by selecting either the columns or rows.

a.) columns



## b.) rows

**Selecting Cell/Cells:**

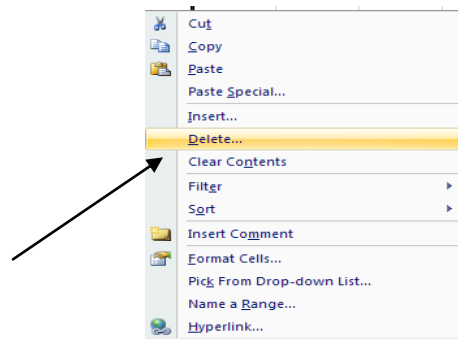
In order to change any cell it has to be highlighted first. In order to highlight, click on the required cell. In order to select more than one cell, select a cell and then drag the mouse while pressing the left click button.

**Deleting Cell/Cells:**

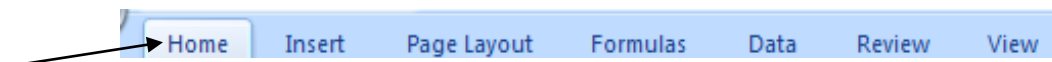
1. In order to delete a cell use the **Delete** key on the keyboard.
2. In order to delete a large number of cells, highlight them and then hit **Delete** button.

**OR**

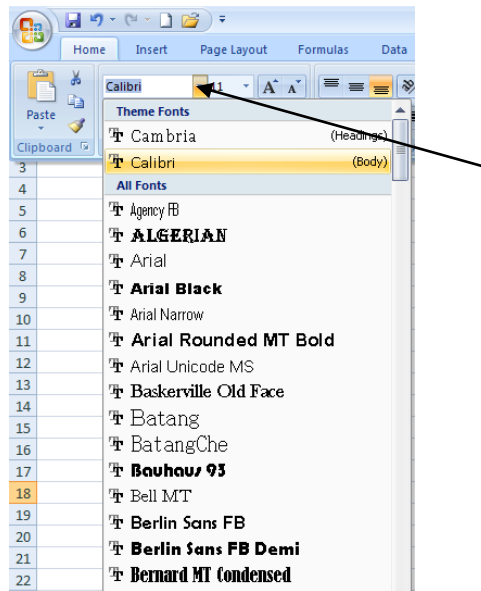
Select the cells, hit right click and then click on **Delete**. You can choose any of the options present here as per your requirement.

**How to Format text:**

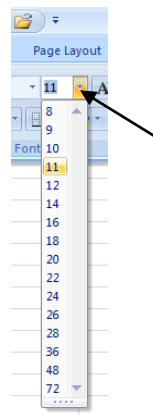
The easiest way to format text is to make use of the formatting toolbar. The formatting toolbar is shown below. You can view it by clicking on the **Home** tab.



**Font menu:** Allows you to choose from a wide number of fonts. To select a particular font click on the arrowhead beside the box, scroll down with the scrollbar until you select a particular font and select it by clicking on it.



**Font Size:** Select a size for your font by clicking on the arrowhead and scrolling down and clicking on the size that you desire. If you want to change the font of text which has already been typed in, highlight the text or select the cell and then select the size as mentioned above.

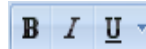


**OR**

You can also click on A<sup>^</sup> to increase/decrease the size.



**Font Style:** You may select whether you want to make the font Bold, Italicized or underlined by clicking on **B, I, U**



**OR**

**Press Ctrl + B for Bold**

**Press Ctrl + I for Italics**

**Press Ctrl + U for Underline**

**Highlight Color:** This option may be used to change the color behind the selected text.



**Text Color:** This option changes the color of the text selected.



### How to undo what has been done!

One may undo the last action by clicking on the **Undo** button on the standard toolbar



In order to erase the undo action, click the **Redo** button on the standard toolbar or just select **Edit/Redo**.



### Moving (Cutting) Data:

Click the **Home** tab, highlight the cell/cells that you want to move and select **Cut** from the menu bar, click the Cut button on the standard toolbar or press **Ctrl+ X** at once. This moves the selected text to a clipboard.



### Copying Cell/Cells:

To copy cell/cells, Click the **Home** tab, select the cells that you want to copy and then choose **Copy**.



**OR**

press **Ctrl+ C** to copy the cell/cells onto a clipboard.

### Paste Cell/Cells:

To paste Cell/Cells which is either copied or cut, move the cursor to the location and Click the **Home** tab, select the new cell/cells where you want the data to be placed and click on **Paste**.



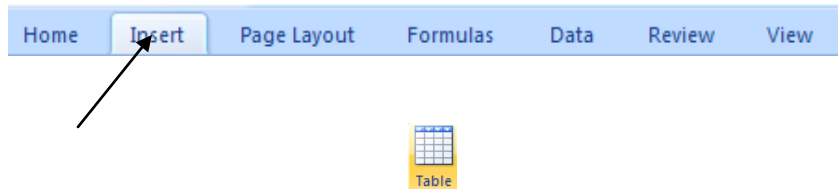
**OR**

Select the desired cell/cells and the press **Ctrl + V**.

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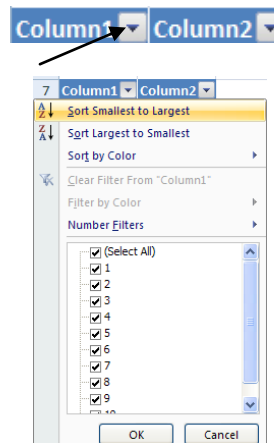
**Create Tables:**

Select the Cells and then click on **Insert** tab and select **Table**

**OR**

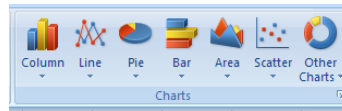
Select the cells and then press Ctrl + T

The columns in the Tables can be sorted by clicking the down arrow present beside the column heading.



## Drawing Charts:

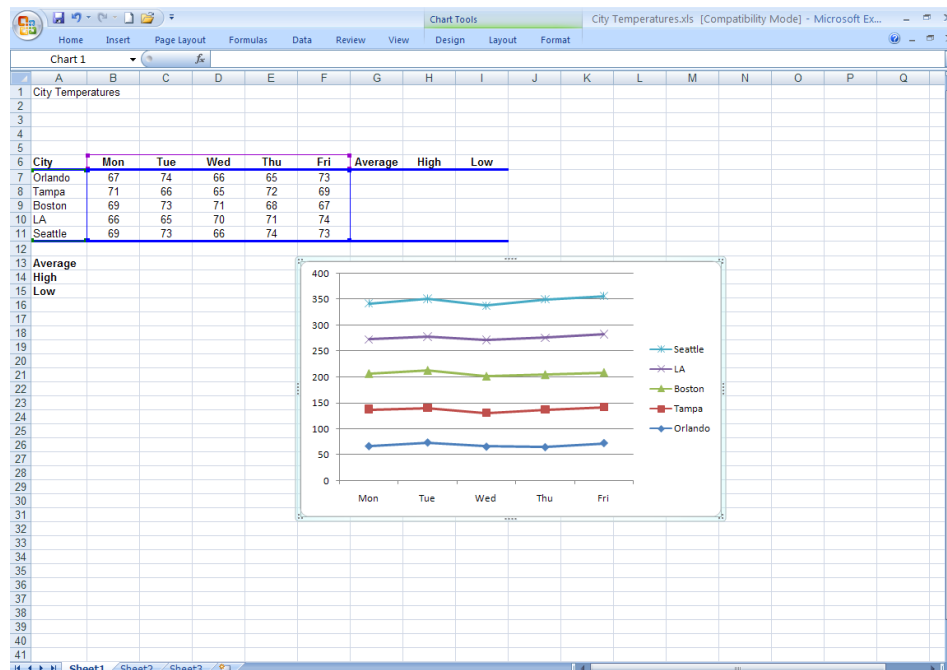
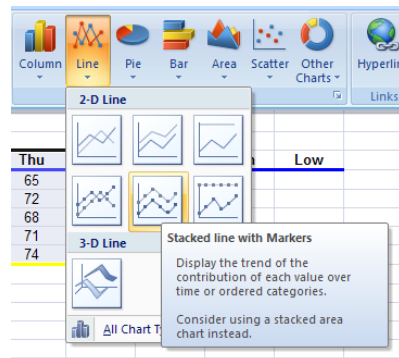
Select the cells and the hit **Insert** tab and from the charts column select the type of the chart you wish to draw.



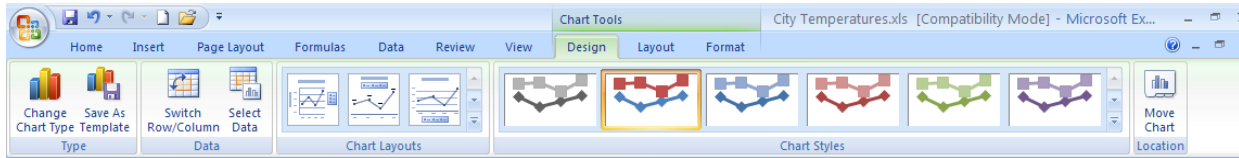
Example: Step1. Selecting the Data

5						
6	<b>City</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>
7	Orlando	67	74	66	65	73
8	Tampa	71	66	65	72	69
9	Boston	69	73	71	68	67
10	LA	66	65	70	71	74
11	Seattle	69	73	66	74	73
12						

Step2. Selecting the type of the chart.



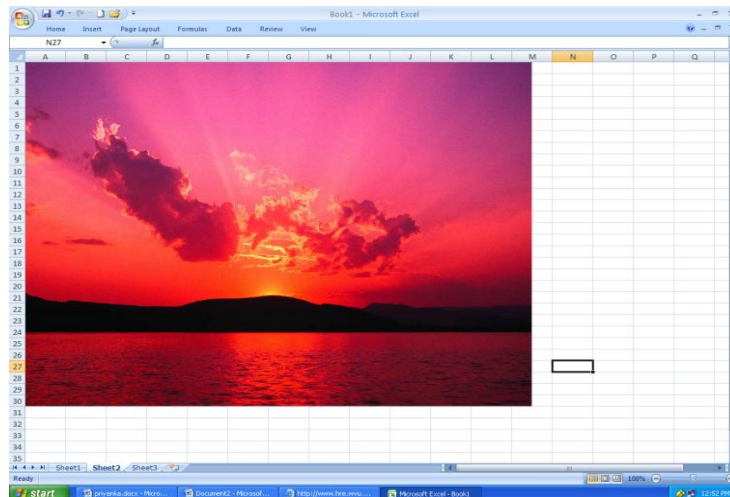
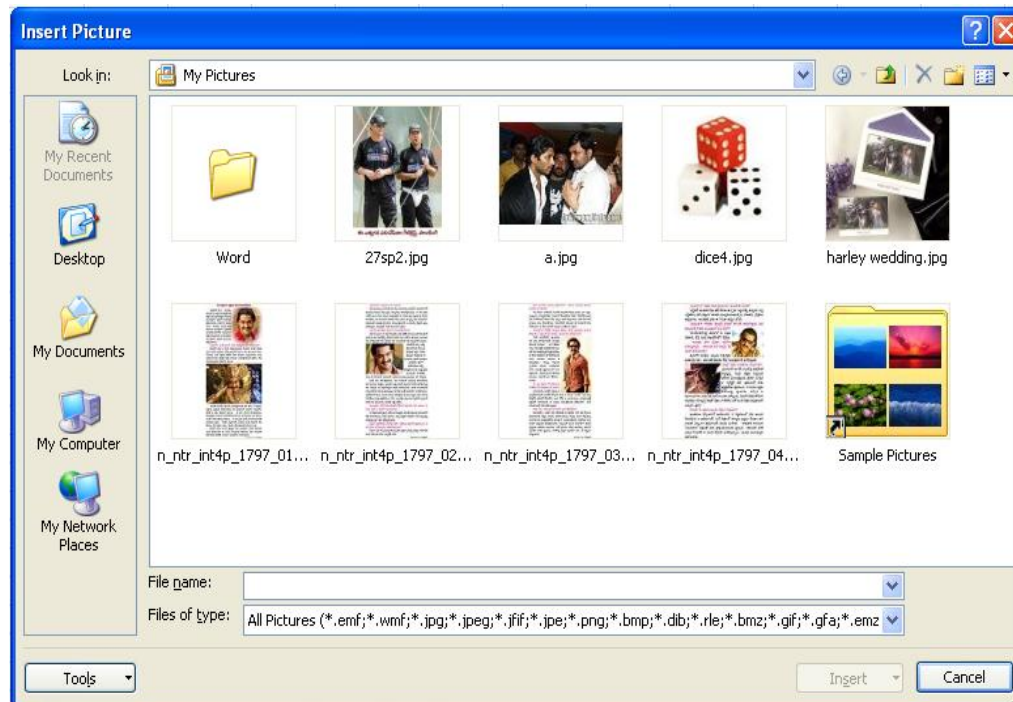
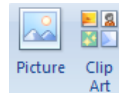
**Step3: In order to change the color or change the chart type, click on the chart and choose from the options in the Menu bar**





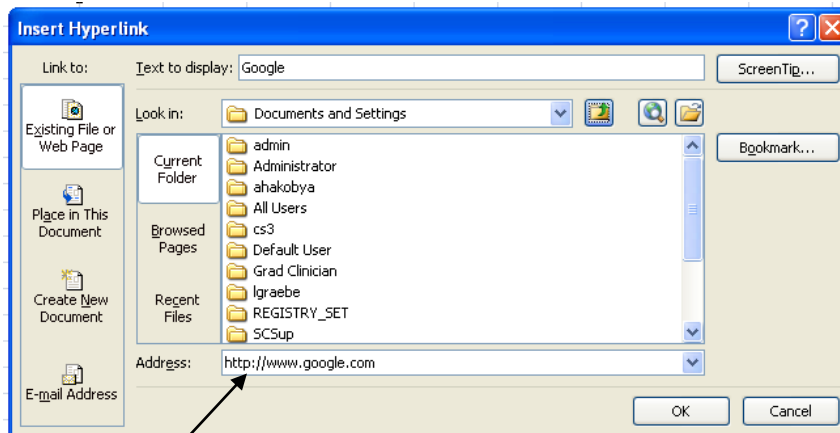
### Inserting Pictures or Clip Arts:

You can insert the pictures or Clip Arts by clicking on **Insert** tab and then on either Picture or Clip art and choose the one you wish to insert.



**Inserting Hyperlink:**

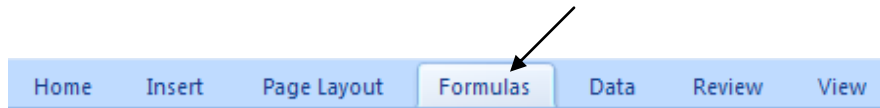
You can insert a Hyperlink by selecting the Text, pressing **Insert** Tab and then hitting the **Hyperlink** button. Now, enter the address you wish to link up.

**Inserting Symbols:**

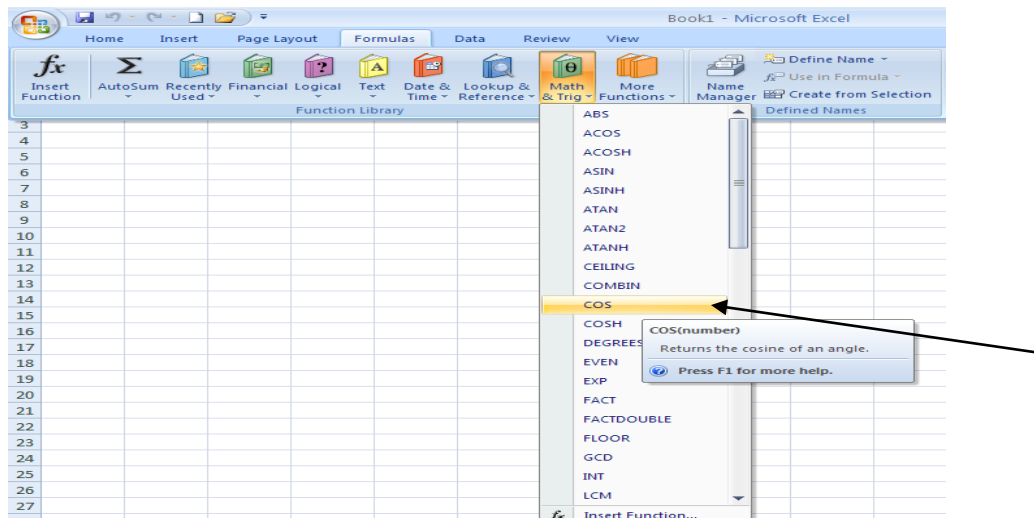
You can insert a symbol by selecting the cell, pressing **Insert** Tab and then hitting the **Symbol** button. Now, you can click on the symbol you wish to enter.

**Enter a formula:**

In order to enter the formula click on the **Formula** tab and then choose the type of the formula you want to enter.

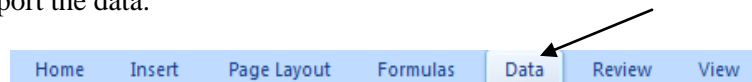


Example: To enter any Cos function. Click on **Math & Trig** tab and select Cos.



### Import the data:

To import the data from Web or from other sources, hit the **Data** tab and then choose the media from where you wish to import the data.



Example: To import from web, click on From Web tab and enter the address of the website.

### Sort the data:

Select the cells which are to be sorted, click on the **Data** button and then **sort** order button.



**Filter the data:**

Select the cells which are to be filtered, click on the **Data** button and then **Filter** button. Now click on the funnel and deselect the data you want to filter out.

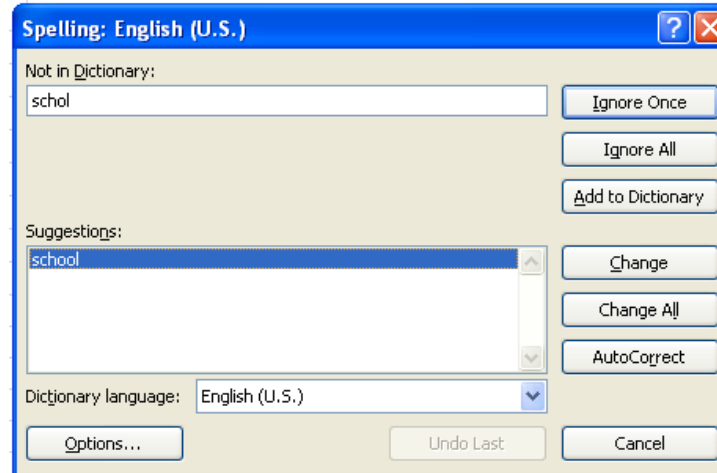
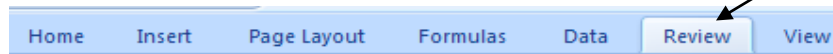


Then, click on down arrow present in the first row and deselect the number you wish to filter out.

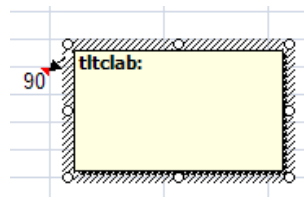
The screenshot illustrates the process of filtering data in Excel. It shows a data list with the following values: 35, 62, 24, 365, 35, and 254. The 'Filter' dialog box is open, showing the 'Number Filters' section. The '62' value is deselected, while all other values (35, 24, 365, 254) are selected. An arrow points to the '62' value in the list, and another arrow points to the '62' checkbox in the dialog box. The dialog box also shows options for sorting and filtering by color.

35
62
24
365
35
254

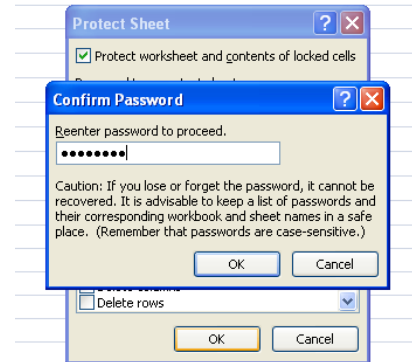
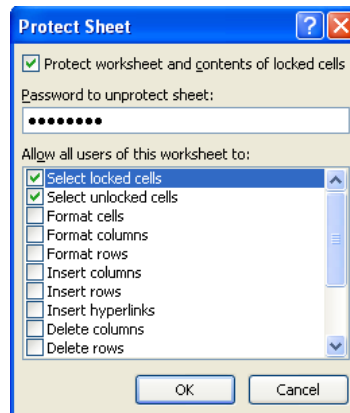
**Spell Check:** In order to check the spelling select the cell and the hit **Review** tab and select the **ABC spellings** icon.



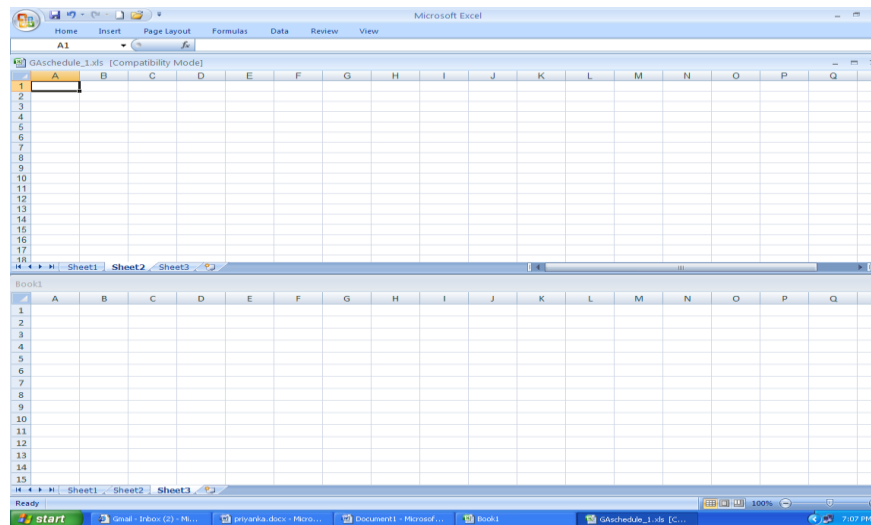
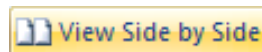
**Add Comment:** To add a comment select the cell to which you want to add comment and click on the **Review** tab then click on **New comment**, you can enter the comment in the box.



**Protect Sheets:** If you don't want other people to access your sheet you can protect them by using this protection option.



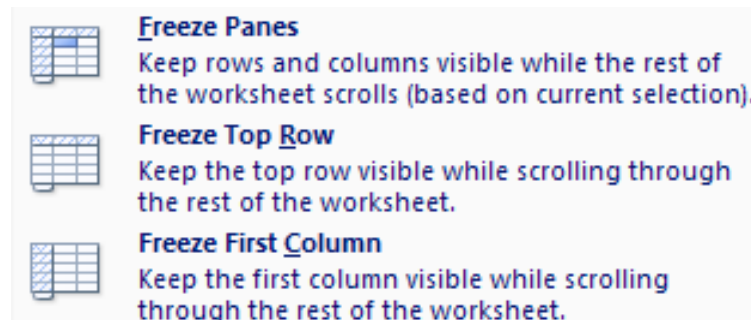
**To view multiple excel files:** In order to view or work with two different excel files click on **view** tab and then select **view side by side** option.



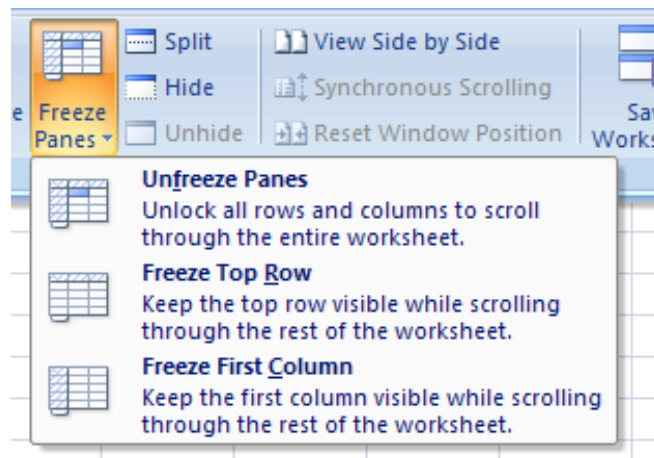
**Freeze/Unfreeze Worksheets :**

When working with large or complex worksheets, scrolling can sometimes become a problem. Freezing panes allows you to keep row and column labels visible as you scroll.

To freeze a pane you have to click on the view tab first and then freeze panes. Now select required option.



**Unfreezing Panes:** Select freeze panes you will see the unfreeze options in the box.



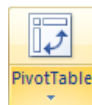
**Pivot Tables:** In order to summarize large amount of data Pivot tables can be used.

Procedure:

1. Select a cell

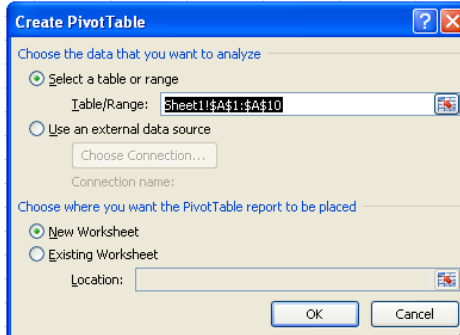
	Grantee	State	Institution sector	FY 2002-04 funding	Parents served	Children served	Parents' persistence rate	Parents' completion rate	Federal cost per parent persisting or completing	Federal cost per parent served
1										
2	Alverno College	WI	Private not-for-profit, 4-year or above	\$45,000	12	14	100%	50%	\$3,750	\$3,750
3	Athens Technical College	GA	Public, 2-year	\$31,526	11	12	100%	64%	\$2,866	\$2,866
4	Austin Peay State University	TN	Public, 2-year	\$51,636	89	94	33%	8%	\$1,415	\$580
5	Brazosport College	TX	Public, 2-year	\$33,471	20	29	69%	15%	\$1,992	\$1,674
6	Cal Poly Pomona Foundation, Inc.	CA	Public, 4-year or above	\$447,897	26	31	62%	25%	\$19,801	\$17,227
7	California State University/ Los Angeles	CA	Public, 4-year or above	\$479,028	93	93	90%	0%	\$5,723	\$5,151
8	California State University/ Northridge	CA	Public, 4-year or above	\$570,000	80	101	98%	0%	\$7,270	\$7,125
9	Central Missouri State University	MO	Public, 4-year or above	\$156,558	91	147	65%	32%	\$1,774	\$1,720
10	Chaffey Community College	CA	Public, 2-year	\$97,438	28	28	68%	54%	\$3,480	\$3,480
11	Columbia-Greene Community College	NY	Public, 2-year	\$39,279	1048	90	61%	0%	\$61	\$37
12	Community College of Philadelphia	PA	Public, 2-year	\$450,000	76	92	73%	28%	\$5,921	\$5,921
13	Contra Costa Community College District	CA	Public, 2-year	\$49,428	40	42	98%	20%	\$1,236	\$1,236
14	CUNY/ John Jay College of Criminal Justice	NY	Public, 4-year or above	\$114,507	117	108	66%	23%	\$1,100	\$979
15	Dawson Community College	MT	Public, 2-year	\$30,000	20	32	85%	60%	\$1,500	\$1,500
16	Drexel University	PA	Private not-for-profit, 4-year or above	\$117,939	5	6	100%	33%	\$23,588	\$23,588
17	Duquesne University	PA	Private not-for-profit, 4-year or above	\$62,631	16	16	100%	44%	\$3,914	\$3,914
18	Eastfield College	TX	Public, 2-year	\$70,152	241	295	46%	4%	\$582	\$291
19	El Camino College	CA	Public, 2-year	\$149,796	22	22	54%	22%	\$8,959	\$6,809
20	El Centro College	TX	Public, 2-year	\$59,823	47	62	36%	15%	\$2,496	\$1,273
21	Everett Community College	WA	Public, 2-year	\$43,500	27	27	85%	15%	\$1,611	\$1,611
22	Fayetteville Technical Community College	NC	Public, 2-year	\$124,896	159	191	33%	23%	\$1,403	\$786
23	Flint River Technical College	GA	Public, 2-year	\$30,000	70	153	58%	42%	\$429	\$429
24	Florida National College	FL	Private for-profit, 2-year	\$91,678	36	44	100%	100%	\$2,547	\$2,547
25	Georgia Institute of Technology	GA	Public, 4-year or above	\$83,058	17	18	100%	70%	\$4,886	\$4,886
26	Governors State University	IL	Public, 4-year or above	\$44,700	74	88	92%	59%	\$604	\$604
27	Great Basin College	NV	Public, 4-year or above	\$30,000	21	24	82%	36%	\$1,429	\$1,429
28	Greenville Technical College	SC	Public, 2-year	\$134,496	9	6	60%	40%	\$14,944	\$14,944
29	Harry M. Ayers State Technical College	AL	Public, 2-year	\$31,500	34	54	74%	59%	\$926	\$926
30	Henry Ford Community College	MI	Public, 2-year	\$166,095	217	285	46%	27%	\$1,049	\$765
31	Idaho State University	ID	Public, 4-year or above	\$333,801	52	54	88%	17%	\$6,419	\$6,419
32	Iowa Lakes Community College	IA	Public, 2-year	\$55,110	8	8	100%	25%	\$6,889	\$6,889
33	Jefferson College	MO	Public, 2-year	\$54,048	148	178	87%	47%	\$365	\$365

2. Click on **PivotTable** from **Insert** tab.

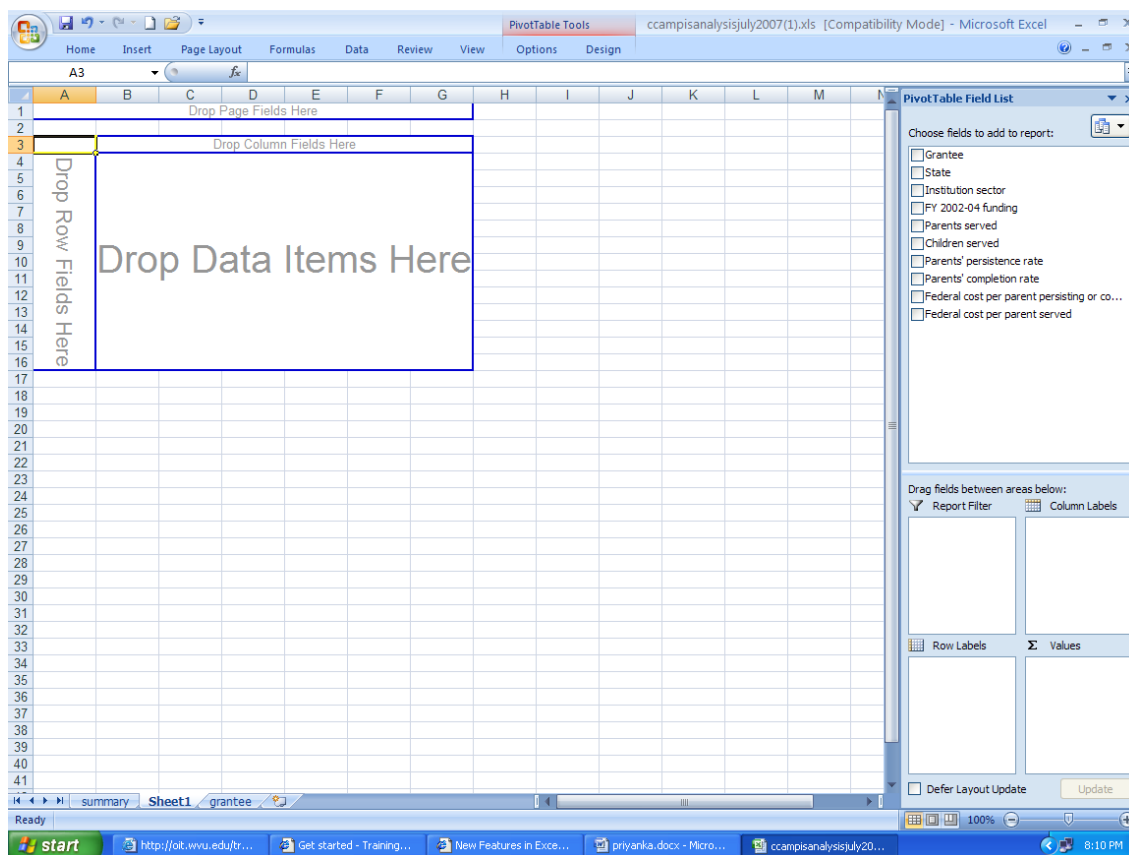




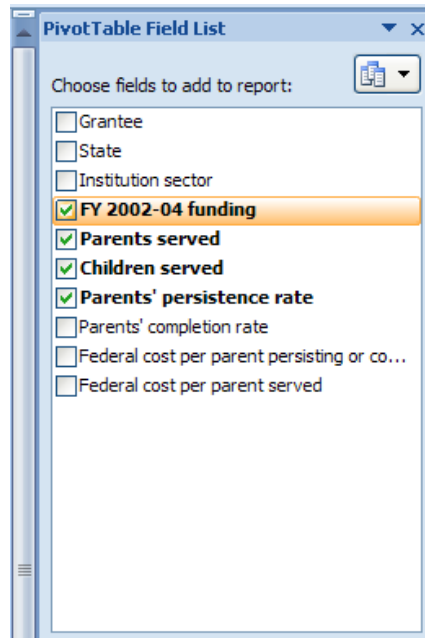
### 3. Again select **Pivot table**.



### 4. After clicking on OK, you can see the following screen.



5. Select the columns for which you need relation.



6. Now you can see the required data of the selected cell

	Sum of Parents' persistence rate	Sum of Children served	Sum of Parents served	Sum of FY 2002-04 funding
<b>Total</b>	61.31	6445	6397	11297387