

Kurdistan Regional Government- Iraq
Ministry of Education
General Directorate of Curriculum and Printing

Information Technology
Microsoft Excel
High & Vocational Schools
Grade 10

Prepared by
A Committee from the Ministry of Education.

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Introduction

Today's era is the era of technology while considering the enormous influences that technology imposes on our lives as individuals and as communities. Technology has immersed itself in all aspects of human life, take for example: (Education, Health, Military Affairs, Scientific Research, Traffics, etc.).

Furthermore, with this rapid ongoing progress in the field of Computer, transforming the computer curriculum implemented in schools by Ministry of Education in Kurdistan Regional Government is considered to be an urgent responsibility. Our beloved students should not be left behind these up-to-date advances in this indispensable and widespread science, but indeed should be aware of as well as privileged with them. Therefore, we prepared this book.

Dear honored and beloved teacher:

You are the solid ground for the success of learning process. This sacred trust is embodied in you with your enduring efforts in nurturing the intellectual as well as emotional awareness of our children that will, for sure, result in escalation in the quality of learning and teaching.

We trust you with this book. We thank you. We hope that you will have a significant role in the achievement of this curriculum's goals.

Dear beloved student:

You are the hope for the tomorrow of your nation, you are the light to brighten the horizon of your homeland. You are well-worth of all the devotion given to you by the Ministry of Education in the Kurdistan Regional Government. You are the focus of education; the center of the whole process of teaching and learning. The renovation in education program is for your advantages.

Committee

First Term





Microsoft®
Excel 2016

1 Lesson

Microsoft Excel 2016



Microsoft Excel: is part of the Microsoft office, deals with mathematics, statistics, data and table. It consists of many worksheets which include many of large tables in column and row cross.



Method of Starting Microsoft Excel 2016 in windows 10

For starting Excel, we need to know the operating system on the computer. Here we mention some methods to start excel 2016 on windows 10 and also there are some others that the students will search for them.

First method: for starting Microsoft excel

Start- Scroll to Choose Microsoft Excel

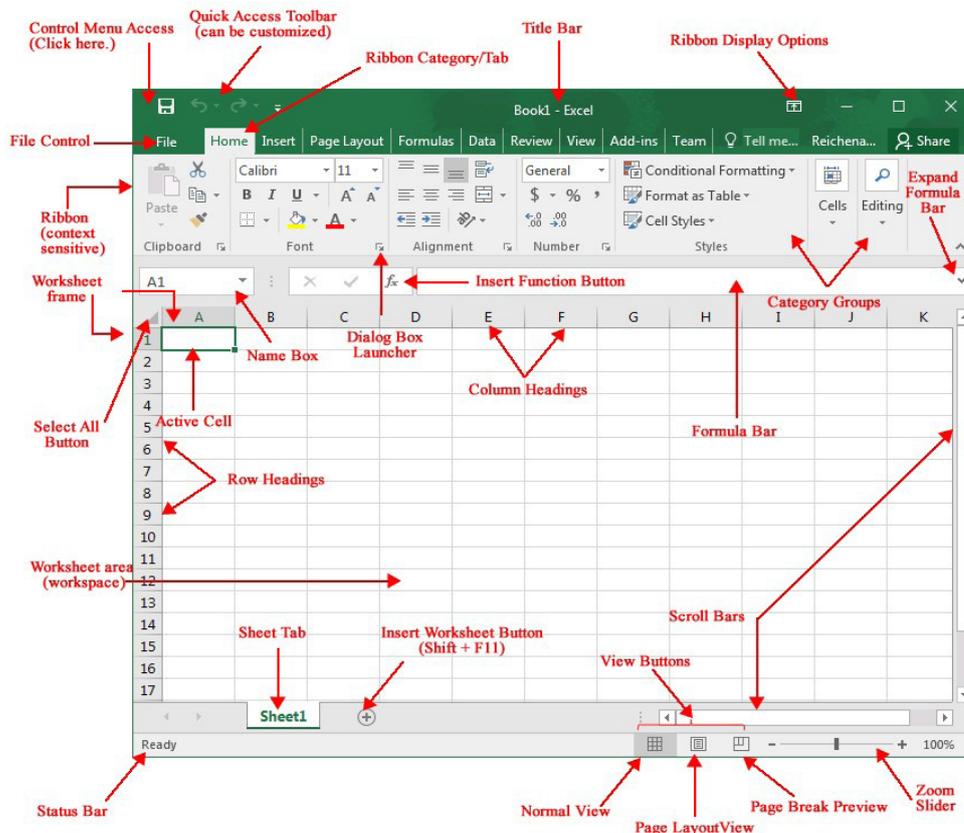
Second method: using search on taskbar



2 Lesson

Interface of Excel 2016

Microsoft
Excel 2016

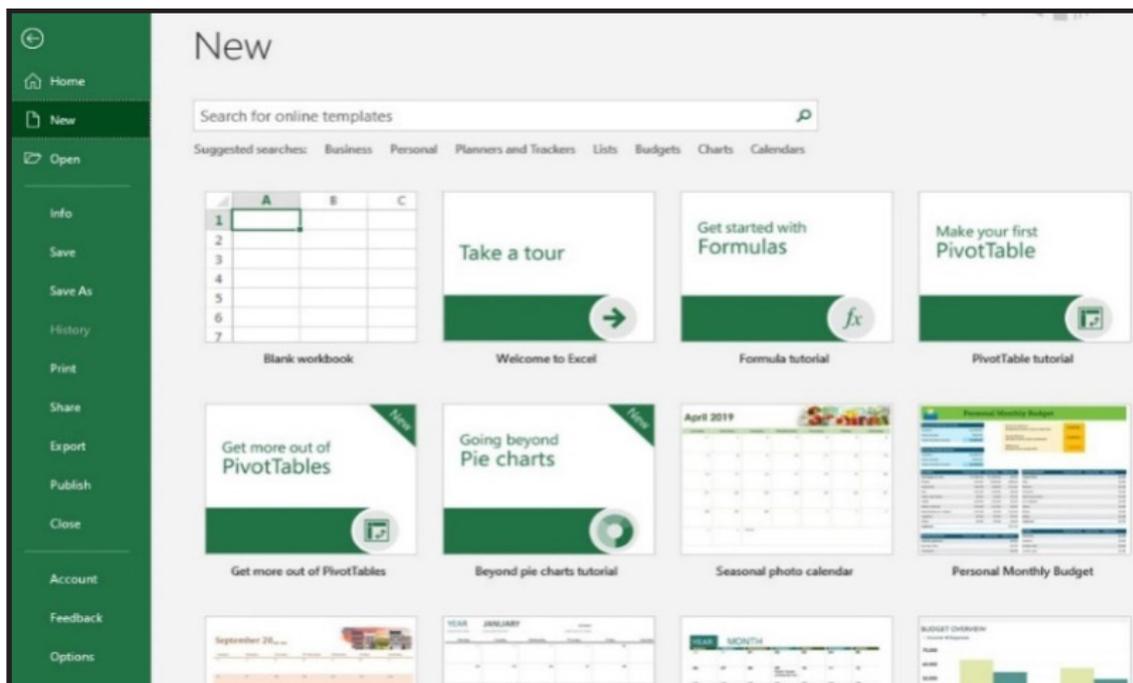


- 1- Quick Access Toolbar: This gives you fast and easy access to the tools you use most often in any given Excel session.
- 2- Title bar: It is the name of the file and the name of the application.
- 3- Formula bar: Displays the number, text, or formula that is in the currently selected cell, and allows you to edit it. It behaves just like a text box.
- 4- Close Button: it is used for closing the application file.
- 5- File Control: is the row of tabs that provide several commands for the file.
- 6- Ribbon , home ,insert , page layout : is the row of tabs and icons at the top of the Excel window that allows you to quickly find, understand and use commands for completing a certain task.
- 7- Name box : Displays the currently selected cell.
- 8- Active cell : is a selected cell in which data is entered when you are typing.
- 9- Columns: Columns run vertically (top to bottom). The total columns are 16384, its range from (A) to (XFD).
- 10-Rows: Rows run horizontally, its range is from (1) to (1048576) rows.
- 11-Scroll bar: Used to view other parts of a worksheet when the entire worksheet cannot fit on the screen.
- 12-Worksheet tabs: consists of many tabs through these tabs we can move among pages.
- 13-View buttons: is a feature that lets you change how the document appears.
- 14-Zoom slider: enables you to zoom in and out.

After opening Excel 2016, we notice that there are some differences between Excel 2016 and other versions; this depends on many updating which matches with today's users.

The most important changes and updates are:

1- Template: A template is a predesigned spreadsheet you can use to create new spreadsheets with the same formatting and predefined formulas.



2- Open other Workbooks , for opening the file, it consists of the following sections :

- a- **Recent** : display recent Excel files you've opened and examples of templates you can use.
- b- **One drive**: When you save a file, you can save it to a folder on a network drive, disc, CD, USB drive, One Drive, or other storage location.
- c- **This PC**: we can save any storing file in computer drive.
- d- **Add a place**: in (office share point) we can record our own account or share it on social web while our computer is connected to the internet line.

Table

In Excel, file is called **workbook**, that means when you want to create a project in excel we should save in workbook

There are many ways for this procedure but here we mention two of them

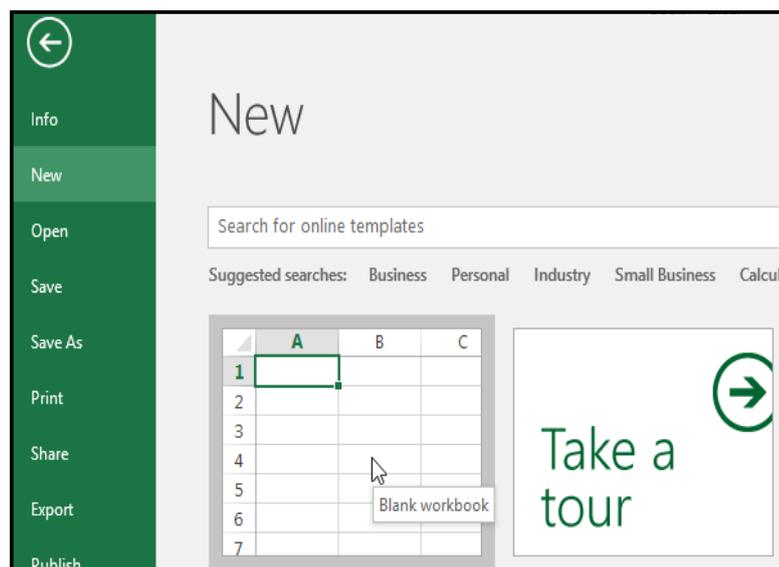
- 1- **First method:** Blank spreadsheet.
- 2- **Second method:** template.

Note:

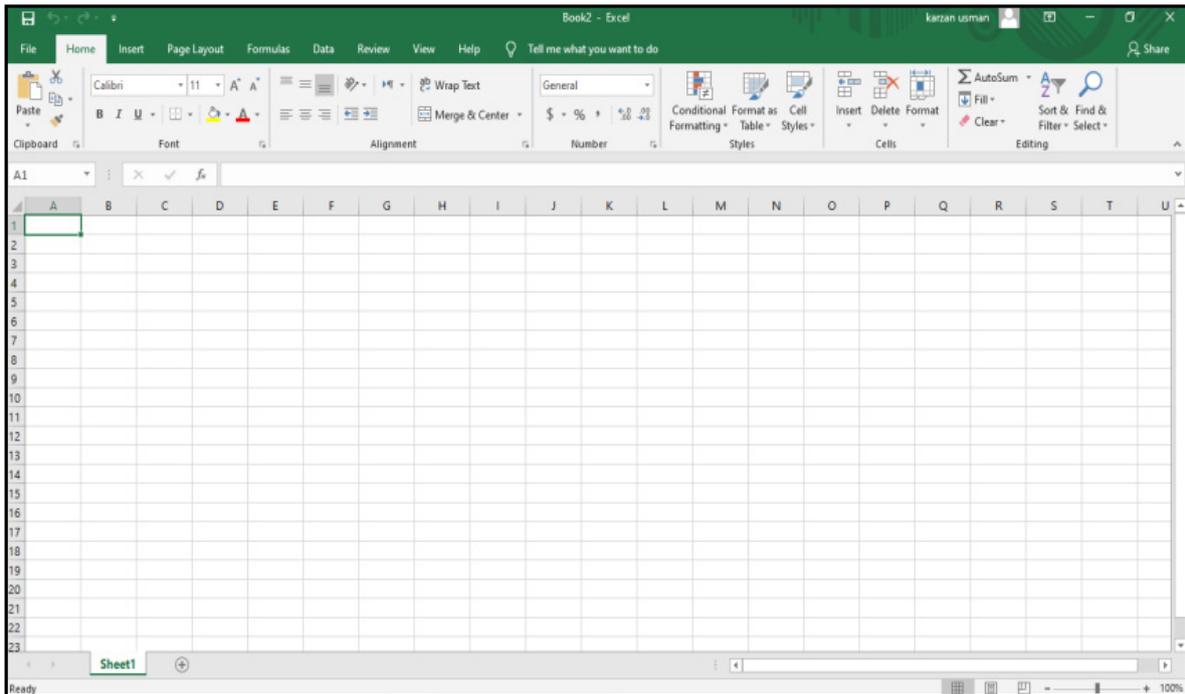
in the first step while creating a table we should select the page by (ctrl + A) and then selecting the font and the size of the text , this step is very important because while creating the table the problems of the font and sizes will be solved .

First way: Blank spreadsheet . Creating a table in a new sheet:

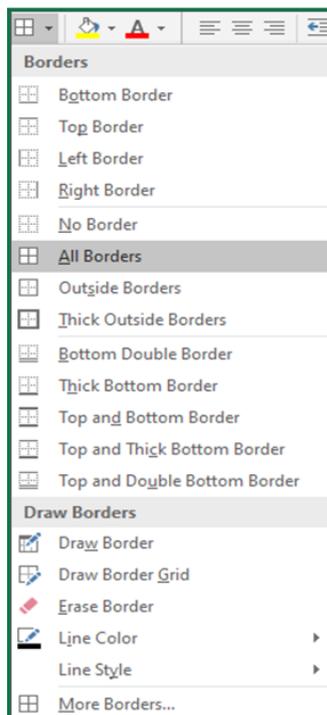
After starting Excel directly this part is going to be opened.



We choose Blank spreadsheet after opening this part this window will open



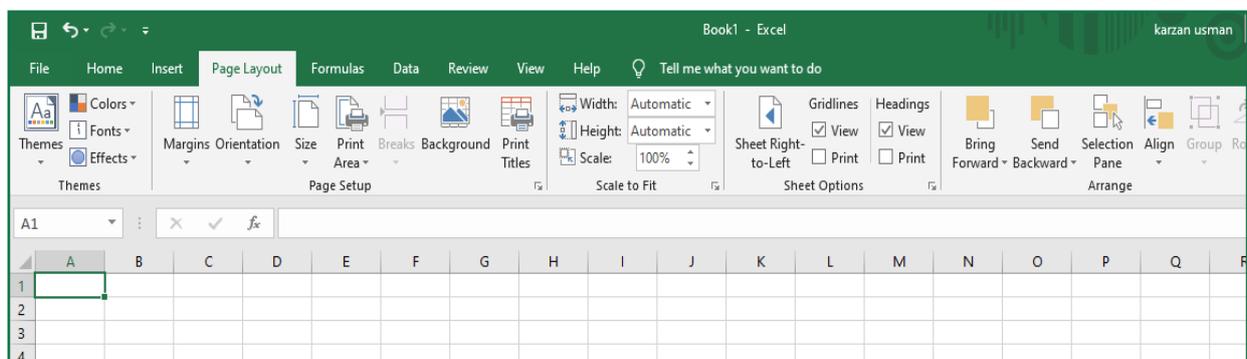
Here we start to create a table and selecting cells , that include information click on Bottom border then we will go to All borders



Tab bars consist of the following:

File Home Insert Page Layout Formulas Data Review View

Page Layout Tab

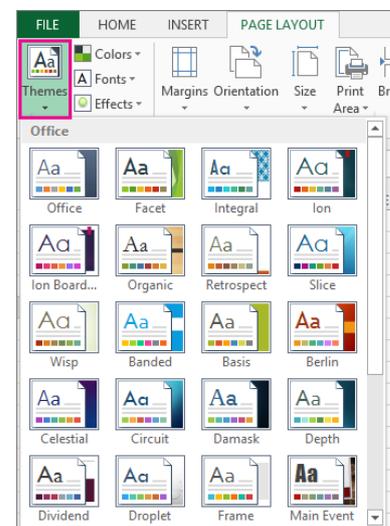


Page Layout Tab:

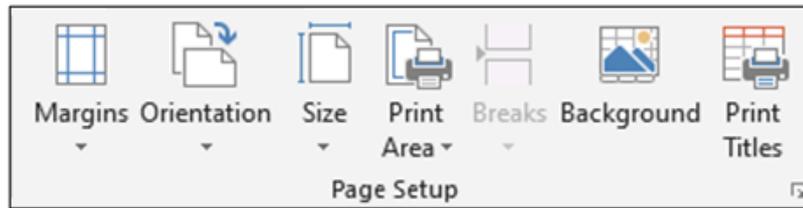
Is a group of a specific commands for arranging, scaling and setting up pages that control how a spreadsheet will appear when printed or sent in PDF for example Orientation, Size, Margins, Print Titles ...They let the users more easily to work. It consists:

1- Themes, includes:

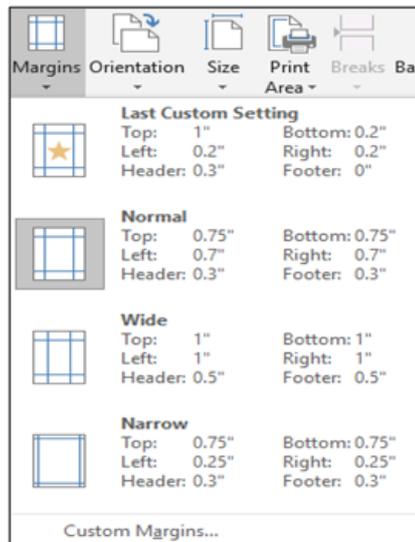
- **Themes:** is a predefined set of colors, fonts, and effects that can be applied to a workbook. You can use document themes to easily format an entire document and give it a fresh, professional look.
- **Colors:** for changing colors
- **Font:** for changing the font style
- **Effects:** for editing effect on lines and cells area



2-Page setup: includes a group of commands as:



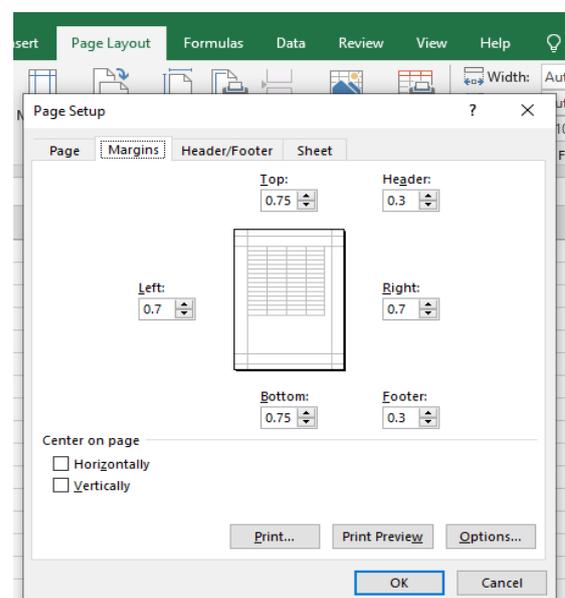
a- Margins: for editing and selecting prepared Margins.



Note:

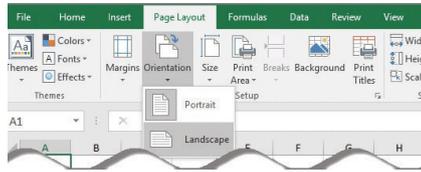
Sometimes the space that places between the text and the end of the page, we can select or make change by Custom Margins, as:

- **Top:** up of the page
- **Bottom:** down of the page
- **Right:** right side of the page
- **Left:** left side of the page
- **Header:** for editing border to the top of the page
- **Footer:** for editing border to bottom of the page



b- Orientation: to change pages position for printing

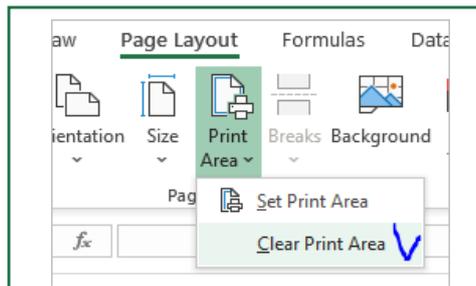
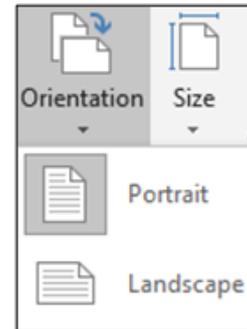
- **Portrait:** A worksheet that is printed vertically uses the Portrait orientation, which is the default setting.
- **Landscape:** A worksheet printed horizontally uses the Landscape orientation.



c- Size: For indicating the size of the paper, for example (A4, A3, A2....)

d- Print Area: You can use the Print options in backstage view to print only a selected portion.

- **Set print area:** to select a portion for printing
- **Clear print area:** to clear a portion for printing



e- Breaks: Where to end the current page and begin next. Background:

f- Background: Select the picture that you want to use for the sheet background.

g- Print title: For printing the title of the table, includes two parts: -

- Rows to repeat at top: For repeating rows in all printing pages.
- Columns to repeat at left: For repeating columns in all printing pages

Example:

We have a table which consists of **numbers of Rows** with many pages; through this section we can view the title on the top of the table in all pages. As following:

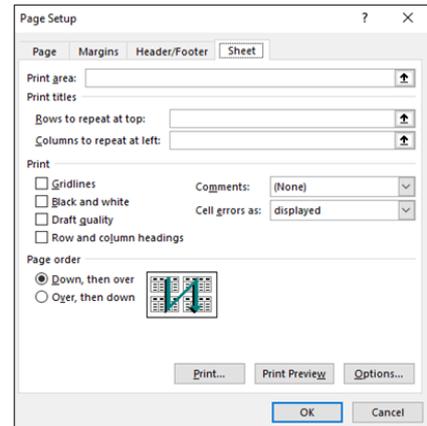
- We create a **table**
- In **Page Layout** we will go to **Page Setup**
- We choose **Print Titles** then we select Sheet
- In **Row to repeat as top**, we will click on icon () then we choose the title of the table

There are some other commands in the same page we can use it while printing it

- **Gridlines**: For hiding and showing display lines while print.
- **Black and white** : for printing a table in black and white
- **Draft quality** : for printing a table in draft
- **Comments** : for viewing notes on cells if it was there

•If there are some tables in one page, through these two sections we can select the sequence of table for printing

- **Over then down** : prints all the rows for the first set of columns then it prints for the next set of columns
- **Down then over** :prints all the rolls horizontally down then over



3- Scale to fit / has all these commands

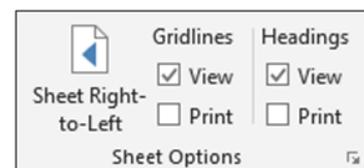
Scale to fit let us make changes in our pages before printing by changing height and the width of the cells in order we can fit more cells in less pages or divide less number of cells on pages in larger sizes

- **Width** : for changing width scale
- **Height** : for changing the cell height
- **Scale** : we can make change on average size of the page , and this command will be active when both (height and width) in automatic position



4- Sheet option: has all these commands

- **Sheet right to left** : for selecting direction of sheet from right to left or oppositely
- **Gridlines** : has two branches



A- **View** : for viewing and removing imagination lines

B- **Print** : for showing and removing imagination lines while printing

- **Heading** : has two branches

A – **View**: for viewing and removing the name of the cells

B – for viewing and removing the name of the cells while printing

5- Arrange : for changing the pictures



We can make many changes on the content of the cells.

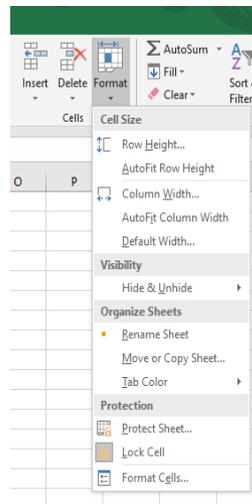
By two methods:

First method:

- A- We choose home tab
- B- In commands cells we choose format
- C- Format cells

Second method:

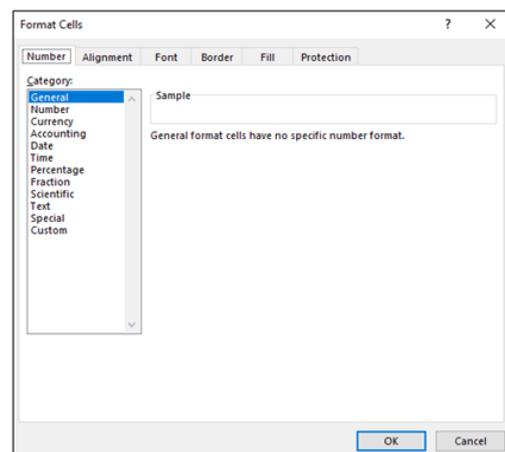
Right click on table and then choose format cells



Format cells contents

First : (number) / it consist of the following:

- 1- **General** : in general it takes all styles of editing numbers
- 2- **Number** :has two parts
 - A- Decimal places: for arranging numbers after comma and approach to.
 - B- Use 1000 separator (,) : for separate number and putting comma between them
- 3- **Currency** : for currency and putting the currency symbol with it
- 4- **Accounting**: This format is also used for monetary values. Currency symbols and decimal points are aligned in this format.
- 5- **Date** : for writing the dates **Example: DD/MM/YYYY**



- 6- **Time** : for writing time as : **HH/MM/SS AM or PM**
 - 7- **Percentage** : for writing number in percentage way with putting the symbol of the percent average
 - 8- **Fraction** : for writing numbers in fraction way
 - 9- **Scientific** : for changing the numbers scientific method (**power**)
 - 10- **Text** : the written numbers and texts are being dealt as (**text**)
- Example:** phone numbers which cannot do accounting procedure .

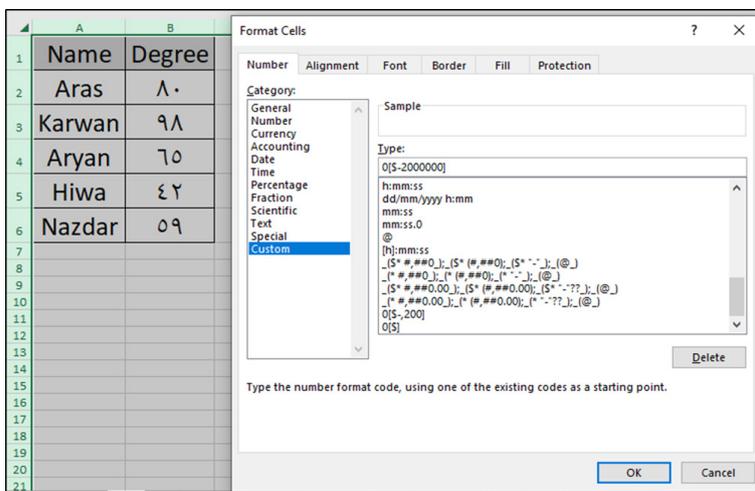
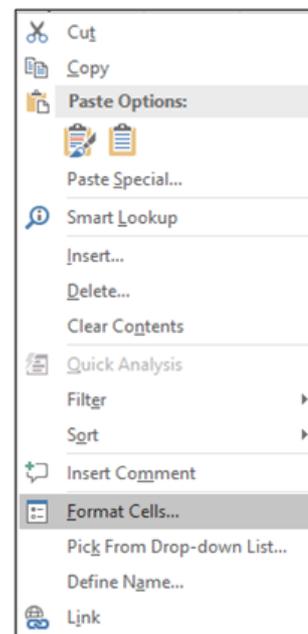
The way of changing the numbers from English into Kurdish or Arabic

Example: we have a table as following, the names in Kurdish and the numbers in English, we want to change the numbers into Kurdish.

- 1- Select all the sheet by (**Ctrl+A**)

Name	Degree
Aras	80
Karwan	98
Aryan	65
Hiwa	42
Nazdar	59

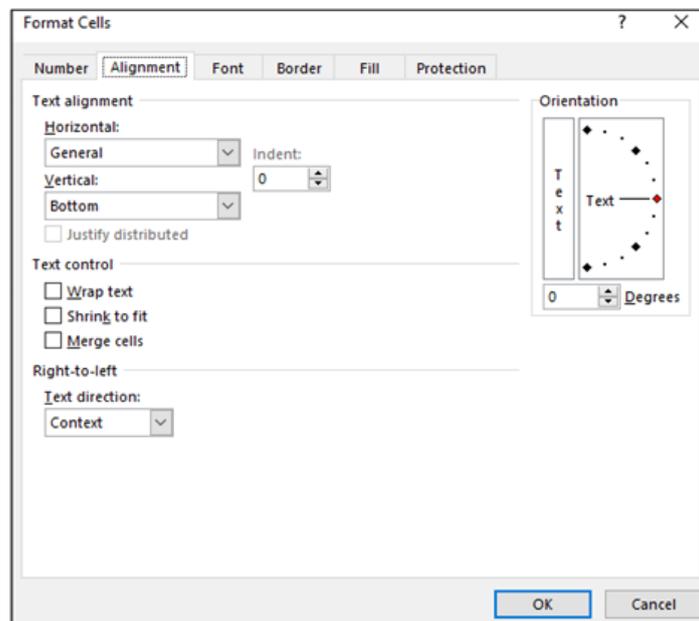
- 2- Right click on the sheet and we will go on (**Format Cells**).
- 3- The box appears which consists of some sections; we click on (**Number**).
- 4- Then we will go to (**Category**) and click on (**custom**).
- 5- After that in space (**Type**) we will write (`0[$-2000000]`)
- 6- Finally (**Ok**)



We see all the numbers change into Kurdish

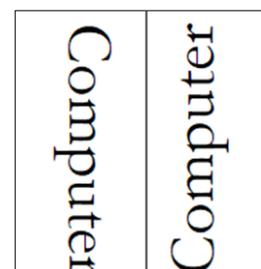
Second: (Alignment) direction:

can use Alignment commands to make changes in a place and text direction in cell.



This section consists of group of commands:

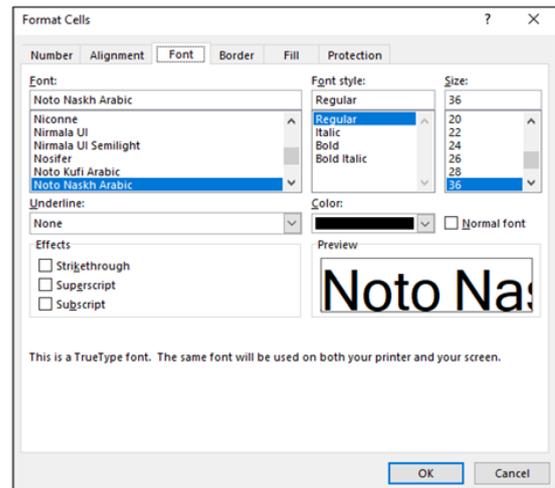
- a- **Text Alignment:** for changing the direction of the text on the cell horizontally (to the right, left or middle) by selecting in (Horizontal) then (OK). For selecting the text place vertically (to the right, left or middle) we select vertical then (OK)
- b- **Text Control:** has three branches:
 - 1- **Wrap Text**
For editing border for cells in order not to move text of a cell to another, changing the text to two lines or more, it means decreasing the height of the cell instead of the width for more writing.
 - 2- **Shrink to fit:** for filling text in cells.
 - 3- **Merge Cells:** for merging two cells or more.
- c- **Right-to-left:** it consists of one part, (Text direction) for changing the direction s of the text.
- d- **Orientation:** for selecting the direction of the text from up to down or down to up or other directions according to the degree. If we want our text in the cell from up to down, therefore in this section makes (Degree) (90) and then (OK) and if the text to up therefore we make (Degree) (-90) then (OK). For Example:



Third : (Font):

Through this section we can make changes on the information (**Data**) for cells in table. It consists of the following parts:

- **Font**: for selecting type of the text
- **Font Style**: for selecting style of the text
- **Size**: for selecting size of the text
- **Color**: for selecting color of the text
- **Effects**: its effectiveness on the text



- 1- While we want our text in horizontal scale and the line through it in the middle, in (Effect) we select (Strikethrough)

Strikethrough

- 2- For writing numbers on a letter, we will use this way:

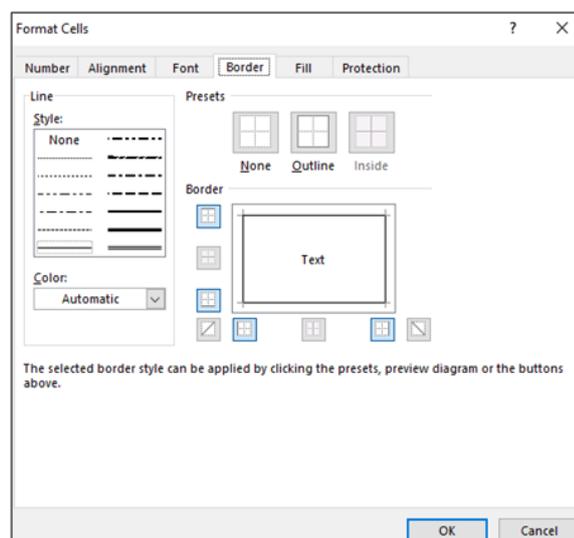
- We will write the number, for example (10)
- In (Effect) section we will select on (Superscript)
- We will write the power, for example(2)
- 10^2

- 3- For (down)symbol on the lower letter in (Effect) as chemical form, water(H₂O), we select (subscript)

Fourth :(Border)

In this section, after we put the border in and out of the table, we will apply those commands by selecting the table that we want in the page.

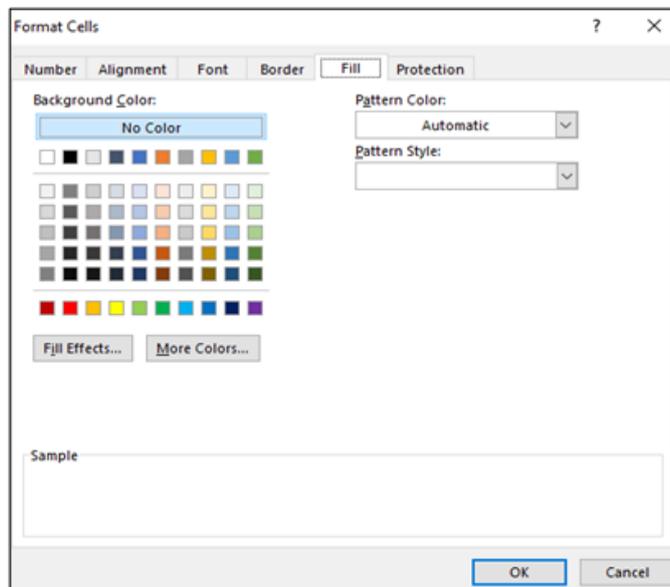
- 1- **Style**: for selecting kind of the style of line of the border.
- 2- **Color**: for selecting the color of line of the border.
- 3- **Outline**: editing outline of the table.
- 4- **Inside**: editing the line inside the table.
- 5- **None**: for removing the lines in and outside.



Fifth : (Fill)

With these commands we can color a cell or a group of cells. It consists of the following parts:

- 1- **Background Color**: for selecting color for back of the cell.
- 2- **Pattern Color**: for selecting of prepared of different color style.
- 3- **Pattern Style**: for selecting prepared different styles.
- 4- **Fill Effect**: for effecting on cells and editing those three options above by different effect and style on the cells.
- 5- **More Colors**: for bringing more colors to the cell.



Sixth: (Protection)

Through these commands we can hide cells or (lock) in order not to see and protect the content.

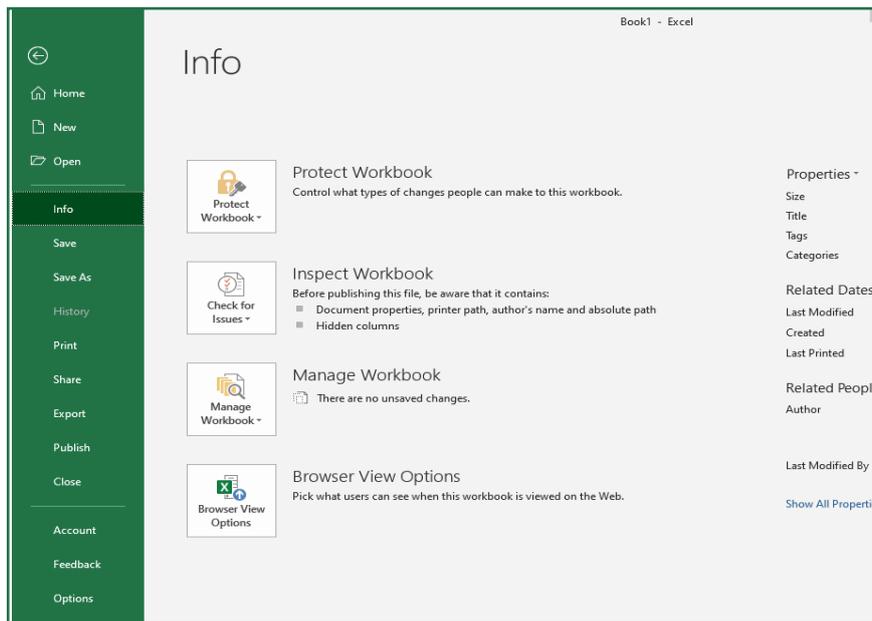


7 Lesson

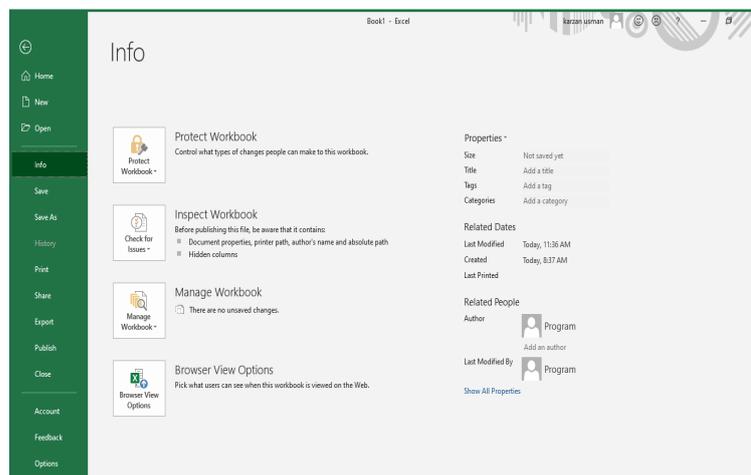
File Tab



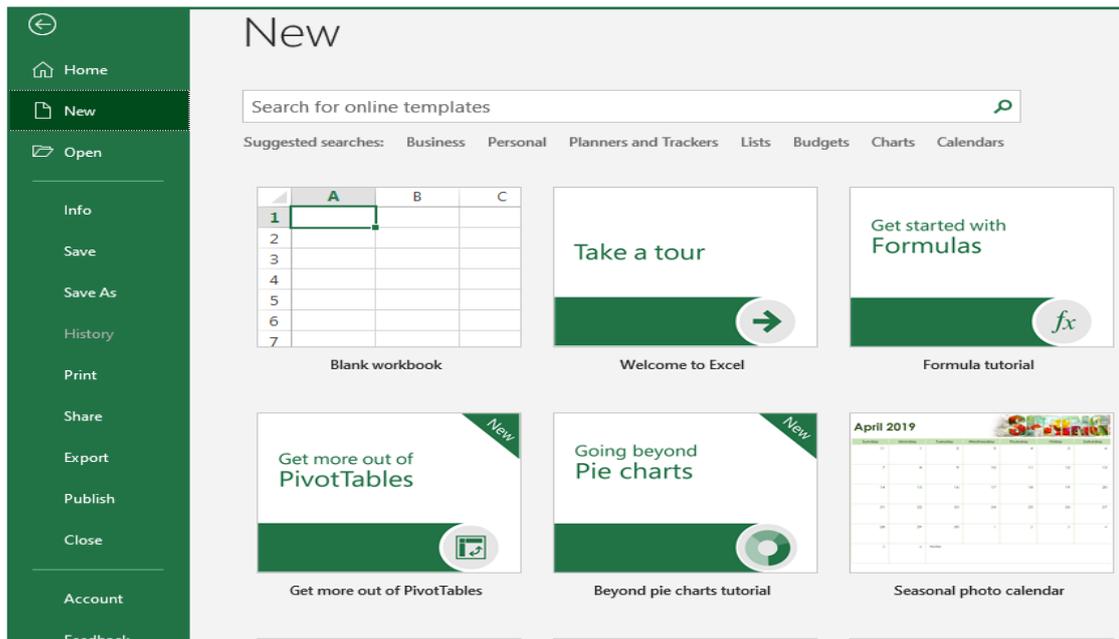
While we click on any tab, we see that all of them are the same tabs of old Microsoft excel version, but it's updated in a new formula, which makes easy for user. Some of them have changes in contents in Excel 2016.



1- Info: consists of a group of information on user and the file which we work on it. For example editing (Password) and the specialist of file in (Title) and the size, time and date of creation of the file even the latest changes in file content in time, the date and the user name.



2- **New**: for creating new file or preparation file (Template) which prepared by Microsoft for users.



3- **Open**: for opening saving file excel.

4- **Save**: for saving the file which has information in a specific name in a place.

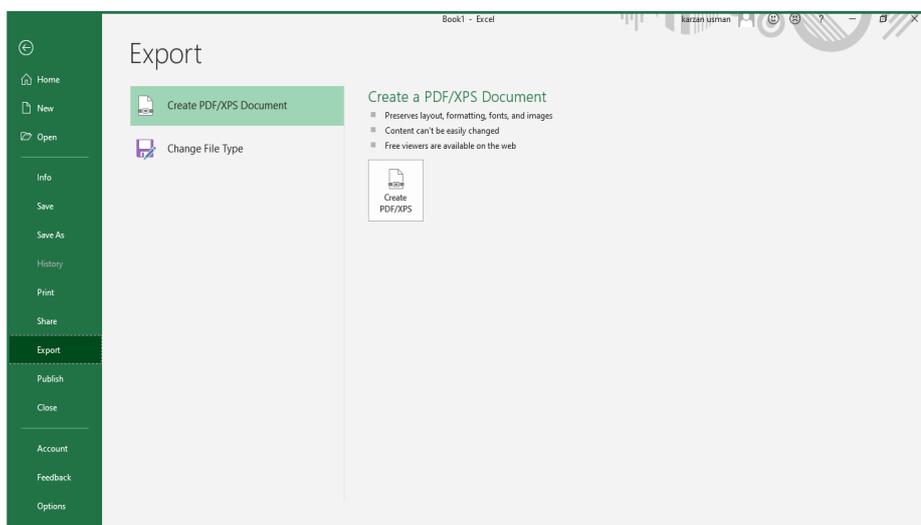
5- **Save As**: for saving same file in other name at other places, or at same place but in different name.

6- **Print**: for printing file and selecting the kind of printer and the way of printing.

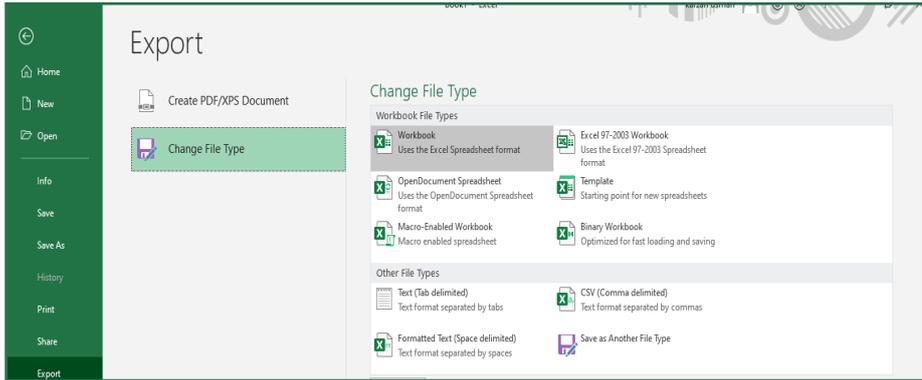
7- **Share**: we can send a file by email to another one, or store them in (Cloud)

8- **Export**: has two parts:

a- **Create PDF/XPS Documents**: for changing to (PDF/XPS)



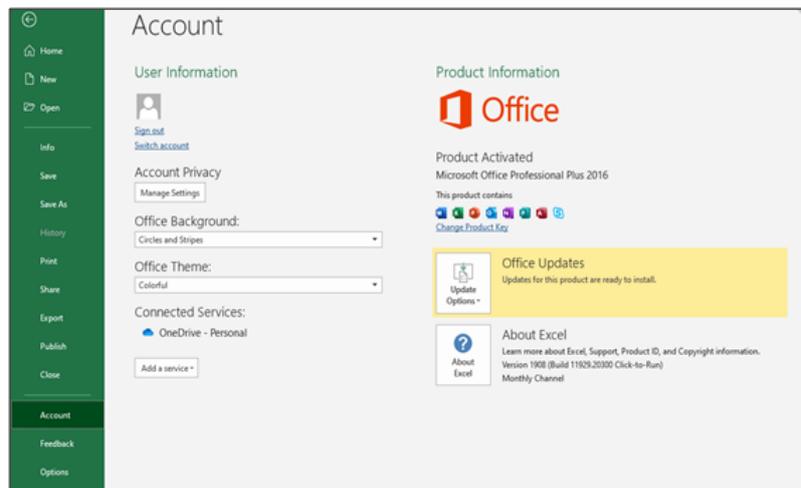
b- **Change File Type:** for changing the type of the file which can read all the versions.



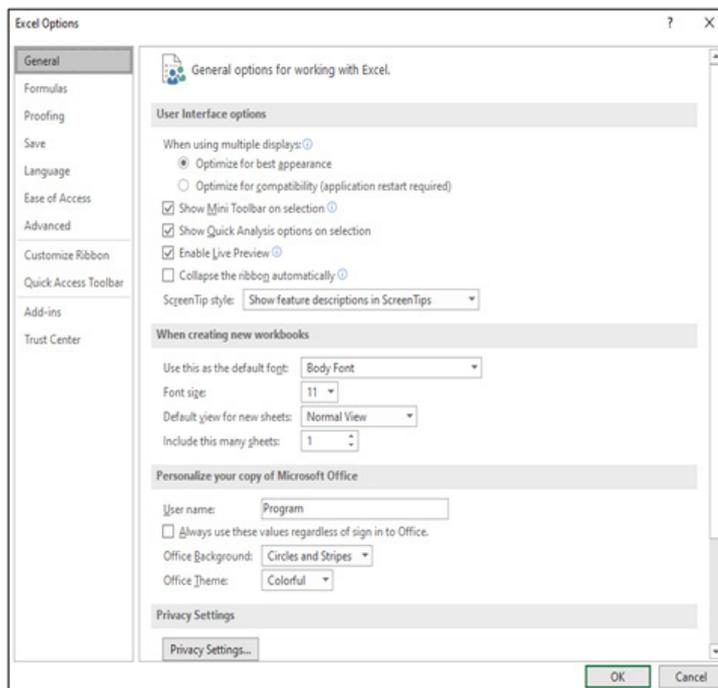
9- **Close:** for closing the opening files.

10- **Account:**

for creating a special account by internet which has many benefits for the users, we can open the file which store in Account in other places and get benefit from it and this on (Account) that we own.



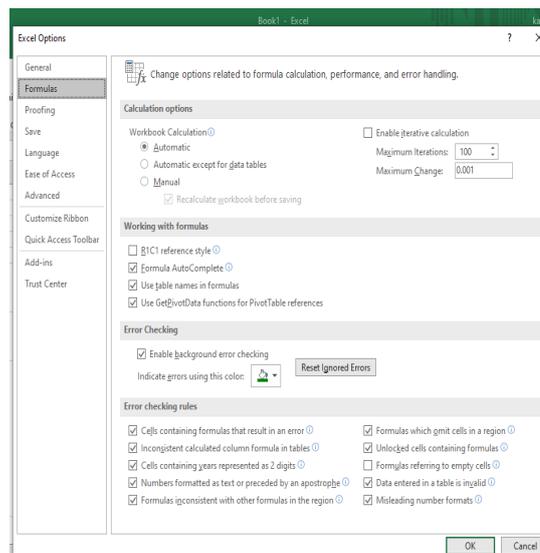
11-**Options:** options consist of the following:



1- General: this command has 4 parts and each part has its specific way:

- **Users Interface Options:** for hiding and showing (Mini Tool Bar& Quick Analysis) and repairing (Live Preview)
- **When creating new Workbooks:** for selecting the type and the size of the font and adding page numbers(Sheet)
- **Personalize your copy of Microsoft office:** for showing user name in two ways.
- **Startup options:** for showing and hiding files and starting screen.

2- Formulas: through this command tab changes have happened in hiding and showing in equation for fitting data and selecting the sums in cells.



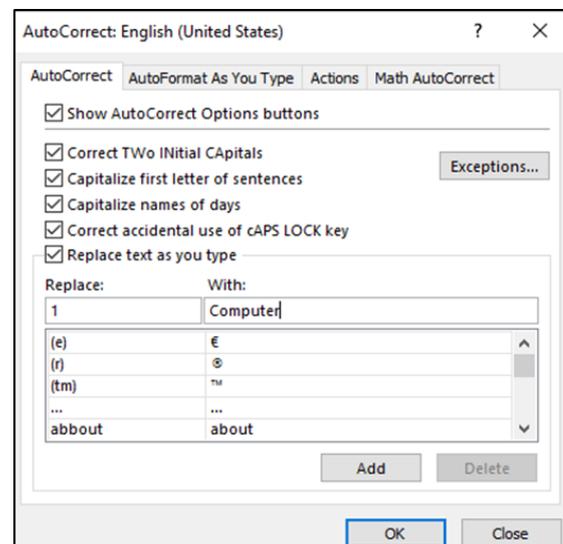
3- Proofing: through this command tab, we can do many facilities. There are three parts as following:

a- Auto Correct Option: it is used for editing a preparation text to any cell that we want in a quick way. It has two sections, (Replace) section, here (a text or a number as click for using) as a definition for the text which we have in section (With)

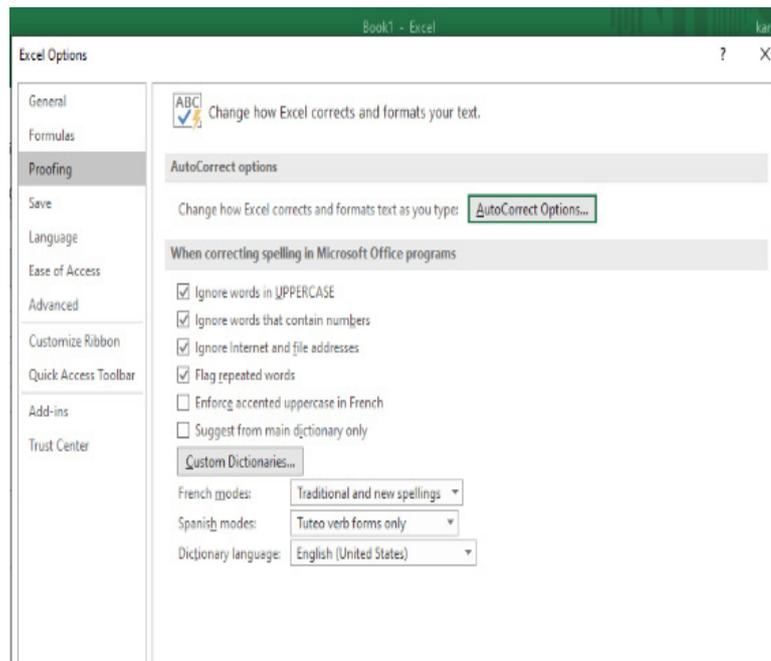
Example:

- Click on (**Auto Correct Option**)
- In (**Replace**) write number (1)
- In space opposite of (**with**)write (**Computer**)
- Then click on (**Add**) and (**OK**)

After arranging both sections (**Replace, With**) while writing text in cells and after writing clue (**Abbreviation**), use (**space**) button directly the text which we want is written. We can get benefit for correcting grammatical and linguistic mistakes.

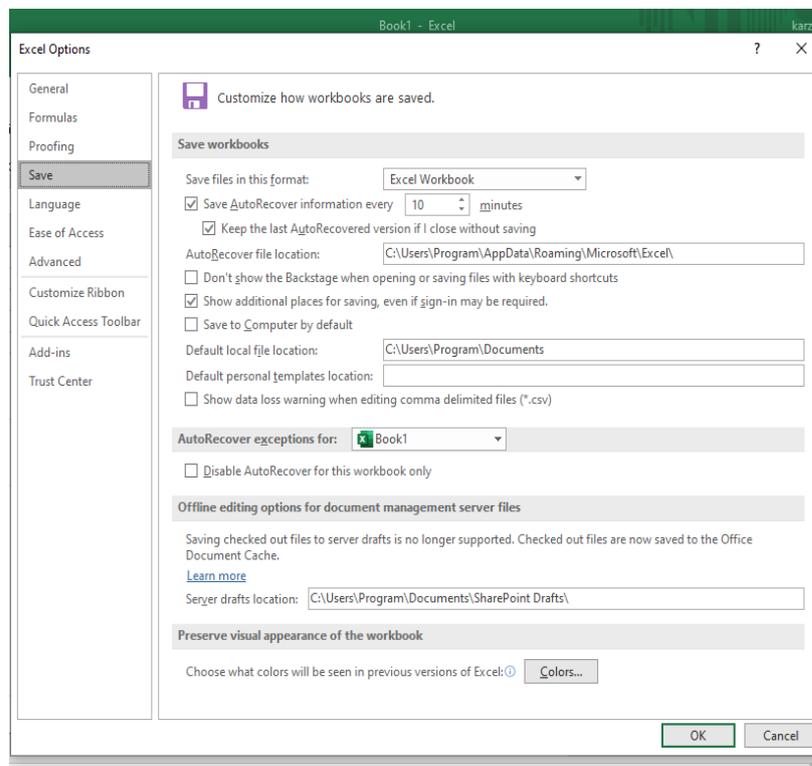


b- **When correcting in Microsoft office program:** this section I specialized for correcting and mistakes.

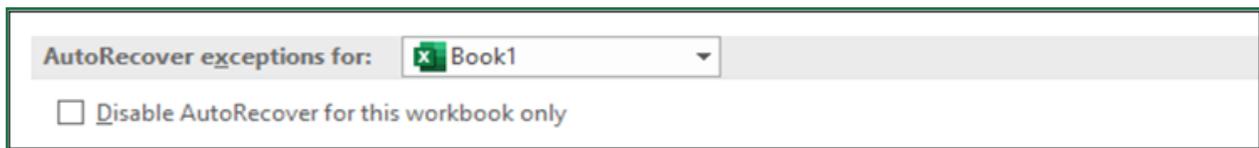


4- **Save:** it consists of the following sections:

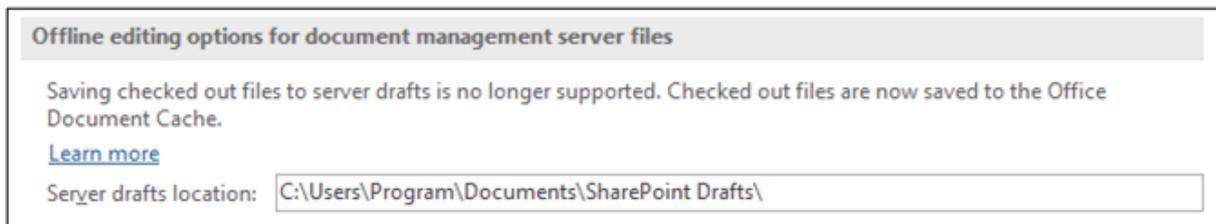
a- **Save workbooks:** for selecting pre file and the name and the place, many times once again a using file is saved.



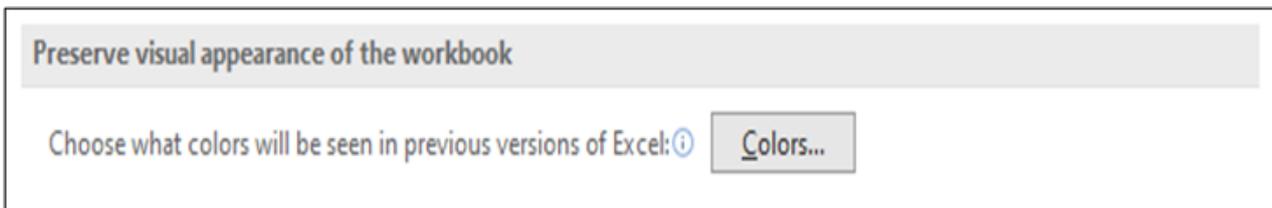
b- **Auto Recover exception for:** for recovering workbook in order to arrange and update.



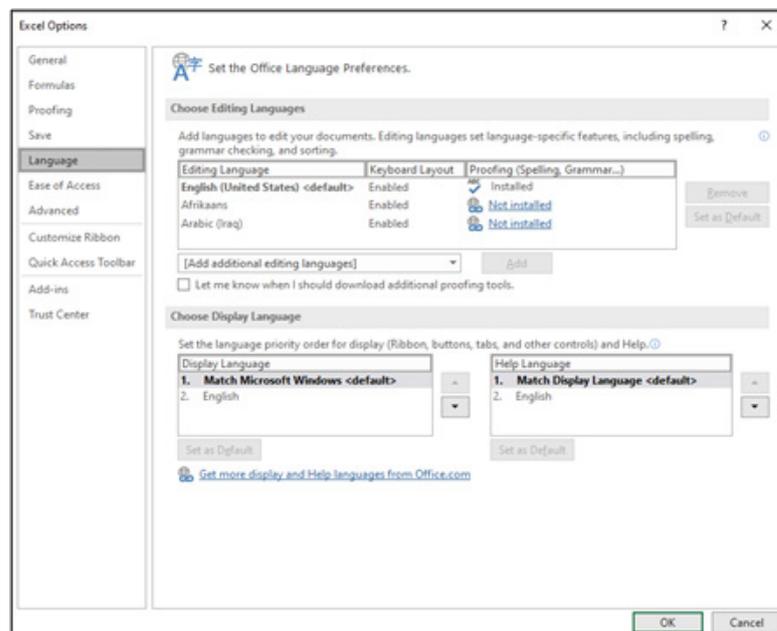
c- **Offline editing for documents managements server files:** specialized for managing files by network without internet.



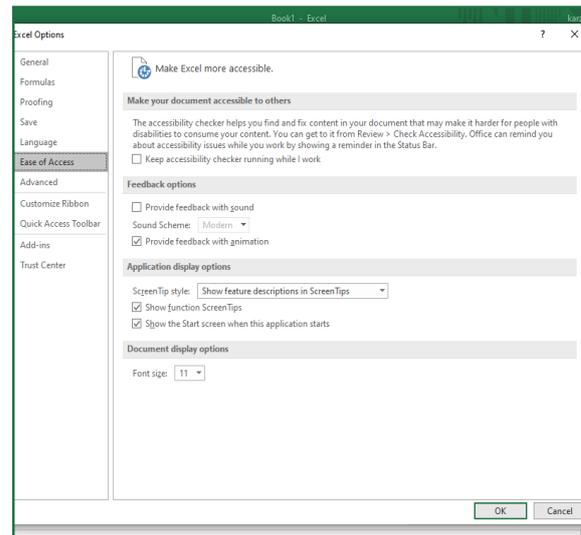
d- **Preserver visual appearance of the workbook:** Is specialized for fitting and arranging work in workbook in less time and easy way.



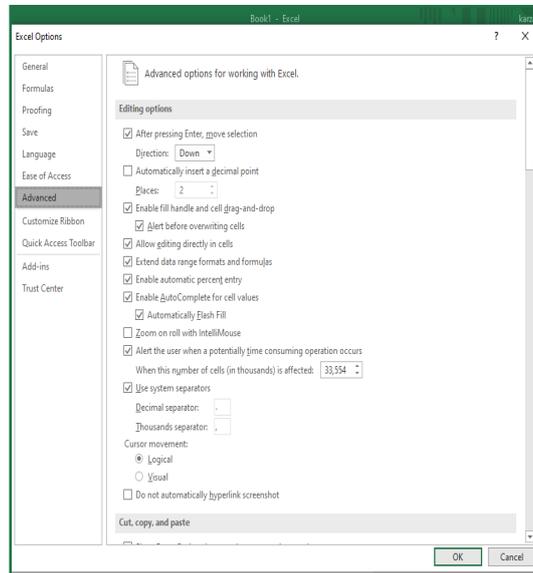
5- **Language:** through this command tab we can change the program to some other languages which has been applied by Microsoft company.



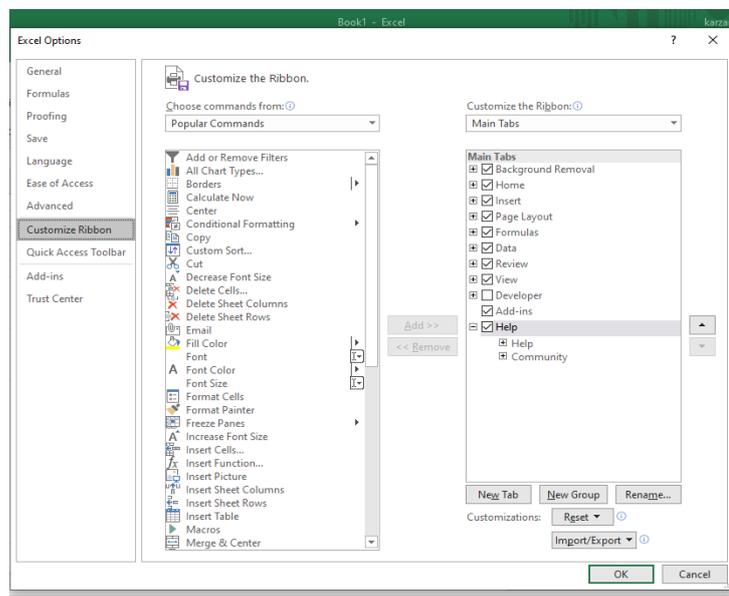
6- **Ease of Access:** through this command tab we can add attention audio or classic as simplification for user.



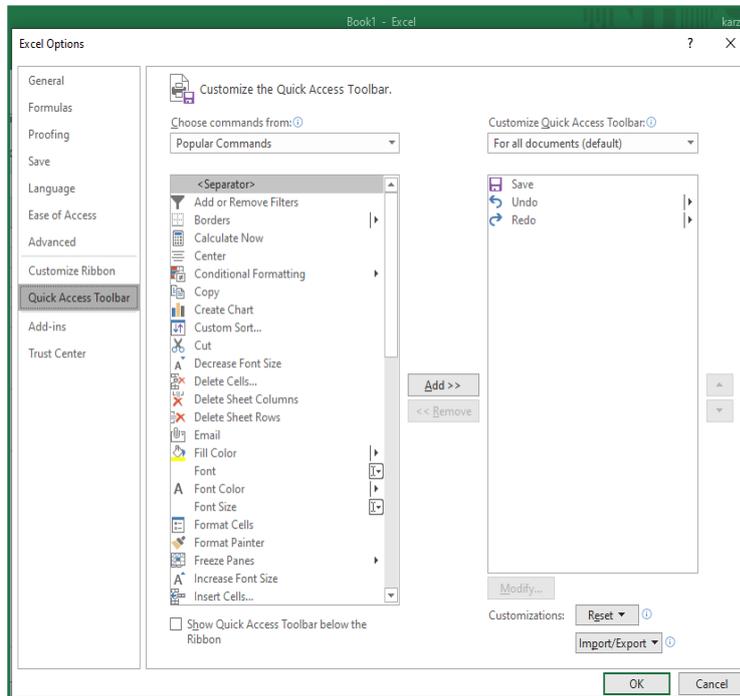
7- **Advanced:** there are some advanced service which the user can use them as needed.



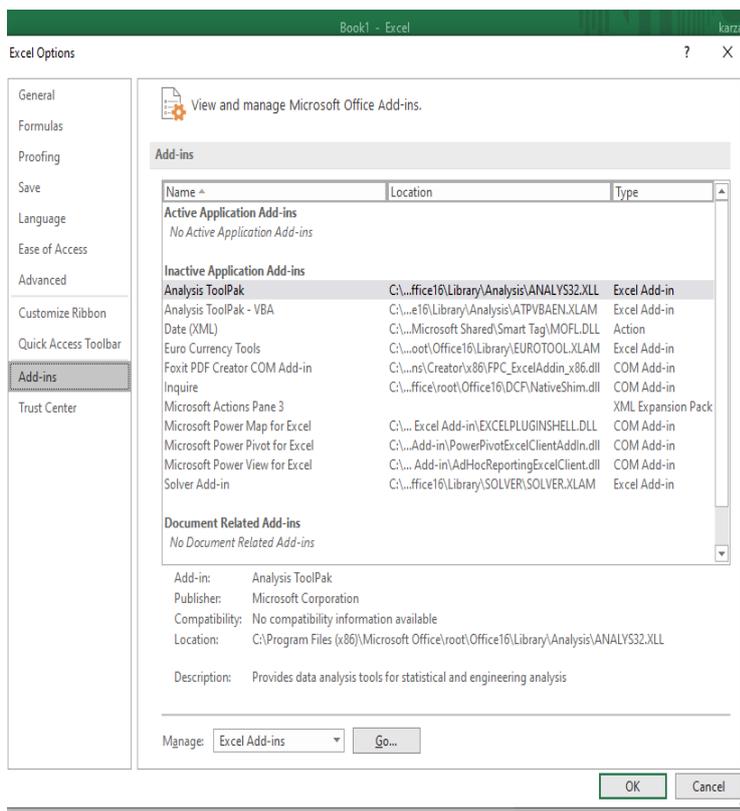
8- **Customize Ribbon:** through this command tab we can make changes for increasing and decreasing icons on surface of program that is by clicking on (Ribbon Display Option).



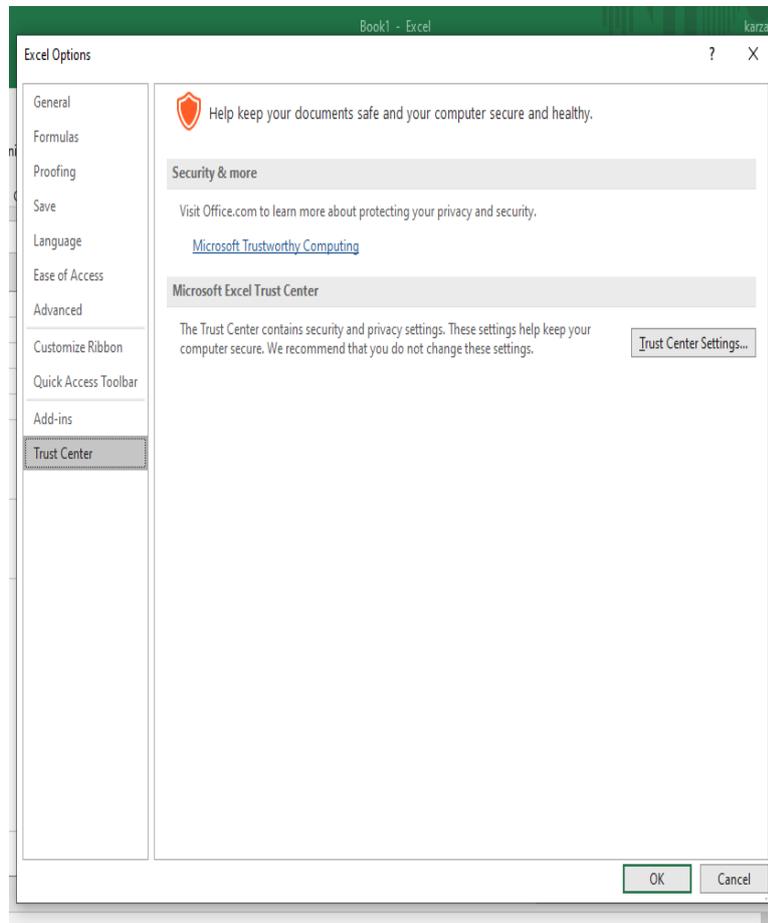
9- **Quick Access Toolbar:** Through this command tab, the user can decrease all the icons speedily on the surface of program.

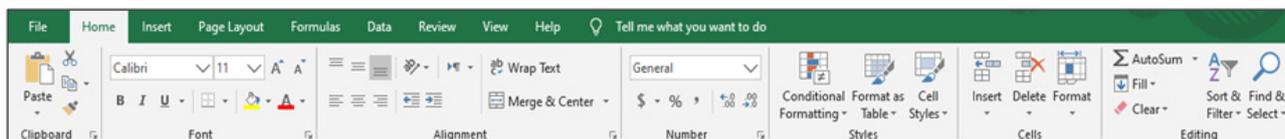


10- **Add-Ins:** Through this tab we can add many commands and duties in excel.



11- **Trust Center**: Through this command tab the user can connect with Microsoft center , and the user's file keep safe while connecting with anyone else.



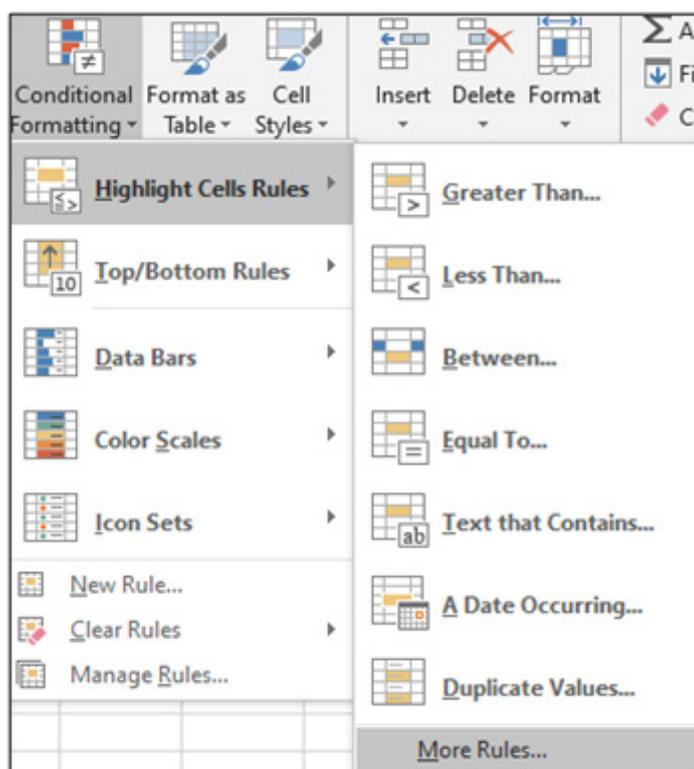


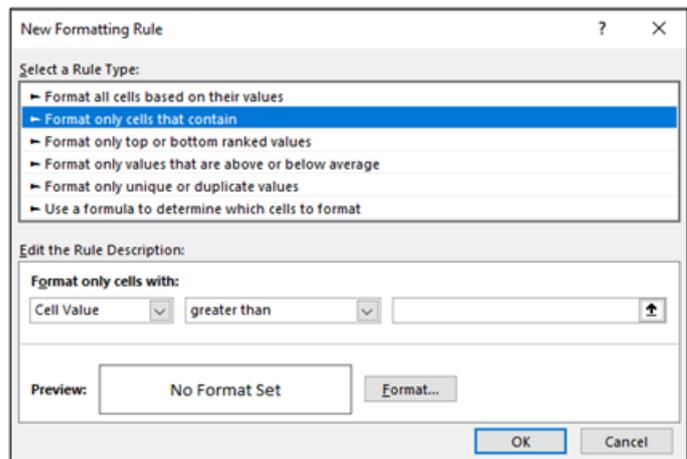
Some of the commands here are related to primary commands, like type of the font, color, size and other effects on text and other sections. This sheet which is specialized to text and tables are as following:

- 1- **Wrap Text**: it is used for editing a border for cells as mentioned in (Format Cells).
- 2- **Merge & Center**: it is used for linking two cells or more and bringing them to the middle of cells.
- 3- **Conditional Formatting**: for selecting a condition or some conditions to cells which has including numbers or text.

For using (Conditional Formatting) after selecting the cell, we use:

Conditional Formatting > Highlight Cells Rules > More Rules





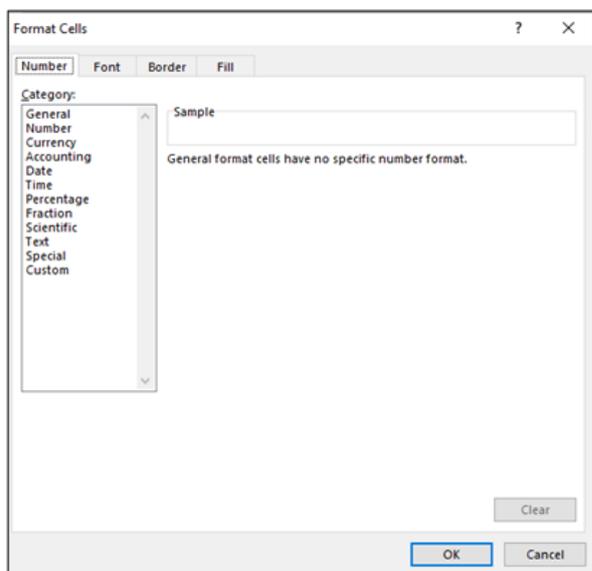
When using Conditional Formatting, Cell rules should be familiarized.

1- between
2- not between
3- equal to
4- not equal to
5- greater than
6- less than
7- greater than or equal
8- less than or equal

After we select comparative degree and write the number, click on (Format) and it appears 4 sections as following:

First: Number

In general this section is mentioned before.



Second: Font

It consists of the following parts:

1- **Underline**: in this section we choose the lines type, if we select a (Single) that means there will be a line under the information, if (Double) there will be two lines under the information, if we want to remove (Single) and (Double) we will choose (None).

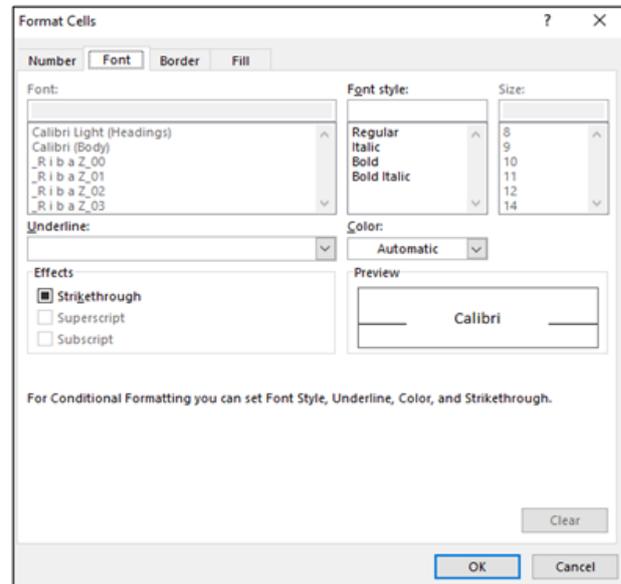
2- **Color**: in this section we will select the kind of the color (Line and Information) in cells.

3- **Effect**: this section 3 effects will create on the text as following:

a- **Strikethrough**: is using for striking lines through information of cells which selected in the table.

b- **Superscript**: for writing power as (10^2)

c- **Subscript**: for writing information in a small style as (CO_2)



4- **Font Style**: is specialized for the style of the font, it consists of 4 parts:

a- **Regular**: a normal style.

b- **Italic**: italic style.

c- **Bold**: a bold style.

d- **Bold Italic**: a both bold and italic style.

After we select any part of those above parts we click on (OK).

Example:

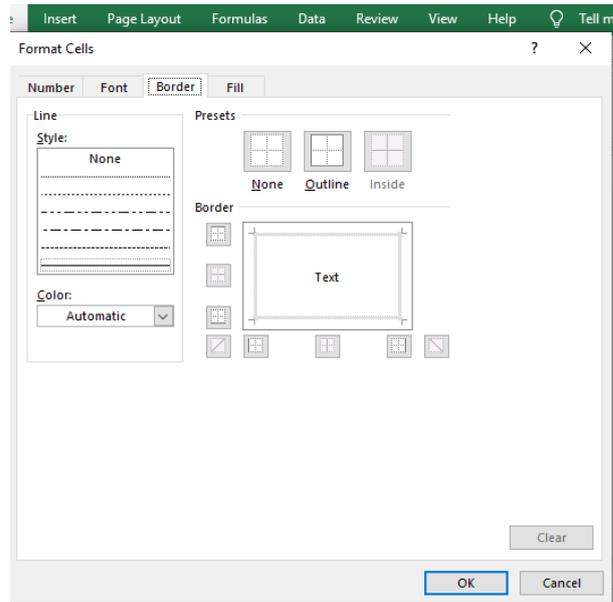
we have a group of students; we want to write the degrees which less than 50 in red color and underlined in red.

Solution: we use (Conditional Formatting) way.

Number	Name	Marks
1	Ako	98
2	Shilan	89
3	Sara	<u>39</u>
4	Dana	87
5	Zana	<u>42</u>

Third: Border

Through this section we can put a border for selecting cell as we want. It consists of:

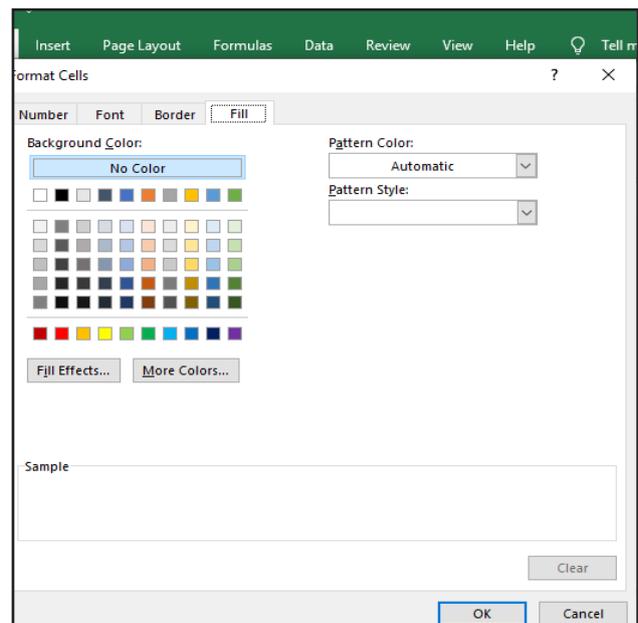


- 1- **Style**: for choosing the type of the line to create a border.
- 2- **Outline**: for creating the outline to cell.
- 3- **None**: for removing the outline.
- 4- **Color**: for choosing a color to the outline.
- 5- **Inside**: in (Conditional Formatting) this option is not active, because putting the condition is on the content of the cell, and the cell has outline only.

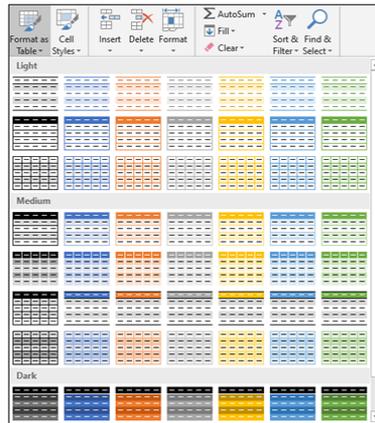
Fourth: Fill

It consists of the following parts:

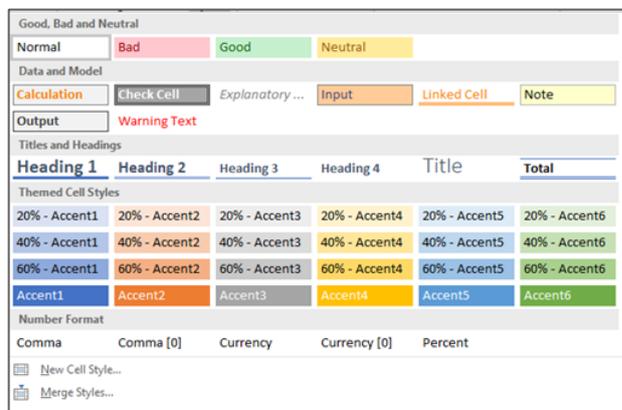
- 1- **Background Color**: for selecting color of background of the cell.
- 2- **Pattern Color**: for selecting different color styles pattern.
- 3- **Pattern Style**: for selecting different styles pattern.
- 4- **Fill effects**: for editing the color effect in cell's background
- 5- **More Colors**: for bringing more colors to the cell.



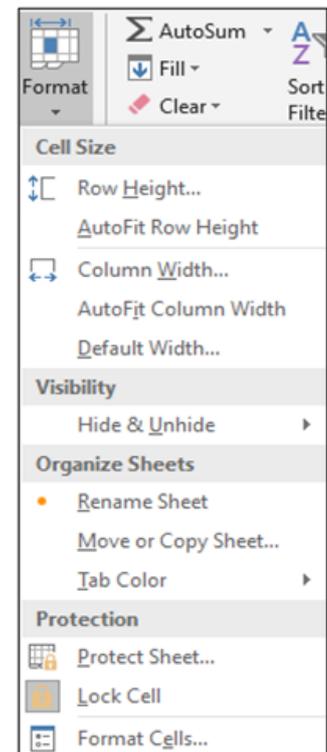
4-Format as Table: for editing different designs to the table.



5-Cell Style: through this section we can change the style of the cell.

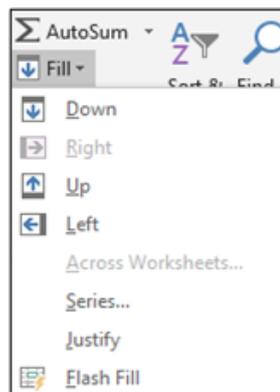


- 6- **Insert:** is used for adding (Rows, Columns, Cells, Sheets)
- 7- **Delete:** is used for deleting (Rows, Columns, Cells, Sheets)
- 8- **Format:** it consists of:
 - **Row Height:** for selecting the height of (Row)
 - **Auto fit Row Height:** for filling the height of Row automatically.
 - **Column Width:** for selecting and knowing the width of (Column).
 - **Auto fit Column Width:** for filling the width of (Column) automatically.
 - **Default Width:** for returning the width of (Column) into first situation means before making changes.
 - **Hide& Unhide:** for hiding and showing sheets.
 - **Rename Sheet:** for changing the name of sheets.
 - **Move or Copy Sheet:** for moving and copying the sheet.
 - **Protect Sheet:** for setting password to sheet.
 - **Lock Cell:** for locking the cell.
 - **Format Cell:** this section is mentioned before.

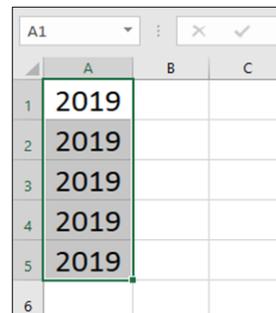
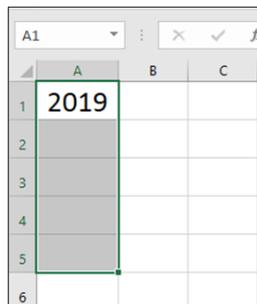


9- **AutoSum**: this section is mentioned in (Formula).

10- **Fill**: this section is used for filling selecting cells, it consists of:



➤ **Down**: for filling the down cells as the first up cell



➤ **Right**: using for filling the right cells as the first cell on the left.

➤ **Up**: using for filling up cells as the first down cell.

➤ **Left**: using for filling the left cell as the first on the right.

➤ **Series**: for filling cells and choosing the type of filling. It consists of:

- **Rows**: for filling the Rows
- **Columns**: for filling Columns
- **Liner**: for filling as lines
- **Growth**: for filling as times
- **Date**: for filling the date.
- **Auto Fill**: for filling as automatically.
- **Day**: for arranging the days of the month
- **Weekday**: for arranging as week
- **Month**: for editing the month
- **Year**: for editing the year in a sequent way.
- **Trend**: for locking (Date, Auto Fill, Day, Weekday, Month, Year.....)

➤ **Justify**: using for justifying the text of some cells in one cell.

11- **Clear**: for deleting the selected section, it consists of:

- **Clear All**: deleting text and all commands which had done by (Format Cell) on the table.
- **Clear Format**: deleting all commands which had done by (Format Cells) on the table.

- **Contents Clear:** deleting the contents of cells which selected before or deleting the content of table.
- **Clear Comments:** deleting the comments of cells if there were.
- **Clear Hyperlinks:** deleting links on cells if there were.

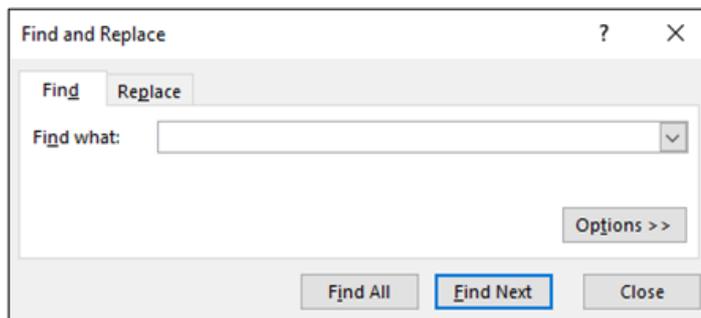
12- Sort & Filter: for arranging and separating information, as following:

- **Sort A to Z:** for arranging names from A to Z, and arranging numbers from smallest to biggest.
- **Sort Z to A:** for arranging names from Z to A and arranging numbers from biggest to smallest.
- **Custom Sort:** for selecting kind of arrangement according to line content and columns in the table.
- **Filter:** for separating the information that we want in the table according to the kind of information in column and the conditions which are setting on the column.

13- Find & Replace: for finding the information in the table , as:

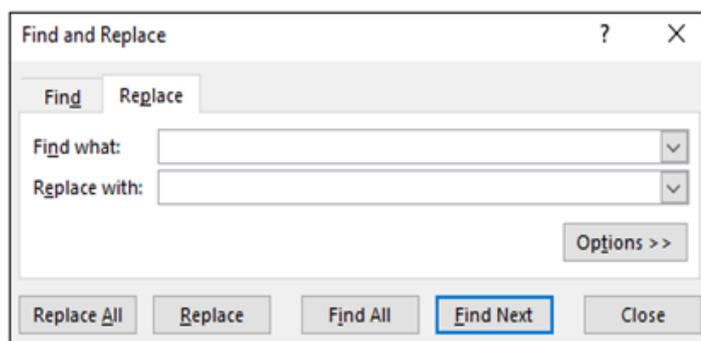
Find: for searching about text, as:

- **Find Next:** for searching about text in a single way.
- **Find All:** for searching about text in a group way.

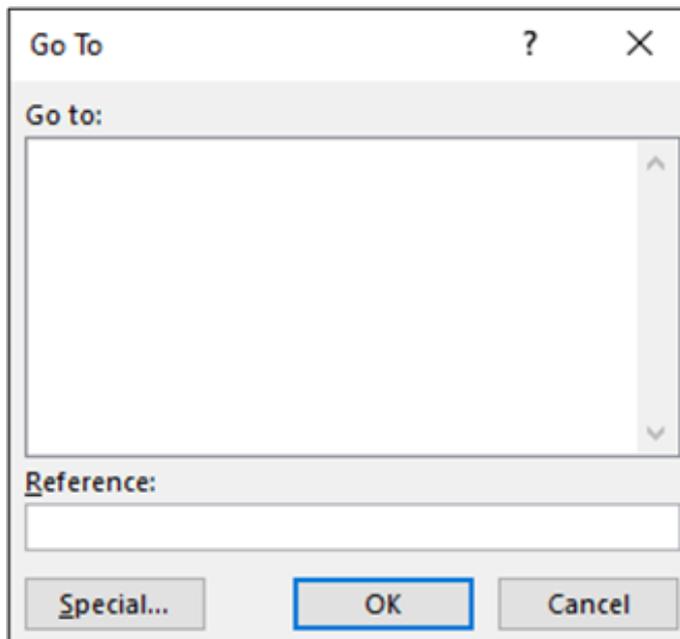


Replace: for replacing a word by another word.

- **Replace:** for replacing one word with another.
- **Replace All:** for replacing all words with one word.



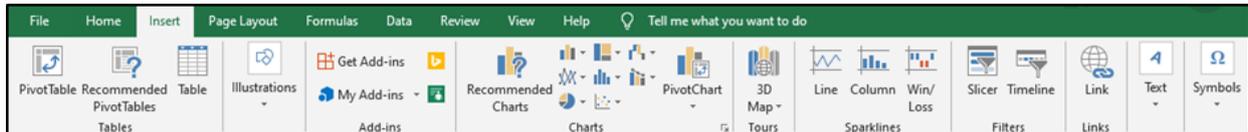
Go To: for linking to the selecting cell by writing name of the page and the selecting cell.



9 Lesson

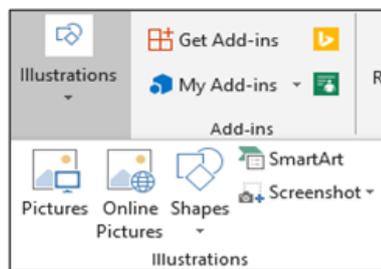
Insert Tab

This list is for adding some sections according to the selected icons.



1- **Table**: for creating a table.

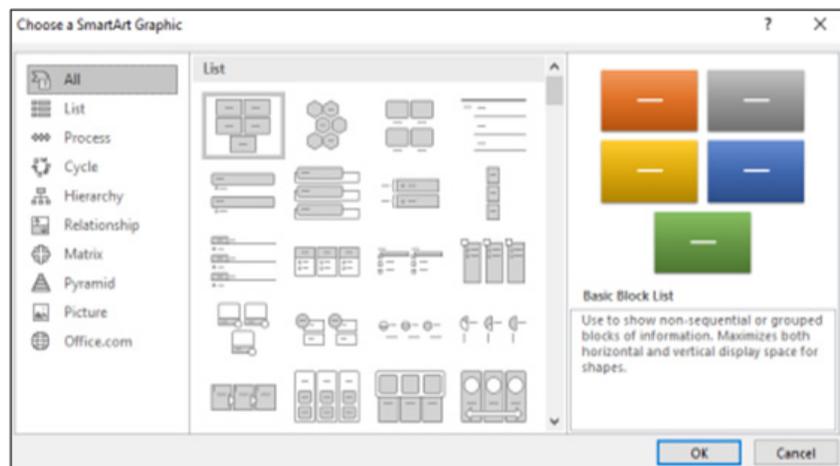
2- **Illustrations**: consists of:



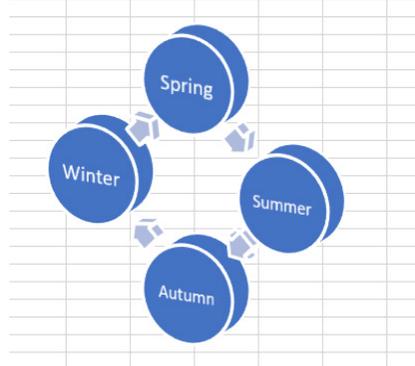
- **Pictures**: for putting pictures in excel and brings the storing pictures into excel.
- **Online Pictures**: for bringing picture from internet.
- **Shapes**: for bringing different geometrical types, that we can change size, color and style.
- **Smart Art**: for classification and creating a management Pyramids which appears in many 3D groups according to the kind of the work.

Each section has many styles; we can as we wanted to fit the text. For opening (Choose a SmartArt Graphic) in (Insert) we go to (Illustrations) then we will go to icon (It consists of:

- 1- All
- 2- List
- 3- Process
- 4- Cycle
- 5- Hierarch
- 6- Relationship
- 7- Matrix
- 8- Pyramid
- 9- Picture
- 10-Office.com



Here we can choose a style in (**SmartArt Graphic**), for example:



- **Screenshot**: for taking the picture of the screen
- 3- **Chart**: There are two types of charts in excel, table (which mentioned before), and chart which is a graphical representation of numeric data in a worksheet.

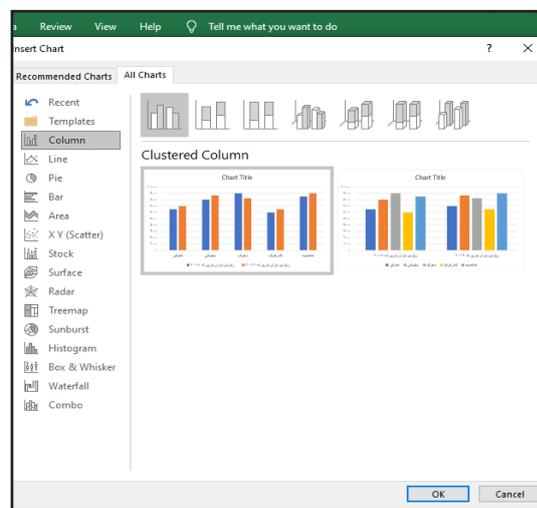
Chart : is important because it illustrates and simplifies to understanding the information for the users and readers.

Types of Charts:

- 1- Column
- 2- Line
- 3- Pie
- 4- Paw
- 5- Area

For creating a chart for a table, we should:

- 1- Select a table or a part of table
- 2- Click on Insert
- 3- In chart, there are all types of charts, click on one kind of them
- 4- By click on the right side of the chart, we can make changes in (style, size, location, title....)



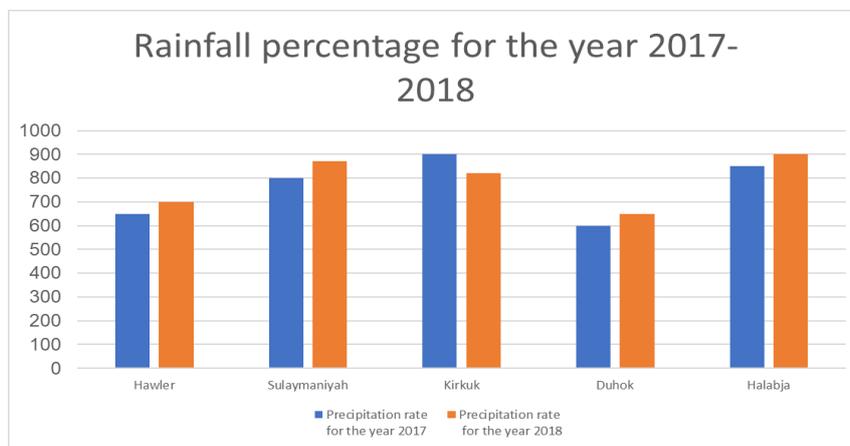
Example:

Create a chart for raining average in the cities of Kurdistan Region in 2017-2018.

Steps for creating chart:

- Creating a table
- Selecting a table or part of the table
- Click on Insert
- Click on one of the kinds which fits to the information, each one of those kinds has many styles that we can choose them.
- Every change which happened in the table, same thing happens in the chart without going to the chart.

City name	Precipitation rate for the year 2017	Precipitation rate for the year 2018
Hawler	650	700
Sulaymaniyah	800	870
Kirkuk	900	820
Duhok	600	650
Halabja	850	900



4-Sparklines: instead of chart we can use Sparkline for data because it occupies smaller place and can be placed in a cell with big numbers of workbook.

Example:

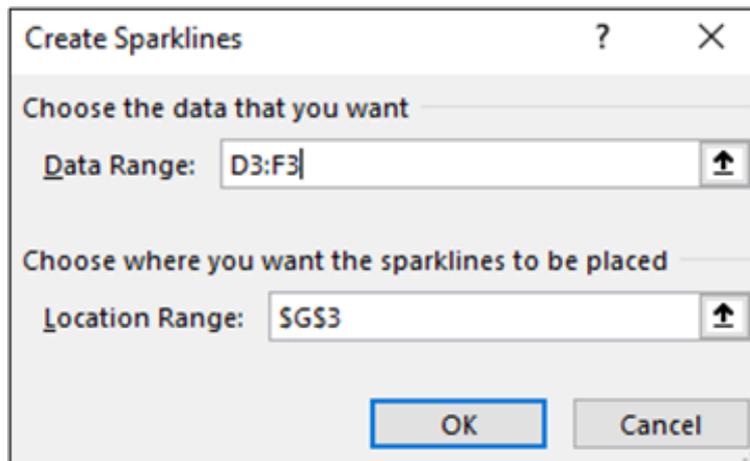
We want to create a Sparkline for average of raining in the cities of Kurdistan Region in 2016, 2017, 2018. We should select the cells that we want to create a Sparkline, as:

City name	Precipitation rate for the year 2016	Precipitation rate for the year 2017	Precipitation rate for the year 2018	Sparkline
Hawler	600	650	700	
Sulaymaniyah	750	800	870	
Kirkuk	950	900	820	
Duhok	700	600	650	
Halabja	850	850	900	

Click on Insert, and select one of the Sparkline styles, which are three:



After choosing this dialogue a box will be opened and writes the name of the cells which we want to create them Sparkline, the cells that have Sparkline should be as the following:



We can see the result in a selecting cell, and then by drawing and pressing we will move to other cells below for adding Sparkline to the rest cells in the table.

City name	Precipitation rate for the year 2016	Precipitation rate for the year 2017	Precipitation rate for the year 2018	Sparkline
Hawler	600	650	700	
Sulaymaniyah	750	800	870	
Kirkuk	950	900	820	
Duhok	700	600	650	
Halabja	850	850	900	

If we create a chart for above table, we note that it occupies bigger place in the page, so this is the difference between chart and Sparkline.

Note: When we put Sparkline for the table, Sparkline tools/design will add.



5- Link:



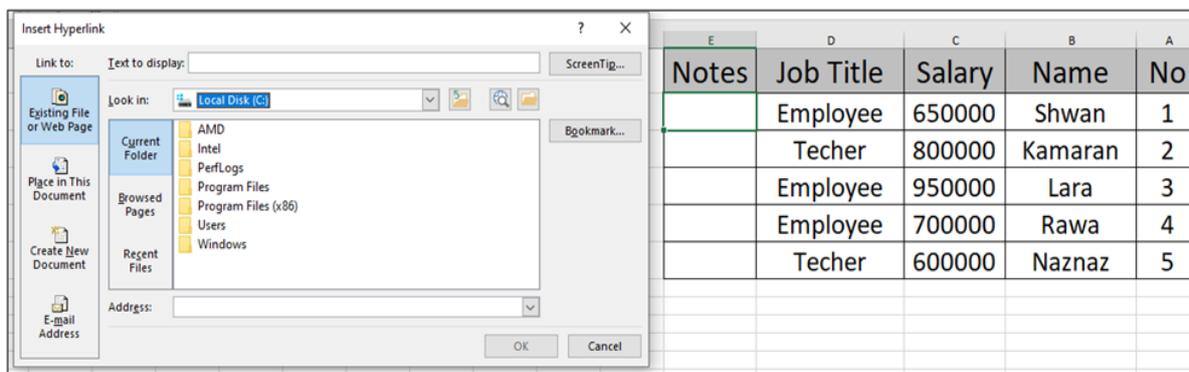
It is a connect between a file with a cell in excel file, or link a file with a cell in excel file.

Sometimes in a cell excel we cannot place a data , picture or any other subjects , for this purpose we should benefit from Hyperlink.

Steps for creating Hyperlink:

To create a link between a selected cell and a file, we apply the following steps:

- 1- Create a wanted file for information which has no place in the cell
- 2- Click on the cell which the link has created for.
- 3- In Insert, click on Hyperlink
- 4- A box appears, in Address section, select the wanted file.
- 5- In the section “Text to display” a name or a number is set for the link.
- 6- Click on Ok

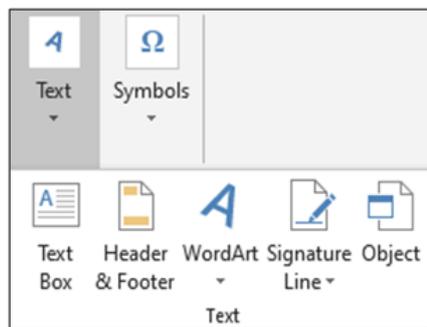


6-Header & Footer:

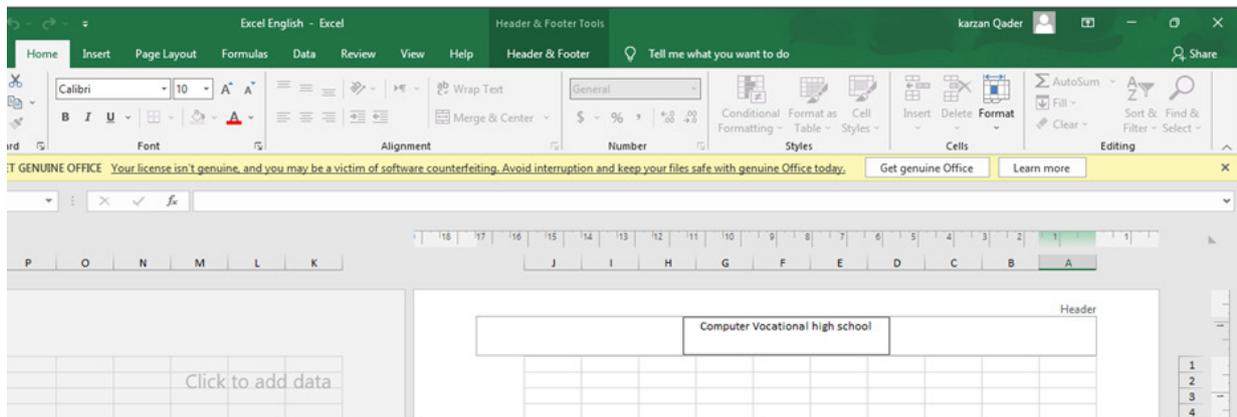
Here we can add any text, picture, time and date for up and down of the page in order to appear while printing.

Note: Header & Footer, we can add or see when the page in (Page layout), for removing we can set our page in Normal by (Buttons vie) on (Status Bar).

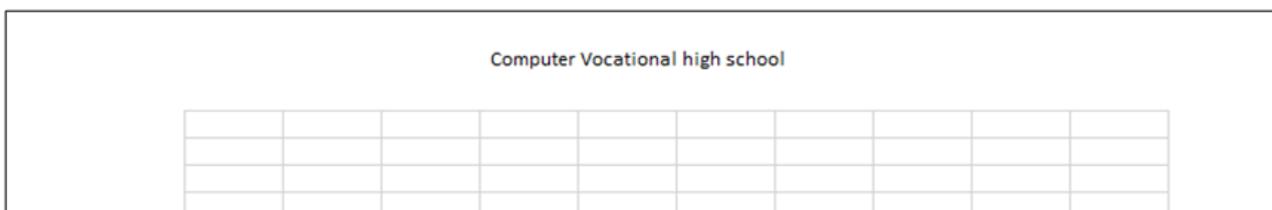
Steps for editing (**Header & Footer**):



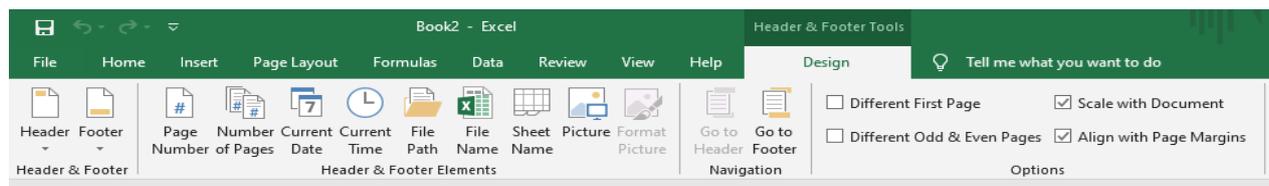
- 1- Click on Work sheet, for adding Header & footer
- 2- Click on Insert
- 3- In Text group, we choose (Header & Footer)
- 4- The part which is selected for writing Header, the text that we want to write, for example, we want to write vocational schools in the top of the table.



In addition to text, we can add page numbers, pictures, time and date for the page. Also, for adding text in the bottom of the page we will go to Footer and will write our text. While setting Header & Footer, Header and Footer tools adds to worksheet as:

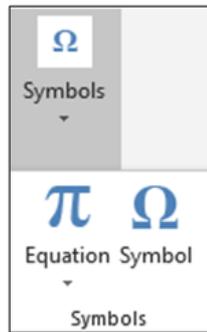


Elements of Header and Footer tools:



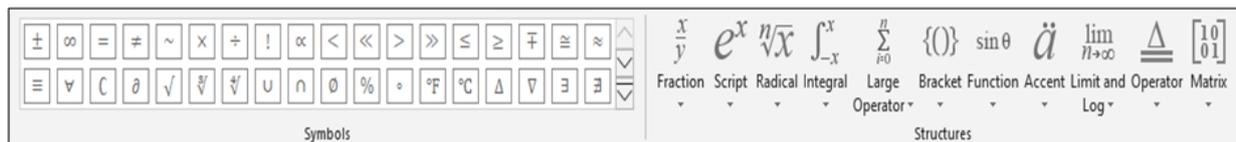
- 1- **Header**: the preparation text can be written on the top
- 2- **Footer**: the preparation text can be written on the bottom
- 3- **Page number**: for adding numbers to page in Header or Footer
- 4- **Numbers of pages**: for numbers of pages in Header or Footer and when the numbers are decreased automatically the changes will happen.
- 5- **Current Date**: for current date it means the date of working.
- 6- **Current Time**: for current time it means the working time.
- 7- **File Path**: for adding the name of file with showing path where the file is stored.
- 8- **File Name**: for adding the name of a file in Header& Footer.
- 9- **Sheet Name**: for adding the name of sheet in Header& Footer.
- 10- **Picture**: for bringing pictures into Header& Footer.
- 11- **Format Picture**: for arranging a picture that we want to add in Header& Footer.
- 12- **Go to Header**: to go on Header for making changes
- 13- **Go to Footer**: to go on Footer for making changes in Footer.
- 14- **Different First Page**: if we want to delete Header& Footer in the first page, and has a different with other pages, not appears and not prints so this part has been selected.
- 15- **Different Odd& Even pages**: for selecting and separating the number of single and double pages.
- 16- **Scale with Document**: for specializing and fitting the text in Header& Footer together, means that they have the same size.
- 17- **Align with page Margins**: to fit both Header & footer with the margins that have been selected for this section.

7- Symbols Group:

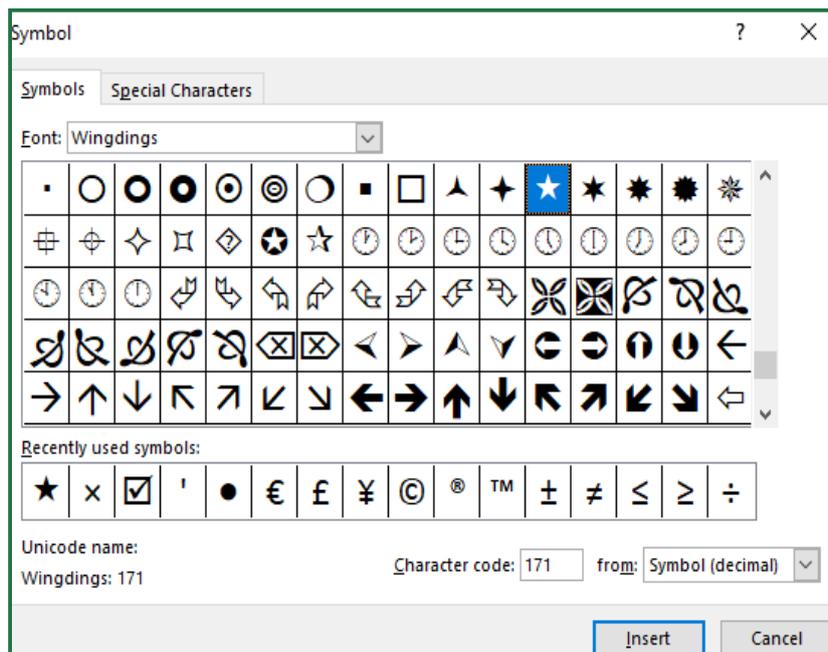


It consists of a group of symbols and mathematical equation, it has two parts:

- 1- Equation: this part is specialized for mathematical equations, here we can select mathematical equations and symbols on the toolbar by clicking on the symbol, for example: click on the root of 3 times, the symbol will be selected as the same style for all kinds



- 2- Symbol: this section is specialized for symbols, by clicking on it, a box appears which has symbols, we select the symbol that we want, then click on Insert.



•Error Values

Sometimes when we use excel, some errors have been created. As in the following table:

	A	B
1	Error	Reason
2	#NAME?	Two different data are divided, for example, text divided by name
3	#DIV/0!	Dividing number by zero
4	#####	The cell is not fit for the data
5	#N/A	Specific for a text which is not allowed
6	#REF	When an equation's input is wrong

First Term Exercise

Choose the right answer:

Q1/ workbook which has prepared before in excel is called:

- 1- Cookie cutter
- 2- Pin
- 3- Template
- 4- Auto fill

Q2/ if we want to share a workbook online, must:

- 1- Save on one drive
- 2- Save as type PDF
- 3- Save as type PEG
- 4- Save by Template

Q3/ if we want in a column to complete the agreement one by one till the end of the table, (click) and (Drag) on -----.

- 1- Row
- 2- Column
- 3- Fill handle
- 4- Auto date

Q4/ in order to make some cells we need a ----- command.

- 1- Auto fit
- 2- Merge cells
- 3- Insert columns
- 4- Wrap text

Q5/ if we want the date to be appeared like that (Saturday, February22, 2018), it should be arranged in:

- 1- Theme
- 2- Font
- 3- Format cells
- 4- Insert

Q6/ for printing a selected part in table, we use:

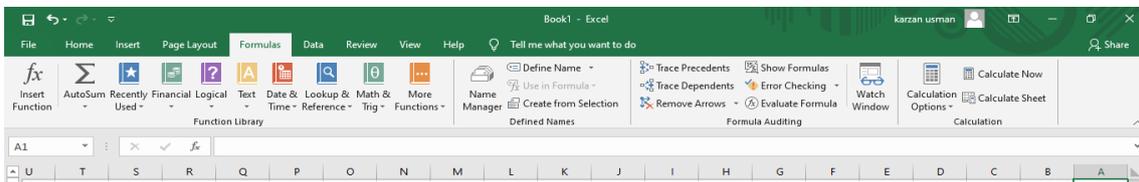
- 1- Print one side
- 2- print entire work book
- 3- print selection
- 4- printer properties

Second Term

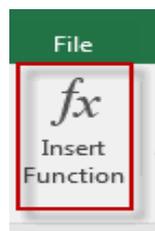


1 Lesson

Formulas Tab



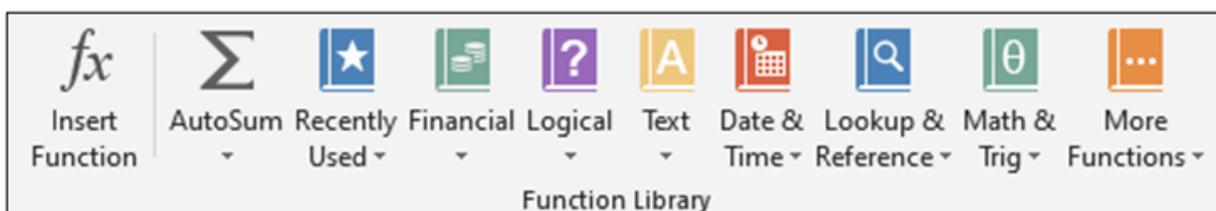
Insert Function



Function: This part is consisting of different groups, each group is set for specific subject, which multiple commands are done in it such as (mathematics, engineering, accounting, statistics and logic).

Here some functions are discussed:

Note: In (Insert Function) we can get and use all commands, Microsoft company makes the classification to all commands for more facilitation to users.



Parts of Function:

Function Library: it consists of the following parts and each part has many commands

- 1- Auto Sum
- 2- Recently Used
- 3- Financial
- 4- Logical
- 5- Text
- 6- Data& Time
- 7- Look up& Reference
- 8- Math& Trig
- 9- More Functions

All these parts are found in Insert Function

The commands in Insert Function

1- **Sum**: it is responsible for collecting numbers.

There are many ways to perform collecting numbers:

- Selecting a cell which the result has been written (G2)
- Writing (=sum (name of the first cell: name of the last cell)) on a selected cell.

=SUM(C2:F2)

	A	B	C	D	E	F	G
1	No	Name	Kurdish	Math	Computer	Sociology	Total
2	1	Aso Ali	86	68	75	73	=SUM(C2:F2)
3	2	Salar Muhammed	72	79	83	90	
4	3	Shano Karwan	78	82	96	88	

Press Enter button, we get the right result, as the following:

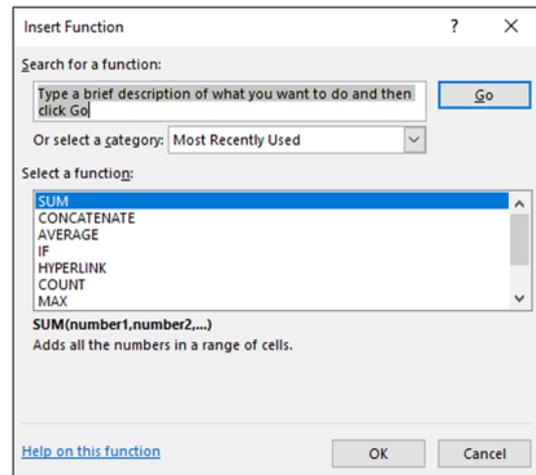
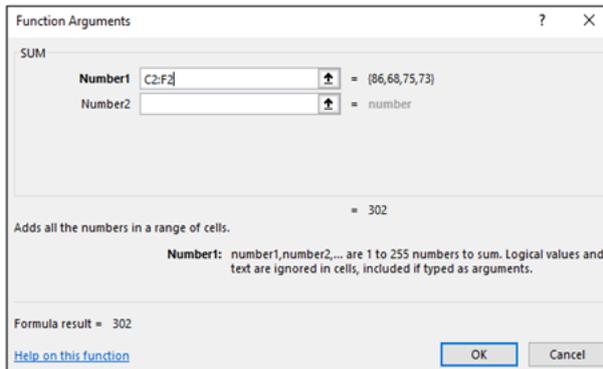
	A	B	C	D	E	F	G
1	No	Name	Kurdish	Math	Computer	Sociology	Total
2	1	Aso Ali	86	68	75	73	302
3	2	Salar Muhammed	72	79	83	90	
	3	Shano Karwan	78	82	96	88	

If we want the total degrees for all students, click on the cell of (G2) then with (**Drag & Drop**) we scroll down and see cell (G4) and all the results.

	A	B	C	D	E	F	G
1	No	Name	Kurdish	Math	Computer	Sociology	Total
2	1	Aso Ali	86	68	75	73	302
3	2	Salar Muhammed	72	79	83	90	324
4	3	Shano Karwan	78	82	96	88	344

Steps for getting the purpose result:

- 1- Select a blank cell, for example (G2)
- 2- Click Insert Function
- 3- We select Sum function
- 4- Select (C2:F2), then Enter , Then Click **OK** bottom.



- 2- **Average**: it is used for finding the average. By the below rule, we can find the average of a group of numbers: **=AVERAGE (C2:F2)**

	A	B	C	D	E	F	G	H
	No	Name	Kurdish	Math	Computer	Sociology	Total	Aevavage
1	1	Aso Ali	86	68	75	73	302	=AVERAGE(C2:F2)
2	2	Salar Muhammed	72	79	83	90	324	
3	3	Shano Karwan	78	82	96	88	344	

Then click **Enter**, we will get the result as the following.

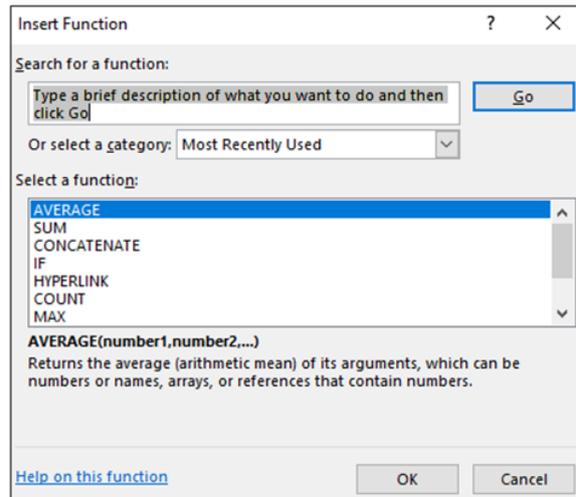
	A	B	C	D	E	F	G	H
	No	Name	Kurdish	Math	Computer	Sociology	Total	Aevavage
1	1	Aso Ali	86	68	75	73	302	75.5
2	2	Salar Muhammed	72	79	83	90	324	
3	3	Shano Karwan	78	82	96	88	344	

If we want to find the grand total degree for all students, click on the square of (H2) cell, then with drag and drop, scroll down into (H4) cell, we will see the whole result.

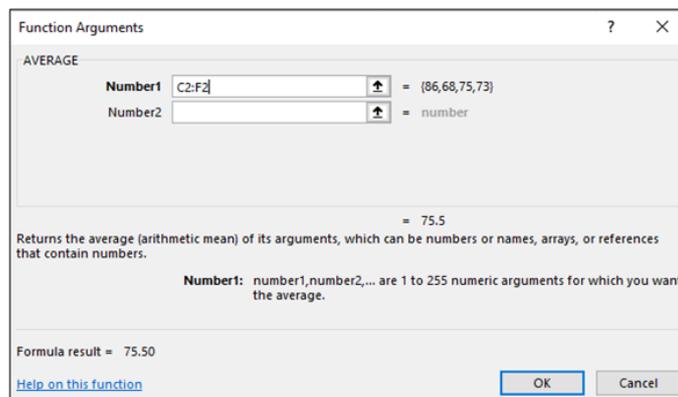
	A	B	C	D	E	F	G	H
	No	Name	Kurdish	Math	Computer	Sociology	Total	Aevavage
1	1	Aso Ali	86	68	75	73	302	75.5
2	2	Salar Muhammed	72	79	83	90	324	81
3	3	Shano Karwan	78	82	96	88	344	86

Second method for the purpose of the results:

- 1- Select a blank cell, for example (H2)
- 2- Click Insert Function
- 3- We select Average function



- 4- Select (C2-F2), then Enter



- 5- Click (OK)

The differences between (:) and (,) illustrate by example

- 1- (:) is written by (Shift+): this symbol is used between two cells for selecting all cells in between. in order to apply every mathematical, logical or account procedure, for example:

SUM=(name of the first cell: name of the last cell)

As in below function in line (12) and in (F12) cell will write

=SUM(C12:E12)

No	Name	Kurdish	Math	Computer	Total
1	Aso Ali	86	68	75	=SUM(C12:E12)
2	Salar Muhammed	72	79	83	

The result is as the following

No	Name	Kurdish	Math	Computer	Total
1	Aso Ali	86	68	75	229
2	Salar Muhammed	72	79	83	

2- (,) is written by (**Shift+**): while we want to collect many numbers from a different cells, or implementing any account procedure, we should use (,) , here we get total of (SUM) in Kurdish and computer subjects

=SUM(C12,E12)

No	Name	Kurdish	Math	Computer	Total
1	Aso Ali	86	68	75	=SUM(C12,E12)
2	Salar Muhammed	72	79	83	

The result is as the following

No	Name	Kurdish	Math	Computer	Total
1	Aso Ali	86	68	75	161
2	Salar Muhammed	72	79	83	

3- **COUNT**: The count function counts the number of cells that contain numbers, if the selected cells contain numbers, the numbers are being counted, but if the cells are not containing numbers, the result will be zero. After editing COUNT any number has been added, the result will be recorded.

For getting the result, we use: = COUNT(E1:E4)

No	Name	Kurdish	Math	Computer	Sociology
1	Aso Ali	86	68	75	73
2	Salar Muhammed	72	79	83	90
3	Shano Karwan	78	82	96	88
				3	

While deleting a number in column or a line, the result will be changed.

Note:

COUNTA: this command is used for counting selected cells and have a text, if the selected cell contains a text, counts and gives a result, but if the selected cell doesn't contain a text, there is no result but if next a text will be add, the result is found.

For getting the result, we use: =COUNTA(E1:E4)

No	Name	Kurdish	Math	Computer	Sociology
1	Aso Ali	86	68	75	73
2	Salar Muhammed	72	79	83	90
3	Shano Karwan	78	82	96	88
				3	

4- Operation of (Addition, Subtraction, Multiplication and division):

There are rules for operating (Addition, Subtraction, Multiplication and division) operation.

1- Addition: implementing this rule including the implementing of additional operation for some numbers regarding this rule for the purpose of the result.

$$= (\text{Number 1} + \text{Number 2} + \dots)$$
$$= (B2 + C2)$$

Then press Enter

Name	Number 1	Number 2	Result
Brwa	90	80	=SUM(B2+C2)
Ilan	84	72	
Miran	96	84	
Rodan	80	68	

Name	Number 1	Number 2	Result
Brwa	90	80	170
Ilan	84	72	
Miran	96	84	
Rodan	80	68	

2- Subtraction: implementing this rule including the implementing of subtraction operation for some numbers regarding this rule for the purpose of the result.

$$= (\text{Number 1} - \text{Number 2} - \dots)$$
$$= (B2 - C2)$$

Then press Enter

Name	Number 1	Number 2	Result
Brwa	90	80	=SUM(B2-C2)
Ilan	84	72	
Miran	96	84	
Rodan	80	68	

Name	Number 1	Number 2	Result
Brwa	90	80	10
Ilan	84	72	
Miran	96	84	
Rodan	80	68	

3- **Multiplication**: implementing this rule including the implementing of multiplication operation for some numbers regarding this rule for the purpose of the result.
 $= (\text{Number 1} * \text{Number 2} * \dots)$
 $= (B2 * C2)$

Then press Enter

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	=SUM(B2*C2)
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	7200
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	

4- **Division**: implementing this rule including the implementing of division operation for some numbers regarding this rule for the purpose of the result.
 $= (\text{Number 1} / \text{Number 2} / \dots)$
 $= (B2 / C2)$

Then press Enter

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	=SUM(B2/C2)
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	1.125
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	

5- MAX & MIN

MAX: these are commands for selecting the largest number in a group of numbers when the change happens in the largest value, the result will be changed also .

The rule:

$= \text{MAX}(\text{Number 1} : \text{Number 2})$

$= \text{MAX}(C2 : C5)$

Then press ENTER

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	1.125
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	
6			=MAX(C2:C5)	

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	1.125
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	
6			84	

MIN: It is the command for selecting the smallest number in a group of numbers while the change happens in the smallest value the result will be changed also .

The rule:

=MIN(Number1:Number2)

=MIN(C2:C5)

Then press ENTER

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	1.125
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	
6			=MIN(C2:C5)	

	A	B	C	D
1	Name	Number 1	Number 2	Result
2	Brwa	90	80	1.125
3	Ilan	84	72	
4	Miran	96	84	
5	Rodan	80	68	
6			68	

6- (ABS)

To find absolute value of a number, for example to find the absolute value of (-25) use the following rule:

=ABS(-25)

Then press enter to get the result

	A	B
1	Number	Absolute value
2	-25	=ABS(-25)

	A	B
1	Number	Absolute value
2	-25	25

7- IF: this command is used for setting conditions information in cells , then translating these information to text according to the results for example if we have a table records the degrees of students , and we want to select the result with a text , means pass or fail .

First method by the rule;

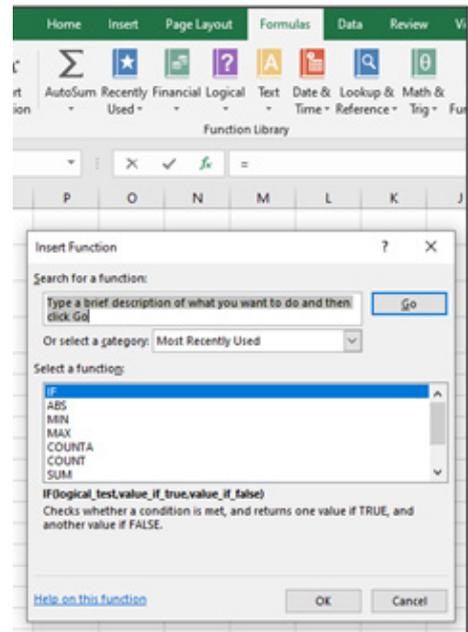
=IF (C2>49,"pass", "fail")

	A	B	C	D
1	No	Name	Computer	Result
2	1	Aso Ali	75	=IF(C2>49,"Pass","Fail")
3	2	Salar Muhammed	38	
4	3	Shano Karwan	96	

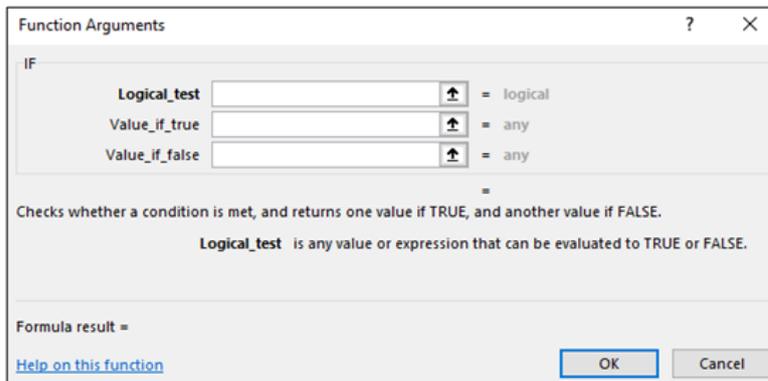
Then press ENTER to get the result

Second method: with the pattern

- 1- Go to formulas
- 2- Go to insert functions
- 3- Find IF command as shown in this picture



4- Click on OK a box is opening as :

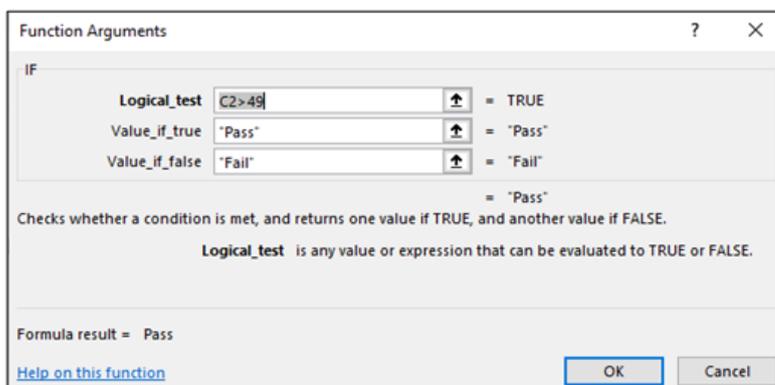


In the first cell (logical test) we will write the condition after selecting the cell like that (>49)

In the cell (**value if true**) we write pass

In the cell (**value if false**) we write fail

Then click on **OK** we get the results of cell



If we want to separate all lines, we set the pointer on the drag location then by drag and drop we go to the last line to get the result of all the lines

	A	B	C	D
1	No	Name	Computer	Result
2	1	Aso Ali	75	Pass
3	2	Salar Muhammed	38	Fail
4	3	Shano Karwan	96	Pass

Note:

Count If: to know cell's number and setting condition above cells, for example we have group of numbers from 1-12 , we want to know in these cells how many numbers are there? Which one is larger and equal to (10)? , here it selects the number of cells also sets the conditions to cell.

We will write the following equation which is edited in the program

= COUNTIF (A1:A12,">=10")

B	A
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
=COUNTIF(A1:A12,">=10")	12

Then press Enter
 →
 The result is (3)

B	A
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
3	12

8-LEN: it is used for knowing number of letters in each syllable and also counts the space between words.

Press Enter

A
Computer Scince
=LEN(A1)

A
Computer Scince
15

Example: Create the following table, then answer the branches below:

- Cut all absent names, if amount of money provided for one day absent is (4500) Dinars
- Add budget for all names, if it is %15
- Total salary for all names

Salary list							
No	Name	Salary	Absence	Deductions due to absence	Allowance %15	Total Salary	
1	Kamal Ali	325000	0				
2	Sara Salih	253000	4				
3	Saman Karwan	162000	1				
4	Sozan Bakr	157000	3				
5	Rawan Sadiq	137000	2				

Solution:

1-In the first cell column (**Cut due to absence**) will write:

=E6*4500

Then we move the mouse to drag location in cell (F6) pulling below to the wanted place for repeating the equation into other cells in the table.

2-In the first cell column (**%15 budget**) will write:

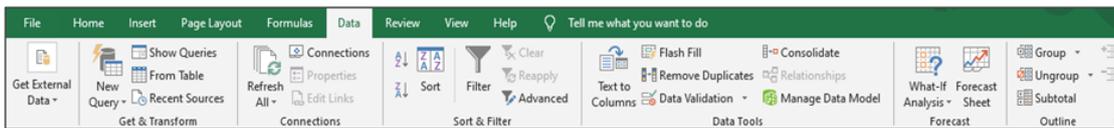
=D6*0.15

Then we move the mouse to drag location in cell (G6) pulling below to the wanted place.

3- In the first cell column (**total salary**) will write:

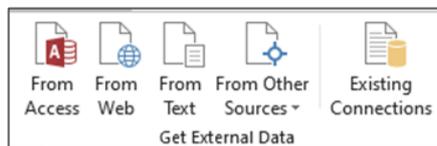
=D6-F6+G6 Then we move the mouse to drag location in cell (G6)pulling below to the wanted place.

Salary list							
No	Name	Salary	Absence	Deductions due to absence	Allowance %15	Total Salary	
1	Kamal Ali	325000	0	0	48750	373750	
2	Sara Salih	253000	4	18000	37950	272950	
3	Saman Karwan	162000	1	4500	24300	181800	
4	Sozan Bakr	157000	3	13500	23550	167050	
5	Rawan Sadiq	137000	2	9000	20550	148550	

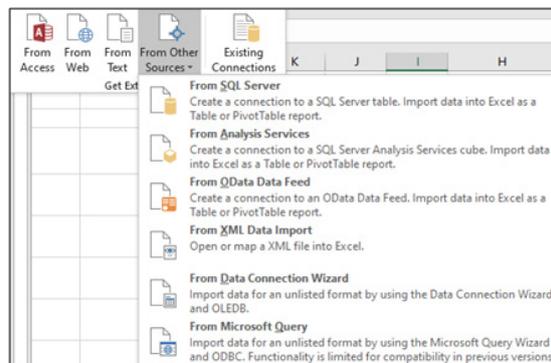


The most important sections are:

- 1- **Get External Data**: consists of:
 - a- **From Access**: for bringing file to excel
 - b- **From Web**: for bringing file from internet
 - c- **From Text**: for bringing texts in the file into the page

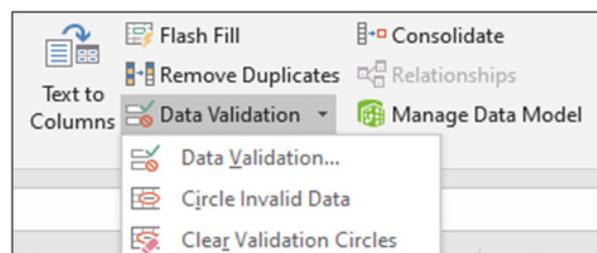


- d- **From other Sources**: for bringing file from another program



- e- **Existing Connection**: for bringing the files which we used them before.

- 2- **Refresh all**: for refreshing all information in the table.
- 3- **Remove Duplications**: for removing the repetition information in the table.
- 4- **Data Validation**: helps to ensure that data gets entered correctly, before it gets processed incorrectly. Excel's data validation tools can help you set up rules that keep you or anyone else from entering invalid or unusable data, or from failing to enter data when it's required.



Parts of Data validation:

A- Setting: it consists of some commands and conditions to set on a cell or a group of cells.

B- Input message: can be used to show a message when a cell is selected.

C- Error alert: this lets you display a message to the user when the value entered in to a cell is invalid.

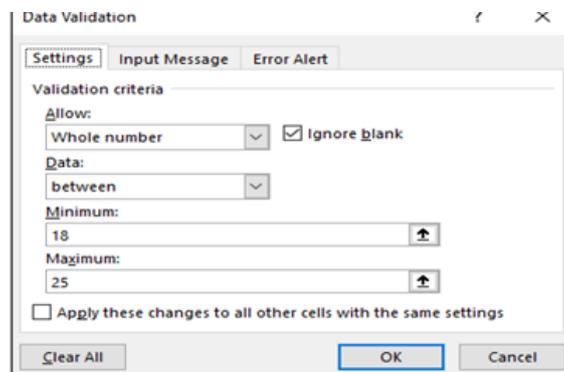
In setting we have two important parts:

1- Allow : we will choose one of the following:

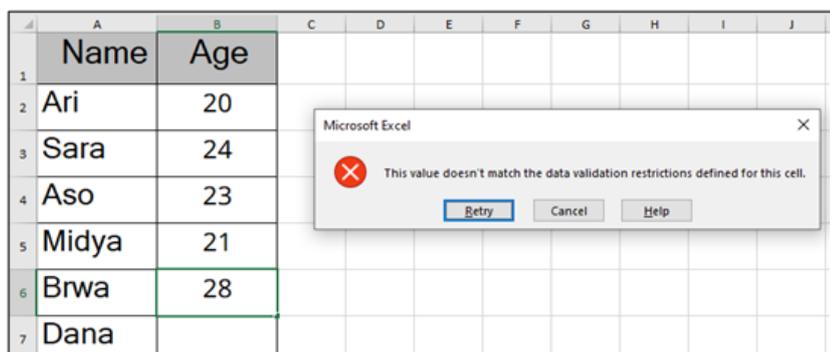
- Any value
- Whole number
- Decimal
- List
- Date
- Time
- Text length
- Custom

2- Data : to show comparative degrees which are mentioned in (Home) in (Conditional formatting)

Example: There is a table of age of a group of students to accept in schools for (2021-2022), we want to set a condition for age column.



If an age doesn't match with the condition, data validation warns you as:

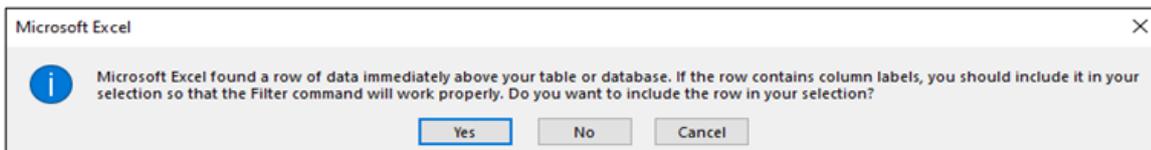


5-**Subtotals**: it allows users to create groups and then perform various Excel functions, also helps in analyzing the data provided.

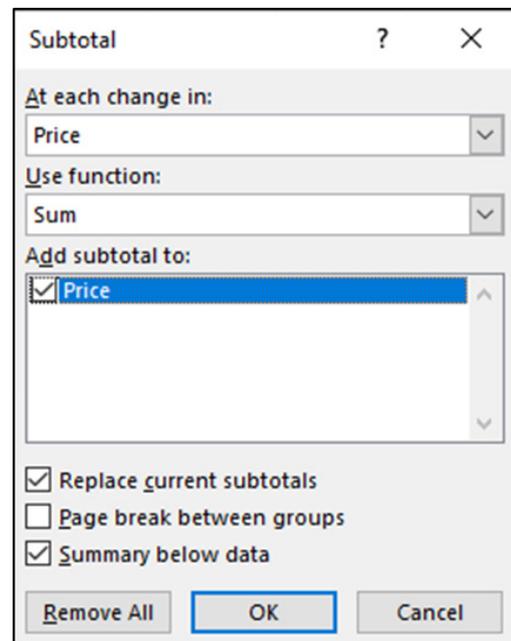
Example: use subtotal to the following table

- 1- Create a table
- 2- Arrange the information in (**Sort A-Z**)
- 3- Select sum row
- 4- Click on Data, then Subtotal
- 5- This box opens, click on Yes

	A	B	C
	No	Material	Price
1			
2	1	Pen	500
3	2	Ruler	250
4	3	Rubber	250
5	4	Notebook	1000
6	5	Pen	500
7	6	Ruler	250
8	7	Rubber	250
9	8	Notebook	1000



6- Another box opens as below:



7- Click on OK

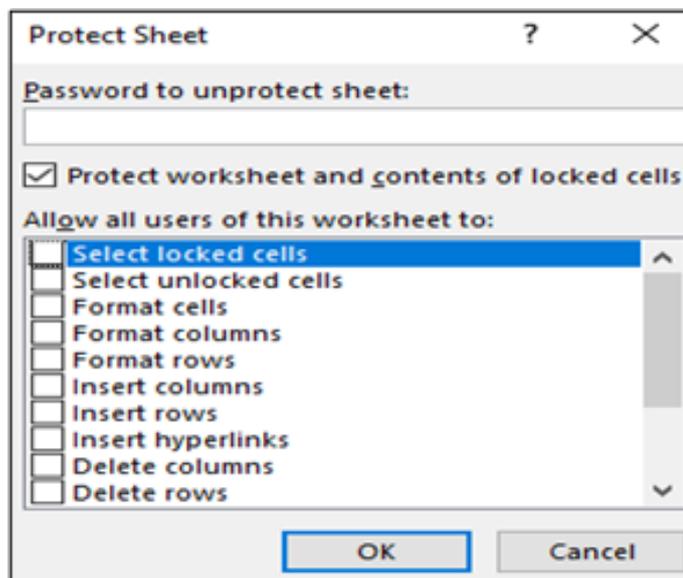
8- The table changes and gives the result

	A	B	C	D
	No	Material		Price
1				
2	4	Notebook		1000
3	8	Notebook		1000
4			1000 Total	2000
5	1	Pen		500
6	5	Pen		500
7			500 Total	1000
8	3	Rubber		250
9	7	Rubber		250
10	2	Ruler		250
11	6	Ruler		250
12			250 Total	1000
13			Grand Total	4000

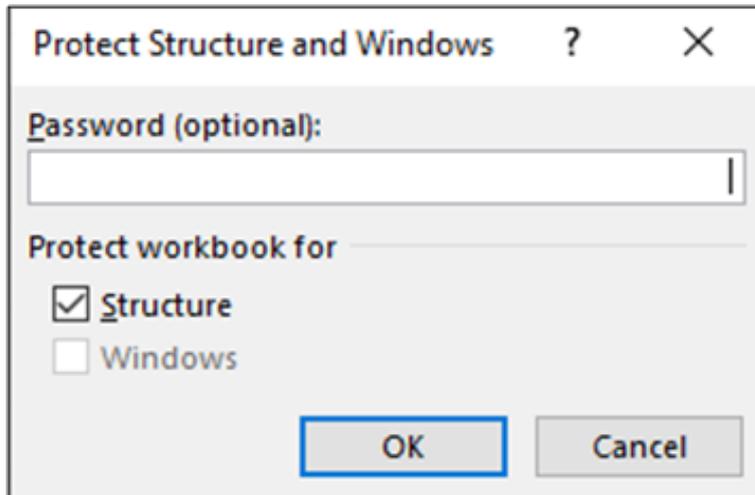


It consists the following parts:

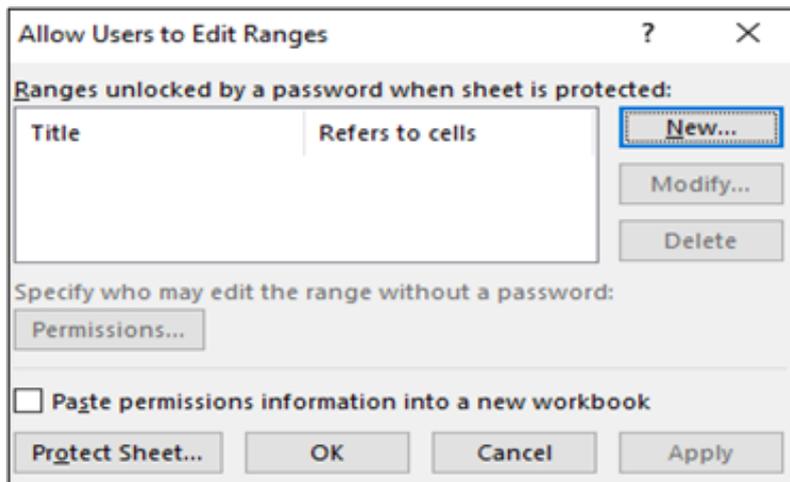
- 1- **Spelling**: for correcting grammatical and writing mistakes.
- 2- **Thesaurus**: to give the same meaning.
- 3- **Translate**: to translate into different languages.
- 4- **New Comment**: to edit new comment.
- 5- **Delete**: to remove the comments.
- 6- **Previous**: to return to previous comment.
- 7- **Next**: to go to the next comment.
- 8- **Show/Hide comment**: to show or hide a selected comment.
- 9- **Show/All comments**: to show all comments.
- 10- **Protect Sheet**: to edit password on sheet to protect the information from changing or removing.



11-Protect workbook: to edit password on workbook, and protect the file from deleting, copy and changing.



12-Allow Edit Ranges: to allow more users to make changes in workbook by providing a password through internet.



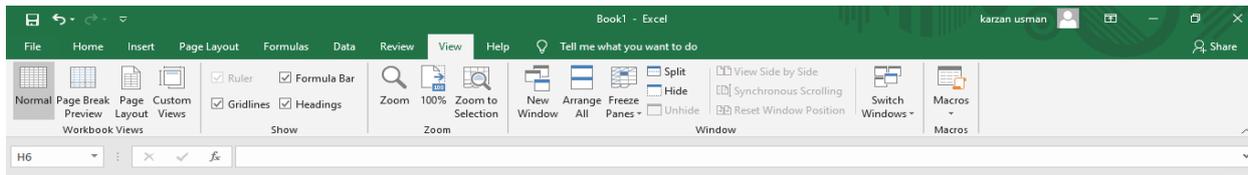
13-Share Workbook: can share more than one user, if there is internet.



3

Lesson

View Tab



Consists of the following parts:

- 1- **Normal**: the page appears in a normal way.
- 2- **Page Break View**: the page ends with the cell of information.
- 3- **Page Layout**: shows the size of the page.
- 4- **Custom Views**: views as it needs.
- 5- **Rulers**: shows and hides the rule.
- 6- **Gridline**: shows and removes the imagine lines.
- 7- **Formula Bar**: shows in and removes equation bar.
- 8- **Headings**: shows and removes cell name.
- 9- **Zoom**: For zooming in and out the page.
- 10- **100%**: shows the page 100%.
- 11- **Zoom to Selection**: zooms the selected part.
- 12- **New Window**: shows the table in a new window.
- 13- **Arrange All**: For arranging and showing the style of opening window.
- 14- **Freeze Panes**: For fixing the title of the table in order keep visible when you scroll.
- 15- **Split**: divides the pages into parts.
- 16- **Hide**: hides the file.
- 17- **Unhide**: reshows the file.

4 Lesson

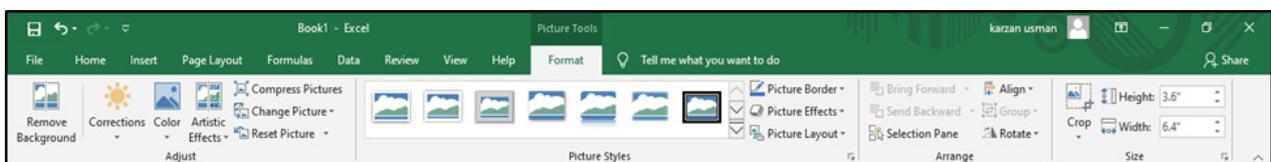
Updating Excel 2016



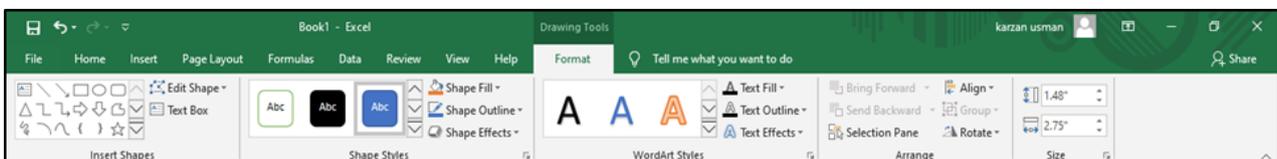
In Excel 2016 some specific sheets appear while choosing selected part in Insert Tab.

The following are names of parts and sheets:

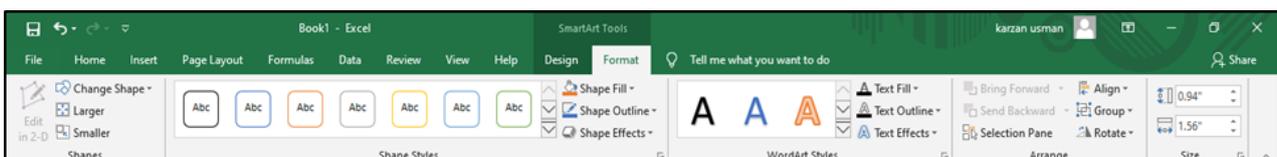
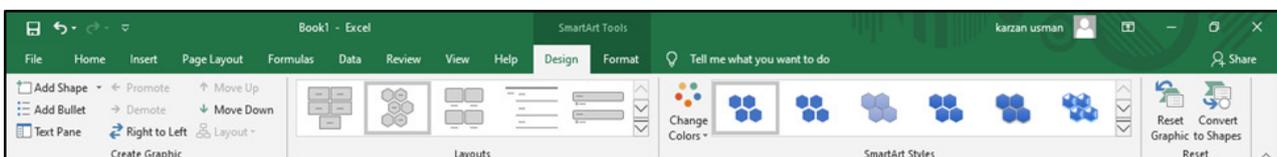
1- When we bring the picture to our page (Picture Tools/Format) will be created.



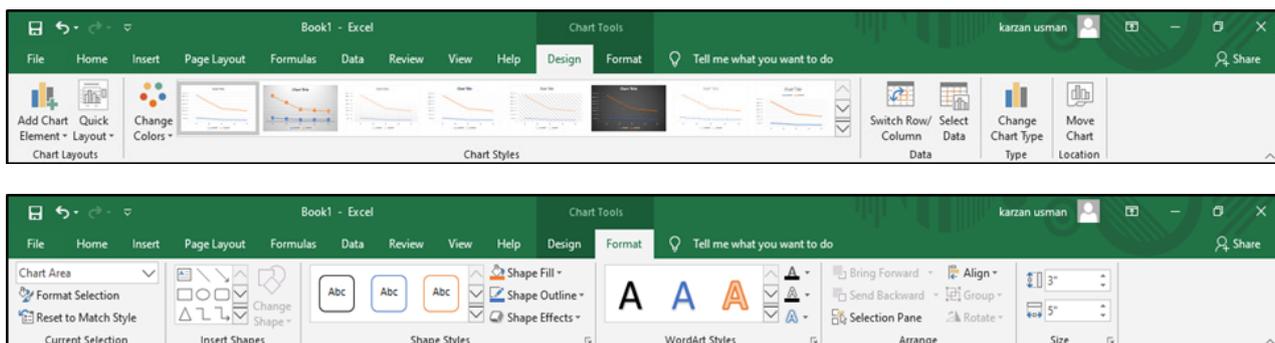
2- When we bring Shape, (Drawing Tools/Format) is adding.



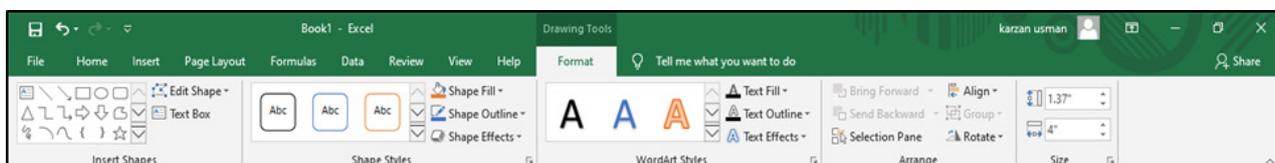
3- While bringing Smart Art Tools/Design-Format, (Smart Art) will add.



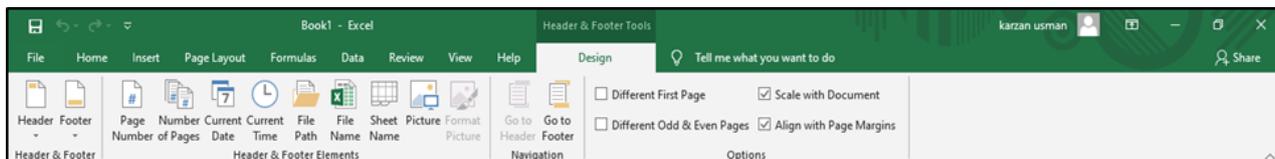
4- While editing Chart for the table, (**Chart Tools/Design-Format**) will create.



5- While brings Text Box on the page, (**Drawing Tools/Format**) will appear



6- While editing header& Footer, (**Header&FooterTools /Design**) will create.



5 Lesson

Relationship between Word and Excel

Microsoft Excel 2016

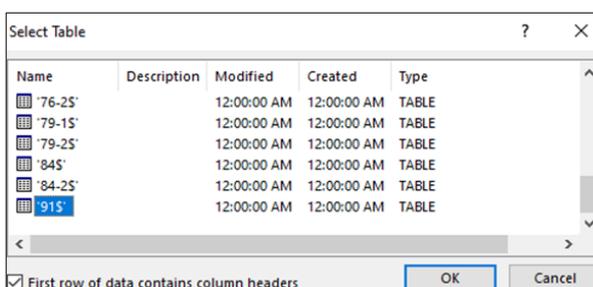
Excel 2016 has a direct relationship with Access and Word.

Example: we want to send a message for a group of names directly by email, as the following:

	A	B
	First Name	Second Name
1	Shwan	Mahmud
2	Kamaran	Muhammed
3	Raman	Ameen
4	Lara	Karem
5	Mahmud	Ahmad
6		

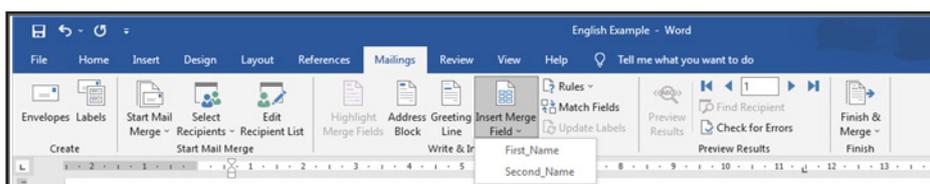
1- In Excel 2016 create a table with a group of names, then save them.

2- We open Word program, and writing the message that we want, then click on Mailing, click on Select Recipients. Here a list appears, click on (Use Existing List) then the file which stored in Excel will select when we create, then OK, then we will go to word and click on Mailing and click on Insert Merge Field, here we click on the first and second names



Example:

Dear:We would like to attend in Kurdistan Hall. My regards



Click on Preview result and go to Preview results



Second Term Exercise

Choose the right answers:

1- While writing equation, we will start with

- a) +
- b) =
- c) &
- d) ^

2- In Function for sum addition to a group of cell we choose:

- a) Sum
- b) Average
- c) Min
- d) Max

3- For arranging data from (A-Z) we need:

- a) Border
- b) Sort
- c) Alphabetize
- d) Auto Sum

4- One of the characteristics of Sparkline is:

- a) Larger in Chart
- b) More styles than Chart
- c) Close to the Data
- d) Appears in a new sheet

Law Number 6 of 2008
Law on Prevention of Misuse of Communications Devices
In Kurdistan Region- Iraq

Article 1

Telephone calls, postal and electronic communications are private and inviolable.

Article 2

A person who misuses a cell phone or wired or wireless communication devices or the Internet or electronic post (email) for threatening, slandering, insulting or spreading fabricated news that provoke terror or leaking out conversations or publishing fixed or animated pictures or short text messages which are inconsistent with public morals or taking photos without permission or attribution of dishonorable matters or incitement to commit crimes or acts of debauchery or publishing information about individual's private life or family no matter how the information is obtained and even if it is true, if the information leakage and distribution would offend or harm him/her, shall be punished by imprisonment for a period of no less than six months and not exceeding five years and a fine of no less than one million Iraqi dinars and not more than five million Iraqi dinars, or one of these two penalties.

Article 3

A person who intentionally uses a cell phone or any wired or wireless communication devices or the Internet or electronic post (email) to disturb people other than those cases mentioned in article 2 of this Law, shall be punished by imprisonment for a period of not less than three months and not more than one year and a fine of not less than seven hundred and fifty thousand dinars and not more than three million dinars or one of these two penalties.

Article 4

If the committed acts in accordance with articles 1 and 2 of this law results in committing of a crime, the person who incites the crime is considered a partner in crime and shall be punished with the penalty prescribed for the committing the offence.

Article 5:

Committing one of the crimes mentioned in the articles 2 and 3 is an aggravating circumstance for the purpose of implementing the provisions of this law. If the perpetrator is a member of the armed forces or internal

security forces or who takes advantage of an official power or who is informed of the personal or family privacy of individuals by virtue of his/her job or profession and anyone who uses a device of others to commit one of the aforementioned offenses.

Article 6 :

Telecommunication companies operating in the Region shall perform the following:

1. Registration of the electronic mobile card, electronic communication devices and other mobile phones supplied by company prior to the implementation of this Law in the name of the person who is the owner and not subscribed within a period of six months from the effective date and cancellation of the card if the holder fails to visit the company during that period.
2. To submit any information relating to the subscription card and the subscriber to the court when necessary.
3. The company who is violating sections 1 and 2 of this article shall be liable to a fine of not less than 50 million dinars and not more than 100 million dinars.

Article 7:

The Council of Ministers and the relevant authorities shall implement the provisions of this Law.

Article 8:

This Law shall be implemented from the date of its issue and shall be published in the Official Gazette (Waqaa'ia Kurdistan).

Masud Barzany
President of Kurdistan Region-Iraq

- This law is issued in Erbil on 13th Jozardan 2708 (Kurdish calendar) opposite to 29th Jamadi al-awal 1429 of Hijri calendar and opposite to 3rd June 2008

**WATER IS THE SOURCE OF LIFE
THEREFORE PRESERVE IT**

