

How can I use the Excel filter function for data analysis?

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RECOMMENDED CITATION

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PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=157416>

The Excel filter function is a powerful tool that allows users to analyze and manipulate large sets of data quickly and efficiently. It works by allowing the user to specify certain criteria and then filters out any data that does not meet those criteria. This function is particularly useful for data analysis as it enables users to easily identify patterns, trends, and outliers in their data. It can also be used to sort and organize data, making it easier to understand and draw insights from. With its user-friendly interface and customizable options, the Excel filter function is an essential tool for any data analyst looking to streamline their data analysis process.

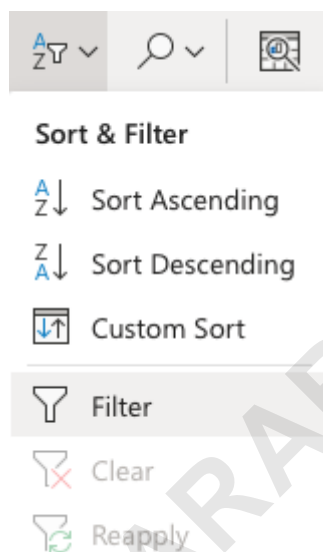
Excel Filter

Excel Filter

Filters can be applied to sort and hide data. It makes data analysis easier.

Note: Filter is similar to formatting a table, but it can be applied and deactivated.

The menu is accessed in the default Ribbon view or in the **Data** section in the navigation bar.



Applying Filter

Filters are applied by selecting a range and clicking the **Filter** command.

It is important to have a row of headers when applying filters. Having headers is useful to make the data understandable.

Note: Filters are applied to the top row in a range.

Like in the example below, the dedicated row is row 1.

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
2	1	Bulbasaur	Grass	Poison	318
3	2	Ivysaur	Grass	Poison	405
4	3	Venusaur	Grass	Poison	525
5	4	Charmander	Fire		309
6	5	Charmeleon	Fire		405
7	6	Charizard	Fire	Flying	534
8	7	Squirtle	Water		314
9	8	Wartortle	Water		405
10	9	Blastoise	Water		530
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
17	16	Pidgey	Normal	Flying	251
18	17	Pidgeotto	Normal	Flying	349
19	18	Pidgeot	Normal	Flying	479
20	19	Rattata	Normal		253
21	20	Raticate	Normal		413
22					

Let's apply filters to the data set, step by step.

Select range **A1:E1**

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
2	1	Bulbasaur	Grass	Poison	318
3	2	Ivysaur	Grass	Poison	405
4	3	Venusaur	Grass	Poison	525
5	4	Charmander	Fire		309
6	5	Charmeleon	Fire		405
7	6	Charizard	Fire	Flying	534
8	7	Squirtle	Water		314
9	8	Wartortle	Water		405
10	9	Blastoise	Water		530
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
17	16	Pidgey	Normal	Flying	251
18	17	Pidgeotto	Normal	Flying	349
19	18	Pidgeot	Normal	Flying	479
20	19	Rattata	Normal		253
21	20	Raticate	Normal		413
22					

Click the **Sort & Filter** menu

Click the **Filter** command

The screenshot shows the Excel interface with the 'Sort & Filter' menu open. The menu options are:

- Sort Ascending
- Sort Descending
- Custom Sort
- Filter
- Clear
- Reapply

The background table is the same as shown in the previous image, with columns A through E containing the data.

ID #	Name	Type 1	Type 2	Total
1	Bulbasaur	Grass	Poison	318
2	Ivysaur	Grass	Poison	405
3	Venusaur	Grass	Poison	525
4	Charmander	Fire		309
5	Charmeleon	Fire		405
6	Charizard	Fire	Flying	534
7	Squirtle	Water		314
8	Wartortle	Water		405
9	Blastoise	Water		530
10	Caterpie	Bug		195
11	Metapod	Bug		205
12	Butterfree	Bug	Flying	395
13	Weedle	Bug	Poison	195
14	Kakuna	Bug	Poison	205
15	Beedrill	Bug	Poison	395
16	Pidgey	Normal	Flying	251
17	Pidgeotto	Normal	Flying	349
18	Pidgeot	Normal	Flying	479
19	Rattata	Normal		253
20	Raticate	Normal		413

New buttons have been added to the cells in the top row. This indicates that the **Filter** was successfully applied. The buttons can be clicked to access the different **Sort & Filter** options.

A Non-Working Example

Lets delete row 1 (the header row) and apply filters to the new row 1, to see what happens.

	A	B	C	D	E
1		Bulbasaur	Grass	Poison	3
2	2	Ivysaur	Grass	Poison	405
3	3	Venusaur	Grass	Poison	525
4	4	Charmander	Fire		309
5	5	Charmeleon	Fire		405
6	6	Charizard	Fire	Flying	534
7	7	Squirtle	Water		314
8	8	Wartortle	Water		405
9	9	Blastoise	Water		530
10	10	Caterpie	Bug		195
11	11	Metapod	Bug		205
12	12	Butterfree	Bug	Flying	395
13	13	Weedle	Bug	Poison	195
14	14	Kakuna	Bug	Poison	205
15	15	Beedrill	Bug	Poison	395
16	16	Pidgey	Normal	Flying	251
17	17	Pidgeotto	Normal	Flying	349
18	18	Pidgeot	Normal	Flying	479
19	19	Rattata	Normal		253
20	20	Raticate	Normal		413
21					

The filter is applied and has replaced the header row. It is important to dedicate a header row for the filter.




Filter options


The filter options allow for sorting and filtering.


Applying filter keeps the relationship between the columns while sorting and filtering.

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
2	1	Poliwhirl	Grass	Poison	318
3	2	Ivysaur	Grass	Poison	405
4	3	Venusaur	Grass	Poison	525
5	4	Charmander	Fire		309
6	5	Charmeleon	Fire		405
7	6	Charizard	Fire	Flying	534
8	7	Squirtle	Water		314
9	8	Wartortle	Water		405
10	9	Blastoise	Water		530
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
17	16	Pidgey	Normal	Flying	251
18	17	Pidgeotto	Normal	Flying	349
19	18	Pidgeot	Normal	Flying	479
20	19	Rattata	Normal		253
21	20	Raticate	Normal		413
22					

Clicking the options button opens the menu.

-  Sort A to Z
-  Sort Z to A
-  Custom Sort

-  Sheet View >

-  Clear Filter from 'Type 1'

- Text Filters >
- Filter...

Sorting

Ranges can be sorted and the relationship between the columns is kept.

Sort Ascending (A-Z) sorted from smallest to largest.

Sort Descending (Z-A) sorts from largest to smallest.

You can read more about Sorting in a previous chapter.

Filtering

Filters can be applied to hide and sort data.

This is helpful for analysis, to select the data that you want to see or not.

Example Filter

Use the filter option to filter on Pokemon that is **Type 1, Bug**.

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
2	1	Bulbasaur	Grass	Poison	318
3	2	Ivysaur	Grass	Poison	405
4	3	Venusaur	Grass	Poison	525
5	4	Charmander	Fire		309
6	5	Charmeleon	Fire		405
7	6	Charizard	Fire	Flying	534
8	7	Squirtle	Water		314
9	8	Wartortle	Water		405
10	9	Blastoise	Water		530
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
17	16	Pidgey	Normal	Flying	251
18	17	Pidgeotto	Normal	Flying	349
19	18	Pidgeot	Normal	Flying	479
20	19	Rattata	Normal		253
21	20	Raticate	Normal		413

Step by step



Click the drop down menu on **C1** () and choose the **Filter** option. This is the Column which holds the **Type 1** data.

	A	B	C	D	E	F
1	ID #	Name	Type 1	Type 2	Total	
2	1	Bulbasaur	Grass			
3	2	Ivysaur	Grass			
4	3	Venusaur	Grass			
5	4	Charmander	Fire			
6	5	Charmeleon	Fire			
7	6	Charizard	Fire			
8	7	Squirtle	Water			
9	8	Wartortle	Water			
10	9	Blastoise	Water			
11	10	Caterpie	Bug			
12	11	Metapod	Bug			
13	12	Butterfree	Bug			
14	13	Weedle	Bug	Poison	195	
15	14	Kakuna	Bug	Poison	205	
16	15	Beedrill	Bug	Poison	395	
17	16	Pidgey	Normal	Flying	251	
18	17	Pidgeotto	Normal	Flying	349	
19	18	Pidgeot	Normal	Flying	479	
20	19	Rattata	Normal		253	
21	20	Raticate	Normal		413	

Note: "Items" are the different categories in that column; Grass, Fire, Water and so on.

All items are checked by default. The checked items are the ones that are shown. Uncheck to hide.

Uncheck all items, except **Bug**, which is the type that we want to show.

	A	B	C	D	E	F	G	H	I	J
1	ID #	Name	Type 1	Type 2	Total					
2		1 Bulbasaur	Grass	Poison	318					
3		2 Ivysaur	Grass	Poison	405					
4		3 Venusaur	Grass	Poison	525					
5		4 Charmander	Fire		309					
6		5 Charmeleon	Fire		405					
7		6 Charizard	Fire	Flying	534					
8		7 Squirtle	Water		314					
9		8 Wartortle	Water		405					
10		9 Blastoise	Water		530					
11		10 Caterpie	Bug		195					
12		11 Metapod	Bug		205					
13		12 Butterfree	Bug	Flying	395					
14		13 Weedle	Bug	Poison	195					
15		14 Kakuna	Bug	Poison	205					
16		15 Beedrill	Bug	Poison	395					
17		16 Pidgey	Normal	Flying	251					
18		17 Pidgeotto	Normal	Flying	349					
19		18 Pidgeot	Normal	Flying	479					
20		19 Rattata	Normal		253					
21		20 Raticate	Normal		413					
22										
23										
24										
25										

Filter ✕

Select item:

- (Select All)
- Bug
- Fire
- Grass
- Normal
- Water

Click OK

	A	B	C	D	E	F	G	H	I	J
1	ID #	Name	Type 1	Type 2	Total					
2		1 Bulbasaur	Grass	Poison	318					
3		2 Ivysaur	Grass	Poison	405					
4		3 Venusaur	Grass	Poison	525					
5		4 Charmander	Fire		309					
6		5 Charmeleon	Fire		405					
7		6 Charizard	Fire	Flying	534					
8		7 Squirtle	Water		314					
9		8 Wartortle	Water		405					
10		9 Blastoise	Water		530					
11		10 Caterpie	Bug		195					
12		11 Metapod	Bug		205					
13		12 Butterfree	Bug	Flying	395					
14		13 Weedle	Bug	Poison	195					
15		14 Kakuna	Bug	Poison	205					
16		15 Beedrill	Bug	Poison	395					
17		16 Pidgey	Normal	Flying	251					
18		17 Pidgeotto	Normal	Flying	349					
19		18 Pidgeot	Normal	Flying	479					
20		19 Rattata	Normal		253					
21		20 Raticate	Normal		413					
22										
23										
24										
25										

Filter ✕

Select item:

- (Select All)
- Bug
- Fire
- Grass
- Normal
- Water

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395

Good job! The range was successfully sorted by **Type 1, Bug**. All shown Pokemons are **Bug** type.

Note: The unchecked rows are hidden, not deleted.

This is explained by looking at the row numbers. The numbers are jumping from 1 to 11 and 16 to 22. The rows in between are hidden.

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
11	10	Caterpie	Bug		195
12	11	Metapod	Bug		205
13	12	Butterfree	Bug	Flying	395
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
22					

Note: Checking the items will have the rows shown again.

Another Example

Use the filter option to filter the Pokemons which have **Type 1, Bug** and **Type 2, Poison**.

Click the filter option in **D1** Uncheck all items except **Poison** click **OK**

	A	B	C	D	E
1	ID #	Name	Type 1	Type 2	Total
14	13	Weedle	Bug	Poison	195
15	14	Kakuna	Bug	Poison	205
16	15	Beedrill	Bug	Poison	395
22					

That is on point! We have sorted the range based on **Type 1, Bug** and **Type 2, Poison**. The filter option is helpful to make ranges easier to analyse.

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