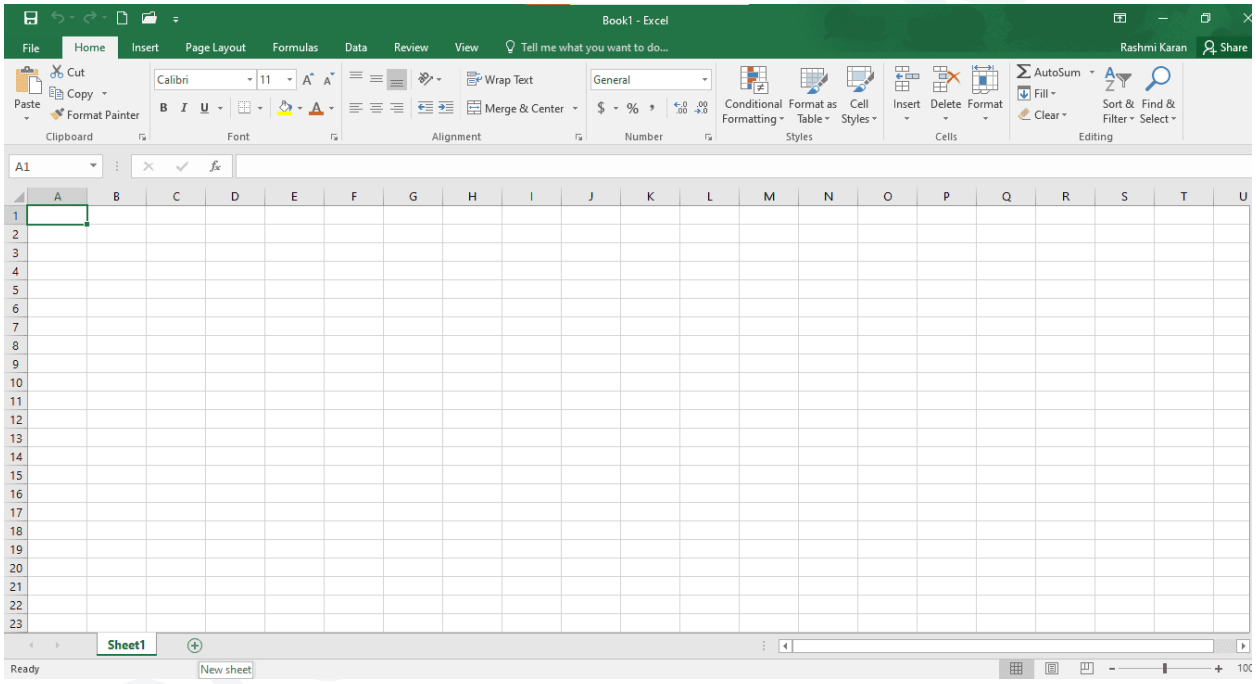
EASY

Q. What are spreadsheets?

A. Spreadsheets are software programs that facilitate effective data organization, calculation, and sorting. A spreadsheet consists of rows and columns spread throughout. The total number of rows and columns on an MS excel worksheet is 1,048,576 rows by 16,384 columns.

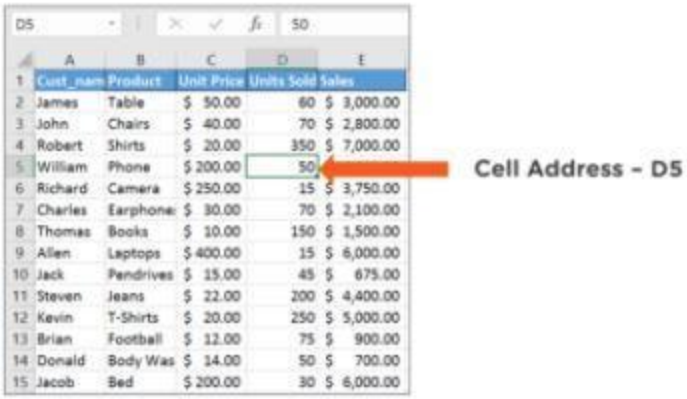
There is a worksheet (labeled "Sheet1") as shown below, and we also notice a "+" sign somewhere at the bottom, which indicates we can create a new sheet. We can add, rename, remove, hide, show, and perform other actions on sheets. Worksheets are added by default as Sheet1, Sheet2, etc. Such sheets are simple to rename as necessary.



Q. What is a cell address in Excel?

A. A cell address is used to identify a particular cell on a worksheet. It is denoted by a combination of the respective column letter and a row number.

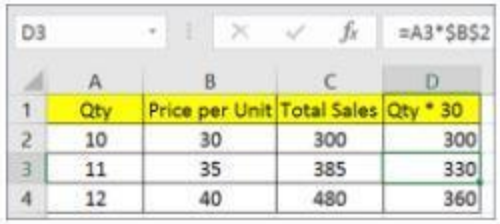
As shown above, the highlighted cell belongs to the column ‘D’ and row 5, so the cell address is read as D5.



	Cust_nam	Product	Unit Price	Units Sold	Sales
2	James	Table	$ 50.00	60	$ 3,000.00
3	John	Chairs	$ 40.00	70	$ 2,800.00
4	Robert	Shirts	$ 20.00	350	$ 7,000.00
5	William	Phone	$ 200.00	50	
6	Richard	Camera	$ 250.00	15	$ 3,750.00
7	Charles	Earphone	$ 30.00	70	$ 2,100.00
8	Thomas	Books	$ 10.00	150	$ 1,500.00
9	Allen	Laptops	$ 400.00	15	$ 6,000.00
10	Jack	Pendrives	$ 15.00	45	$ 675.00
11	Steven	Jeans	$ 22.00	200	$ 4,400.00
12	Kevin	T-Shirts	$ 20.00	250	$ 5,000.00
13	Brian	Football	$ 12.00	75	$ 900.00
14	Donald	Body Was	$ 14.00	50	$ 700.00
15	Jacob	Bed	$ 200.00	30	$ 6,000.00

Q. What do you mean by Relative cell referencing and Absolute cell referencing in MS Excel?

Relative cell referencing	Absolute cell referencing
In Relative referencing, there is a change when copying a formula from one cell to another cell with respect to the destination. cells' address	Meanwhile, there is no change in Absolute cell referencing when a formula is copied, irrespective of the cell's destination.
This type of referencing is there by default. Relative cell referencing doesn't require a dollar sign in the formula.	If you don't want a change in the formula when it's copied across cells, then absolute referencing requires you to add a dollar sign before and after the column and row address.



Q. How is a Formula different from a Function in Excel?

Formula	Function
The formula is like an equation in Excel, the user types in that. It can be any type of calculation depending on the user's choice.	Whereas, a function in Excel is a predefined calculation which is in-built in Excel.
Manually typing out a formula every time you need to perform a calculation, consumes more time. Ex: = A1+A2+A3	However, performing calculations becomes more comfortable and faster while working with functions. Ex: = SUM(A1:A3)

Q. Mention the order of operations used in Excel while evaluating formulas.

A. The order of operations in Excel is referred to as PEMDAS. Shown below is the order of precedence while performing an Excel operation.

- Parentheses

- Exponentiation
- Division/Multiplication
- Addition
- Subtraction

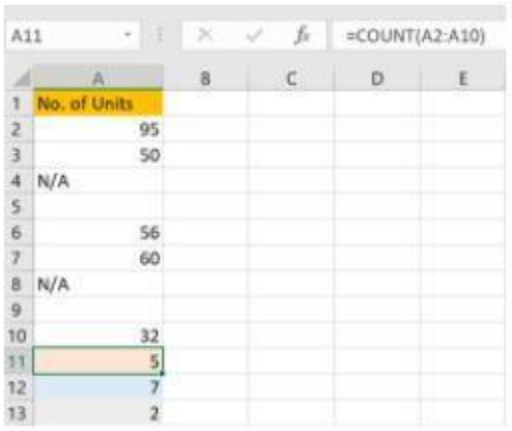
As seen above, first, the data in the parentheses is operated, followed by the exponentiation operation. After that, it can be either the division or multiplication operations. The result is then added and finally subtracted to give the final result.

Q. What is the difference between count, counta, and countblank?

The count function is very often used in Excel. Here, let's look at the difference between count, and it's variants - counta and countblank.

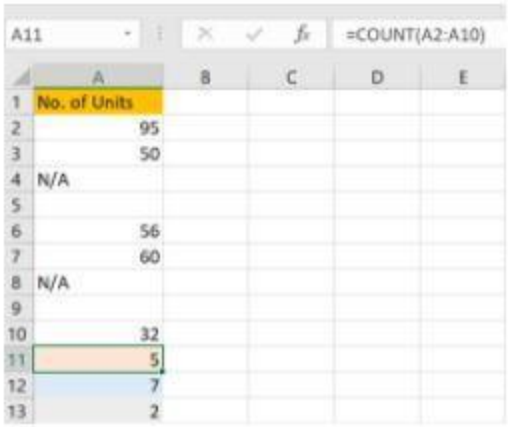
1. COUNT

It counts the number of cells that contain numeric values only. Cells that have string values, special characters, and blank cells will not be counted. Shown below is an example of the count function.



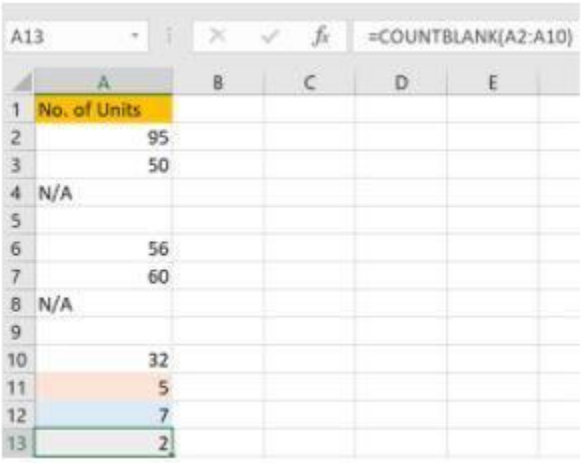
2. COUNTA

It counts the number of cells that contain any form of content. Cells that have string values, special characters, and numeric values will be counted. However, a blank cell will not be counted. Shown below is an example of the counta function.



3. COUNTBLANK

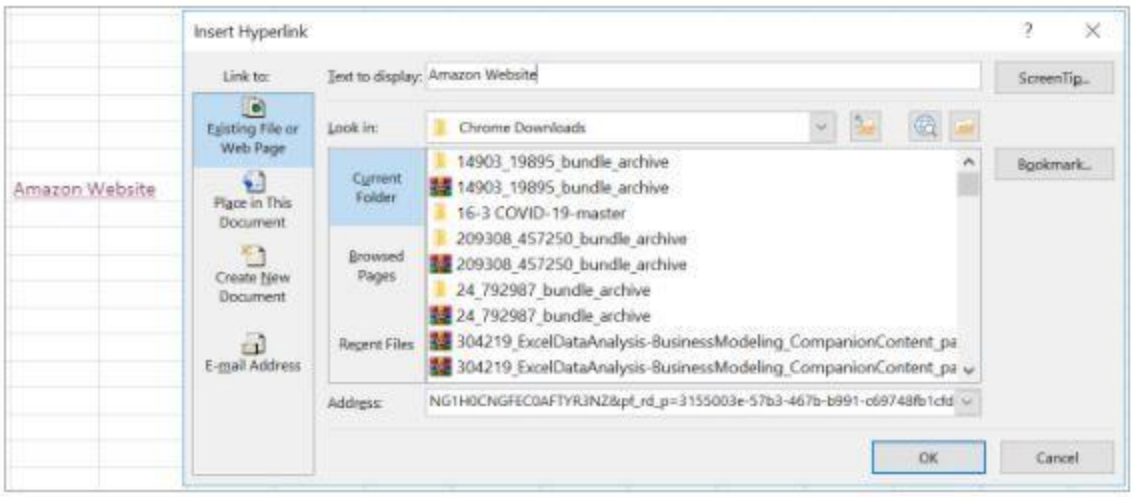
As the name suggests, it counts the number of blank cells only. Cells that have content will not be taken into consideration. Shown below is an example of the countblank function.



Q. How do you create a hyperlink in Excel?

A. Hyperlinks are used to navigate between worksheets and files/websites. To create a hyperlink, the shortcut used is Ctrl+K.

The ‘Insert Hyperlink’ box appears. Enter the address and the text to display. Here, we are directed to the Amazon Website.



Q. How can we merge multiple cells text strings in a cell?

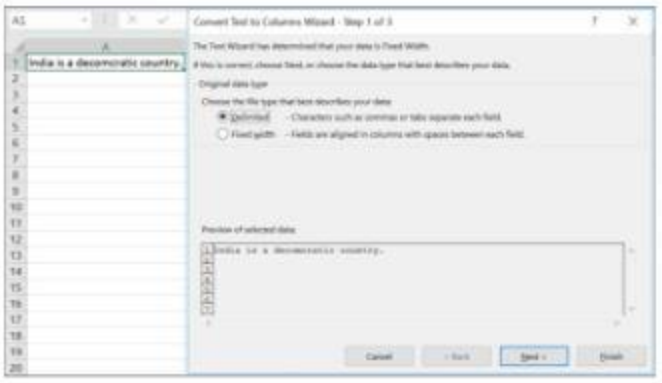
To merge text strings present in multiple cells into one cell, you can use the CONCATENATE(). Shown below is an example of the concatenate function.

Another way of combining cell values is by using the “&” operator, as shown below:

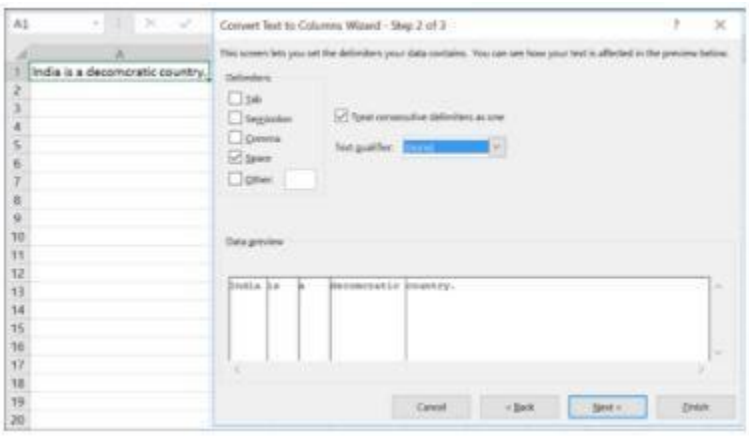
Q. How can you split a column into 2 or more columns?

You can split a column into 2 or more columns by following the below steps:

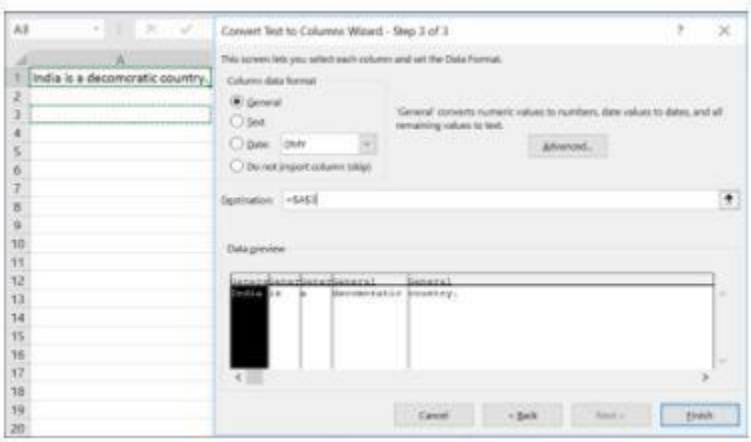
1. Select the cell that you want to split. Then, navigate to the Data tab, after that, select Text to Columns.



2. Select the delimiter.



3. Choose the column data format and select the destination you want to display the split.



4. The final output will look like below where the text is split into multiple columns.

	A	B	C	D	E
1	India is a decomcratic country.				
2					
3	India	is	a	decomcratic	country.
4					

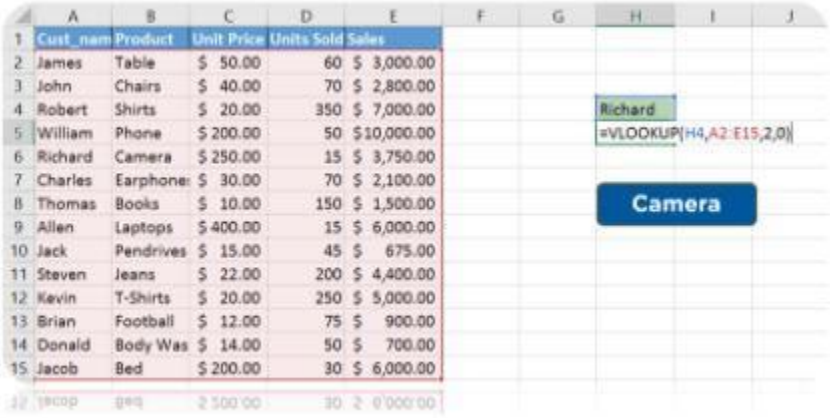
Q. What is the use of VLOOKUP and how do we use it?

The function VLOOKUP in Excel is used to look up information in a table and extract the corresponding data.

Syntax: VLOOKUP (value, table, col_index, [range_lookup])

- value - Indicates the data that you are looking for in the first column of a table.
- table - Refers to the set of data (table) from which you have to retrieve the above value.
- col_index - Refers to the column in the table from where you are to retrieve the value.
- range_lookup - FALSE = exact match [optional] TRUE = approximate match (default).

Shown below is an example of the vlookup function. We are to find the Product related to the Customer Name – “Richard”.



Cust_nam	Product	Unit Price	Units Sold	Sales
James	Table	$ 50.00	60	$ 3,000.00
John	Chairs	$ 40.00	70	$ 2,800.00
Robert	Shirts	$ 20.00	350	$ 7,000.00
William	Phone	$ 200.00	50	$10,000.00
Richard	Camera	$ 250.00	15	$ 3,750.00
Charles	Earphone	$ 30.00	70	$ 2,100.00
Thomas	Books	$ 10.00	150	$ 1,500.00
Allen	Laptops	$ 400.00	15	$ 6,000.00
Jack	Pendrives	$ 15.00	45	$ 675.00
Steven	Jeans	$ 22.00	200	$ 4,400.00
Kevin	T-Shirts	$ 20.00	250	$ 5,000.00
Brian	Football	$ 12.00	75	$ 900.00
Donald	Body Was	$ 14.00	50	$ 700.00
Jacob	Bed	$ 200.00	30	$ 6,000.00

Q. How is VLOOKUP different from the LOOKUP function?

VLOOKUP	LOOKUP

VLOOKUP lets the user look for a value in the left-most column of a table. It then returns the value in a left-to-right way. It is not very easy to use as compared to the LOOKUP function.	Meanwhile, the LOOKUP function enables the user to look for data in a row/column. It returns the value in another row/column. It is easier and can also be used to replace the VLOOKUP function.

Q. How many report formats are available in Excel?

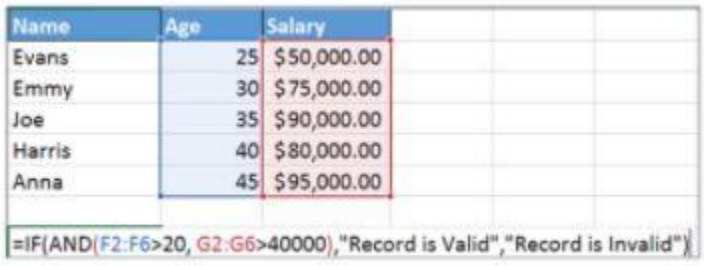
There are three report formats available in Excel; they are:

1. Compact Form
2. Outline Form
3. Tabular Form

Q. How does the IF() function in Excel work?

In Excel, the IF() function performs a logical test. It returns a value if the test evaluates to true and another value if the test result is false. It returns the value depending on whether the condition is valid for the entire selected range.

Let's look at the below example:



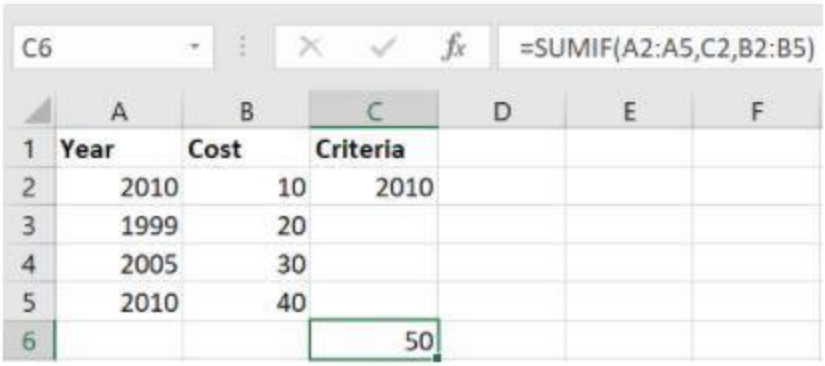
Name	Age	Salary
Evans	25	$50,000.00
Emmy	30	$75,000.00
Joe	35	$90,000.00
Harris	40	$80,000.00
Anna	45	$95,000.00

=IF(AND(F2:F6>20, G2:G6>40000),"Record is Valid","Record is Invalid")

As seen above, the IF function returns "Record is Valid" if age is greater than 20, and the salary should be greater than $40000. Else, it will return "Record is Invalid". Here the final answer will be "Record is Valid" as the entire selected range qualifies both the conditions.

Q. How do we use the SUMIF() function in Excel?

The SUMIF() function adds the cell values specified by a given condition or criteria. Given below is an example of the sumif function.

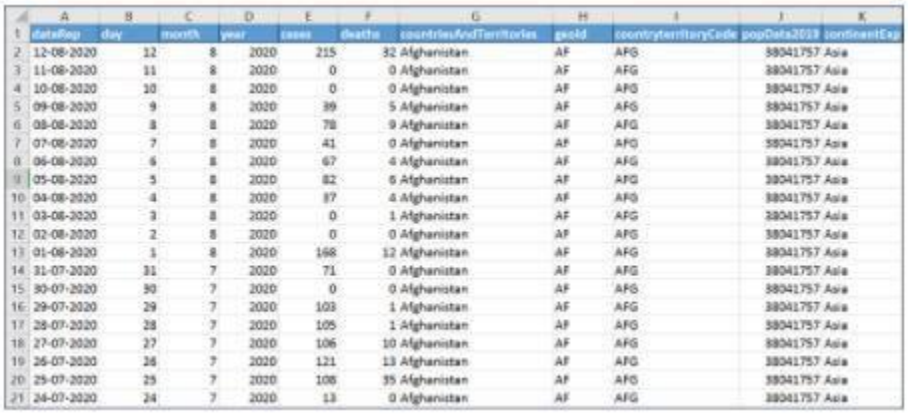


C6 =SUMIF(A2:A5,C2,B2:B5)

	A	B	C	D	E	F
1	Year	Cost	Criteria			
2	2010	10	2010			
3	1999	20				
4	2005	30				
5	2010	40				
6			50			

As seen above, the costs corresponding to the years 2010 are added as p Using the COVID data, find the number of days in which the number of deaths in Italy has been greater than 200.

To perform this operation, we can use the COUNTIFS() function. The dataset we will be using is shown below:



	A	B	C	D	E	F	G	H	I	J	K
1	dateRep	day	month	year	cases	deaths	countriesAndTerritories	geoId	countryterritoryCode	popData2019	continentExp
2	12-08-2020	12	8	2020	215	32	Afghanistan	AF	AFG	38041757	Asia
3	11-08-2020	11	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia
4	10-08-2020	10	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia
5	09-08-2020	9	8	2020	39	5	Afghanistan	AF	AFG	38041757	Asia
6	08-08-2020	8	8	2020	78	9	Afghanistan	AF	AFG	38041757	Asia
7	07-08-2020	7	8	2020	41	0	Afghanistan	AF	AFG	38041757	Asia
8	06-08-2020	6	8	2020	67	4	Afghanistan	AF	AFG	38041757	Asia
9	05-08-2020	5	8	2020	82	6	Afghanistan	AF	AFG	38041757	Asia
10	04-08-2020	4	8	2020	87	4	Afghanistan	AF	AFG	38041757	Asia
11	03-08-2020	3	8	2020	0	1	Afghanistan	AF	AFG	38041757	Asia
12	02-08-2020	2	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia
13	01-08-2020	1	8	2020	168	12	Afghanistan	AF	AFG	38041757	Asia
14	31-07-2020	31	7	2020	71	0	Afghanistan	AF	AFG	38041757	Asia
15	30-07-2020	30	7	2020	0	0	Afghanistan	AF	AFG	38041757	Asia
16	29-07-2020	29	7	2020	103	1	Afghanistan	AF	AFG	38041757	Asia
17	28-07-2020	28	7	2020	105	1	Afghanistan	AF	AFG	38041757	Asia
18	27-07-2020	27	7	2020	106	10	Afghanistan	AF	AFG	38041757	Asia
19	26-07-2020	26	7	2020	121	13	Afghanistan	AF	AFG	38041757	Asia
20	25-07-2020	25	7	2020	108	35	Afghanistan	AF	AFG	38041757	Asia
21	24-07-2020	24	7	2020	13	0	Afghanistan	AF	AFG	38041757	Asia

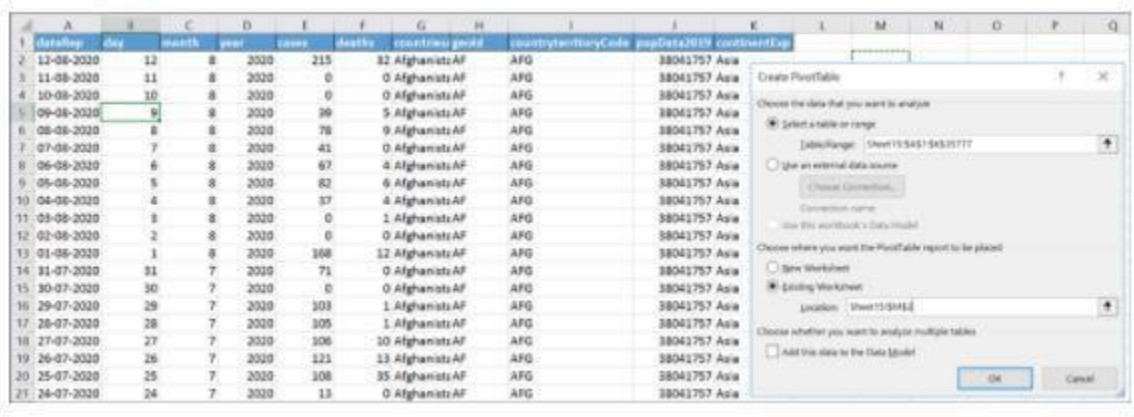
The COUNTIFS() function we use is - =COUNTIFS(G2:G35777,"Italy",E2:E35777,">200").

Q. What is a Pivot Table?

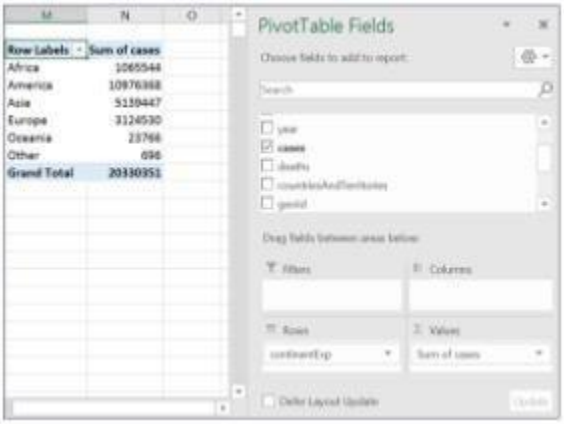
A. A pivot table is like a summary table of the dataset that enables you to create reports and analyze trends. They are useful when you have long rows or columns that hold values you need to track.

To create a pivot table, first, go to the Insert tab and select the ‘PivotTable’ option.

Select the table or the range and choose where you want to place the pivot table.

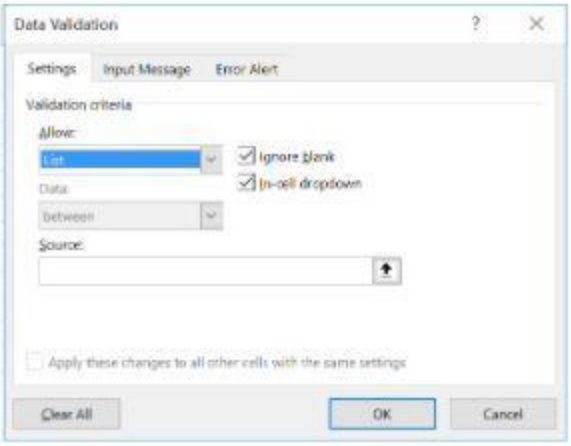


Drag the fields you wish to show in the pivot table. Here we have created a pivot table using the Coronavirus data.



Q. Create a drop-down list in Excel.

A. This can be done by using the ‘Data Validation’ option present in the Data tab.



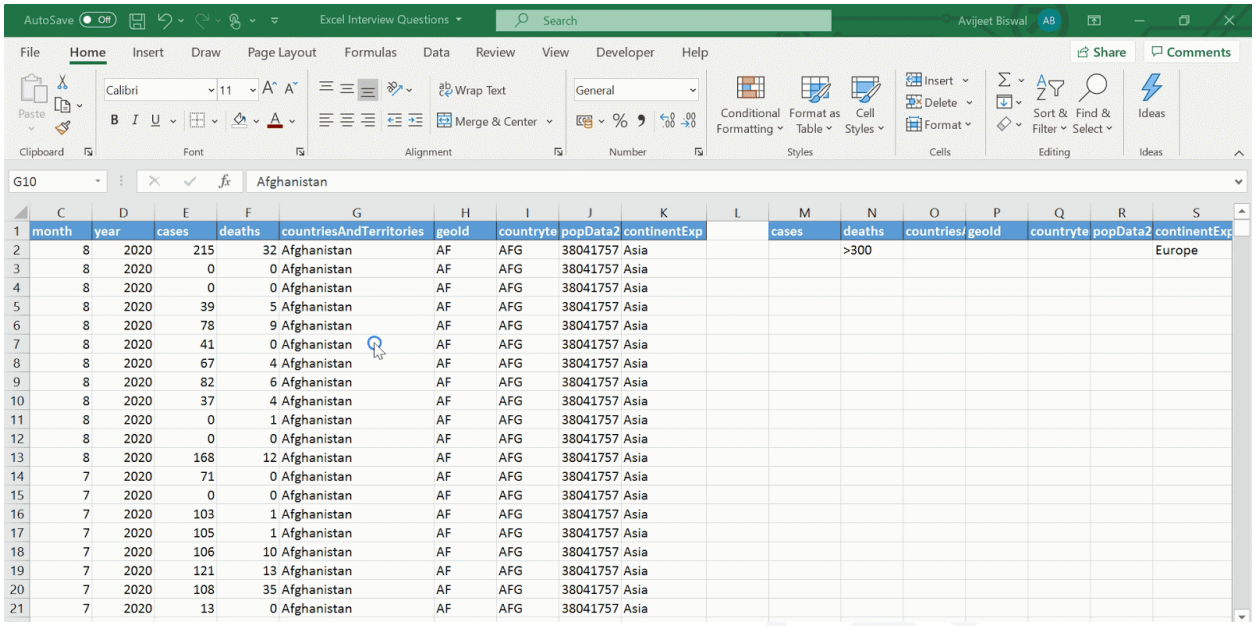
In the example below, we have created a list based on the city column of the dataset.

	A	B	C	D	E
1	Name	Age	City	Gender	Department
2	Evans	25	New York	M	Sales
3	Andrew	30	Chicago	M	IT
4	Emmy	26	Washingtc	F	Marketing
5	Jolie	35	Boston	F	Sales
6	Harris	40	Chicago	M	T&D
7	Anna	45	Dallas	F	PR
8	Emmy	37	Houston	F	SEM
9	Evans	40	Boston	M	IT

Q. How do we apply advanced filters in Excel?

To apply advanced filters, use the Advanced Filter option present in the Data tab. Select where you want to filter the table. Choose the ‘list range’ and the ‘criteria range’ that has the conditions based on which you would like to filter the table.

The below example shows how to apply advanced filters.



	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	month	year	cases	deaths	countriesAndTerritories	geoId	countryte	popData2	continentExp		cases	deaths	countries	geoId	countryte	popData2	continentExp
2	8	2020	215	32	Afghanistan	AF	AFG	38041757	Asia			>300					Europe
3	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia								
4	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia								
5	8	2020	39	5	Afghanistan	AF	AFG	38041757	Asia								
6	8	2020	78	9	Afghanistan	AF	AFG	38041757	Asia								
7	8	2020	41	0	Afghanistan	AF	AFG	38041757	Asia								
8	8	2020	67	4	Afghanistan	AF	AFG	38041757	Asia								
9	8	2020	82	6	Afghanistan	AF	AFG	38041757	Asia								
10	8	2020	37	4	Afghanistan	AF	AFG	38041757	Asia								
11	8	2020	0	1	Afghanistan	AF	AFG	38041757	Asia								
12	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia								
13	8	2020	168	12	Afghanistan	AF	AFG	38041757	Asia								
14	7	2020	71	0	Afghanistan	AF	AFG	38041757	Asia								
15	7	2020	0	0	Afghanistan	AF	AFG	38041757	Asia								
16	7	2020	103	1	Afghanistan	AF	AFG	38041757	Asia								
17	7	2020	105	1	Afghanistan	AF	AFG	38041757	Asia								
18	7	2020	106	10	Afghanistan	AF	AFG	38041757	Asia								
19	7	2020	121	13	Afghanistan	AF	AFG	38041757	Asia								
20	7	2020	108	35	Afghanistan	AF	AFG	38041757	Asia								
21	7	2020	13	0	Afghanistan	AF	AFG	38041757	Asia								

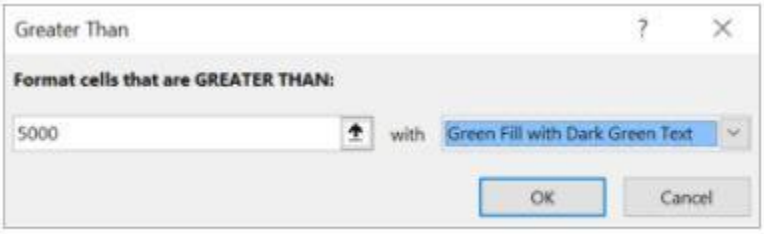
Q. Using the below-given sales data, highlight those cells where total sales > $5000.

Here, conditional formatting is used to highlight cells based on the criteria.

	A	B	C	D	E	F
1	Cust_name	Category	Product	Unit Price	Units Sold	Sales
2	James	Furniture	Table	$ 50.00	60	$ 3,000.00
3	John	Furniture	Chairs	$ 40.00	70	$ 2,800.00
4	Robert	Clothing	Shirts	$ 20.00	350	$ 7,000.00
5	William	Electronics	Phone	$ 200.00	50	$ 10,000.00
6	Richard	Electronics	Camera	$ 250.00	15	$ 3,750.00
7	Charles	Electronics	Earphones	$ 30.00	70	$ 2,100.00
8	Thomas	Others	Books	$ 10.00	150	$ 1,500.00
9	Allen	Electronics	Laptops	$ 400.00	15	$ 6,000.00
10	Jack	Electronics	Pendrives	$ 15.00	45	$ 675.00
11	Steven	Clothing	Jeans	$ 22.00	200	$ 4,400.00
12	Kevin	Clothing	T-Shirts	$ 20.00	250	$ 5,000.00
13	Brian	Others	Football	$ 12.00	75	$ 900.00
14	Donald	Others	Body Wash	$ 14.00	50	$ 700.00
15	Jacob	Furniture	Bed	$ 200.00	30	$ 6,000.00

1. Select ‘Conditional Formatting’ from the home tab and under Highlight Cells Rules, choose ‘Greater Than option’.

2. Provide the condition and choose the color for the cells to be highlighted.



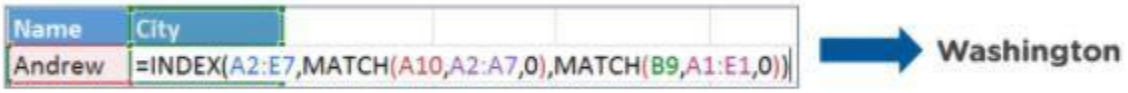
	A	B	C	D	E
1	Cust_nam	Product	Unit Price	Units Sold	Sales
2	James	Table	$ 50.00	60	$ 3,000.00
3	John	Chairs	$ 40.00	70	$ 2,800.00
4	Robert	Shirts	$ 20.00	350	$ 7,000.00
5	William	Phone	$ 200.00	50	$ 10,000.00
6	Richard	Camera	$ 250.00	15	$ 3,750.00
7	Charles	Earphones	$ 30.00	70	$ 2,100.00
8	Thomas	Books	$ 10.00	150	$ 1,500.00
9	Allen	Laptops	$ 400.00	15	$ 6,000.00
10	Jack	Pendrives	$ 15.00	45	$ 675.00
11	Steven	Jeans	$ 22.00	200	$ 4,400.00
12	Kevin	T-Shirts	$ 20.00	250	$ 5,000.00
13	Brian	Football	$ 12.00	75	$ 900.00
14	Donald	Body Was	$ 14.00	50	$ 700.00
15	Jacob	Bed	$ 200.00	30	$ 6,000.00

Q. Using the given table, explain how the index-match function works in Excel.

Here, we will write an index-match function to find the city to which Andrew belongs to from the below table.

	A	B	C	D	E
1	Name	Age	City	Gender	Department
2	Evans	25	New York	M	Sales
3	Emmy	30	Chicago	F	IT
4	Andrew	26	Washington	M	Marketing
5	Jolie	35	Boston	F	Sales
6	Harris	40	Chicago	M	T&D
7	Anna	45	Dallas	F	PR

Here is how you can use the Index-Match function to get the result.



Q. How do you find duplicate values in a column?

To find duplicate values in a column, you can either use Conditional Formatting or the COUNTIF() function.

1. Conditional Formatting

First, go to the Home tab, then under Conditional Formatting, select ‘Highlight Cells Rules’. Then choose ‘Duplicate Values’.

Below, we have highlighted the cells in the ‘Name’ column that have been repeated.

2. COUNTIF()

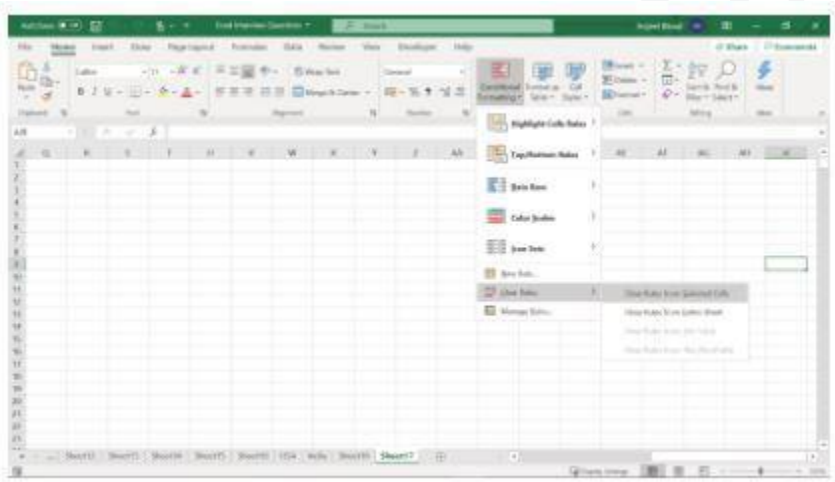
You can write a COUNTIF() function to check if the values in a particular column are repeated.

Name	Age	City	Gender	Department	Dupicate Names
Evans	25	New York	M	Sales	=COUNTIF($H$2:$H$9, H2)>1
Andrew	30	Chicago	M	IT	FALSE
Emmy	26	Washingtc	F	Marketing	TRUE
Jolie	35	Boston	F	Sales	FALSE
Harris	40	Chicago	M	T&D	FALSE
Anna	45	Dallas	F	PR	FALSE
Emmy	37	Houston	F	SEM	TRUE
Evans	40	Boston	M	IT	TRUE

In the below example, we are fetching the duplicate names using the COUNTIF() function.

Q. How can you remove duplicate values in a range of cells?

1. To delete duplicate values in a column, select the highlighted cells, and press the delete button. After deleting the values, go to the ‘Conditional Formatting’ option present in the Home tab. Choose ‘Clear Rules’ to remove the rules from the sheet.



2. You can also delete duplicate values by selecting the ‘Remove Duplicates’ option under Data Tools present in the Data tab.

MEDIUM

Q. What are the wildcards available in Excel?

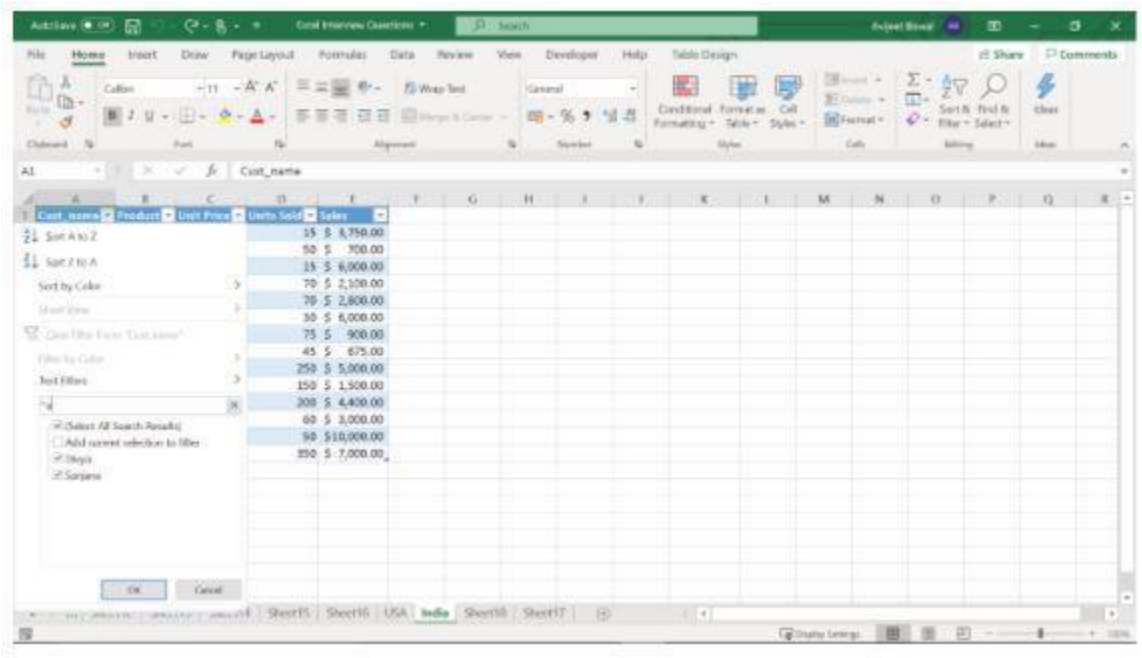
Wildcards only work with text data. Excel has three wildcards.

1. * (Asterisk)

This refers to any number of characters.

The example stated below filters the customers whose name ends with “a”.

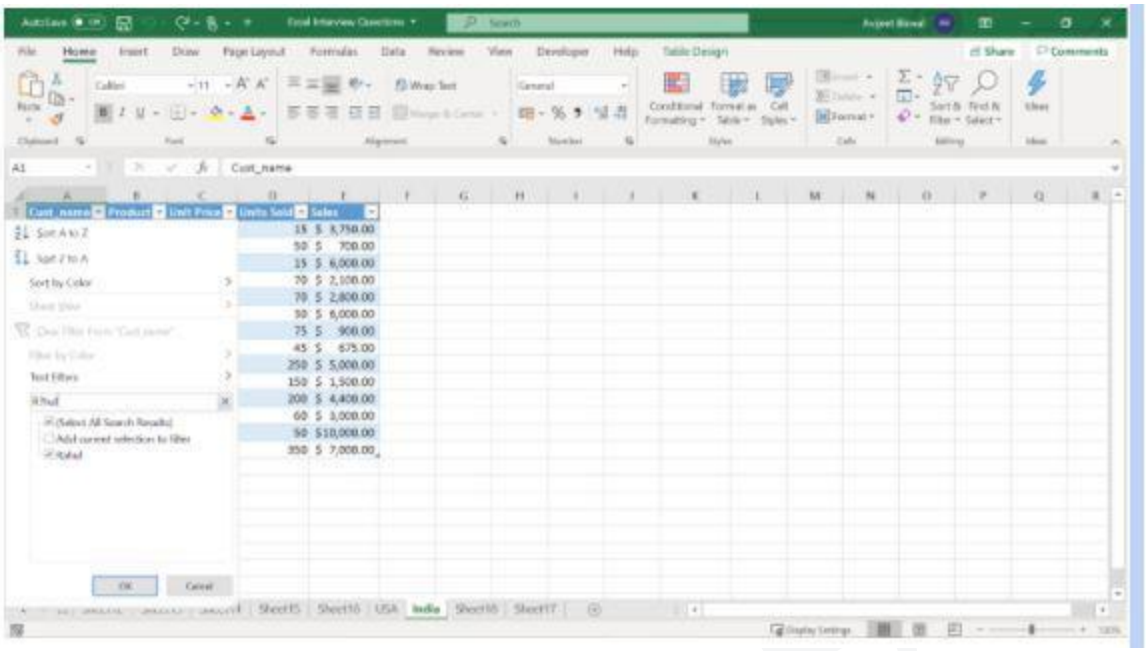
For that, we use “*a”.



2. ? (Question mark)

It represents one single character.

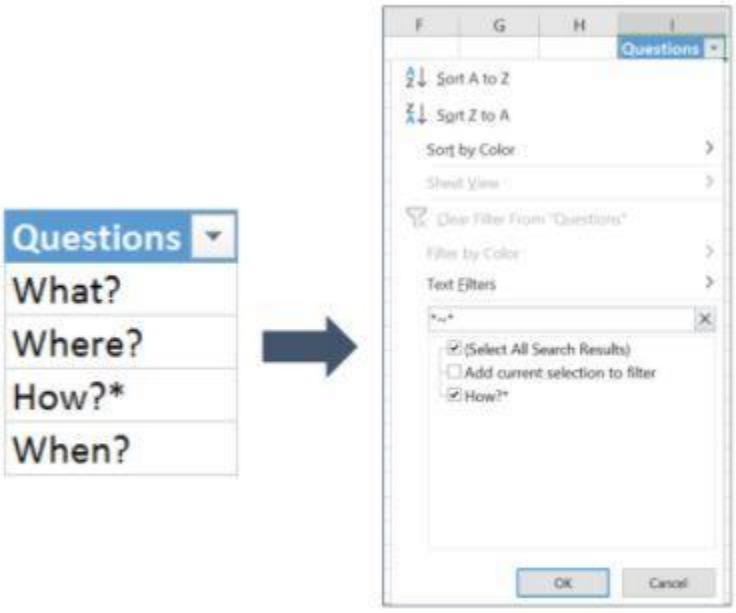
The example below shows how to filter a particular customer name.



3. ~ (Tilde)

It is used to identify a wildcard character (~, *, ?) in the text.

In the following example, we are filtering How?* using the tilde (~) symbol.

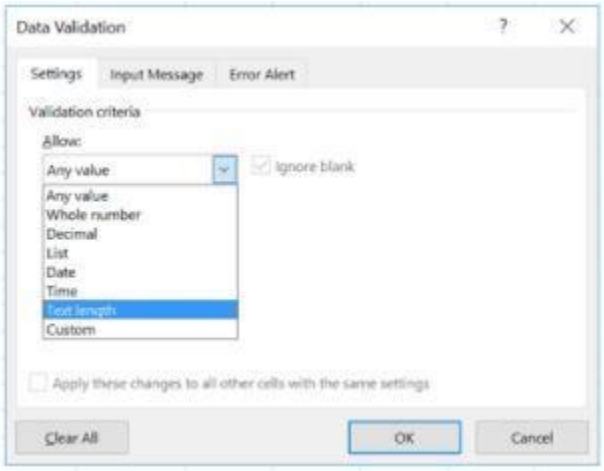


Q. What is Data Validation? Illustrate with an example.

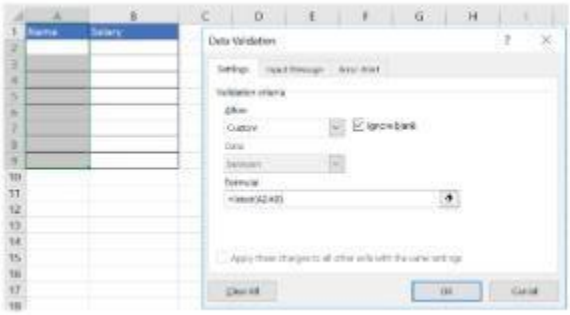
Data Validation restricts the type of values that a user can enter into a particular cell or a range of cells.

In the Data tab, select the ‘Data Validation’ option present under Data Tools.

Select the kind of data validation you want to apply.



In the following example, we have applied data validation to the ‘Name’ column to accept only text values. If you enter something other than a text, it will throw an error.



Q. Given below is a student table. Write a function to add pass/fail to the results column based on the following criteria.

If student marks > 60 and attendance > 75%, then pass else the student fails.

Student	Marks	Attendance
Sam	50	80
Danny	90	89
Mark	55	60
Mia	69	85
Suzane	75	72
Sophia	65	78

You can use the IF() function and check with an AND condition to fill in the results column.

Student	Marks	Attendance	Results
Sam	50	80	Fail
Danny	90	89	Pass
Mark	55	60	=IF(AND(U7>60,V7>75), "Pass", "Fail")
Mia	69	85	Pass
Suzane	75	72	Fail
Sophia	65	78	Pass

Q. Calculate your age in years from the current date.

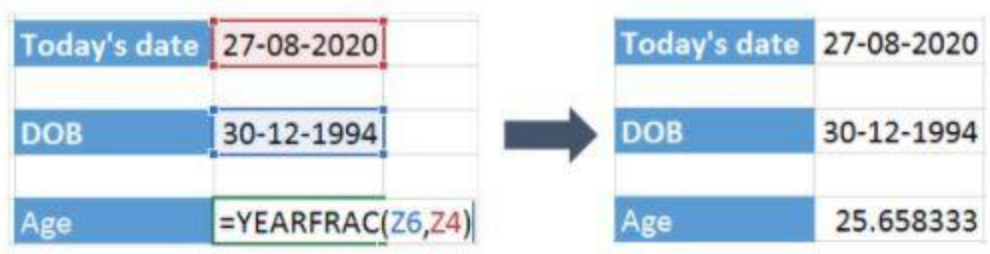
Use the YEARFRAC() or DATEDIF() function to return the number of whole days between start_date and end_date

- YEARFRAC()

Today's date	27-08-2020
DOB	30-12-1994
Age	=DATEDIF(Z6,Z4,"y")

Today's date	27-08-2020
DOB	30-12-1994
Age	25

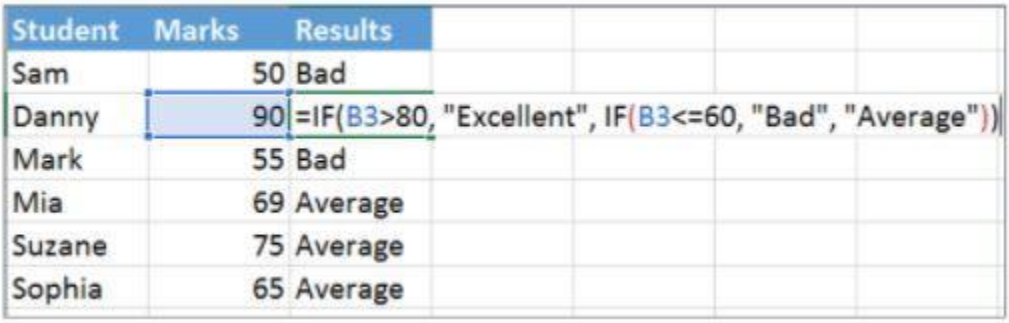
- DATEDIF()



Q. How are nested IF statements used in Excel?

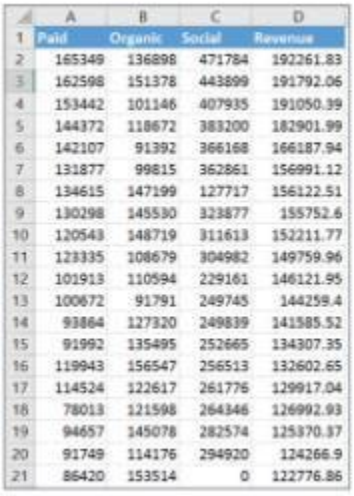
The function IF() can be nested when we have multiple conditions to meet. The FALSE value in the first IF function is replaced by another IF function to make a further test.

Below, using nested IF statements, we are categorizing results based on the marks.



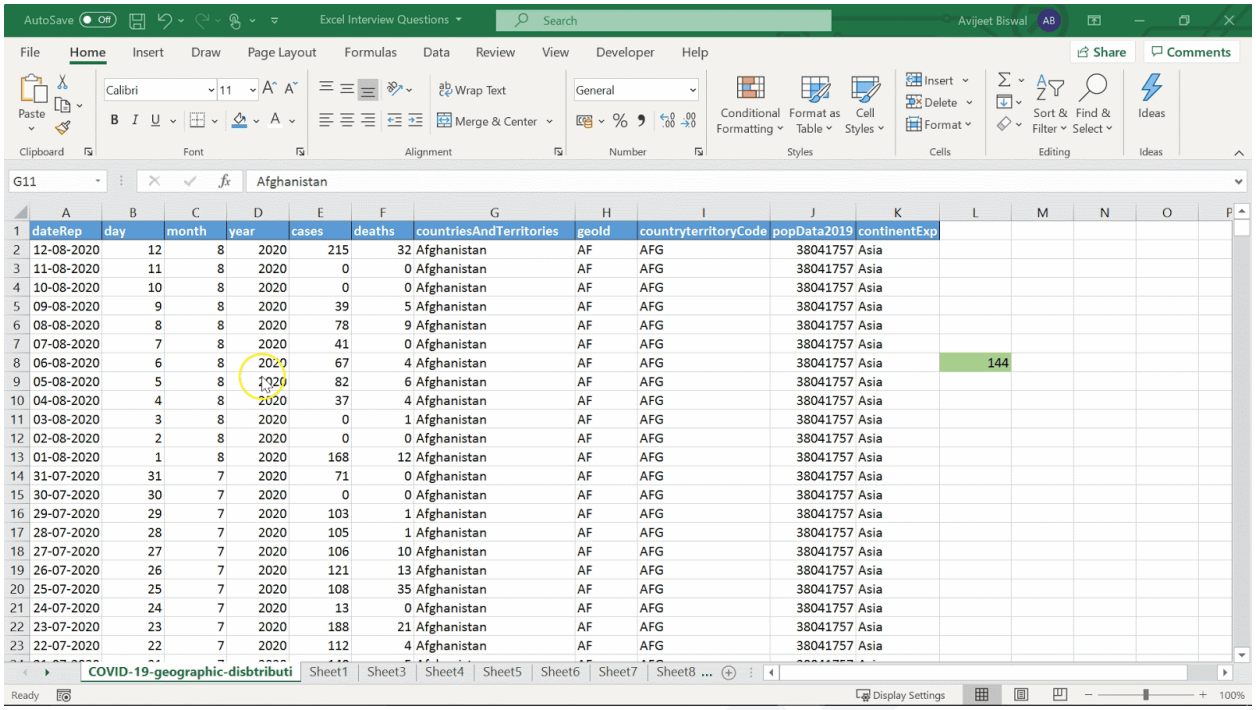
Student	Marks	Results
Sam	50	Bad
Danny	90	=IF(B3>80, "Excellent", IF(B3<=60, "Bad", "Average"))
Mark	55	Bad
Mia	69	Average
Suzane	75	Average
Sophia	65	Average

Q. From the below table, find the descriptive statistics of the columns using the Data Analysis ToolPak in Excel.



	A	B	C	D
1	Paid	Organic	Social	Revenue
2	165349	136898	471784	192261.83
3	162598	151378	443899	191792.06
4	153442	101146	407935	191050.39
5	144372	118672	383200	182901.99
6	142107	91392	366168	166187.94
7	131877	99815	362861	156991.12
8	134615	147199	127717	156122.51
9	130298	145530	323877	155752.6
10	120543	148719	311613	152211.77
11	123335	108679	304982	149759.96
12	101913	110594	229161	146121.95
13	100672	91791	249745	144259.4
14	93864	127320	249839	141585.52
15	91992	135495	252665	134307.35
16	119943	156547	256513	132602.65
17	114524	122617	261776	129917.04
18	78013	121598	264346	126992.93
19	94657	145078	282574	125370.37
20	91749	114176	294920	124266.9
21	86420	153514	0	122776.86

Add the Analysis ToolPak from Options ----> Add-ins ----> Analysis ToolPak.



	A	B	C	D	E	F	G	H	I	J	K	L
1	dateRep	day	month	year	cases	deaths	countriesAndTerritories	geoId	countryterritoryCode	popData2019	continentExp	
2	12-08-2020	12	8	2020	215	32	Afghanistan	AF	AFG	38041757	Asia	
3	11-08-2020	11	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia	
4	10-08-2020	10	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia	
5	09-08-2020	9	8	2020	39	5	Afghanistan	AF	AFG	38041757	Asia	
6	08-08-2020	8	8	2020	78	9	Afghanistan	AF	AFG	38041757	Asia	
7	07-08-2020	7	8	2020	41	0	Afghanistan	AF	AFG	38041757	Asia	
8	06-08-2020	6	8	2020	67	4	Afghanistan	AF	AFG	38041757	Asia	144
9	05-08-2020	5	8	2020	82	6	Afghanistan	AF	AFG	38041757	Asia	
10	04-08-2020	4	8	2020	37	4	Afghanistan	AF	AFG	38041757	Asia	
11	03-08-2020	3	8	2020	0	1	Afghanistan	AF	AFG	38041757	Asia	
12	02-08-2020	2	8	2020	0	0	Afghanistan	AF	AFG	38041757	Asia	
13	01-08-2020	1	8	2020	168	12	Afghanistan	AF	AFG	38041757	Asia	
14	31-07-2020	31	7	2020	71	0	Afghanistan	AF	AFG	38041757	Asia	
15	30-07-2020	30	7	2020	0	0	Afghanistan	AF	AFG	38041757	Asia	
16	29-07-2020	29	7	2020	103	1	Afghanistan	AF	AFG	38041757	Asia	
17	28-07-2020	28	7	2020	105	1	Afghanistan	AF	AFG	38041757	Asia	
18	27-07-2020	27	7	2020	106	10	Afghanistan	AF	AFG	38041757	Asia	
19	26-07-2020	26	7	2020	121	13	Afghanistan	AF	AFG	38041757	Asia	
20	25-07-2020	25	7	2020	108	35	Afghanistan	AF	AFG	38041757	Asia	
21	24-07-2020	24	7	2020	13	0	Afghanistan	AF	AFG	38041757	Asia	
22	23-07-2020	23	7	2020	188	21	Afghanistan	AF	AFG	38041757	Asia	
23	22-07-2020	22	7	2020	112	4	Afghanistan	AF	AFG	38041757	Asia	

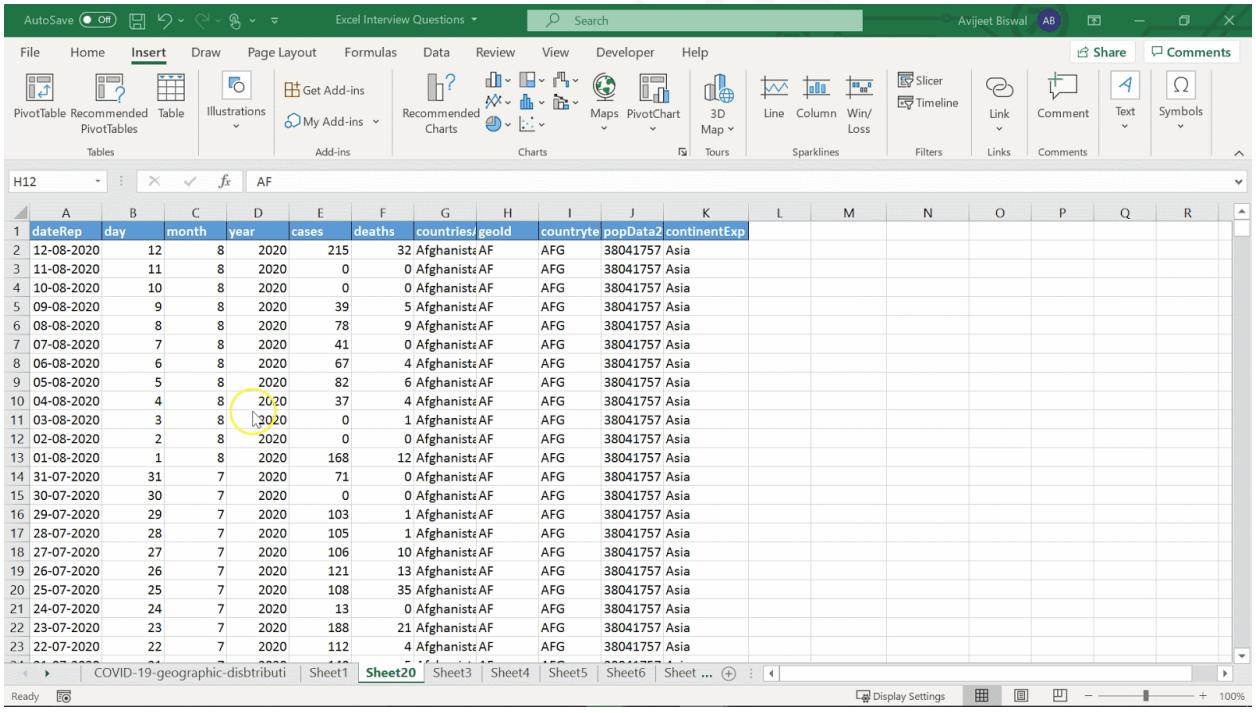
Click on the Data Analysis option in the Data tab. Choose Descriptive Statistics.

Below is the summary table for the columns and their respective statistical measures.

Paid		Organic		Social		Revenue	
Mean	81610.243	Mean	122509.666	Mean	226246.2	Mean	118751.8
Standard Error	1470.611542	Standard Error	288.8237698	Standard Error	2898.353	Standard Error	1258.025
Median	79754.5	Median	122410	Median	224032.5	Median	117495.8
Mode	0	Mode	131294	Mode	0	Mode	121248.7
Standard Deviation	46504.82026	Standard Deviation	9133.409551	Standard Deviation	91653.98	Standard Deviation	39782.25
Sample Variance	2162698307	Sample Variance	83419170.02	Sample Variance	8.4E+09	Sample Variance	1.58E+09
Kurtosis	-1.230155002	Kurtosis	11.1260989	Kurtosis	-1.1035	Kurtosis	-1.19126
Skewness	-0.014264704	Skewness	-0.841896327	Skewness	-0.0463	Skewness	-0.02185
Range	165349	Range	131363	Range	471784	Range	177580.4
Minimum	0	Minimum	51283	Minimum	0	Minimum	14681.4
Maximum	165349	Maximum	182646	Maximum	471784	Maximum	192261.8
Sum	81610243	Sum	122509666	Sum	2.26E+08	Sum	1.19E+08
Count	1000	Count	1000	Count	1000	Count	1000
Confidence Level(95.0%)	2885.842002	Confidence Level(95.0%)	566.7708585	Confidence Level(95.0%)	5687.559	Confidence Level(95.0%)	2468.675

Q. Using the Coronavirus dataset, create a pivot table to find the total cases in each country belonging to their respective continents.

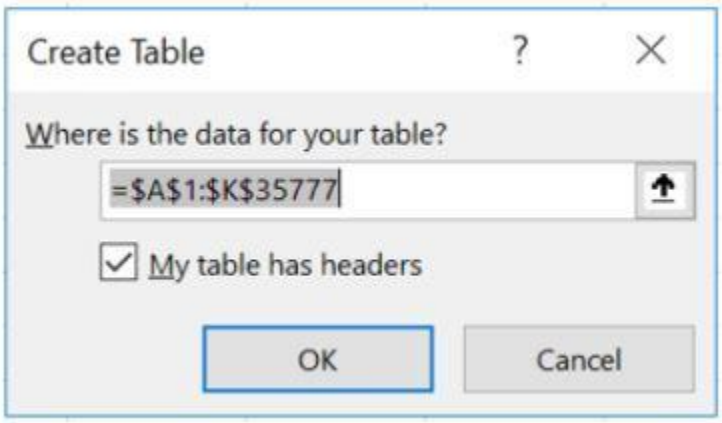
First, drag the continent and country columns into rows. After that, drag the cases column on to the values section.



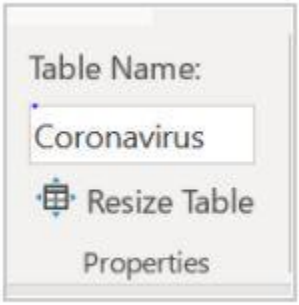
Q. How do you provide Dynamic Range in ‘Data Source’ of Pivot Tables?

Dynamic Range in the data source of pivot tables is used to make your pivot table dynamic to adjust to new data when refreshed automatically.

Create a Named table to provide a dynamic range. Go to the Insert tab and select Table.



Under Table Design, give a name to the table.



Q. Is it possible to create a Pivot Table using multiple sources of data?

Yes, you can create a pivot table from multiple worksheets. For this, there must be a common row in both the tables. This will act as the Primary key for the first table and Foreign key for the second table. Create a relationship between the tables and then build the pivot table.

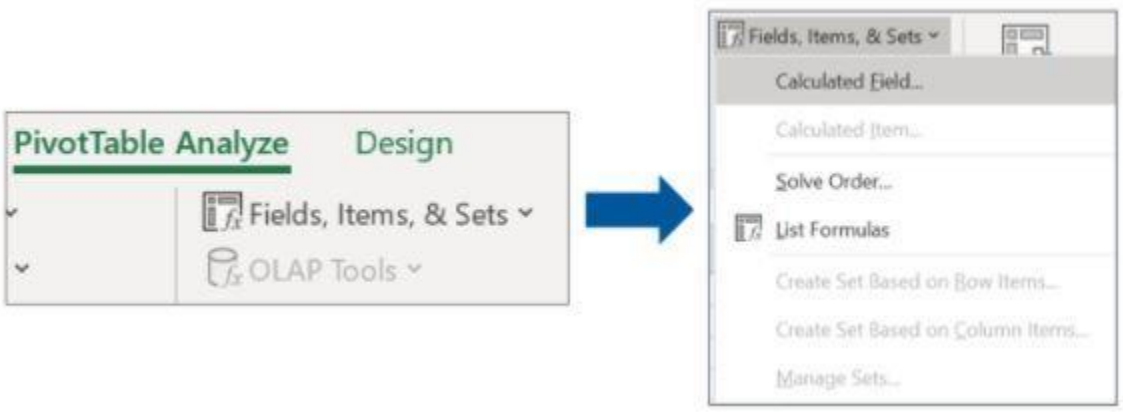
Q. Create a pivot table to find the top three countries from each continent based on the total cases using COVID data.

- Create a pivot table using the coronavirus dataset by dragging sales into values.
- Place the continent and country columns into rows.
- Filter the table by selecting ‘Top 3’.

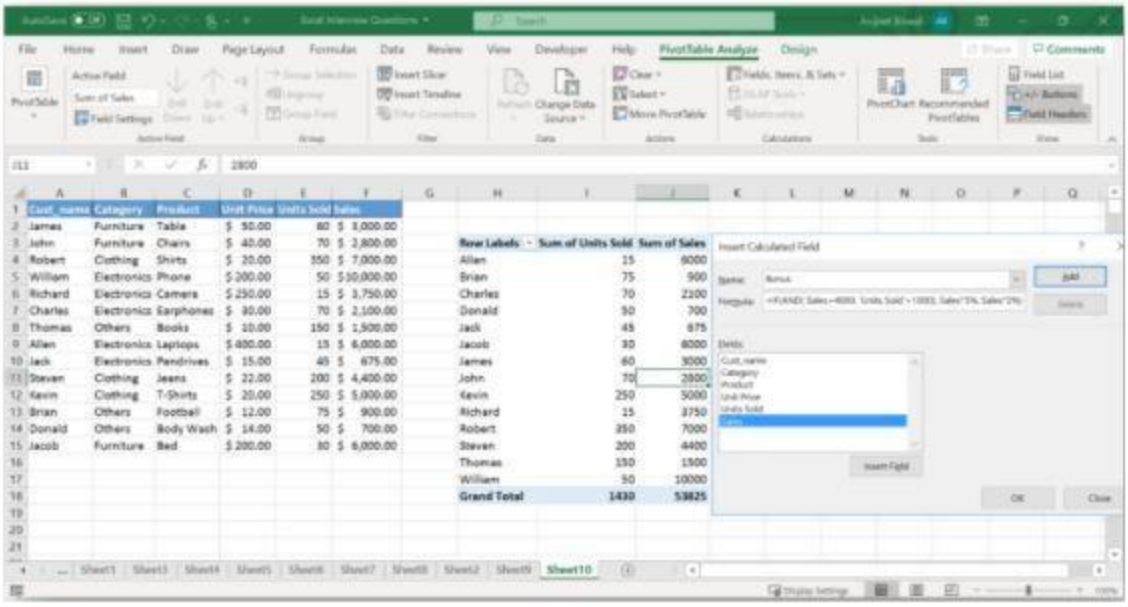
Below is the sequence of steps to follow.

Q. How do you create a column in a pivot table?

For this, you have to go to the PivotTable Analyze tab and select ‘Fields, Items & Sets’ option. Under that, you need to click ‘Calculate Field’ to create a new column.



The Insert Calculated Field box appears. Give a name to the column and insert the formula by selecting the existing columns from the pivot table. Click Add ----> OK to create the column.

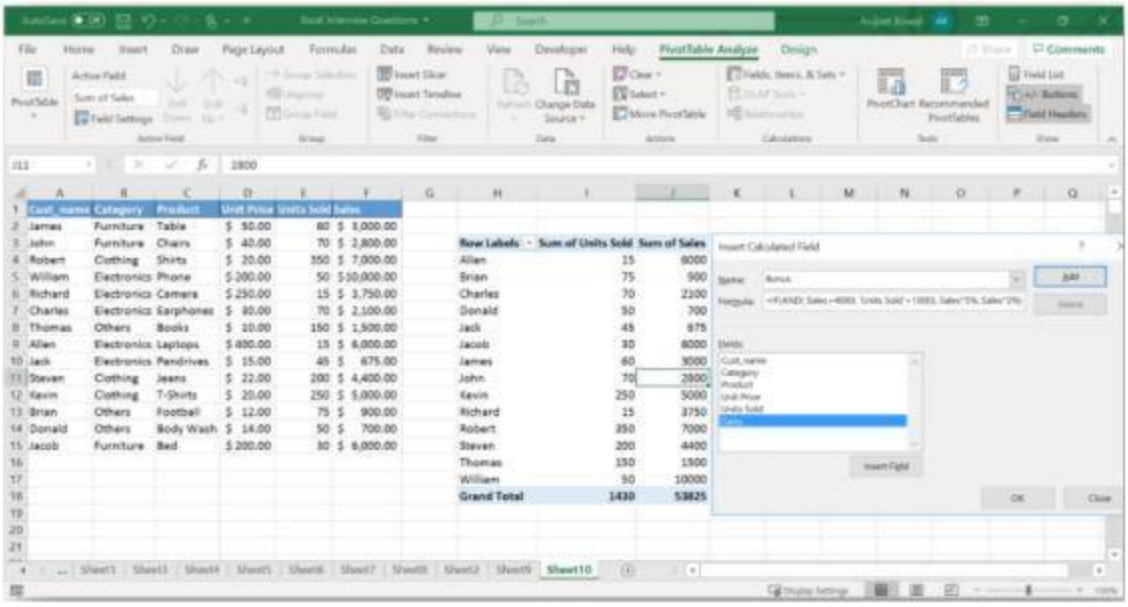


Q. How does a Slicer work in Excel?

To filter data in a Pivot table, we can use slicers.

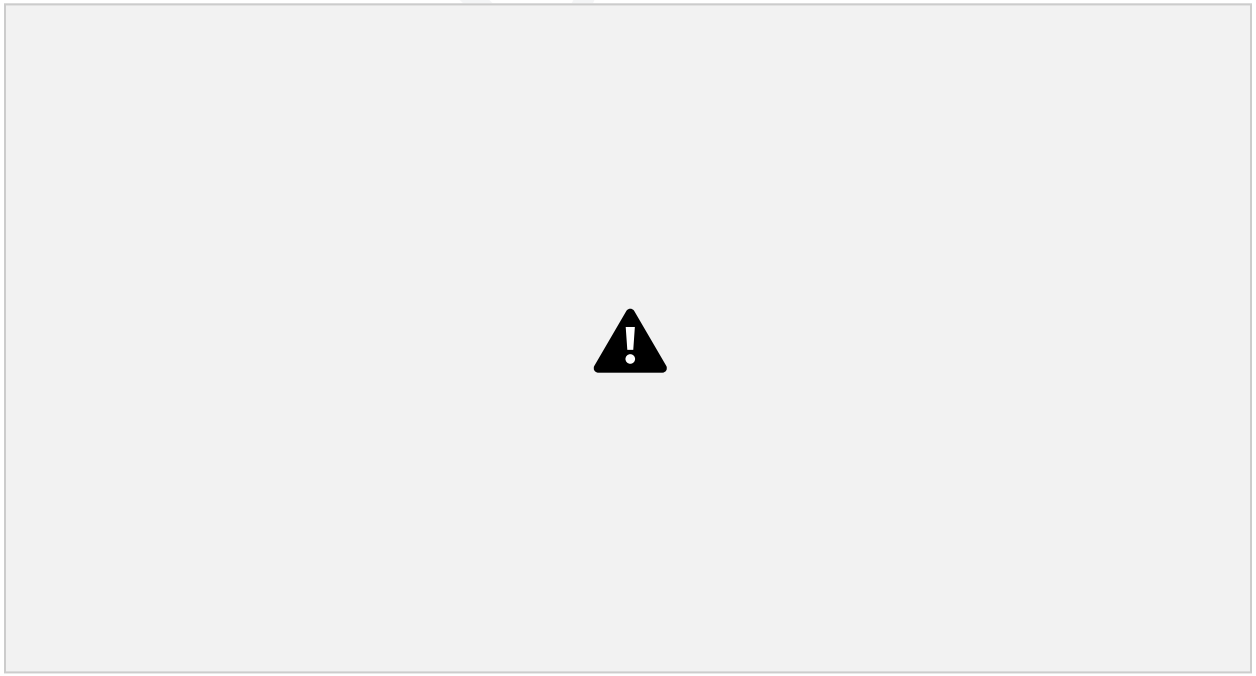
1. To create a slicer, go to the Insert tab, and select Slicer present under Filter.
2. Then, select the list of fields for which you want to create slicers.

In the below example, we have created two slicers (months, countries, and territory) to filter the pivot table.



Q. Use the coronavirus dataset to find the percentage contribution of each country and continent to the total cases?

1. Create the pivot table to show the total cases by country and continent.
2. Right-click on the sum of cases column and under Show Value As, select “% of Grand Total.”

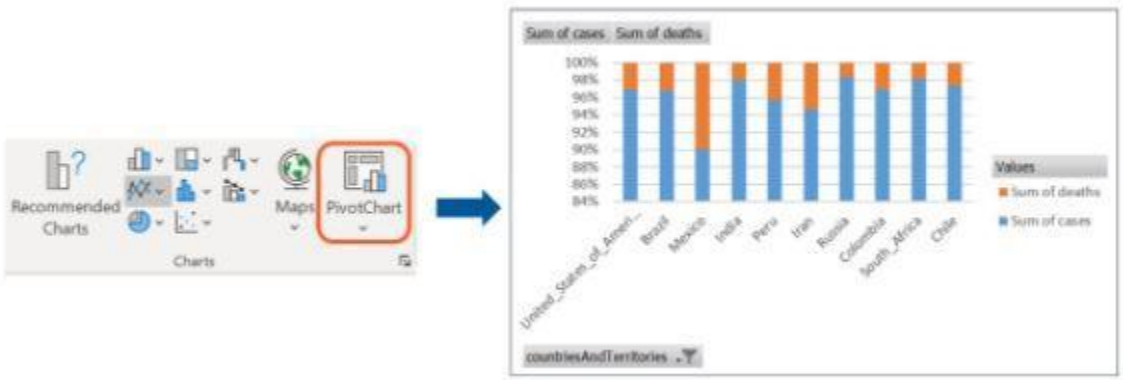


Q. How do you create a pivot chart in Excel?

- To create a pivot chart, first, we need to create a pivot table.

Row Labels	Sum of cases	Sum of deaths
United_States_of_America	5141207	164537
Brazil	3109630	103026
Mexico	492522	53929
India	2329638	46091
Peru	489680	21501
Iran	331189	18800
Russia	897599	15131
Colombia	410453	13475
South_Africa	566109	10751
Chile	376616	10178
Grand Total	**14144643**	**457419**

- Go to the Insert tab next and select the 'Pivot Chart' option. Choose a suitable chart to represent your pivot table data.



Q. Differentiate between Pivot charts and standard charts.

The following are a few differences between Pivot charts and standard charts:

- The row/column format: A Pivot Chart's row/column orientation cannot be changed using the Select Data Source dialog box, in contrast to a normal chart. Instead, you can achieve the same result by pivoting the Row and Column labels of the corresponding PivotTable.
- Chart type: A Pivot Chart can be changed into any form of a chart, with the exception of a xy (scatter), stock, or bubble chart.
- Source of data: Pivot Charts are based on the data source of the related Pivot Table, whereas standard charts are tied directly to worksheet cells. In contrast to a standard

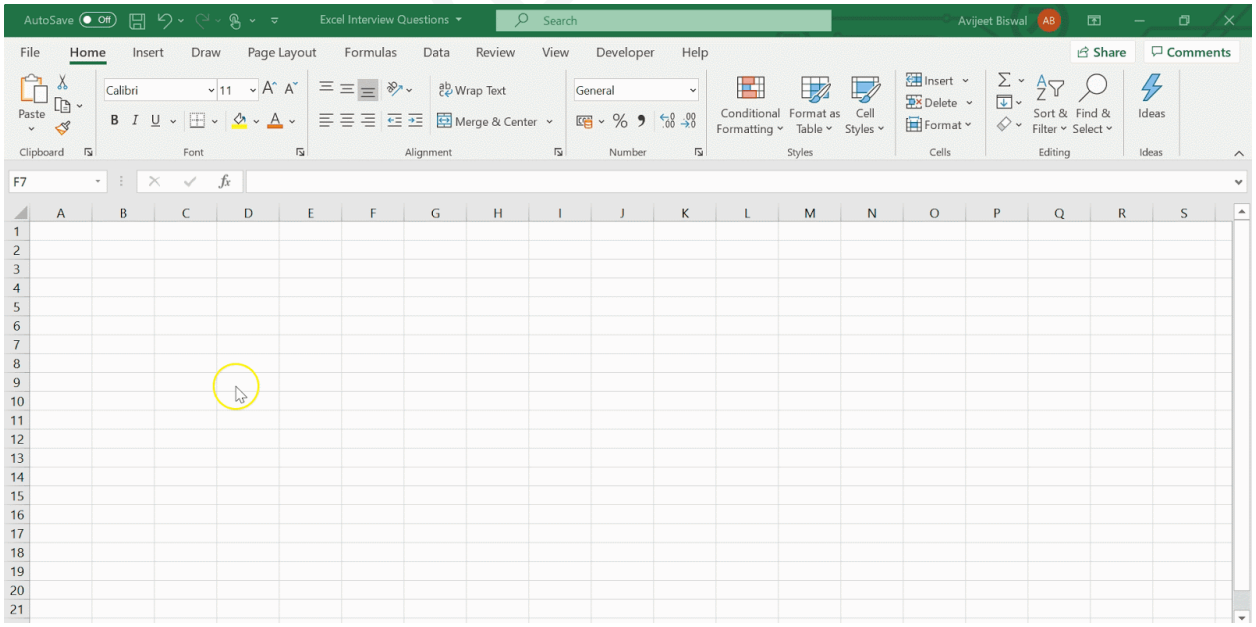
chart, the Pivot Chart's Choose Data Source dialog box does not allow you to alter the chart's data range.

- Formatting The majority of formatting, including newly added chart elements, structure, and style, is kept when you reload a Pivot Chart. Trendlines, data labels, error bars, and other modifications to data sets, however, are not kept. After being applied, standard charts retain their formatting. Although you can't directly modify the data labels in a Pivot Chart, you may still do it by increasing the text's font size.

Q. What are macros in Excel? Create a macro to automate a task.

Macro is a program that resides within the Excel file. The use of it is to automate repetitive tasks that you would like to perform in Excel.

To record a macro, you can either go to the Developer tab and click on Record Macro or access it from the View tab.

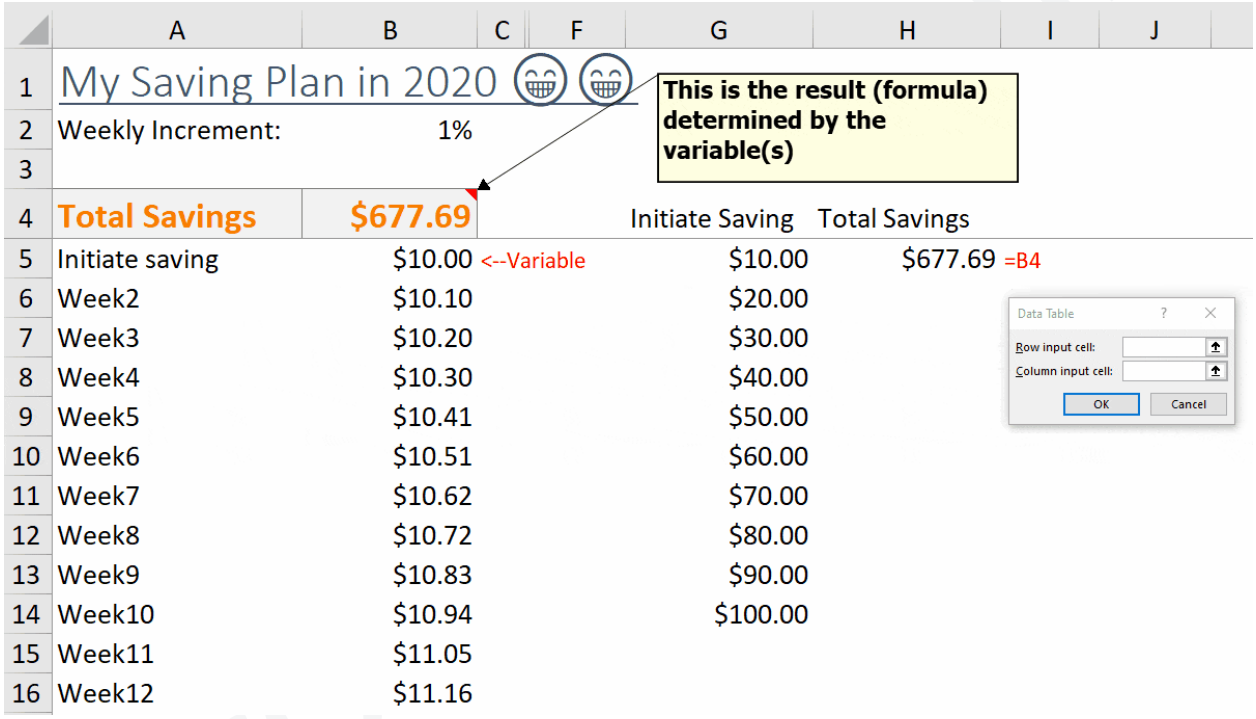


HARD

Q. What do you understand by What If analysis?

What-if analysis is a technique for changing one or more cellular formulas to examine how the changes affect the worksheet results. Three different What-if approaches for analysis are available in Excel: Scenarios, Goal Seek, and Data Tables.

Data tables and scenarios offer a selection of inputs for potential results. While several variables can work with scenarios, a limit of 32 input values is allowed. Data tables only work with one or two variables, but they can all take on a variety of different values. Unlike Scenarios and Data Tables, Goal Seek takes outputs and determines prospective inputs to the same.



Q. How can one disable Pivot Tables' automatic sorting?

The data that is available in the Pivot Tables are automatically sorted by Excel. If you do not want Excel to do this action, select More Sort Options from the drop-down option for the Row Labels or Column Labels. The Sort dialog box appears as it opens. Deselect the option for Automatic Sort by selecting More Options.

Q. How would you add comments to your cells?

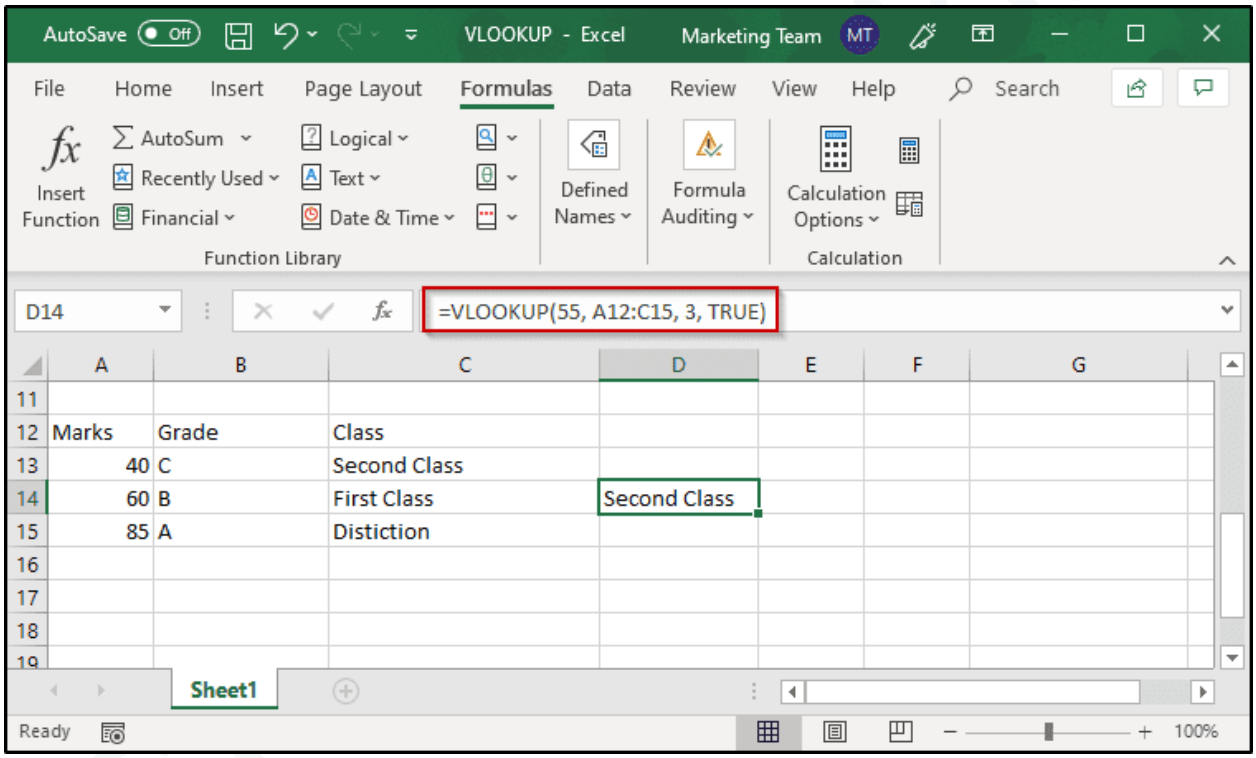
You must right-click a cell and select add comment from the cell menu to add a comment to it. Write your comment in the space provided for comments. There is a comment associated with

that specific cell if there is a red triangle in the upper right corner of the cell. Right-click the cell and choose "Delete Comment" from the cell menu to get rid of a comment.

Q. Provide an illustration of the approximate match.

When there are no exact matches for the provided lookup_value, VLOOKUP will fetch values to get an approximate match. Set the range_lookup value to TRUE for a rough match. Keep in mind that for VLOOKUP to do an approximate match, the table must be ordered in ascending order. In this case, VLOOKUP basically starts by searching for a roughly matching value to the specified lookup value before stopping at the value that is the next largest. It then enters that row to return the value from the designated column.

Example:



- Choose the target cell, then enter "=".
- Deploy VLOOKUP.
- Add the lookup value to the list of parameters.
- Use TRUE as the range lookup value.
- The function will be =VLOOKUP (55, A12: C15, 3, TRUE)

The lookup value is 55 and the next largest value near the lookup value that is present in the first column is 40. Hence, the output is ‘Second Class’.