Spreadsheet I

You may easily refresh/enhance your knowledge at https://www.gcflearnfree.org/excel2016/ .

- Spreadsheet – its purpose, examples of use
- Typical spreadsheet layout
  - Menu + toolbar or Ribbon + commands
  - Name box
  - Formula Bar
  - Workbook (the file) with sheets (individual tables)
  - The sheet – a huge table → cells (intersections of rows and columns)
- Cells
  - Data container
  - Address – column label + row label (e.g. A1, D7, AA32)
    - The address can be changed to a fixed name in the name box (e.g. C4 cell can be named VAT or DPH; this name acts as an absolute address)
  - Possible content
    - Number – general number, currency, accounting, date, fraction, scientific
    - Text
    - Formulae
  - True cell content is displayed in the formula bar (if a cell displays a number, the formula bar reveals whether it is a number only or a formula outcome)
  - Fill handle of a cell
    - tiny square at the bottom right corner
    - copies cell content or fills certain series (date, month or day names, arithmetic progressions)
- Formulae
  - Customizable definitions of the calculation process
  - Always start with =
  - Operators
    - + - * / ^ %
    - &
    - < <= > >= =
  - The order of operations can be altered by parentheses/round brackets
- Functions
  - Predefined formulae with a predefined name and structure
  - Entered
    - Manually
    - Over a command in the Ribbon/Toolbar
    - Over a formula bar (f_x button in front of the bar)
  - Each function name must be followed by parentheses, even if it needs no input – e.g. the function TODAY() – if written without the parentheses, the spreadsheet will look for a cell of the name TODAY – if not found → error
  - There are categories of functions – mathematical, statistical, date and time, text, lookup …
  - Notable functions:
    - SUM(), MIN(), MAX(), COUNT(), AVERAGE()
    - SUMIF(), COUNTIF()

        - IF(), AND(), OR(), NOT()
        - VLOOKUP()
        - TODAY(), NOW(), WORKDAY()
        - RAND(), RANDBETWEEN()
- Addresses/references
    - Relative
        - Column and row label only → A1, B3
        - If a relative address is used in a formula and copied afterwards (e.g. by the fill handle), then it is modified to match the change of its position – e.g. A1 moved by 4 rows down becomes A5
    - Absolute
        - Both, column and label, are preceded by the $ sign
        - Such an address is not changed at all
        - Use: when one specific value has to be used in multiple cells, but its value could be changed
    - Mixed
        - $ sign is **either** before the column **or** row label → $A1, A$1
        - The address may change only in one direction
        - Used in tables, where the calculated values are taken from one row and one column – e.g. multiplication table
- Charts
    - Creation
    - Types of charts
    - Necessary parts – title, values on the axes, axis label, legend
    - Simple chart editing
- Spreadsheet – its purpose, examples of use
- *Below can be found links to a great tutorial, which teaches you how to accomplish these tasks + there are reasonable exercise you may test it on*
- Data processing – **sorting -** **https://www.gcflearnfree.org/excel2016/sorting-data/1/**
    - Ascending, descending sorting
    - Custom sort
    - Difference in sorting, when
        - a cell in the table is selected
        - a part of the table is selected (e.g. one column)
- **Automatic Filter -** **https://www.gcflearnfree.org/excel2016/filtering-data/1/**
    - How to turn the filter on/off
    - What filtering options are available
    - How to filter numbers using >, >=, <= …
    - How filters in two or three columns are combined
    - How to recognize the part, where the filter is applied
    - How to clear a condition in a column