

Excel

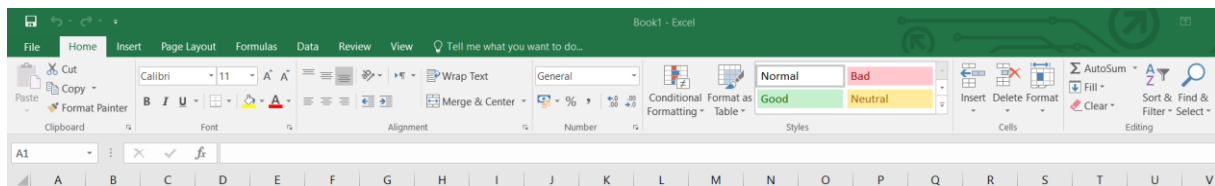
Excel is a very powerful program of the office set; it is mainly used for computing and calculation. Its user interface looks very much like Word, with the Ribbon, tabs, and groups of buttons.

An Excel file is called a “**WorkBook**”, which by default has only one sheet. The user can add as much as his computer can handle. Each sheet can have a different name and holds up to 1,048,576 rows by 16,384 columns, which results in many “**printable**” pages in one sheet.

For each sheet, the rows are numbered and the columns are referred to with letters: it starts with one letter and goes on with multiple combinations. The intersection between these two produces the name of the cell:

- Cell A1: the first line with the column A.
- B18: line 18 + B column...etc.

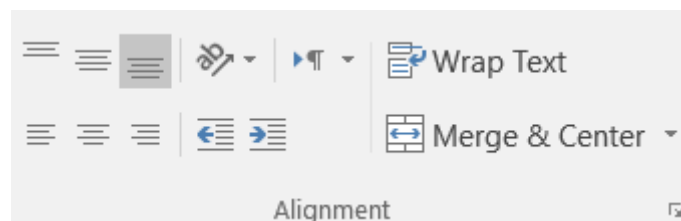
The user can select one cell by clicking once, and edit its content with double clicking.



The Home tab :

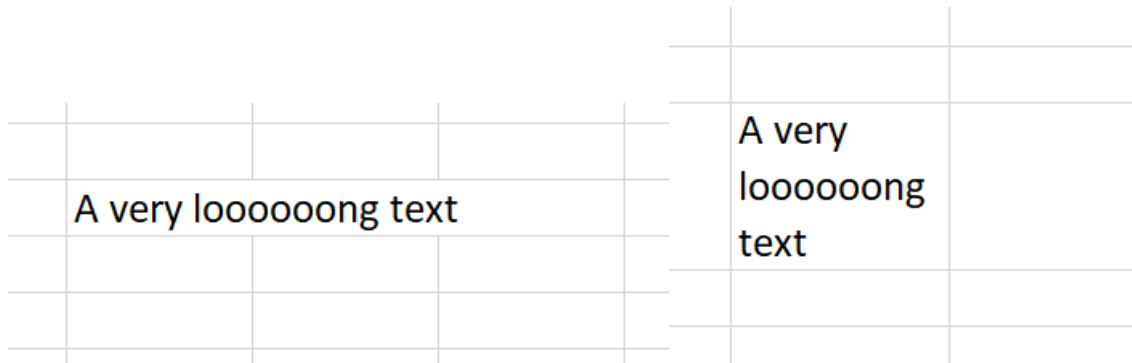
It contains the basics and the commonly used tools, such as modifying the font style, and size, the copy/paste buttons, the search, and replace tools...etc.

The alignment group can be used to move the text in a selected cell; the user can combine the horizontal and the vertical alignment to place the text in different positions.

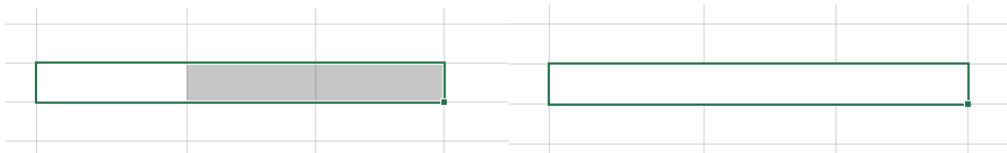


Also within the alignment group, the user can:

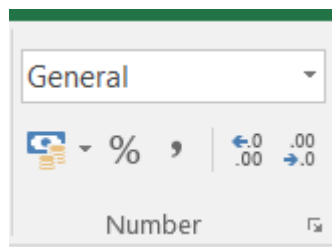
- Modify the text orientation.
- Activate the text wrapping so that long texts are divided into several lines.



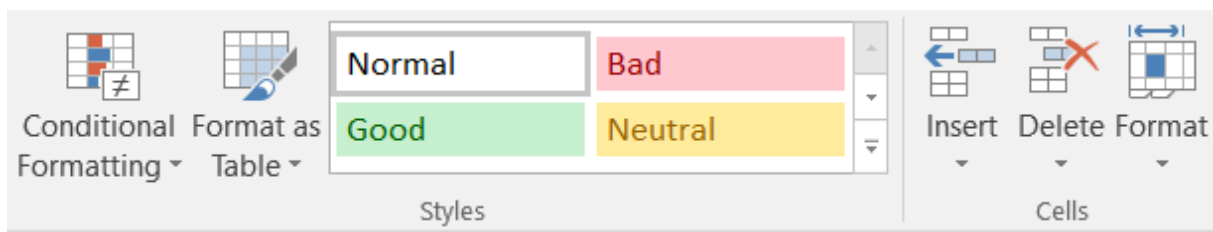
- Merge and center: combine the selected cells and fuse them.



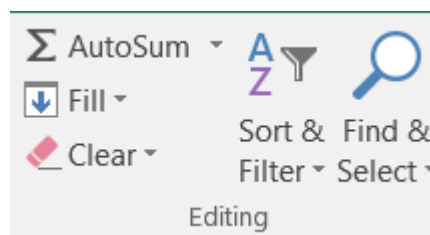
- The group Number: can be used to add or remove decimals, and apply different formats on the selected cell: General, Number, Currency, Short Date...etc



- The group Styles: is used to apply different formatting styles to a table, which will transform the table and enable very powerful tools such as data filtering, sorting...etc.
- The group Cells: here, the composition of the table can be modified by changing cell size or inserting or deleting rows and columns,



- Editing: the user can go to this group to search for or replace a certain value in the workbook. It can also be used to perform some quick calculations like “the AutoSum” or finding the Max/Min of selected cells.



The AutoCopy/AutoFill :

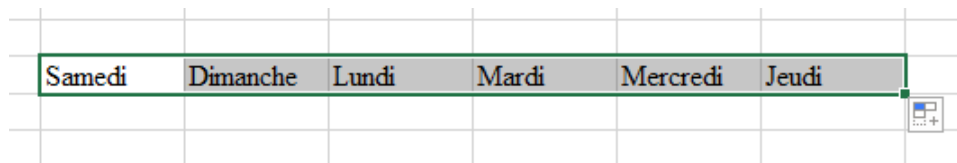
One of the most powerful tools in Excel is “The AutoCopy/AutoFill”. It helps the user input data quickly and in a very smart way. To use it, the user will have to use the black plus sign “+” by moving the cursor on the little point in the bottom right corner of the selected cells.

Depending on the selection content, Excel will either choose to copy the same content in the dragging direction or fill it with new data.

Example :

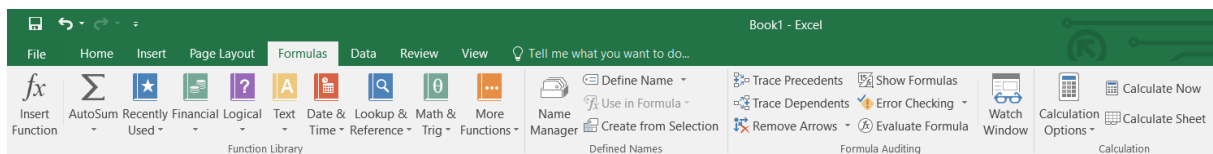


By selecting a cell that holds a day of the week and by using the AutoCopy/AutoFill tool to drag in one direction, Excel recognizes it and will automatically add the next days of the week.



Formulas

What makes Excel a powerful software is its big function library. To use a function, the user can use the assistant that can be found in the formulas tab.



He also can write the formula manually:

- First, the user must always start with the “=” sign.
- Next, the user must call a function by its name, for example: SUM, AVERAGE, MAX, MIN...etc
- The user can combine different functions in one formula, ex:
=SUM(A1:A25)/SQRT(B5)

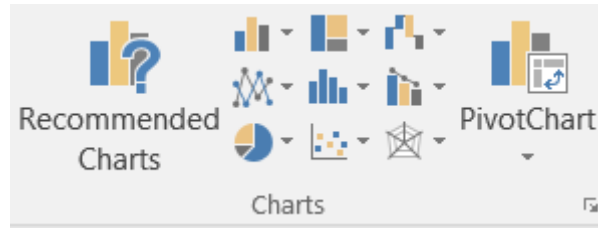
The commonly used functions are:

- COUNT: it counts the number of non-empty cells of the selection.
- SUM: is used to calculate the sum of the selected cells.
- AVERAGE: can be used to calculate the mean of the selection.
- MIN/MAX: are used to find the Min/Max of the selection.
- IF: is a powerful function that can be employed to test for a condition and do different actions depending on that test.
- AND/OR: are used to combine multiple conditions.

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- COUNTIF: this function is used to count the number of cells that meet a certain condition.

Charts :



With Excel, the user can add different types of charts depending on the data, it also uses artificial intelligence to suggest the best chart that can represent the selected data.

The most important types of charts are:

- Bar charts.
- Curves or line charts.
- Pies or doughnuts charts.
- Histograms
- Scatter plots...etc