Excel

Table Operations

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- Sort
- Convert text to columns
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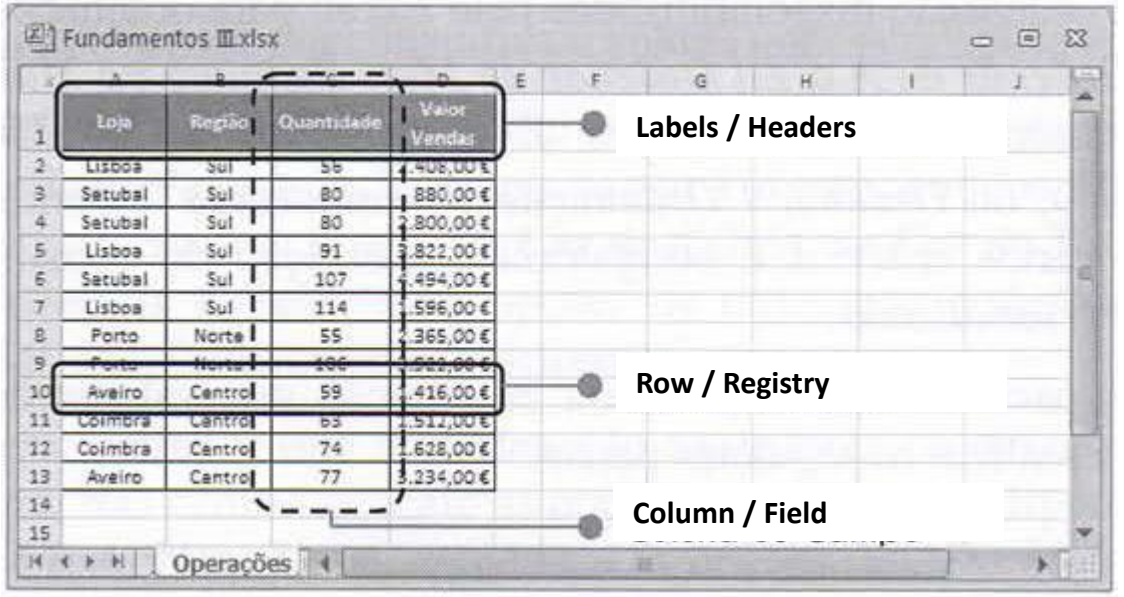
Table structure

Columns or Fields: represent a type of data (e.g.: codes, names, prices, …)

Labels or Headers: Names to identify each column (must be unique)

Rows or Registries: set of related data that describe something together



Sorting

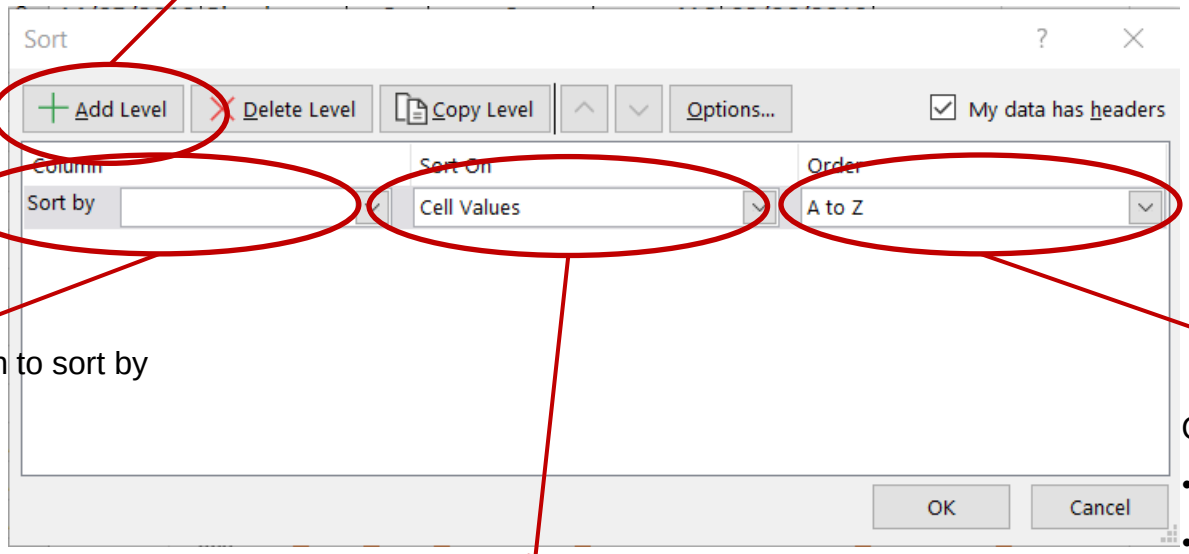
Reorganise data according to an ascending/descending sorting criteria on the data in one or more columns

How to:

1. Select the table
2. Tab: Home > Group: Editing > Command: Sort & Filter
    1. Sort A to Z (ascending order of the 1st column)
    2. Sort Z to A (descending order of the 1st column)
    3. Custom sort… (other types of sorting, or sorting by other columns)

Custom Sort

Add sort criteria



Choose column to sort by

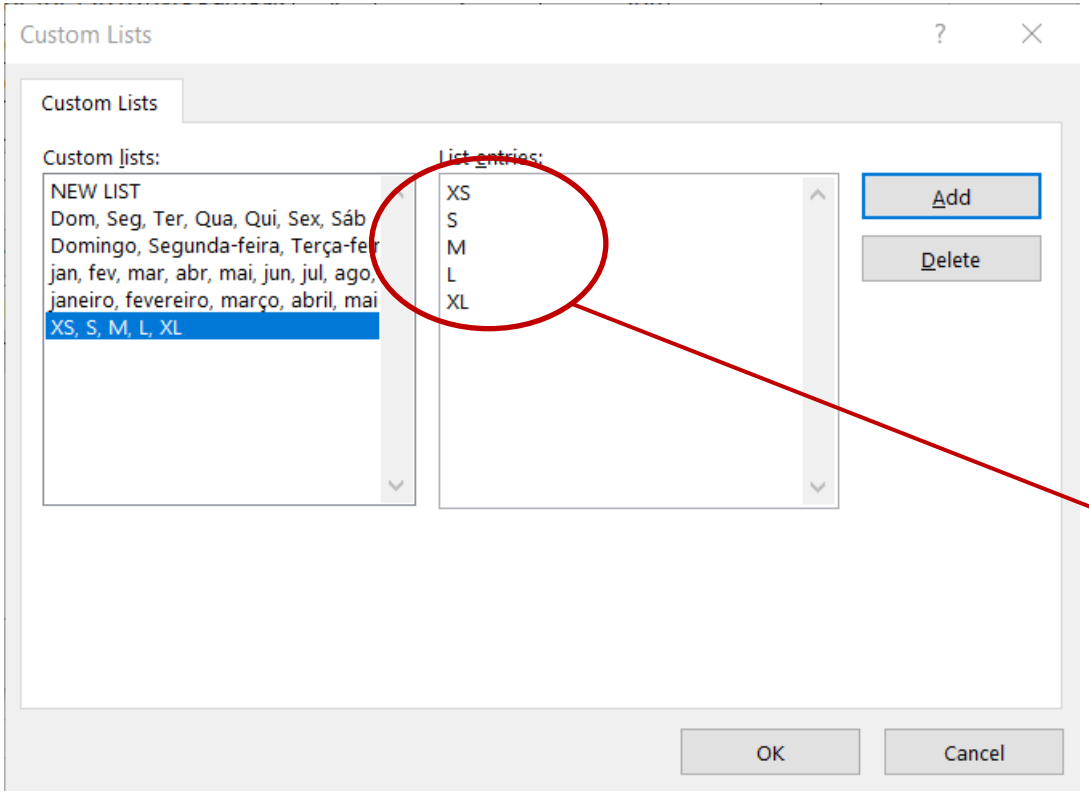
Choose sorting type:

- Cell Values
- Cell Colour
- Font Colour
- Conditional Formatting Icon

Choose order:

- A to Z / ascending
- Z to A / descending
- Custom List…

Custom List Sorting



Values to consider for the sorting

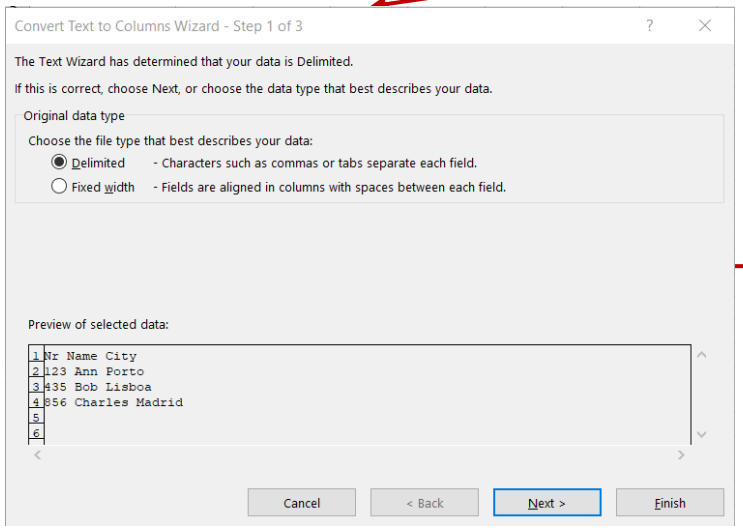
Convert text to columns

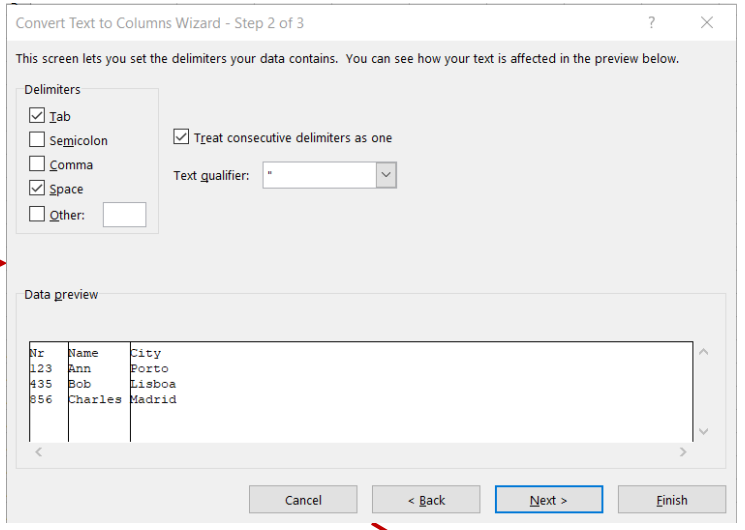
	A	B	C	D
1	Nr Name City			
2	123 Ann Porto			
3	435 Bob Lisboa			
4	856 Charles Madrid			

Tab “Data” >

Group “Data Tools” >

Command “Text to Columns”





	A	B	C	D
1	Nr	Name	City	
2	123	Ann	Porto	
3	435	Bob	Lisboa	
4	856	Charles	Madrid	

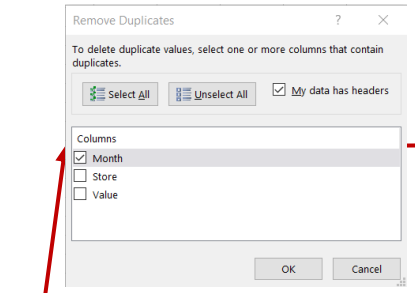
Duplicate Removal

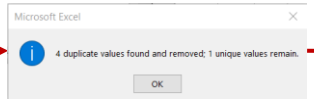
	A	B	C
1	Month	Store	Value
2	January	Braga	115
3	January	Porto	130
4	January	Lisboa	115
5	January	Braga	95
6	January	Porto	130

Tab “Data” >

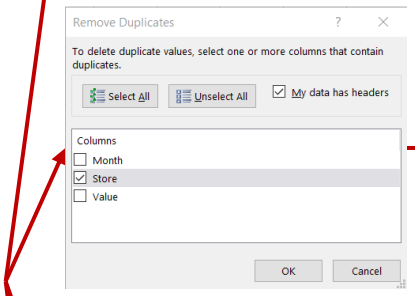
Group “Data Tools” >

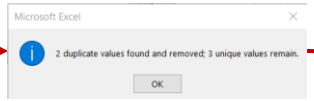
Command “Remove Duplicates”



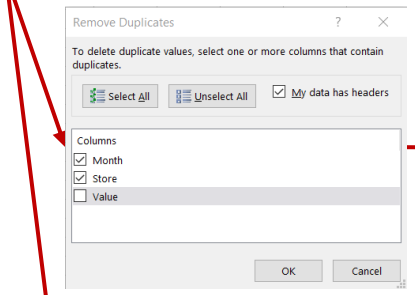


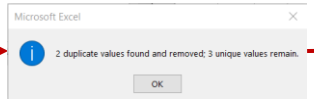
	A	B	C
1	Month	Store	Value
2	January	Braga	115
3			



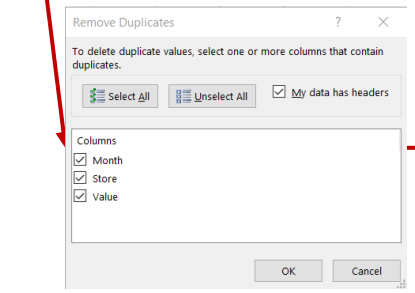


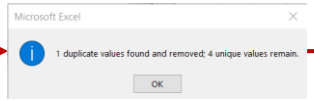
	A	B	C
1	Month	Store	Value
2	January	Braga	115
3	January	Porto	130
4	January	Lisboa	115
5			





	A	B	C
1	Month	Store	Value
2	January	Braga	115
3	January	Porto	130
4	January	Lisboa	115
5			





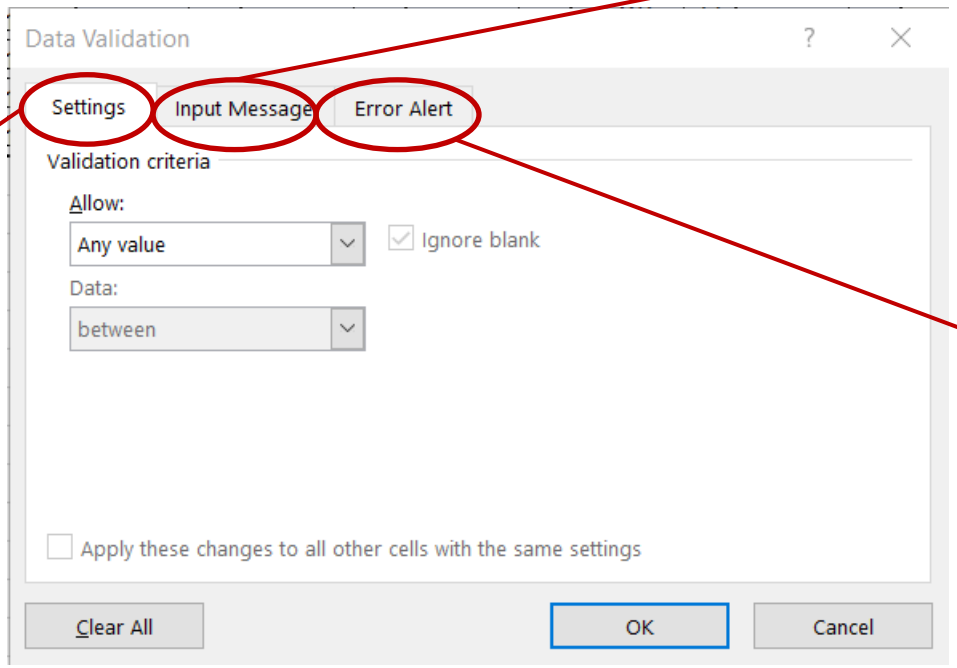
	A	B	C
1	Month	Store	Value
2	January	Braga	115
3	January	Porto	130
4	January	Lisboa	115
5	January	Braga	95
6			

Data Validation

How to:

1. Select the cell where the rule is to be introduced
2. Tab “Data” >
3. Group “Data Tools” >
4. Command “Data Validation”

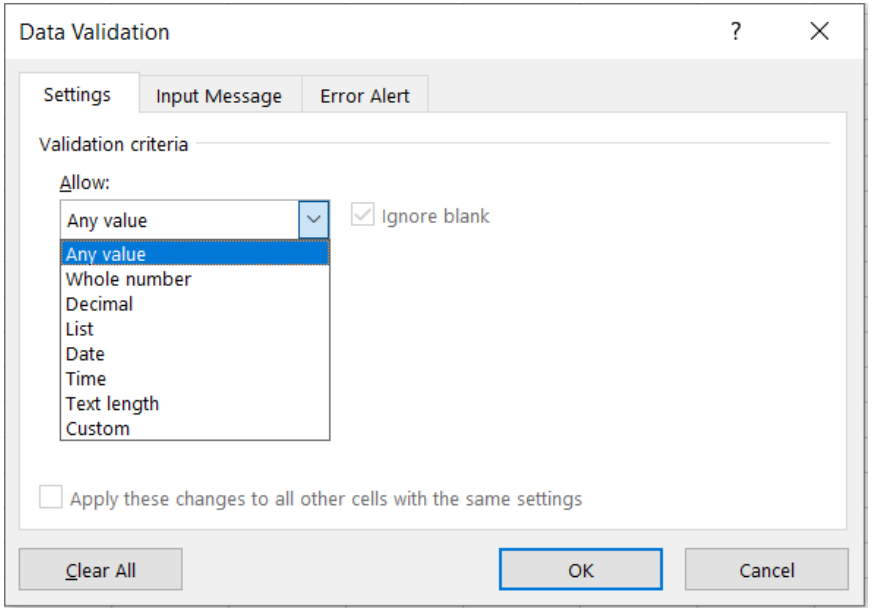
Define the **input message**: information to be shown to guide in the data insertion



Define a set of rules that should be respected when data is inserted to the cells

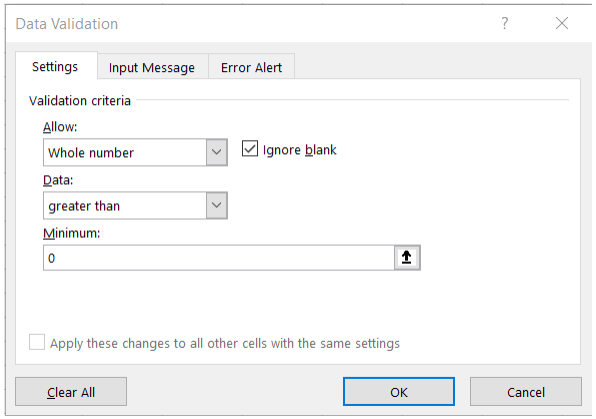
Define **error alert**: message shown when the data inserted does not respect the defined rule

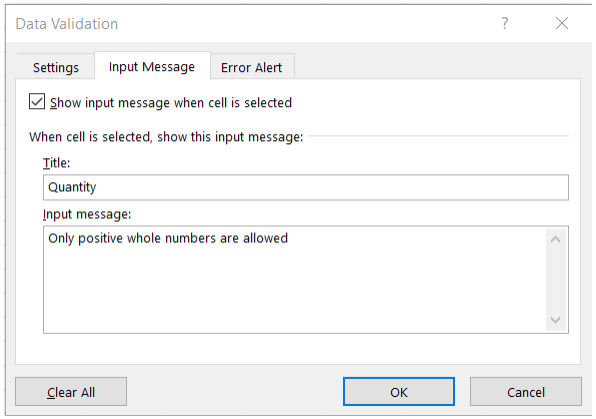
Define cell validation rules

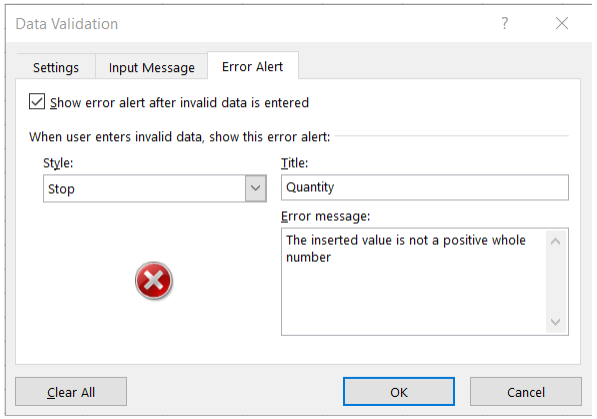


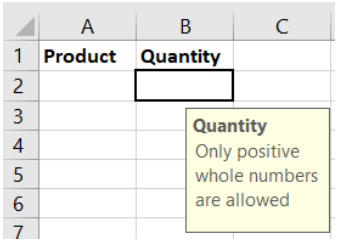
- **Any value**: deactivate any validation rule
- **Whole number**: only whole numbers can be inserted
  - Allows the definition of other criteria (>, <, between, ≠, …)
- **Decimal**: only decimal numbers can be inserted
  - Allows the definition of other criteria (>, <, between, ≠, …)
- **List**: define a list of allowed values
- **Date**: only dates can be inserted
- **Time**: only times can be inserted
- **Text length**: allowed text up to X characters
- **Custom**: define a logical formula to verify allowed values

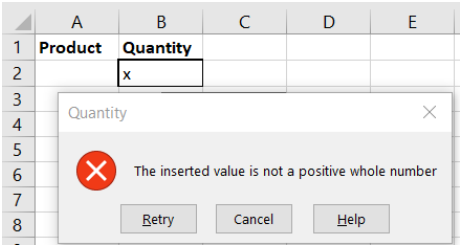
Example: only positive whole numbers are allowed

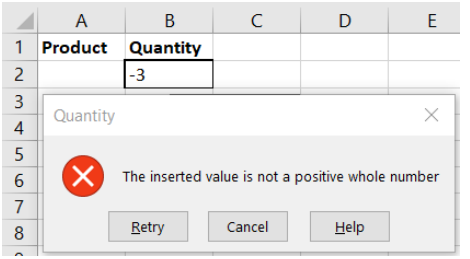












Consolidate data

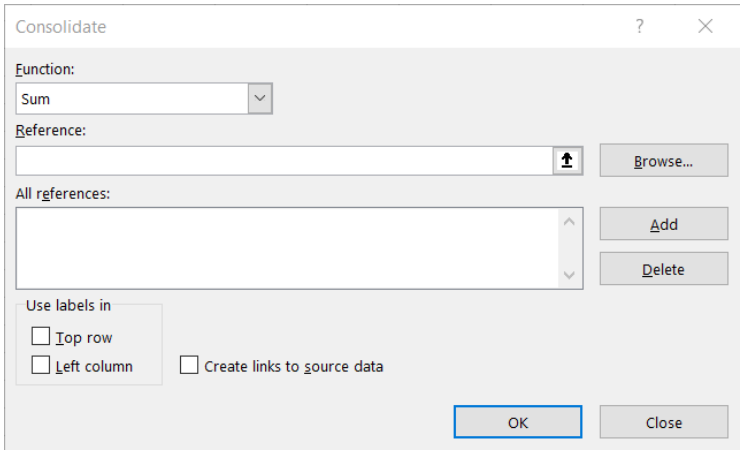
Create, in a single place, a summary map of data in several sources (cells, sheets, workbooks)

The data must have the same structure and/or labels in all sources

How to:

1. Open the workbooks that contain the desired information
2. Define and select in a sheet the blank area where the consolidated data is to be inserted
3. Tab “Data” > Group “Data Tools” > Command “Consolidate”
4. Fill the dialog

1. **Function**: type of consolidation operation to perform (sum, count, average, minimum, product, count numbers, standard deviation, variance)
2. **Reference**: for each of the data sources, insert or select the range of cells containing the data and click “Add”
3. **All references**: shows all the references added. Allows deleting references.
4. **Use labels in**: (optional) define if the ranges have labels on the 1st row or 1st column
5. **Create links to source data**: define if a link should be created
6. Ok



Subtotals

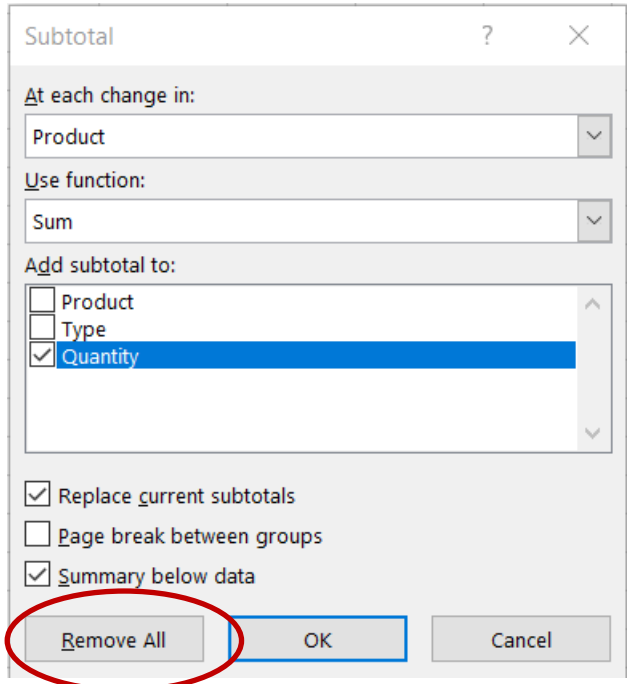
Subtotal

Automatically generate a summary on the table through the presentation of partial or global totals obtained mathematically or statistically

How to:

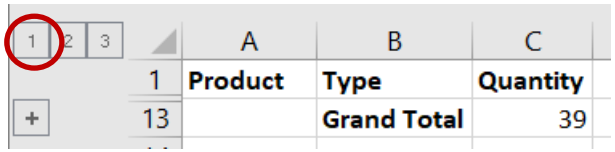
1. Select the table
2. Sort the table according to the subtotal wished
3. Tab “Data” > Group “Outline” > Command “Subtotal”
4. Fill the dialog

- **At each change in**: column to group the data by
- **Use function**: function to apply to the column where the subtotals are to be obtained
- **Add subtotal to**: column(s) where the subtotal is to be applied
- **Replace current subtotals**: remove subtotals created previously
- **Page break between groups**: insert breaks
- **Summary below data**: if not selected, the summary will be presented above the data

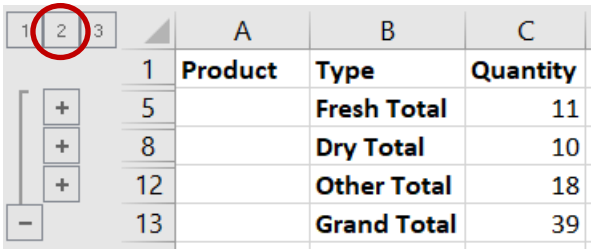


Remove all subtotals on the selected cells

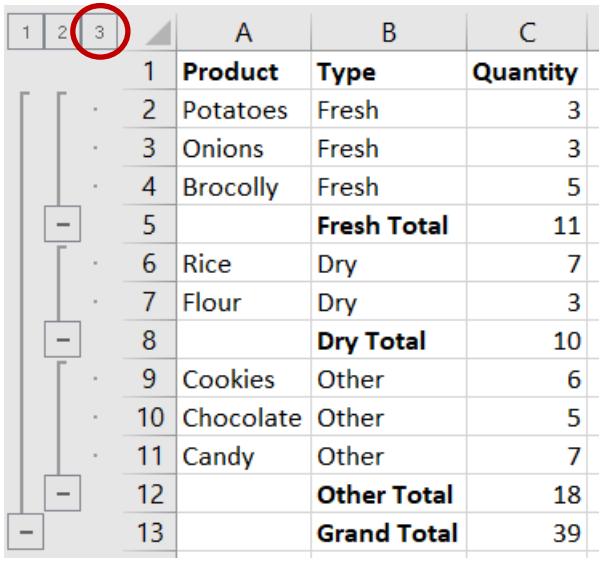
Subtotal results (levels)



	A	B	C
1	**Product**	**Type**	**Quantity**
13		**Grand Total**	39



	A	B	C
1	**Product**	**Type**	**Quantity**
5		**Fresh Total**	11
8		**Dry Total**	10
12		**Other Total**	18
13		**Grand Total**	39

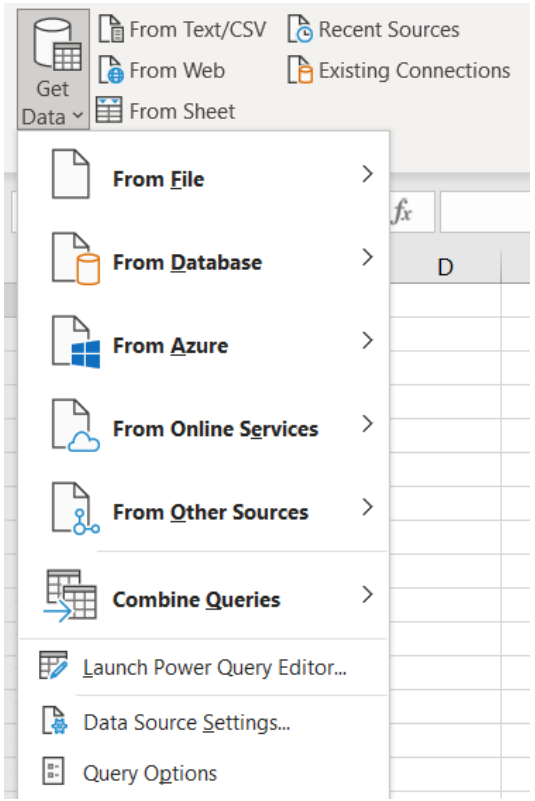


	A	B	C
1	**Product**	**Type**	**Quantity**
2	Potatoes	Fresh	3
3	Onions	Fresh	3
4	Brocolly	Fresh	5
5		**Fresh Total**	11
6	Rice	Dry	7
7	Flour	Dry	3
8		**Dry Total**	10
9	Cookies	Other	6
10	Chocolate	Other	5
11	Candy	Other	7
12		**Other Total**	18
13		**Grand Total**	39

Importing external data

Avoid manually inserting values

Tab “Data” > Group “Get & Transform Data” >



Importing text files

How to:

1. Tab “Data” > Group “Get & Transform Data” > Command “Get Data” > From File > From Text/CSV
2. Choose the file to import
3. Fill the delimiter (if needed)
4. Click “Transform Data”
5. Edit the parameters (if needed)
6. Click “Close & Load”

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Do conhecimento à prática.