

MS Excel Basics

Duration: 3 Hours





How many people do you think use Excel?

Option 1: Some thousands of people

Option 2: Half a million people

Option 3: Half a billion people

Option 4: Do not know

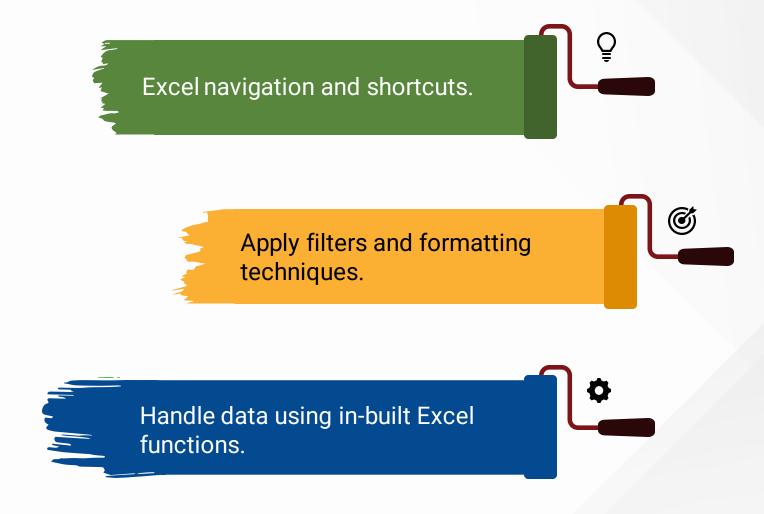




Session Overview

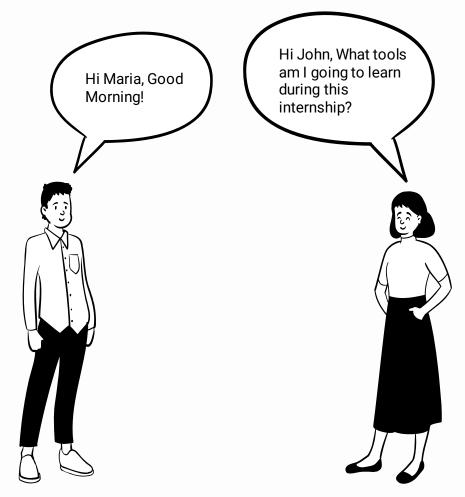
MS Excel Basics

In this session, you will learn how to:











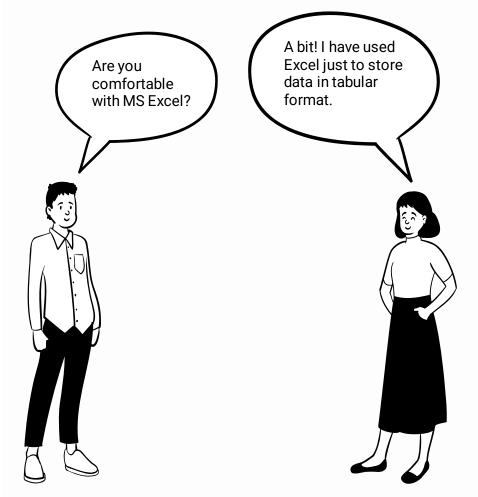


















Reasons Why Excel Is Still Relevant.



Quick Access

You can get what you need quickly – no waiting for the IT department to deal with your question.

Flexible

When you know Excel, it tends to be incredibly flexible.

Marketable Skill

Most organisations use Excel – it's a very marketable skill.





Reasons Why Excel Is Still Relevant



Efficient Analysis

Big systems are great for delivering clean data – Excel allows you to do something with it.

Community Benefits

There is a huge amount of help there for Excel users.

Better Sharing

Excel has got efficient sharing capabilities.





- A powerful data visualization and analysis software, which uses spreadsheets to store, organize, and track data sets with formulas and functions.
- Store, analyse, and report on large amounts of data.
- Primarily known as an accounting tool but can be used by any professional to manage long and unwieldy datasets.















Activity

Understanding Sales Data

With Sales data, they also shared some information on data.



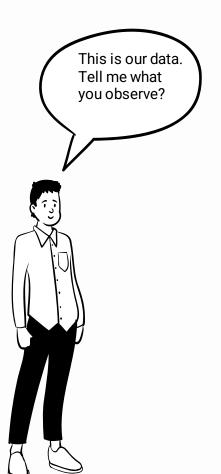
Column Name	Description
Year	Year of Sale
Quarter	Quarter of Sale (Q1,Q2,Q3,Q4)
Geography	Region of Sale
Product Segment	Category of Product
Product	Product Name
Sales	Total Sales Amount(\$)
Sales Returns	Amount spend of Returns(\$)





Activity

Understanding Sales Data

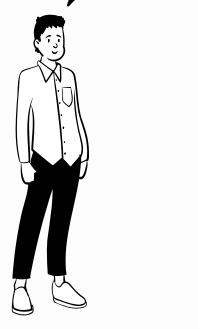


J1	6	<u>~</u> :	$\times \checkmark f_x$						
	Α	В	С	D	Е	F	G	Н	
1	Year	Quarter	Geography	Product Segment	Prod	uct	Sales	Sales Returns	
2	2020	4	West	Commercial Security	Digital Co	mmunicator	1968907	\$ 4,57,514	
3	2020	1	East	Home Entertainment	Sound Syst	ems	8683228	2,00,405	
4	2020	4	East	Commercial Security	Digital Co	mmunicator	7740713	4,94,070	
5	2020	4	East	Other Durables	Digital Li	ghting	7927526	5,02,810	
6	2020	1	South	Home Security	Intercom		4383598	58,589	
7	2020	4	North	Other Durables	Computers	& Parts	\$ 87,54,448	639806	
8	2020	1	South	Other Durables	Computers	& Parts	\$ 56,84,234	129145	
9	2020	2	South	Home Entertainment	Sound Syst	ems	\$ 84,50,306	399642	
10	2020	4	South	Other Durables	Digital Li	ghting	\$ 56,91,039	400914	
11	2020	1	East	Commercial Security	Digital Co	mmunicator	\$ 37,61,989	\$ 6,24,746	
12	2020	1	West	Other Durables	Computers	& Parts	\$ 44,76,181	\$ 3,50,762	
13	2020	1	West	Home Security	Intercom		\$ 47,36,562	\$ 1,13,156	
14	2020	2	West	Other Durables	Projectors		\$ 76,81,847	\$ 24,897	









	Α	В	С	D	Е	F	G	Н	- 1
1	Year	Quarter	eograph	uct Segr	Prod	uct	Sales	es Retur	ns
2	2020	4	West	iercial Se	Digital Co	municat	1968907	######	
3	2020	1	East	Entertai	ound Sys	ems	8683228	######	
4	2020	4	East	iercial Se	Digital Co	municat	7740713	######	
5	2020	4	East	er Dural	Digital Li	ghting	7927526	######	
6	2020	1	South	me Secui	ntercom	· 42	4383598	58,589	
7	2020	4	North	er Dural	omputei	& Parts	######	639806	
8	2020	1	South	er Dural	omputei	& Parts	######	129145	
9	2020	2	South	Entertai	ound Sys	ems	######	399642	
10	2020	4	South	er Dural	Digital Li	ghting	######	400914	
11	2020	1	East	iercial Se	Digital Co	municat	######	######	
12	2020	1	West	er Dural	omputei	& Parts	######	######	
13	2020	1	West	me Secui	ntercom	1	######	######	
14	2020	2	West	er Dural	rojector	s	######	######	
15	2020	2	South	er Dural	omputei	& Parts	######	######	
16	2020	4	West	Entertai	LEDs		7141585	######	
17	2020	1	Morth	or Dural	Digital Li	abtina	7205600	######	





Adjusting Column Width

4	А	В	С	D	Е	F	G	Н	- 1
1	Year	Quarter	eograph	uct Segr	Prod	uct	Sales	es Retur	ns
2	2020	4	West	iercial Se	Digital Co	municat	1968907	######	
3	2020	1	East	Entertai	ound Sys	ems	8683228	######	
4	2020	4	East	iercial Se	Digital Co	municat	7740713	######	
5	2020	4	East	er Dural	Digital Li	ghting	7927526	######	
6	2020	1	South	me Secu	ntercom	<u></u>	4383598	58,589	
7	2020	4		er Dural					
8	2020	1	South	er Dural	omputei	& Parts	######	129145	
9	2020	2	South	Entertai	ound Sys	ems	######	399642	
10	2020	4	South	er Dural	Digital Li	ghting	######	400914	
11	2020	1	East	iercial Se	Digital Co	municat	######	######	
12	2020	1	West	er Dural	omputei	& Parts	######	######	
13	2020	1	West	me Secui	ntercom	1	######	######	
14	2020	2	West	er Dural	rojector	s	######	######	
15	2020	2	South	er Dural	omputei	& Parts	######	######	
16	2020	4	West	Entertai	LEDs		7141585	######	
17	2020	1	Morth	or Dural	Dialtal L	abtina	7205600	######	

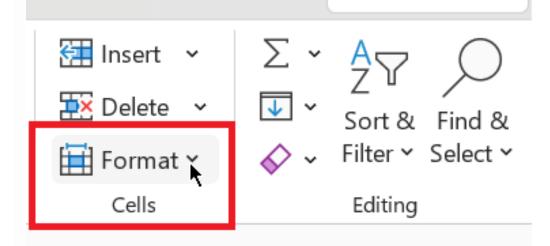
Step 1: Select the columns you want to change.

(in this case, all columns are selected.)





Adjusting Column Width



Step 2: On the Home tab, in the Cells group, click Format.

Step 3: In the Column width box, type the value that you want.

Format

Change the row height or column width, organize sheets, or protect or hide cells.





Formatting Data Types



	G	Н
	Sales	Sales Returns
r	1968907	\$ 4,57,514
	8683228	2,00,405
r	7740713	4,94,070
	7927526	5,02,810
	4383598	58,589
	\$ 87,54,448	639806
	\$ 56,84,234	129145
	\$ 84,50,306	399642
	\$ 56,91,039	400914
r	\$ 37,61,989	\$ 6,24,746
	\$ 44,76,181	\$ 3,50,762
	\$ 47,36,562	\$ 1,13,156
	\$ 76,81,847	\$ 24,897





Formatting Data Types

	_ F		G	Н
	₩uct		Sales	Sales Returns
	mmui 🛕	r	1968907	\$ 4,57,514
:	ems		8683228	2,00,405
	mmunicat	r	7740713	4,94,070
	ghting		7927526	5,02,810
			4383598.00	58,589
,	& Parts	П	8754448.00	639806
,	& Parts		5684234.00	129145
	ems		8450306.00	399642
	ghting		5691039.00	400914
	mmunicate	r	3761989.00	\$ 6,24,746
,	& Parts		4476181.00	\$ 3,50,762
			4736562.00	\$ 1,13,156
			7681847.00	\$ 24,897
,	& Parts		6801314.00	\$ 2,10,686
			7141585	\$ 1,03,261
	ghting		7395699	\$ 1,32,617
	ems		4440476	\$ 6,79,512
			9968069	642661
			2404752	24/444

Step 1: Select the range of cells which need to be converted.





Formatting Data Types

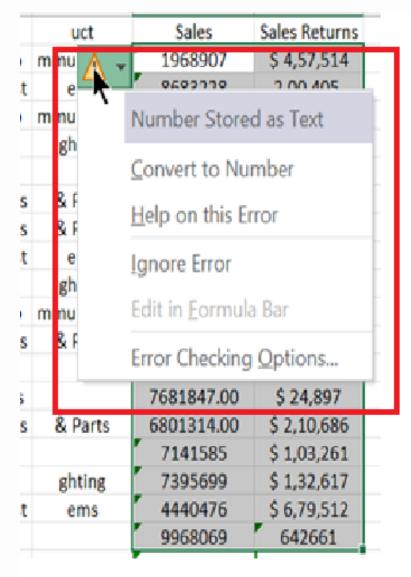
F	G	Н
₩uct	Sales	Sales Returns
mmui 🛕 o	or 1968907	\$ 4,57,514
ems	8683228	2,00,405
mmunicate	7740713	4,94,070
ghting	7927526	5,02,810
	4383598.00	58,589
& Parts	8754448.00	639806
& Parts	5684234.00	129145
ems	8450306.00	399642
ghting	5691039.00	400914
mmunicato	or 3761989.00	\$ 6,24,746
& Parts	4476181.00	\$ 3,50,762
	4736562.00	\$ 1,13,156
	7681847.00	\$ 24,897
& Parts	6801314.00	\$ 2,10,686
	7141585	\$ 1,03,261
ghting	7395699	\$ 1,32,617
ems	4440476	\$ 6,79,512
	9968069	642661
	2404752	24/444

Step 2: Next to the selected cell or range of cells, click the error button that appears.





Formatting Data Types



Step 3: On the menu, click Convert to Number.

Note: For more information on customizing number format and the available number formats, refer the following doc.

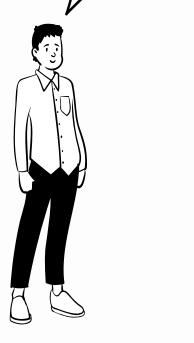
https://support.microsoft.com/en-us/office/available-number-formats-in-excel-0afe8f52-97db-41f1-b972-4b46e9f1e8d2





Hiding & Unhiding Columns

What would you do if data has too many columns?

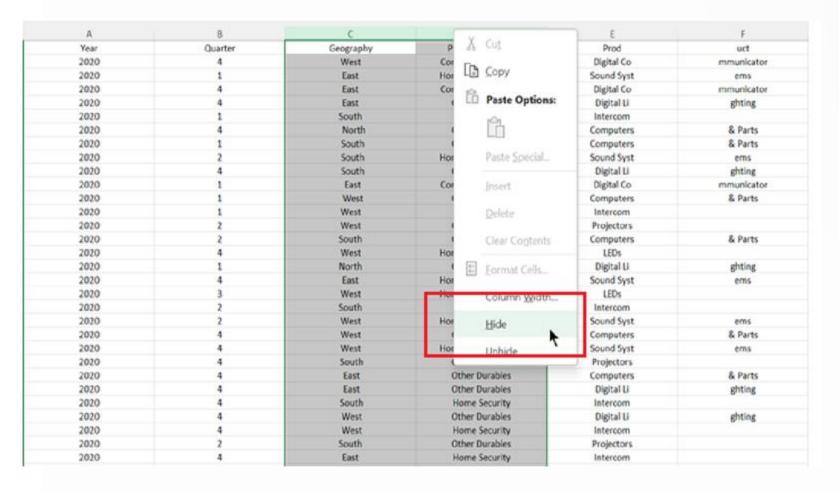


	Α	В	С	D	Е	F	G	Н
1	Year	Quarter	Geography	Product Segment	Prod	uct	Sales	Sales Returns
2	2020	4	West	Commercial Security	Digital Co	mmunicator	1968907	\$ 4,57,514
3	2020	1	East	Home Entertainment	Sound Syst	ems	8683228	2,00,405
4	2020	4	East	Commercial Security	Digital Co	mmunicator	7740713	4,94,070
5	2020	4	East	Other Durables	Digital Li	ghting	7927526	5,02,810
6	2020	1	South	Home Security	Intercom		4383598	58,589
7	2020	4	North	Other Durables	Computers	& Parts	\$ 87,54,448	639806
8	2020	1	South	Other Durables	Computers	& Parts	\$ 56,84,234	129145
9	2020	2	South	Home Entertainment	Sound Syst	ems	\$ 84,50,306	399642
10	2020	4	South	Other Durables	Digital Li	ghting	\$ 56,91,039	400914





Hiding Columns



Step 1: Select the columns to hide.

Step 2: Right click on header and select Hide.

Note: The double line between two columns is an indicator that you've hidden a column.





Unhiding Columns

B1	B1 \checkmark : $(\times \checkmark f_x)$ Quarter						
	А	В		Е	F		
1	Year	Quarter		Prod	uct		
2	2020	4		Digital Co	mmunicator		
3	2020	1		Sound Syst	ems		
4	2020	4		Digital Co	mmunicator		
5	2020	4		Digital Li	ghting		
6	2020	1		Intercom			
7	2020	4		Computers	& Parts		
8	2020	1		Computers	& Parts		
9	2020	2		Sound Syst	ems		
10	2020	4		Digital Li	ghting		
11	2020	1		Digital Co	mmunicator		
17	วกวก	1		Computors	9. Darte		

Step 1: Double lines denote hidden columns. Right click on them.

Step 2: Select Unhide.





More Features

Let us look at few more features in MS Excel.



- Trim
- Freezing Panes
- Bold-Italicize-Underline
- Filtering a Range of Data
- Filtering Data from a Table
- Using Between Filter
- Sorting Data
- Converting Numbers to Currency





Trimming Extra Spaces

TRIM function removes all spaces from text except for single spaces between words.

Syntax:

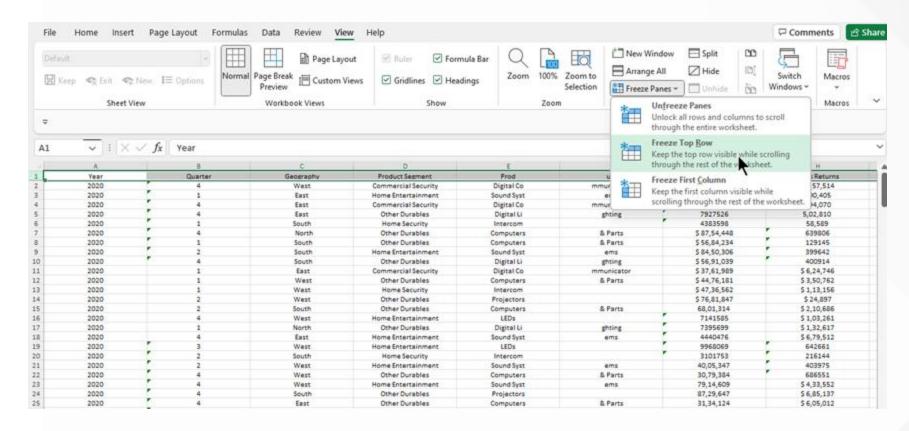
=TRIM(text)

C	D	E	F	G	Н	1	J
Geography	Product Segment	Prod	uct	Sales	Sales Returns		
West	Commercial Security	Digital Co	mmunicator	1968907	\$ 457,514		=TRIM(C2)
East	Home Entertainment	Sound Syst	ems	8683228	200,405		, ,
East	Commercial Security	Digital Co	mmunicator	7740713	494,070		
East	Other Durables	Digital Li	ghting	7927526	502,810		
South	Home Security	Intercom		4383598	58,589		
North	Other Durables	Computers	& Parts	\$ 8,754,448	639806		
South	Other Durables	Computers	& Parts	\$ 5,684,234	129145		
South	Home Entertainment	Sound Syst	ems	\$ 8,450,306	399642		
South	Other Durables	Digital Li	ghting	\$ 5,691,039	400914		
East	Commercial Security	Digital Co	mmunicator	\$ 3,761,989	\$ 624,746		
West	Other Durables	Computers	& Darte	¢ / //76 191	\$ 250.762		





Freeze Panes

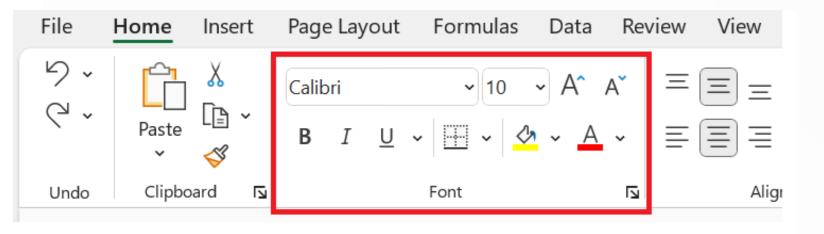


Step 1: Select the row/column to freeze.

Step 2: View > Free Panes > Free Top row







Step 1: Select the cell/row/column

Step 2: Click the Bold, Italic, or Underline buttons on the Home tab

Shortcuts:

- To make text bold, press Ctrl + B
- To italicize text, press Ctrl + I
- To underline text, press Ctrl + U





Filtering a Range of Data



Step 1: Select any cell within the range.

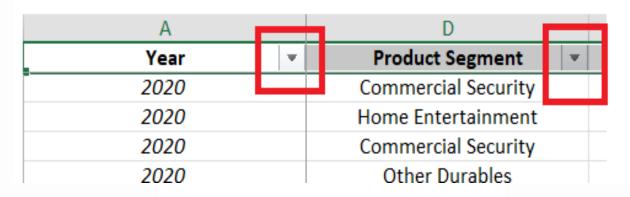
Step 2: Select Data > Filter.

Step 3: Select the column header arrow Filter arrow.

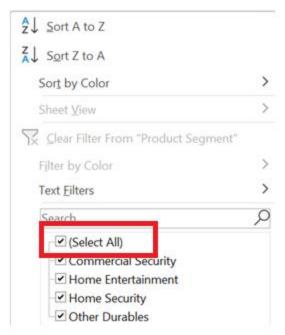
Step 4: Select Text Filters or Number Filters, and then select a comparison, like Between.



Filtering Data from a Table



Step 1: Select the column header arrow Filter drop-down arrow for the column you want to filter.

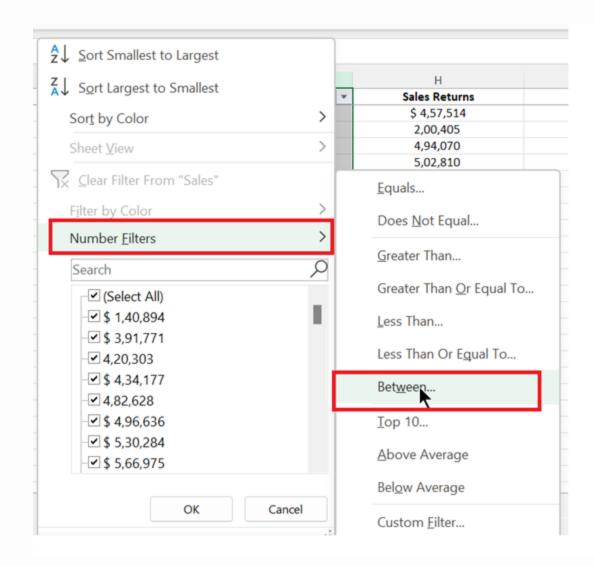


Step 2: Uncheck (Select All) and select the boxes you want to show.





Using Between Filter

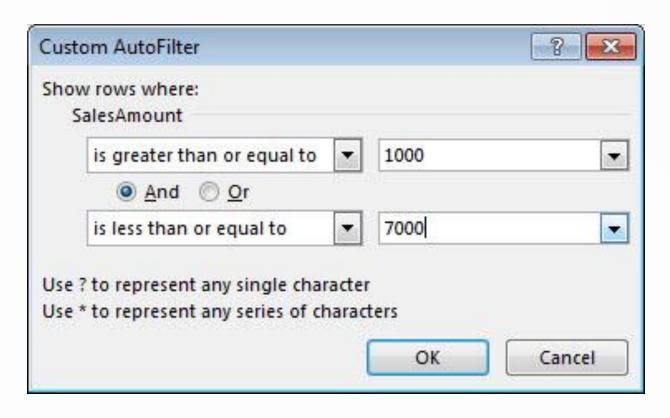


Step 1: Select Text Filters or Number Filters, and then select a comparison, like Between.





Using Between Filter

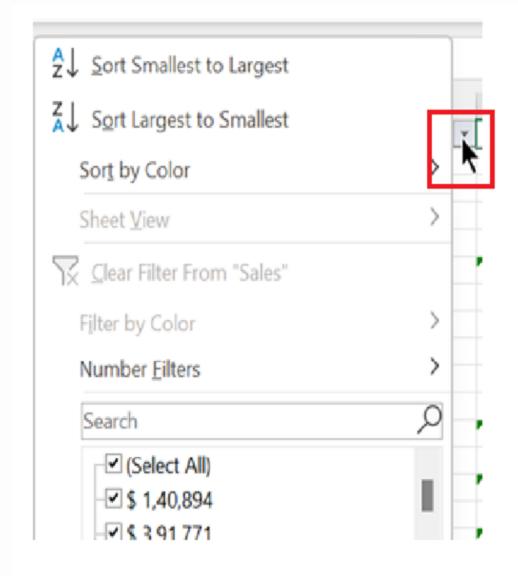


Step 2: Enter the filter criteria and select OK.





Sorting Data



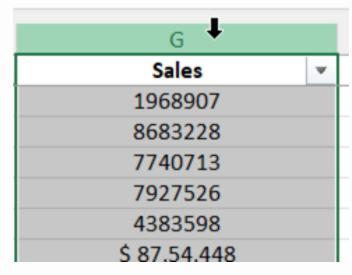
Step 1: Select a cell in the column you want to sort.

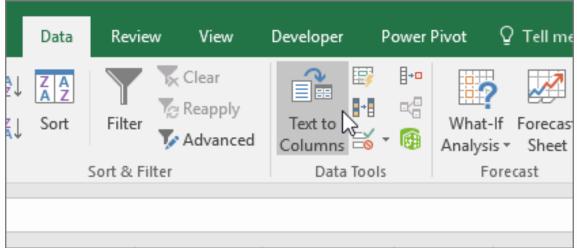
Step 2: On the Data tab, in the Sort & Filter group, do one of the available sorting.





Converting Numbers to Currency





Step 1: Select a column

Step 2: Go to data and click this button "Text to column"





Converting Numbers to Currency

General 🔥	_Sample
Number	Expenses
Currency Accounting & Date Time Percentage	Decimal places: 2
Fraction Scientific Text	-1,234.10
Special Custom	1,234.10 (1,234.10) (1,234.10)

Step 3: Right click the column that has the currency values.

Step 4: Click symbol. Choose the required currency.





What would you do when you lose sight of the column headers while scrolling down the spreadsheet?

- 1. Freeze column headers
- 2. Filter column headers
- 3. Hide column headers
- 4. Sort column headers





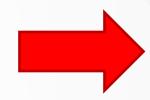


Concatenation





Е	F
Prod	uct
Digital Co	mmunicator
Sound Syst	ems
Digital Co	mmunicator
Digital Li	ghting
Intercom	
Computers	& Parts
Computers	& Parts
Sound Syst	ems
Digital Li	ghting
Digital Co	mmunicator
Computers	& Parts
Intercom	
Projectors	

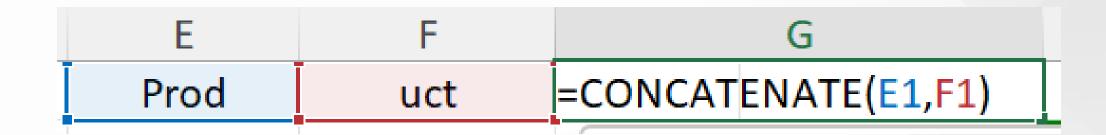


G Product **Digital Communicator** Sound Systems **Digital Communicator** Digital Lighting Intercom Computers& Parts Computers& Parts Sound Systems Digital Lighting **Digital Communicator** Computers& Parts Intercom Projectors





Merge them into one column using "=CONCATENATE(cell 1, cell 2)".







More Features

Let us try to make this data more readable.



- Splitting column data
- Splitting column data by Index
- Removing duplicates
- Border cell formatting
- Conditional formatting





Splitting a Column

Product Segment

Commercial Security

Home Entertainment

Commercial Security

Other Durables

Home Security

Other Durables

Other Durables

Home Entertainment

Other Durables

Commercial Security

Other Durables

Home Security

Other Durables

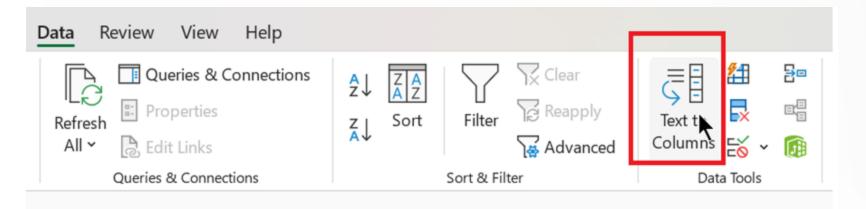


Segment
Security
Entertainment
Security
Durables
Security
Durables
Durables
Entertainment
Durables
Security
Durables
Security
Durables





Splitting a Column



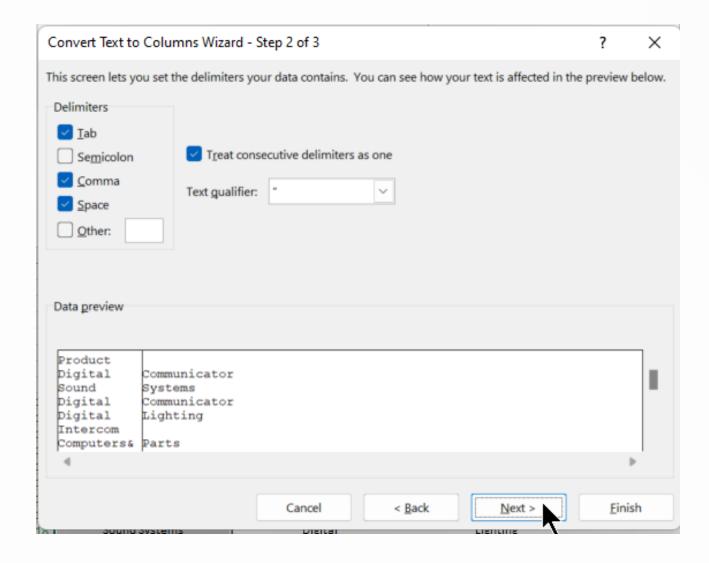
Step 1: Select the cell or column that contains the text you want to split.

Step 2: Select Data > Text to Columns.





Splitting a Column



Step 3: In the Convert Text to Columns Wizard, select Delimited > Next.





Splitting a Column

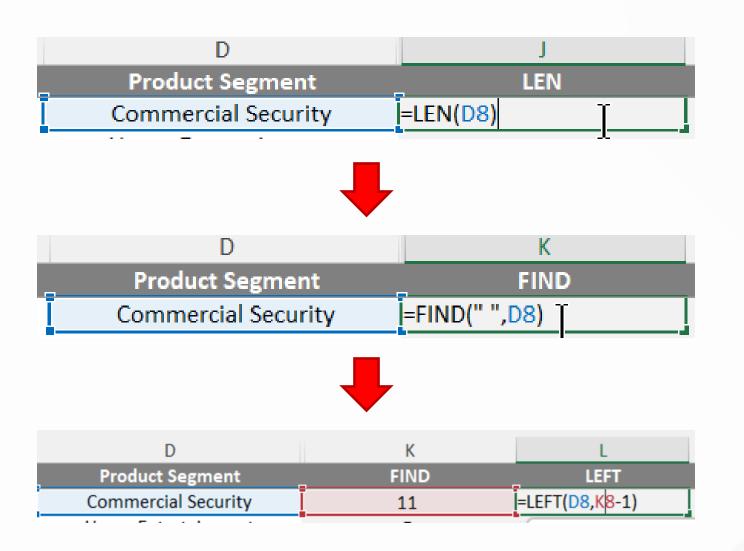


Step 4: Select the Destination in your worksheet which is where you want the split data to appear. Select Finish.





Splitting Column Text by Index



Step 1: Get the length of the text. Save this value in a cell.

Step 2: To split by empty space, find the index using =FIND(" ", cell). Save this value in a cell.

Step 3: Get the left entity of the text using =LEFT(cell to split, index for splitting-1).





Splitting Column Text by Index

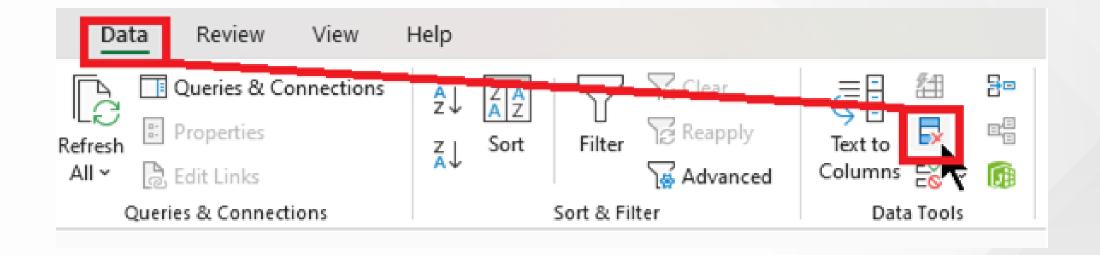
D	K	L	M
Product Segment	FIND	LEFT	RIGHT
Commercial Security	11	Commercial	Security
Home Entertainment	5	Home	Entertainment
Commercial Security	11	Commercial	Security
Other Durables	6	Other	Durables
Home Security	5	Home	Security
Other Durables	6	Other	Durables
Other Durables	6	Other	Durables
Home Entertainment	5	Home	Entertainment
Other Durables	6	Other	Durables
Commercial Security	11	Commercial	Security
Other Durables	6	Other	Durables
Home Security	5	Home	Security

And here we have our desired output!





Removing Duplicates



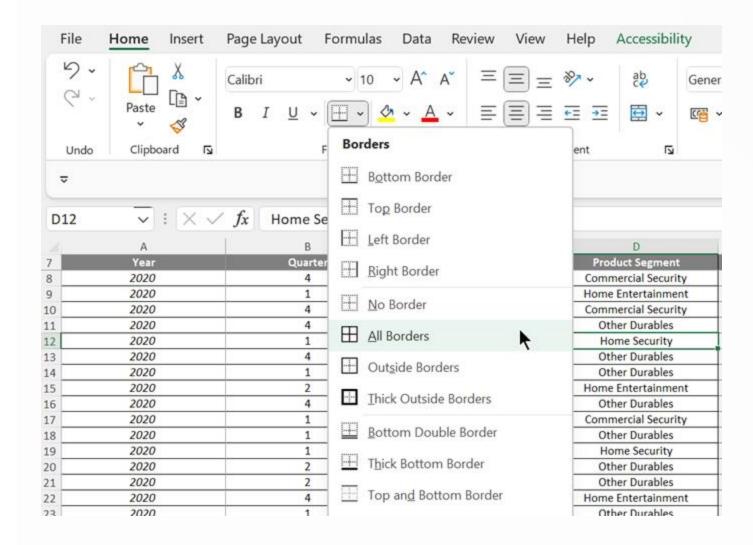
Step 1: Select the range of cells that has duplicate values you want to remove.

Step 2: Click Data > Remove Duplicates and then Under Columns, check or uncheck the columns where you want to remove the duplicates.





Border Cell Formatting



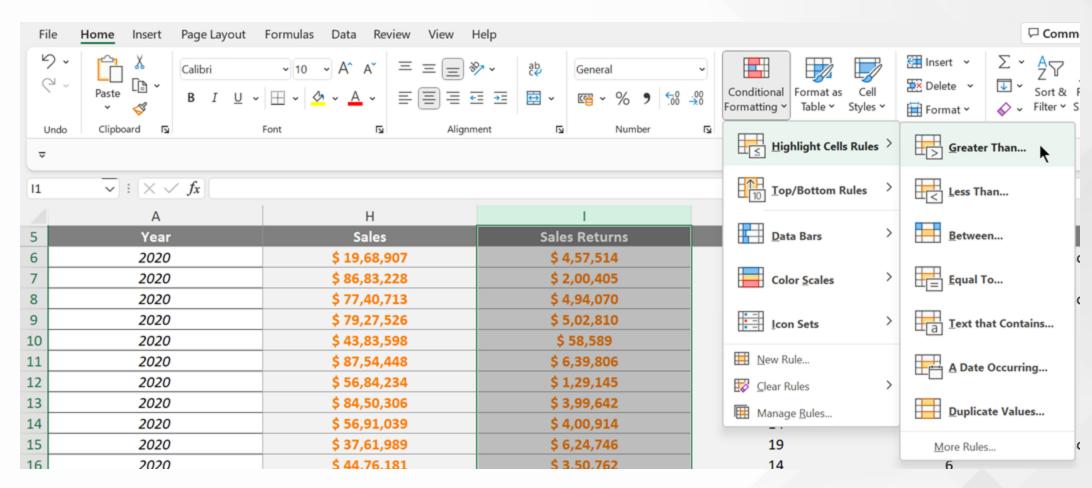
Step 1: Select the range of cells.

Step 2: Click HOME> Select the type of border.





Conditional Formatting







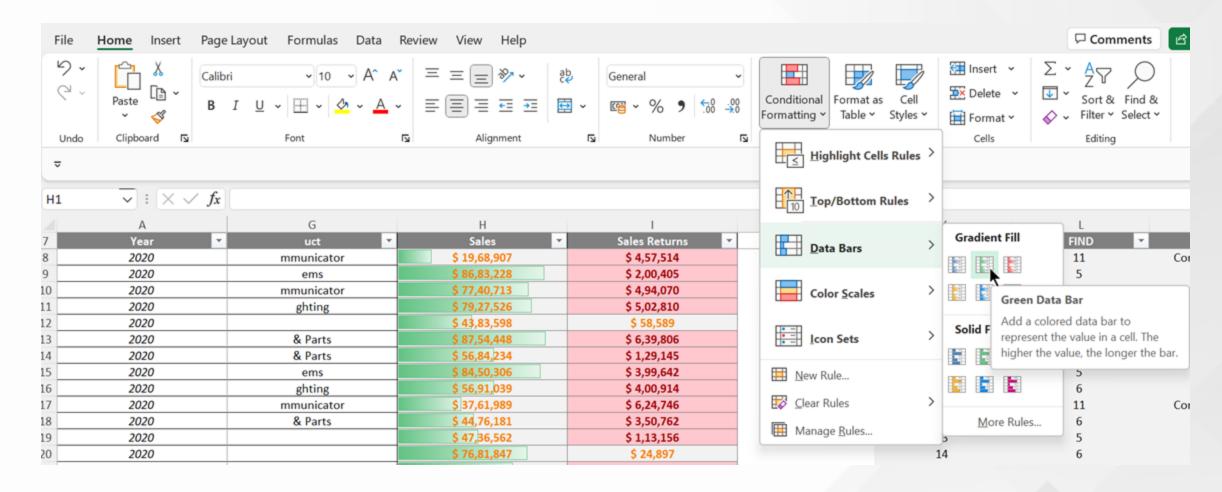
Conditional Formatting

А	Н	
Year	Sales	Sales Returns
2020	\$ 19,68,907	\$ 4,57,514
2020	\$ 86,83,228	\$ 2,00,405
2020	\$ 77,40,713	\$ 4,94,070
2020	\$ 79,27,526	\$ 5,02,810
2020	\$ 43,83,598	\$ 58,589
2020	\$ 87,54,448	\$ 6,39,806
2020	\$ 56,84,234	\$ 1,29,145
2020	\$ 84,50,306	\$ 3,99,642
2020	\$ 56,91,039	\$ 4,00,914
2020	\$ 37,61,989	\$ 6,24,746
2020	\$ 44,76,181	\$ 3,50,762
2020	\$ 47,36,562	\$ 1,13,156
2020	\$ 76,81,847	\$ 24,897
2020	\$ 68,01,314	\$ 2,10,686
2020	¢ 71 A1 EOE	¢ 1 02 261





Conditional Formatting - Data Bars







How would you split text contained in a column into different columns?

- 1. Split the text manually
- 2. Carry out conditional formatting
- 3. Use Convert Text to Columns Wizard
- 4. Use CONCATENATE function







Logical Functions - AND

How would you check if Sales value is less than 2 Million and Sales return greater than 400K?



- 4	Α	El-	E	F	G
7	Year	Quarter	Sales	Sales Returns	SALES < \$2m AND RETURNS > \$400k
8	2020	4	\$ 19,68,907	\$ 4,57,514	TRUE
9	2020	1	\$ 86,83,228	\$ 2,00,405	FALSE
10	2020	4	\$77,40,713	\$ 4,94,070	FALSE
11	2020	4	\$79,27,526	\$ 5,02,810	FALSE
12	2020	1	\$ 43,83,598	\$ 58,589	FALSE
13	2020	4	\$ 87,54,448	\$ 6,39,806	FALSE
14	2020	1	\$ 56,84,234	\$ 1,29,145	FALSE
15	2020	2	\$ 84,50,306	\$ 3,99,642	FALSE
16	2020	4	\$ 56,91,039	\$ 4,00,914	FALSE
17	2020	1	\$ 37,61,989	\$ 6,24,746	FALSE
18	2020	1	\$ 44,76,181	\$3,50,762	FALSE
19	2020	1	\$ 47,36,562	\$ 1,13,156	FALSE
20	2020	2	\$ 76,81,847	\$ 24,897	FALSE
21	2020	2	\$ 68,01,314	\$ 2,10,686	FALSE
22	2020	4	\$ 71,41,585	\$ 1,03,261	FALSE
23	2020	1	\$ 73,95,699	\$ 1,32,617	FALSE
24	2020	4	\$ 44,40,476	\$ 6,79,512	FALSE
25	2020	3	\$ 99,68,069	\$ 6,42,661	FALSE
26	2020	2	\$ 31,01,753	\$ 2,16,144	FALSE
27	2020	2	\$ 40,05,347	\$ 4,03,975	FALSE
28	2020	4	\$ 30,79,384	\$ 6,86,551	FALSE
29	2020	4	\$ 79,14,609	\$ 4,33,552	FALSE
30	2020	4	\$ 87,29,647	\$ 6,85,137	FALSE





Logical Functions - AND

		AND
Sales	Sales Returns	SALES < \$2m AND RETURNS > \$400k
\$ 1,968,907	\$ 457,514	=AND(E8<2000000,F8>400000)
\$ 8,683,228	\$ 200,405	FALSE
\$ 7,740,713	\$ 494,070	FALSE
\$ 7,927,526	\$ 502,810	FALSE
\$ 4,383,598	\$ 58,589	FALSE

Use "AND" condition

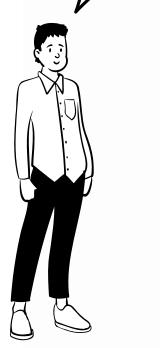
"=AND(E8<2000000, F8>400000)"
Sales Return





Logical Functions - IF

What if you want an indicator of your choice instead of True & False?



- 4	A	D	E	F	G
7	Year	Product Segment_New	Sales	Sales Returns	SALES < \$2m, RETURNS > \$400k
8	2020	Commercial	\$ 19,68,907	\$ 4,57,514	Attention Required
9	2020	Home	\$ 86,83,228	\$ 2,00,405	Usual
10	2020	Commercial	\$77,40,713	\$ 4,94,070	Usual
11	2020	Durables	\$ 79,27,526	\$5,02,810	Usual
12	2020	Home	\$ 43,83,598	\$ 58,589	Usual
13	2020	Durables	\$ 87,54,448	\$ 6,39,806	Usual
14	2020	Durables	\$ 56,84,234	\$ 1,29,145	Usual
15	2020	Home	\$84,50,306	\$ 3,99,642	Usual
16	2020	Durables	\$ 56,91,039	\$ 4,00,914	Usual
17	2020	Commercial	\$ 37,61,989	\$ 6,24,746	Usual
18	2020	Durables	\$ 44,76,181	\$3,50,762	Usual
19	2020	Home	\$ 47,36,562	\$ 1,13,156	Usual
20	2020	Durables	\$ 76,81,847	\$ 24,897	Usual
21	2020	Durables	\$ 68,01,314	\$ 2,10,686	Usual
22	2020	Home	\$ 71,41,585	\$ 1,03,261	Usual
23	2020	Durables	\$ 73,95,699	\$ 1,32,617	Usual
24	2020	Home	\$ 44,40,476	\$ 6,79,512	Usual
25	2020	Home	\$ 99,68,069	\$ 6,42,661	Usual
26	2020	Home	\$ 31,01,753	\$ 2,16,144	Usual
07	2020	H	£ 40.0F 247	£ 4 02 07F	





Logical Functions - IF

		IF
Sales	Sales Returns	SALES < \$2m, RETURNS > \$400k
\$ 1,968,907	=IF(AND(E8<2000000	,F8>400000),"Attention Required","Usual")
\$ 8,683,228	\$ 200,405	Usual
\$ 7,740,713	\$ 494,070	Usual
\$ 7,927,526	\$ 502,810	Usual
\$ 4,383,598	\$ 58,589	Usual
\$ 8,754,448	\$ 639,806	Usual
\$ 5,684,234	\$ 129,145	Usual
\$ 8,450,306	\$ 399,642	Usual
\$ 5,691,039	\$ 400,914	Usual

Generalized answer:

=IF(AND(Something is True, Something else is True), Value if True, Value if False)





Conclusion



- 1. Enhanced by intelligence for experts and novices alike, Microsoft Excel facilitates quick, efficient, and useful analytics better than its contemporaries.
- Get a better picture of your data and present it in compelling ways to build your desired story with Excel.





Thank You!

© 2023 Hero Private Limited. All rights reserved. This session is the proprietary of Hero Vired and/or its licensor. Your use/access or download shall be governed as per our IPR Policy.