DATA ANALYTICS WITH EXCEL

SUBJECT CODE: BCS358A

LAB MANUAL

1.Create a Worksheet of 20 Students (using auto fill) with Column Headers –Name, Subject 1 to Subject 6, Total, Percentage. Assign random marks to these subjects and make it constant. Perform the following operations

a. Perform a multilevel sort of your choice.
b. Filter the Marks of students who got more than 65 marks in Subject 1 and Subject 5 using Number Filters options

Perform Conditional Formatting by highlighting a different colour to those cells where students have scored more than 65 marks in all the subjects

Answer

Click on Excel -> Blank Work Book

Type in the following Headers in the sequence

SLNo USN Name Sub1 Sub2 Sub3 Sub4 Sub5 Sub6 Total Percentage

Type in 1 in SLNo Column

Go to Home->Series->Series in->Columns-Type-> Linear -> Step Value ->1 – Stop Value ->20 ->OK

A series of 1 to 20 will be generated in the SLNo Column

Come to the USN Column -> Type in a USN -> Go to bottom right corner of an active cell -> double click or click and drag to fill USN for 20 members

Come to the Name Column -> Type the names for 20 people

To fill the marks for the 6 subjects, follow the below procedure

Go to the 1st student Sub1 marks cell, type in the formula =randbetween (35,99). A random number will be generated. Click and drag the formula to all the cells from Sub1 to Sub6 for all the 20 students to generate the random marks

To make it constant

Select all the cells where marks have been entered for 20 students -> Copy -> Paste -> PasteSpecial -> Values -> OK.

The values will remain constant

Calculate the Total column using “SUM” formula

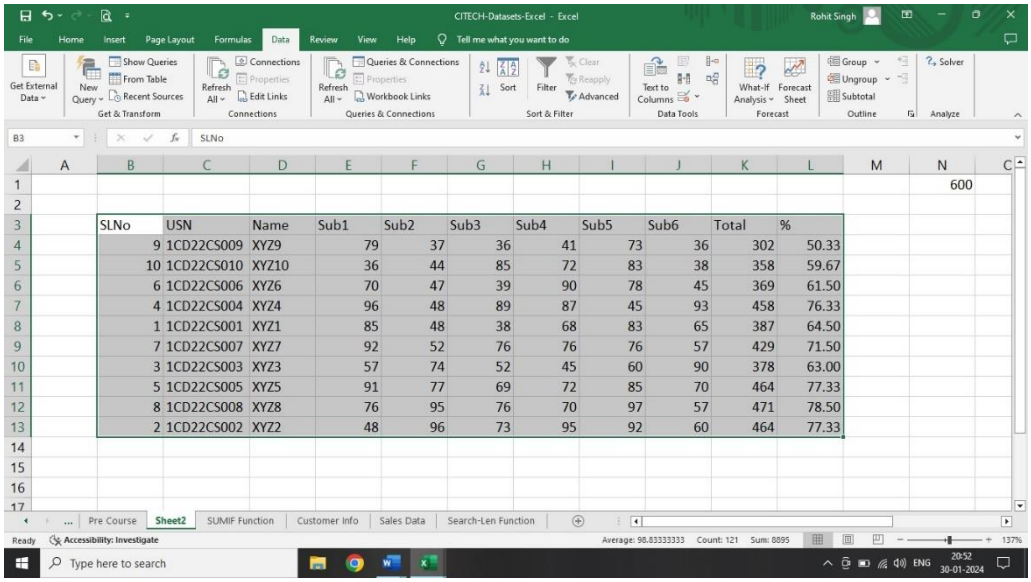
Calculate the Percentage column using Total/Cell ref to the cell where 600 is stored.

a. Steps to Perform Multilevel sort
   - Select the entire date
   - Go to Data ribbon -> Sort and Filter section -> Click on SORT
   - Sort by -> Sub2 - sort on ->Cell Values - Order-> Smallest to Largest
   - Click on Add level
   - Then by ->Sub5 – sort on -> Cell Values – Order -> Smallest to Largest.
b. Steps to use Number Filter Options
   - Select the headers -> Home -> Sort and Filter -> Filter
   - Click on Dropdown of Sub1 -> Number Filters -> Greater than -> 65 – The data will be filtered
   - Then click on Dropdown of Sub5 -> Number Filters -> Greater than -> 65 – The data will be filtered

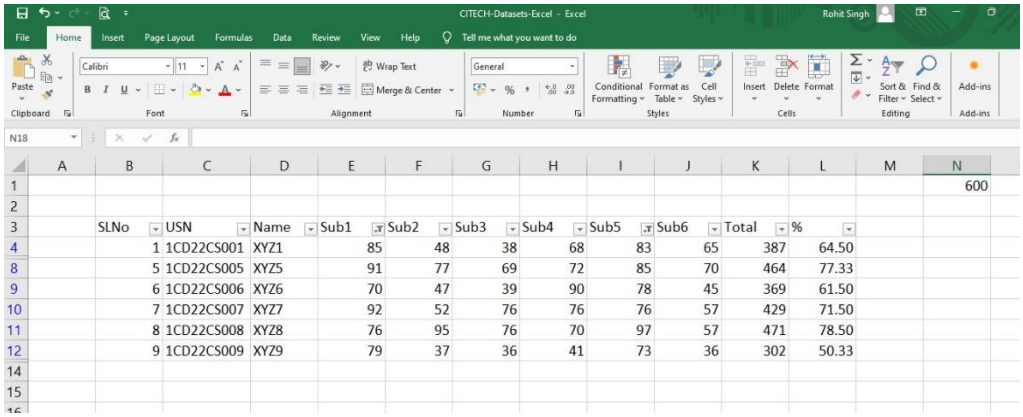
Conditional Formatting

Select the data from Sub1 to Sub6 marks for all 20 students -> Home -> Conditional Formatting -> Highlight cell rules -> Greater than -> Format cells greater than 65 with -> Custom Format -> Select your own custom choice.

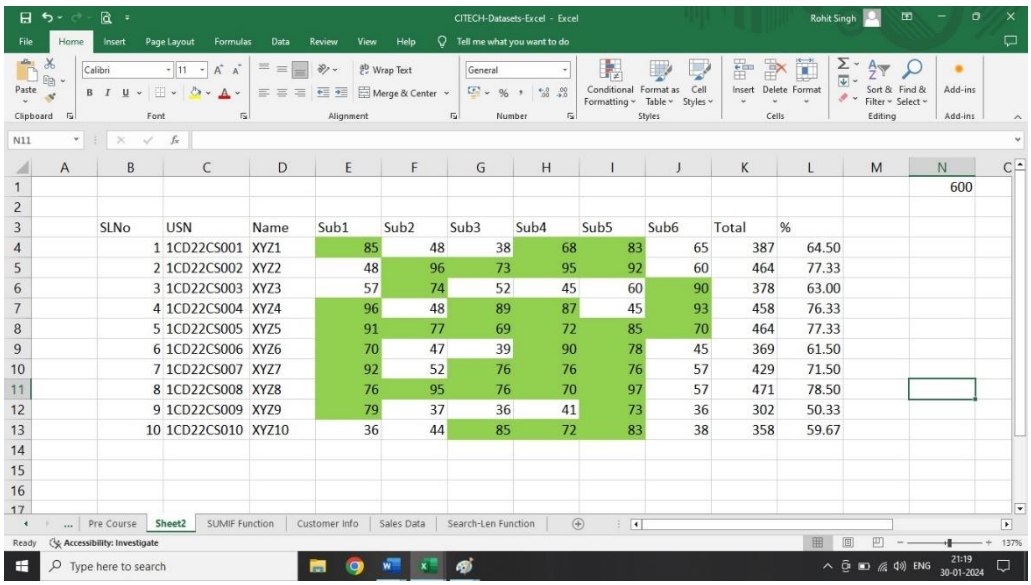
OUTPUT



SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33
10	1CD22CS010	XYZ10	36	44	85	72	83	38	358	59.67
6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
4	1CD22CS004	XYZ4	96	48	89	87	45	93	458	76.33
1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
3	1CD22CS003	XYZ3	57	74	52	45	60	90	378	63.00
5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
2	1CD22CS002	XYZ2	48	96	73	95	92	60	464	77.33



SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33



SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
2	1CD22CS002	XYZ2	48	96	73	95	92	60	464	77.33
3	1CD22CS003	XYZ3	57	74	52	45	60	90	378	63.00
4	1CD22CS004	XYZ4	96	48	89	87	45	93	458	76.33
5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33
10	1CD22CS010	XYZ10	36	44	85	72	83	38	358	59.67

2. Create a Worksheet of 20 Students (using auto fill) with Column Headers –Name, Subject 1 to Subject 6, Total, Percentage. Assign random marks to these subjects and make it constant. Perform the following operations

a. Using Advanced Filter (AND, OR) –Filter the students who got more than 60 marks in Subject 2, more than 60 percent using **AND, OR** conditions

b. Perform Data Validation by creating a drop-down List for these 20 students and 7 subjects

Answer:

Click on Excel -> Blank Work Book

Type in the following Headers in the sequence

SLNo USN Name Sub1 Sub2 Sub3 Sub4 Sub5 Sub6 Total Percentage

Type in 1 in SLNo Column

Go to Home->Series->Series in->Columns-Type-> Linear -> Step Value ->1 – Stop Value ->20 ->OK

A series of 1 to 20 will be generated in the SLNo Column

Come to the USN Column -> Type in a USN -> Go to bottom right corner of an active cell -> double click or click and drag to fill USN for 20 members

Come to the Name Column -> Type the names for 20 people

To fill the marks for the 6 subjects, follow the below procedure

Go to the 1st student Sub1 marks cell, type in the formula =randbetween (35,99). A random number will be generated. Click and drag the formula to all the cells from Sub1 to Sub6 for all the 20 students to generate the random marks

To make it constant

Select all the cells where marks have been entered for 20 students -> Copy -> Paste -> PasteSpecial -> Values -> OK.

The values will remain constant

Calculate the Total column using "SUM" formula

Calculate the Percentage column using Total/Cell ref to the cell where 600 is stored.

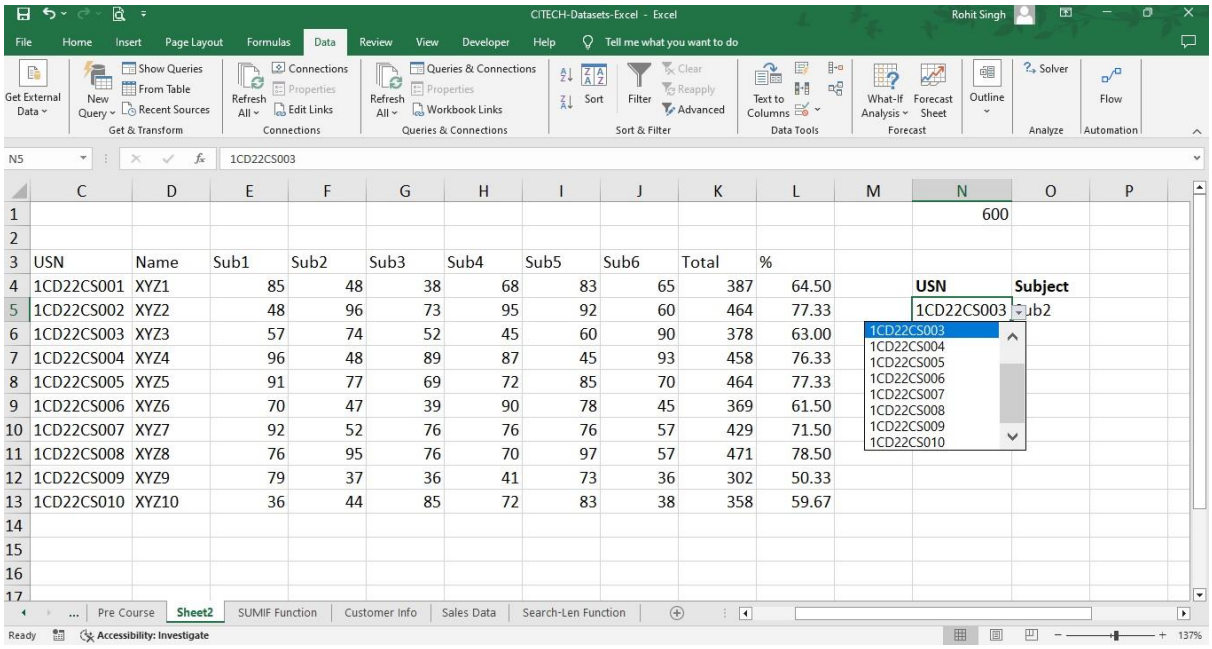
a. Steps to Perform Advanced Filter
   AND Condition
   Type it the following way in any of the active cells

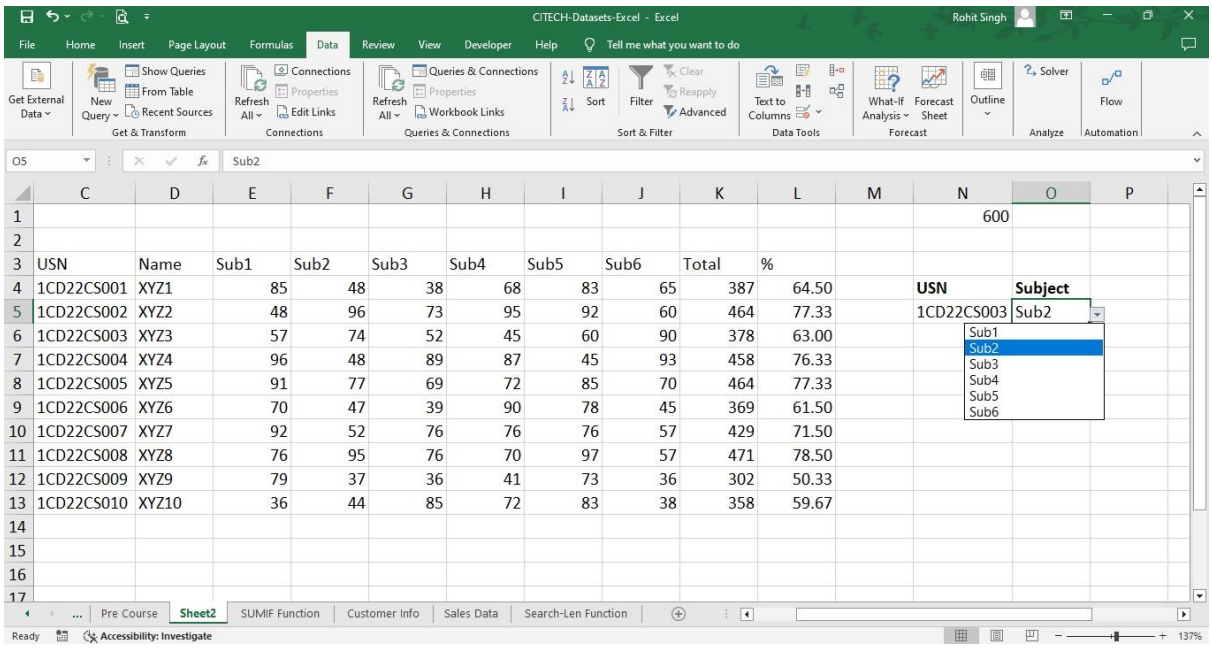
Sub2	%
>60	>60

- Click on Data -> Sort & Filter -> Advanced
- Advanced Filter box will open
- Click on -> Copy to another location
- List Range -> Select the entire table
- Criteria range -> give the above table as the criteria
- Copy to -> Give a new cell address -> Click OK
- A new data based on the above filter will be created in the active cell specified in the "Copy To" section

b. Steps to perform Data Validation List
   - Type in **USN** anywhere in the worksheet
   - Go to the Cell below the USN which you have typed.
   - Go to Data -> Data Tools -> Data Validation
   - Data Validation dialog box will appear

- Click on -> Allow -> List, go to Source -> Select all the USN (except the heading) from the table -> Click on OK.
- A drop down will appear below the USN which was typed.
- ii. Steps to perform Data Validation List
- Type in **Subject** next to **USN** which was typed earlier in the worksheet
- Go to the Cell below the **Subject** which you have typed.
- Go to Data -> Data Tools -> Data Validation
- Data Validation dialog box will appear
- Click on -> Allow -> List, go to Source -> Select all the **Sub** (Sub1 to Sub7) from the table -> Click on OK.
- A drop down will appear below the **Subject** which was typed





3. Create a Worksheet of 20 Students (using auto fill) with Column Headers –Name, Subject 1 to Subject 6, Total, Percentage. Assign random marks to these subjects and make it constant. Create a table for the above data and thereby create a chart. Perform the following operations

a. Copy the Chart to the Microsoft Word by creating a link between MS Excel and MS Word

b. Modify the data and look for the updated fields in the Charts in both MS Excel and MS Word

Answer:

Click on Excel -> Blank Work Book

Type in the following Headers in the sequence

SLNo USN Name Sub1 Sub2 Sub3 Sub4 Sub5 Sub6 Total Percentage

Type in 1 in SLNo Column

Go to Home->Series->Series in->Columns-Type-> Linear -> Step Value ->1 – Stop Value ->20 ->OK

A series of 1 to 20 will be generated in the SLNo Column

Come to the USN Column -> Type in a USN -> Go to bottom right corner of an active cell -> double click or click and drag to fill USN for 20 members

Come to the Name Column -> Type the names for 20 people

To fill the marks for the 6 subjects, follow the below procedure

Go to the 1st student Sub1 marks cell, type in the formula =randbetween (35,99). A random number will be generated. Click and drag the formula to all the cells from Sub1 to Sub6 for all the 20 students to generate the random marks

To make it constant

Select all the cells where marks have been entered for 20 students -> Copy -> Paste -> PasteSpecial -> Values -> OK.

The values will remain constant

Calculate the Total column using “SUM” formula

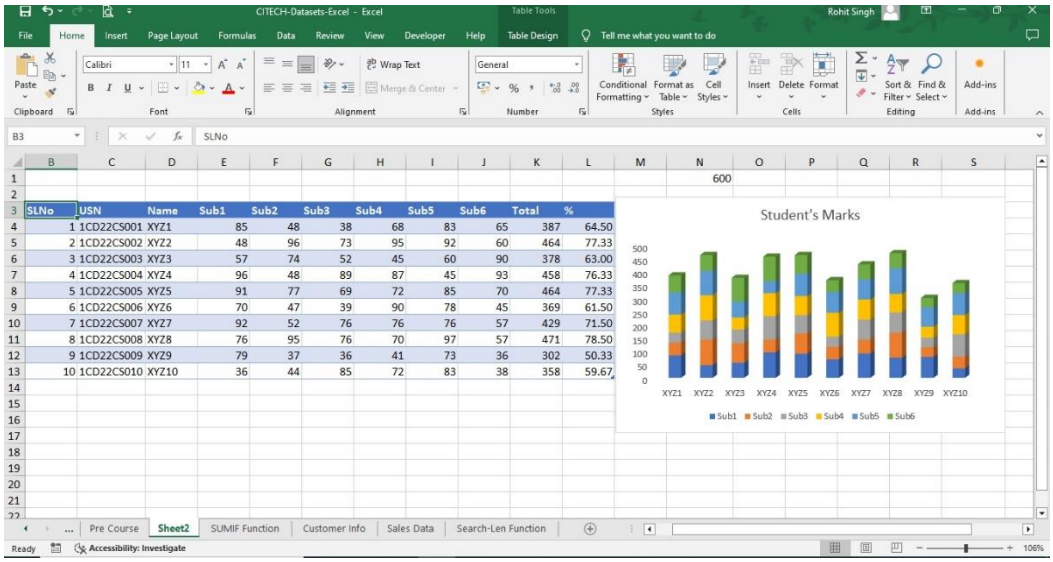
Calculate the Percentage column using Total/Cell ref to the cell where 600 is stored.

Select the data -> Press -> Ctrl + t -> to format as a Table

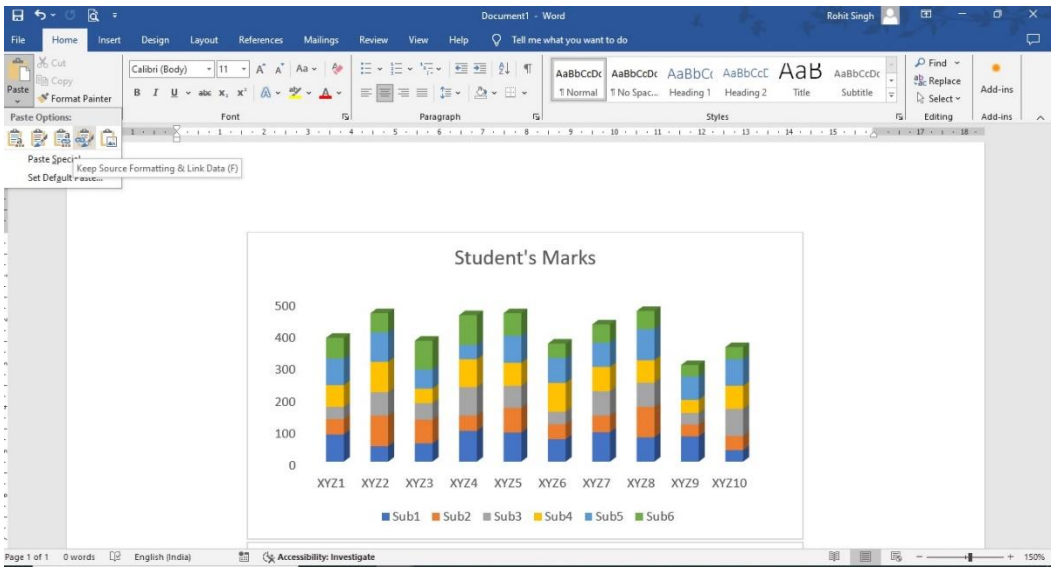
Select the data from Name till Sub 6 -> Insert -> Charts -> All Charts -> 3-D Column Stacked Chart.

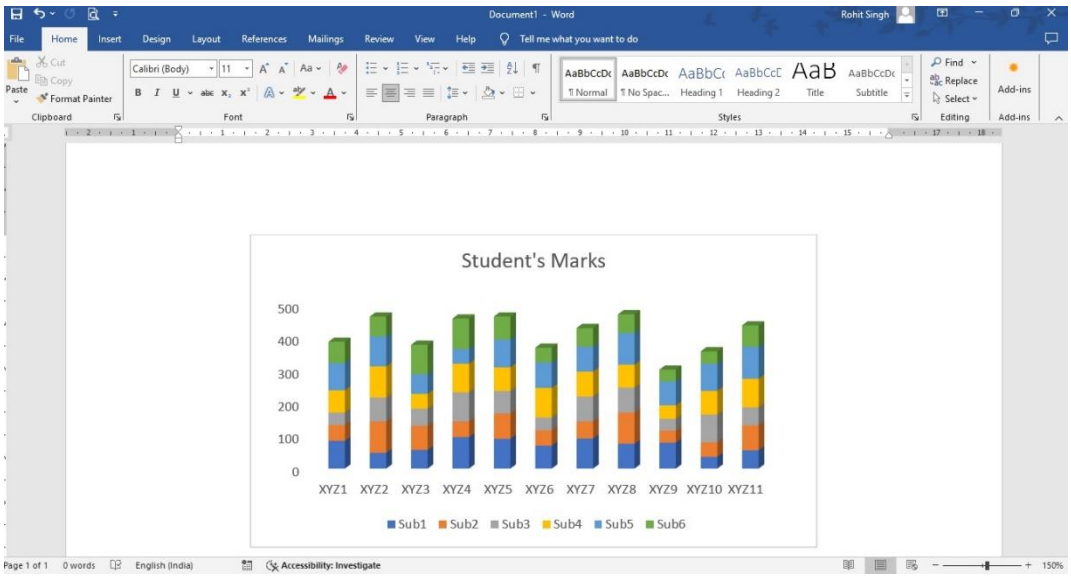
a. Create the Link between MS Word and Excel for the Chart
   - Select the Chart -> Copy.
   - Now open the Word Document -> Click on Paste -> Keep Source Formatting and Link data -> The Chart will be Pasted.

b. Go to Excel -> Enter the new Student Record in the Table (All details). The chart will get updated in the Excel. Go to Word Document, the Chart will be updated in the Word as well, since we have created a link.



SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
2	1CD22CS002	XYZ2	48	96	73	95	92	60	464	77.33
3	1CD22CS003	XYZ3	57	74	52	45	60	90	378	63.00
4	1CD22CS004	XYZ4	96	48	89	87	45	93	458	76.33
5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33
10	1CD22CS010	XYZ10	36	44	85	72	83	38	358	59.67





4. Create a Worksheet of 20 Students (using auto fill) with Column Headers –Name, Subject 1 to Subject 6, Total, Percentage. Assign random marks to these subjects and make it constant. Perform the following operations.

a. Calculate the Aggregate Functions for the Total Marks.

Average, Min, Max, Median, Mode, Standard Deviation.

b. Apply a particular font colour, font style, fill colour and apply it to all other headers using Format Painter

Answer

Click on Excel -> Blank Work Book

Type in the following Headers in the sequence

SLNo USN Name Sub1 Sub2 Sub3 Sub4 Sub5 Sub6 Total Percentage

Type in 1 in SLNo Column

Go to Home->Series->Series in->Columns-Type-> Linear -> Step Value ->1 – Stop Value ->20 ->OK

A series of 1 to 20 will be generated in the SLNo Column

Come to the USN Column -> Type in a USN -> Go to bottom right corner of an active cell -> double click or click and drag to fill USN for 20 members

Come to the Name Column -> Type the names for 20 people

To fill the marks for the 6 subjects, follow the below procedure

Go to the 1st student Sub1 marks cell, type in the formula =randbetween (35,99). A random number will be generated. Click and drag the formula to all the cells from Sub1 to Sub6 for all the 20 students to generate the random marks

To make it constant

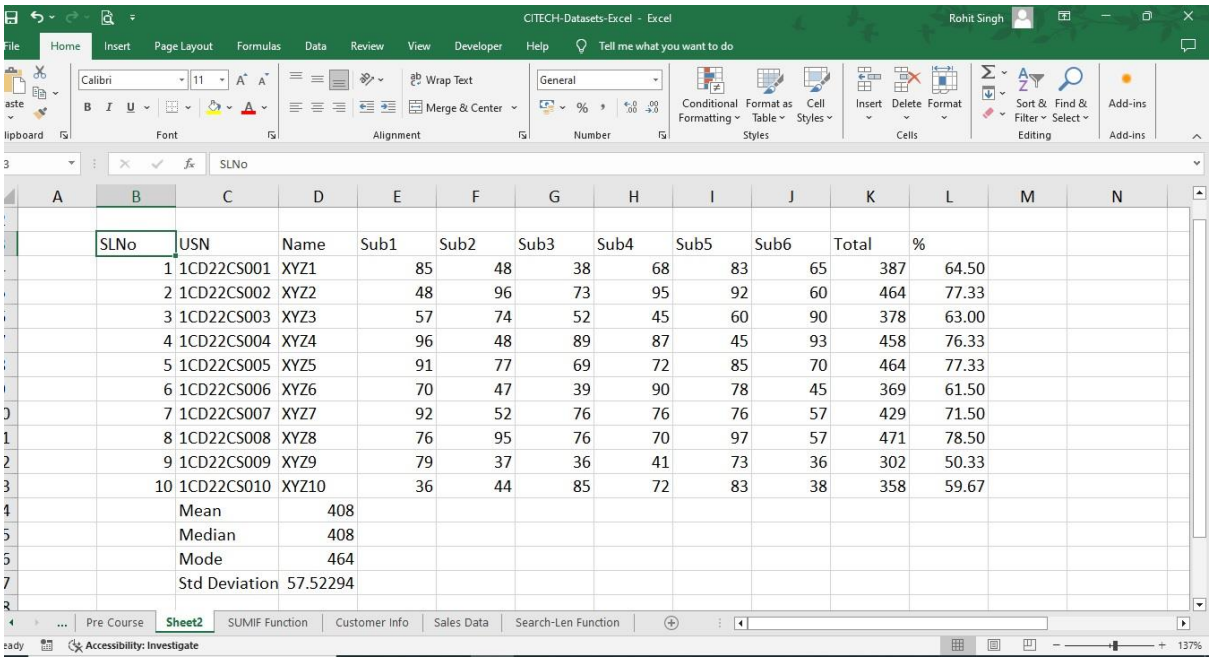
Select all the cells where marks have been entered for 20 students -> Copy -> Paste -> PasteSpecial -> Values -> OK.

The values will remain constant

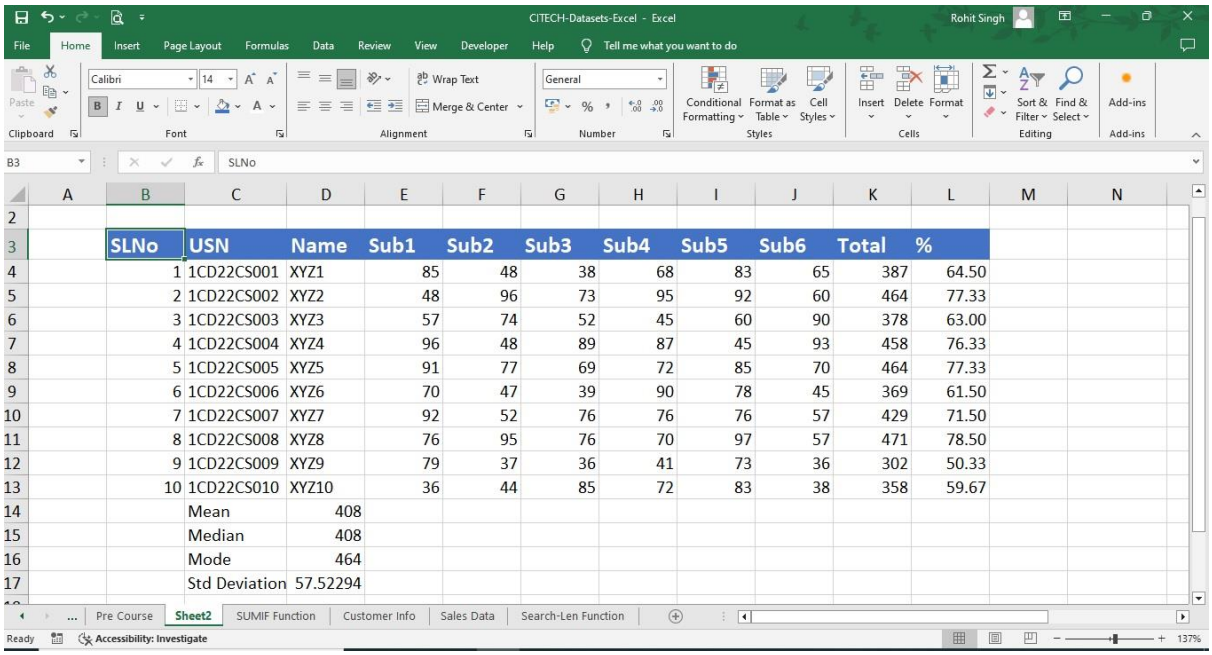
Calculate the Total column using “SUM” formula

Calculate the Percentage column using Total/Cell ref to the cell where 600 is stored.

a. Create new rows with Average, Mean, Median, Mode, Standard Deviation as the texts.
   - Use appropriate formulas to get the above data with Total Marks Column as the input.
   - Formulas to be used are:
   - average (number1, number2, ……)
   - mean (number1, number2, ……)
   - mode (number1, number2, ……)
   - stdev (number1, number2, ……)
b. Applying different background, font colour to all the headers using Format Painter.
   - Select the SLNo column
   - Make it bold -> ctrl +b
   - Give a background colour -> Home -> Font Section -> paint symbol -> select blue
   - Give a font colour -> Home -> A -> select White
   - Increase font size to 14.
   - Double Click on Format Painter -> Select all the headers to apply the Format -> hit Esc key to stop the format painter.



	SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
	1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
	2	1CD22CS002	XYZ2	48	96	73	95	92	60	464	77.33
	3	1CD22CS003	XYZ3	57	74	52	45	60	90	378	63.00
	4	1CD22CS004	XYZ4	96	48	89	87	45	93	458	76.33
	5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
	6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
	7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
	8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
	9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33
	10	1CD22CS010	XYZ10	36	44	85	72	83	38	358	59.67
		Mean	408								
		Median	408								
		Mode	464								
		Std Deviation	57.52294								



	SLNo	USN	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Total	%
	1	1CD22CS001	XYZ1	85	48	38	68	83	65	387	64.50
	2	1CD22CS002	XYZ2	48	96	73	95	92	60	464	77.33
	3	1CD22CS003	XYZ3	57	74	52	45	60	90	378	63.00
	4	1CD22CS004	XYZ4	96	48	89	87	45	93	458	76.33
	5	1CD22CS005	XYZ5	91	77	69	72	85	70	464	77.33
	6	1CD22CS006	XYZ6	70	47	39	90	78	45	369	61.50
	7	1CD22CS007	XYZ7	92	52	76	76	76	57	429	71.50
	8	1CD22CS008	XYZ8	76	95	76	70	97	57	471	78.50
	9	1CD22CS009	XYZ9	79	37	36	41	73	36	302	50.33
	10	1CD22CS010	XYZ10	36	44	85	72	83	38	358	59.67
		Mean	408								
		Median	408								
		Mode	464								
		Std Deviation	57.52294								

5. Write 10 Names (Give “FULL NAME” as the header) of your choice. Perform the following:

a. Separate the FULL NAME into FIRST NAME and LAST NAME into two different columns using

LEFT, RIGHT, SEARCH and LEN formulas.

b. Use UPPER, LOWER, TRIM, CONCATENATE formulas to showcase your results.

Answer

Open an Excel, write any 10 names of your choice, Give the header as FULL NAME.

a. To separate the Full Name into first name and last name we follow the procedure as explained below
   - Use the LEFT formula to separate FULL NAME in First Name
   - The arguments used for left function are as follows
   - =**left (Text, numchars)**
   - We will give the full name as text.
   - To find the number of characters from left side we will make use of **search ()** formula which will search for the space in the FULL NAME. once it encounters the space, it will return the position where the space is found. We need to subtract -1 to get the first name

   Example

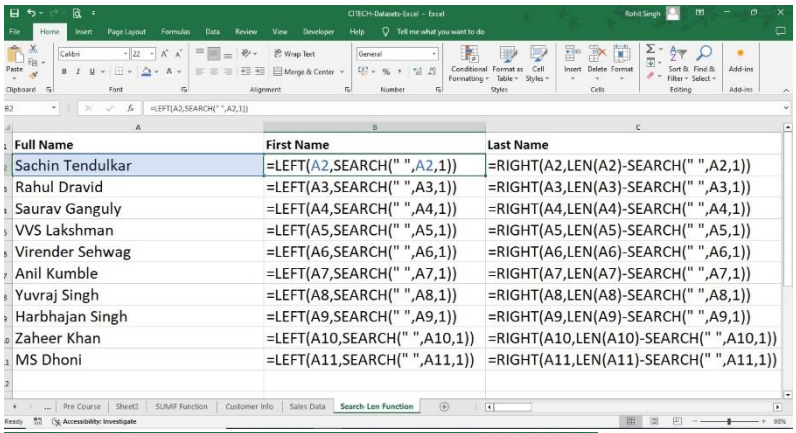
   - SACHIN TENDULKAR (stored in A2
   - **left (A2, search (“ “ , A2, 1) -1))**
   - The search will return 7 as the value which will be subtracted with -1 to get 6. Left formula will print 6 characters from the left end. Hence SACHIN will be separated.

   Similarly, we make use of right formula to separate Last Name.
   - The arguments in the **right ()** formula is same as the **left ()**
   - =**right (Text, numchars)**
   - Here in numchars we will make use of two formulas called **len ()** and **search ()**.
   - len(text) will return the length of the characters in a text
   - search () we will use to again search for the space in the FULL NAME text
   - when we subtract the positions returned by the len and search formulas, we get the Last Name from the right end since the right () will return the number of characters from the right end.

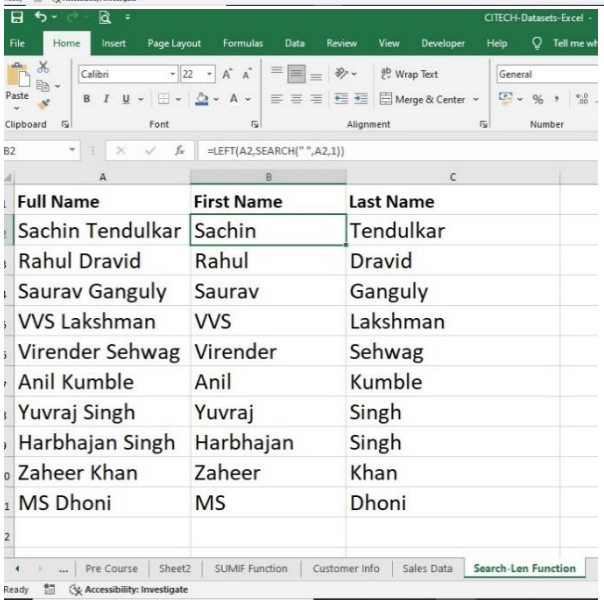
   Example:

   - SACHIN TENDULKAR (stored in A2)
   - **Right (A2, len(A2) – search (“ “, A2, 1))**
   - Len will return the length of the text which is 16 and search will return the position of space which is 7, when they are subtracted numchars will store the value 16-7=9. The **right ()** will return 9 characters from the right end which is TENDULKAR.

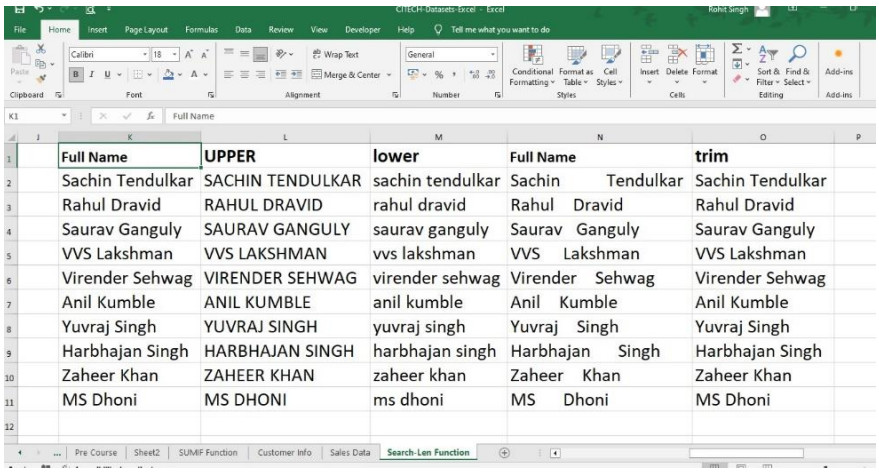
b. The upper (“text”) will convert the entire text into UPPER CASE
   The lower (“text”) will convert the entire text into LOWER CASE
   The trim (“text”) will remove any extra spaces and will keep only one space in the text
   The concatenate (text1, text2, …….) will join two or more texts to give a new text.



Full Name	First Name	Last Name
Sachin Tendulkar	=LEFT(A2,SEARCH(" ",A2,1))	=RIGHT(A2,LEN(A2)-SEARCH(" ",A2,1))
Rahul Dravid	=LEFT(A3,SEARCH(" ",A3,1))	=RIGHT(A3,LEN(A3)-SEARCH(" ",A3,1))
Saurav Ganguly	=LEFT(A4,SEARCH(" ",A4,1))	=RIGHT(A4,LEN(A4)-SEARCH(" ",A4,1))
VVS Lakshman	=LEFT(A5,SEARCH(" ",A5,1))	=RIGHT(A5,LEN(A5)-SEARCH(" ",A5,1))
Virender Sehwag	=LEFT(A6,SEARCH(" ",A6,1))	=RIGHT(A6,LEN(A6)-SEARCH(" ",A6,1))
Anil Kumble	=LEFT(A7,SEARCH(" ",A7,1))	=RIGHT(A7,LEN(A7)-SEARCH(" ",A7,1))
Yuvraj Singh	=LEFT(A8,SEARCH(" ",A8,1))	=RIGHT(A8,LEN(A8)-SEARCH(" ",A8,1))
Harbhajan Singh	=LEFT(A9,SEARCH(" ",A9,1))	=RIGHT(A9,LEN(A9)-SEARCH(" ",A9,1))
Zaheer Khan	=LEFT(A10,SEARCH(" ",A10,1))	=RIGHT(A10,LEN(A10)-SEARCH(" ",A10,1))
MS Dhoni	=LEFT(A11,SEARCH(" ",A11,1))	=RIGHT(A11,LEN(A11)-SEARCH(" ",A11,1))



Full Name	First Name	Last Name
Sachin Tendulkar	Sachin	Tendulkar
Rahul Dravid	Rahul	Dravid
Saurav Ganguly	Saurav	Ganguly
VVS Lakshman	VVS	Lakshman
Virender Sehwag	Virender	Sehwag
Anil Kumble	Anil	Kumble
Yuvraj Singh	Yuvraj	Singh
Harbhajan Singh	Harbhajan	Singh
Zaheer Khan	Zaheer	Khan
MS Dhoni	MS	Dhoni



Full Name	UPPER	lower	Full Name	trim
Sachin Tendulkar	SACHIN TENDULKAR	sachin tendulkar	Sachin Tendulkar	Sachin Tendulkar
Rahul Dravid	RAHUL DRAVID	rahul dravid	Rahul Dravid	Rahul Dravid
Saurav Ganguly	SAURAV GANGULY	saurav ganguly	Saurav Ganguly	Saurav Ganguly
VVS Lakshman	VVS LAKSHMAN	vvs lakshman	VVS Lakshman	VVS Lakshman
Virender Sehwag	VIRENDER SEHWAG	virender sehwag	Virender Sehwag	Virender Sehwag
Anil Kumble	ANIL KUMBLE	anil kumble	Anil Kumble	Anil Kumble
Yuvraj Singh	YUVRAJ SINGH	yuvraj singh	Yuvraj Singh	Yuvraj Singh
Harbhajan Singh	HARBHAJAN SINGH	harbhajan singh	Harbhajan Singh	Harbhajan Singh
Zaheer Khan	ZAHEER KHAN	zaheer khan	Zaheer Khan	Zaheer Khan
MS Dhoni	MS DHONI	ms dhoni	MS Dhoni	MS Dhoni

First Name	Last Name	Concatenate
Sachin	Tendulkar	=CONCATENATE(B2,",",C2)
Rahul	Dravid	Rahul ,Dravid
Saurav	Ganguly	Saurav ,Ganguly
VVS	Lakshman	VVS ,Lakshman
Virender	Sehwag	Virender ,Sehwag
Anil	Kumble	Anil ,Kumble
Yuvraj	Singh	Yuvraj ,Singh
Harbhajan	Singh	Harbhajan ,Singh
Zaheer	Khan	Zaheer ,Khan
MS	Dhoni	MS ,Dhoni

CONCATENATE(text1, [text2], [text3], [text4], ...)

6. Input a Date and Time and perform the following operations

DATEVALUE, DATEDIF, TIMEVALUE

Use CONCATENATE formula to Concatenate the number of years, months, and days after using DATEDIF formula

Ex: 24 Years 3 Months 16 Days

Answer:

DATEVALUE

- The function converts a date that is stored as text to a serial number that Excel recognizes as a date.
- The DATEVALUE function is helpful in cases where a worksheet contains dates in a text format that you want to filter, sort, or format as dates, or use in date calculations

Syntax: DATEVALUE (date_text)

The DATEVALUE function syntax has the following arguments:

- Date_text Required. Text that represents a date in an Excel date format, or a reference to a cell that contains text that represents a date in an Excel date format. For example, "1/30/2008" or "30-Jan-2008" are text strings within quotation marks that represent dates.
- Using the default date system in Microsoft Excel for Windows, the date_text argument must represent a date between January 1, 1900 and December 31, 9999. The DATEVALUE function returns the #VALUE! error value if the value of the date_text argument falls outside of this range.

TIMEVALUE

- Returns the decimal number of the time represented by a text string. The decimal number is a value ranging from 0 (zero) to 0.99988426, representing the times from 0:00:00 (12:00:00 AM) to 23:59:59 (11:59:59 P.M.).

Syntax: TIMEVALUE (time_text)

- The TIMEVALUE function syntax has the following arguments: Time_text Required. A text string that represents a time in any one of the Microsoft Excel time formats; for example, "6:45 PM" and "18:45" text strings within quotation marks that represent time.

DATEDIF

Calculates the number of days, months, or years between two dates.

Syntax: DATEDIF (start_date, end_date, source)

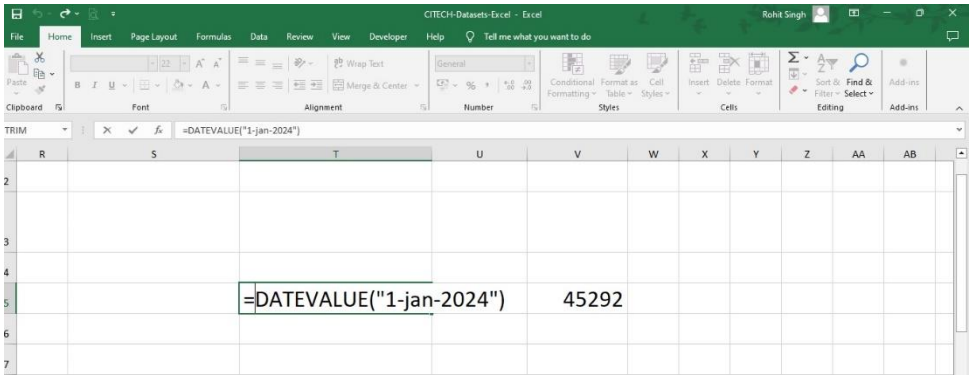
- start_date A date that represents the first, or starting date of a given period. Dates may be entered as text strings within quotation marks (for example, "2001/1/30"), as serial numbers (for example, 36921, which represents January 30, 2001, if you're using the 1900 date system), or as the results of other formulas or functions (for example, DATEVALUE ("2001/1/30")).
- end_date A date that represents the last, or ending, date of the period.

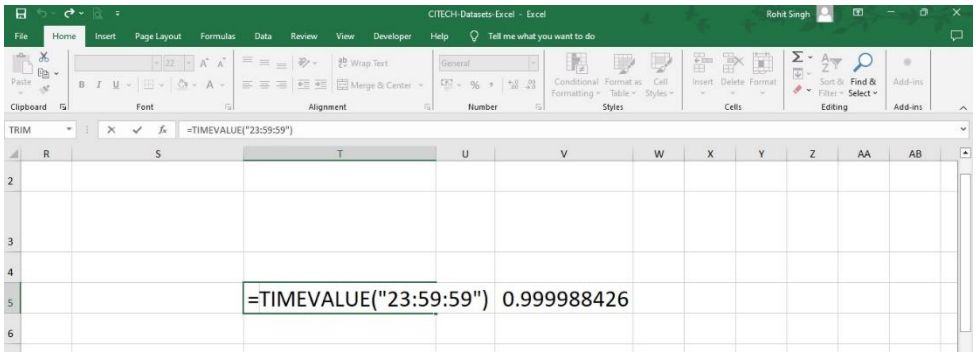
source :

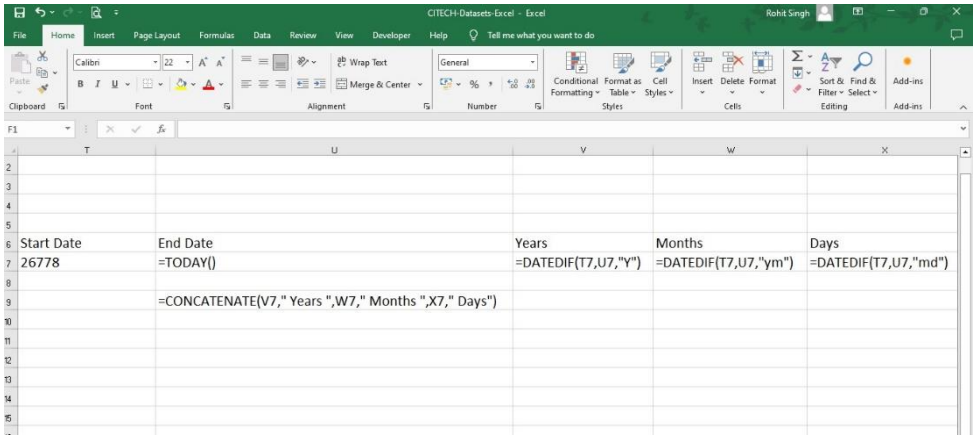
- The type of information that you want returned, where
- "Y" - The number of complete years in the period.
- "M" - The number of complete months in the period.
- "D" - The number of days in the period.
- "MD" - The difference between the days in start_date and end_date. The months and years of the dates are ignored.
- "YM" - The difference between the months in start_date and end_date. The days and years of the dates are ignored

- "YD" - The difference between the days of start_date and end_date. The years of the dates are ignored.

Use “concatenate” function to concatenate the Years Months and Days.







Start Date	End Date	Years	Months	Days
24-Apr-73	08-02-2024	50	9	15
	50 Years 9 Months 15 Days			

7. Calculate the EMI by giving i. Loan Amount, ii. Rate of Interest ii. No of Years as the input,

Use What-if Analysis – Goal Seek to find new EMI by changing any of the i, ii, or iii

Create Data Table for the EMI by changing the No of Years and Rate of Interest as the inputs.

Answer

Create data with the above 3 headings in 3 rows. Find the EMI, using the pmt () function. And then perform the following operations as specified.

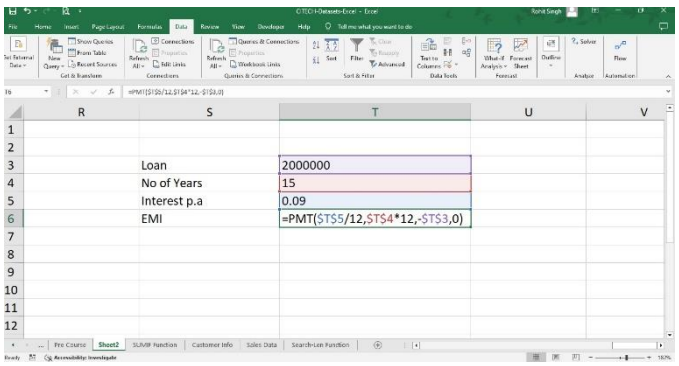
What-if Analysis

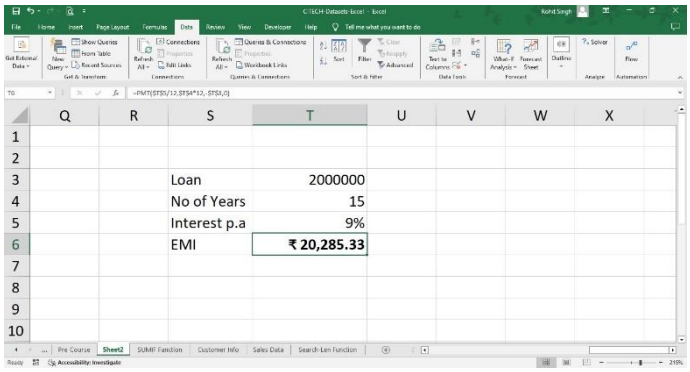
Goal Seek

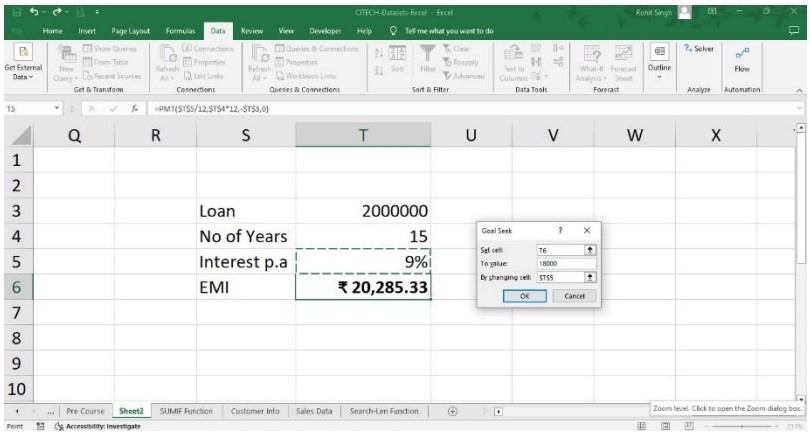
- Go to Data -> What-if Analysis -> Goal Seek
- Set cell - to the EMI value we got using the pmt () function
- To Value - new EMI of your choice
- By changing cell - give the cell reference where the interest rate is keyed in.
- Click OK. A new interest rate would be shown based on the EMI value which was set in.

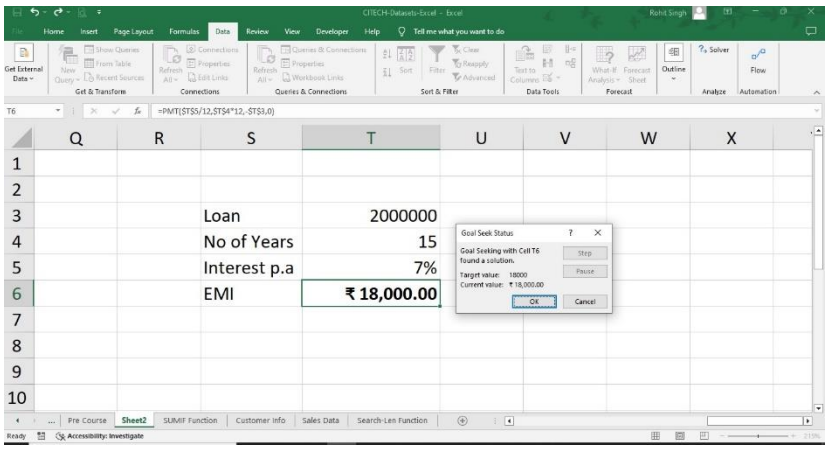
Data Tables

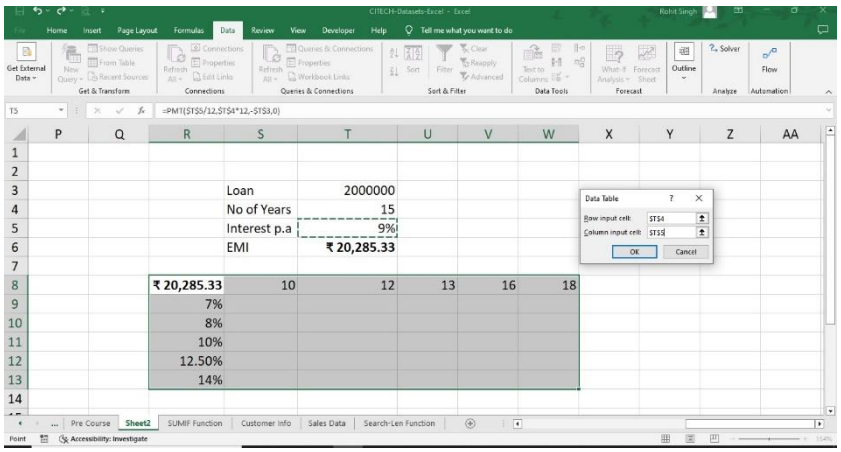
- Create a table with Interest rates as the Columns and No of Years as Rows.
- Give in various values of your choice.
- At the junction where these two tables meet, copy and paste the EMI which was evaluated using pmt () function.
- Select the entire table consisting of the rows and columns which was entered
- Go to Data -> What if Analysis -> Data Tables -> row in put cell – Input **No of years** cell reference data value which was created to find EMI -> Column Input cells -> Input the **interest rate** cell reference data value which was created to find the EMI.
- A data table will be created which shows varied EMI's.

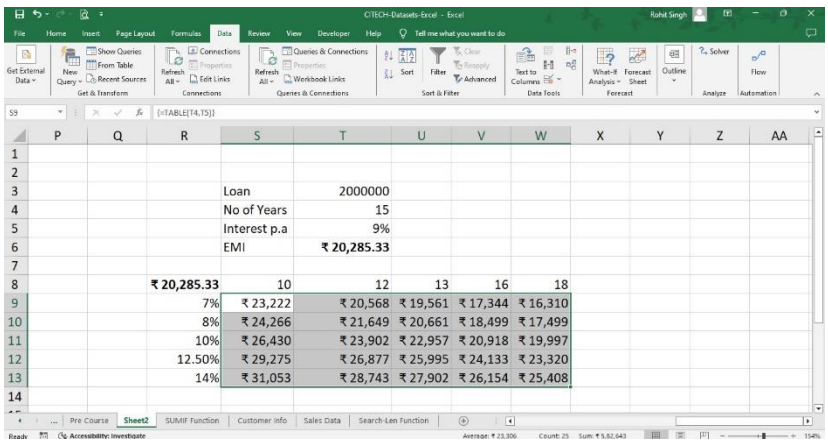





Loan 2000000
No of Years 15
Interest p.a 9%
EMI ₹ 20,285.33
Goal Seek
Set cell: T6
To value: 18000
By changing cell: T5
OK
Cancel


Loan 2000000
No of Years 15
Interest p.a 7%
EMI ₹ 18,000.00
Goal Seek Status
Goal Seeking with Cell T6 found a solution.
Target value: 18000
Current value: ₹ 18,000.00
Step
Pause
OK
Cancel


Loan 2000000
No of Years 15
Interest p.a 9%
EMI ₹ 20,285.33
Data Table
Row input cell: T4
Column input cell: T5
OK
Cancel
₹ 20,285.33 10 12 13 16 18
7%
8%
10%
12.50%
14%


Loan 2000000
No of Years 15
Interest p.a 9%
EMI ₹ 20,285.33
₹ 20,285.33 10 12 13 16 18
7% ₹ 23,222 ₹ 20,568 ₹ 19,561 ₹ 17,344 ₹ 16,310
8% ₹ 24,266 ₹ 21,649 ₹ 20,661 ₹ 18,499 ₹ 17,499
10% ₹ 26,430 ₹ 23,902 ₹ 22,957 ₹ 20,918 ₹ 19,997
12.50% ₹ 29,275 ₹ 26,877 ₹ 25,995 ₹ 24,133 ₹ 23,320
14% ₹ 31,053 ₹ 28,743 ₹ 27,902 ₹ 26,154 ₹ 25,408

8. Analyse the data using Pivot Tables and Pivot Charts. Put Sales (in values field), Salesperson (in rows field), Year (in rows field) and the Type (in columns field). Perform the following operations

a. Create a new column next to Sum of Sales as Average of Sales and find the Average of sales based on the Year

b. Change the Currency format from the Pivot Table Fields section

c. Insert Slicers to Modify the Data

d. Create a Pivot Chart

Answer

We have a dataset with us called Sales Data which we would be using to create a pivot table.

Select the data -> Convert into a table -> Ctrl + t

Select the data -> Insert -> Pivot Table -> New Worksheet -> Ok

A new worksheet will be created with the Pivot Table fields.

a.

- Select the Year -> Click and drag to the Rows
- Select the Sales -> Click and drag to Σ Values -> Sum of sales will be displayed for all the three years
- Select the Sales -> Click and drag to Σ Values -> Sum of Sales2 will appear -> Right click onto it -> Value field Settings -> Summarize Values by -> select Average -> Custom Name -> Change to Average of Sales -> OK. The Average of Sales would be displayed.

b.

- Select the Year -> Click and drag to the Rows
- Select the Type -> Click and drag to the Columns
- Select the Salesperson -> Click and drag to the Rows
- Select the Sales -> Click and drag to Σ Values
- Pivot table will display all Sum of Sales as specified in the above fields.
- Go to Σ Values -> Right Click on Sum of Sales -> Value Field Settings -> Number Format -> Currency -> select the rupee symbol ₹ and decimal make it 0 -> Ok -> Ok
- The Currency format will be displayed.

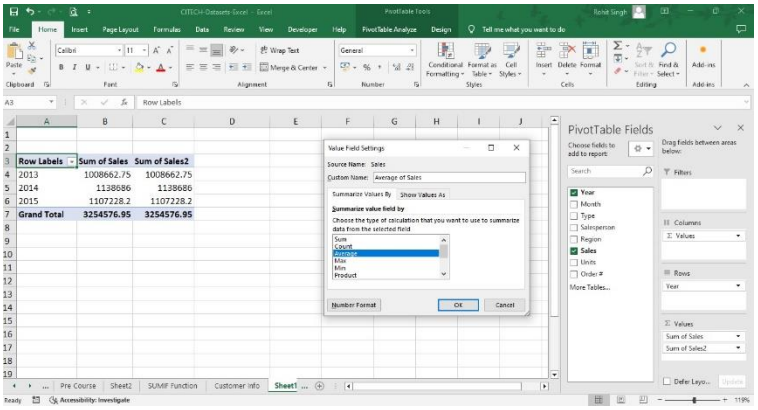
c.

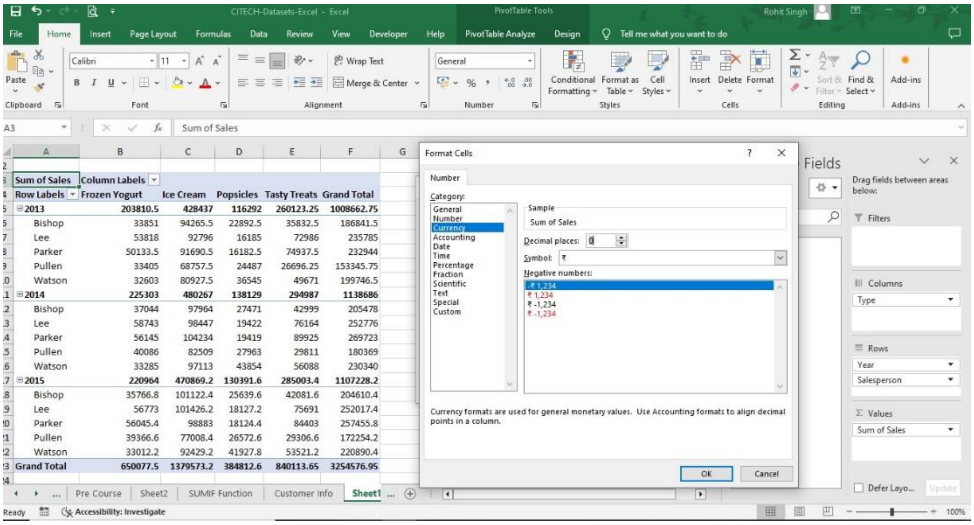
- Select the Year -> Click and drag to the Rows
- Select the Type -> Click and drag to the Columns
- Select the Salesperson -> Click and drag to the Rows
- Select the Sales -> Click and drag to Σ Values
- Pivot table will display all Sum of Sales as specified in the above fields.
- Go to PivotTable Analyze -> Click on Insert Slicer -> Select: Year, Salesperson, Type -> Click on OK
- The Slicers will be available. Arrange the slicers accordingly to make the data look presentable.
- Click on any Slicer to modify the data. To multiselect - > Click on the multiselect button available next to the Slicer header to multiselect the items in each slicer.

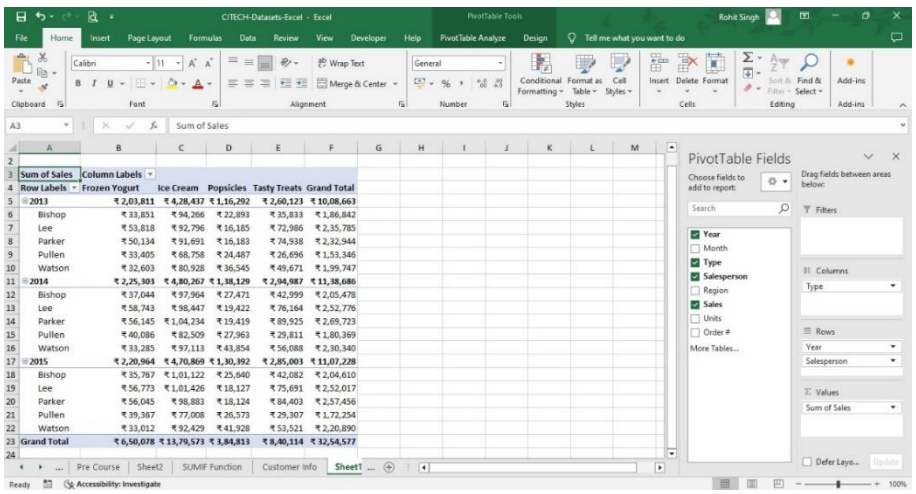
d.

- Select the Year -> Click and drag to the Rows
- Select the Type -> Click and drag to the Columns
- Select the Salesperson -> Click and drag to the Rows
- Select the Sales -> Click and drag to Σ Values
- Pivot table will display all Sum of Sales as specified in the above fields.
- Keep the active cell inside the data -> go to PivotTable Analyze -> Pivot Charts -> Select the Chart of your choice -> OK
- A chart will appear and you can modify the chart by

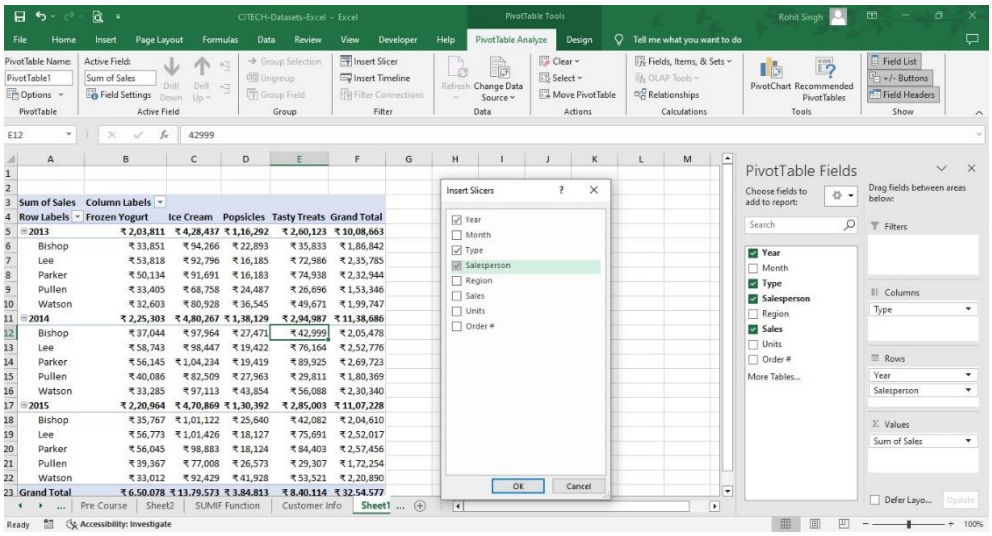
- First select the chart -> Design -> Add chart elements or click on Change Chart Type to change the chart selection.

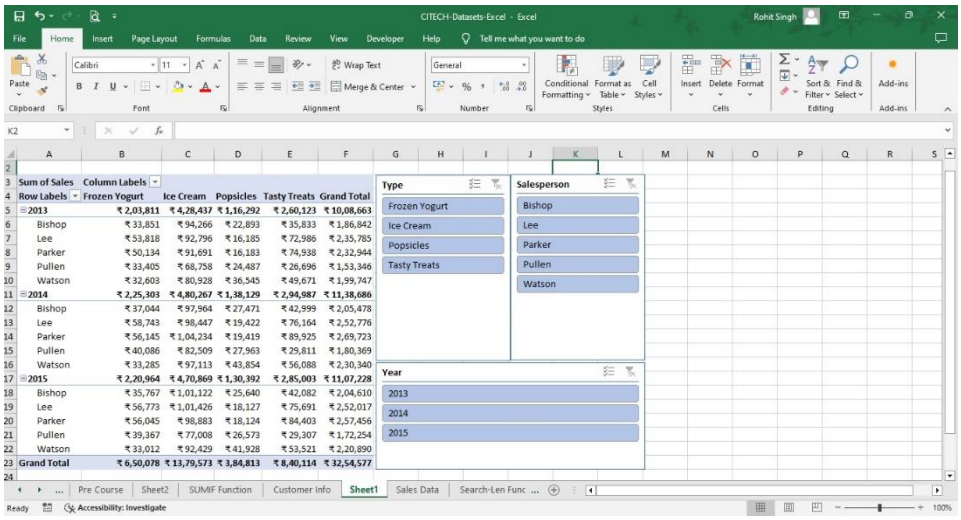


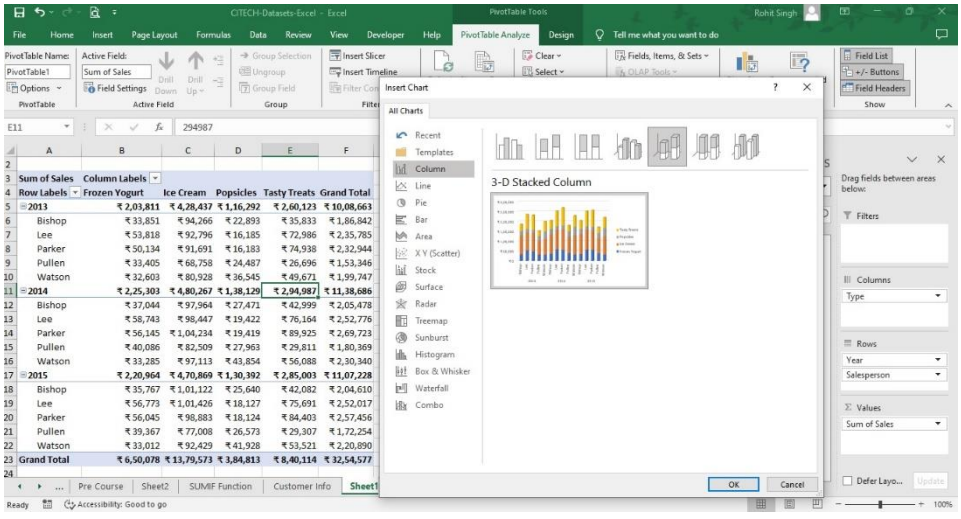


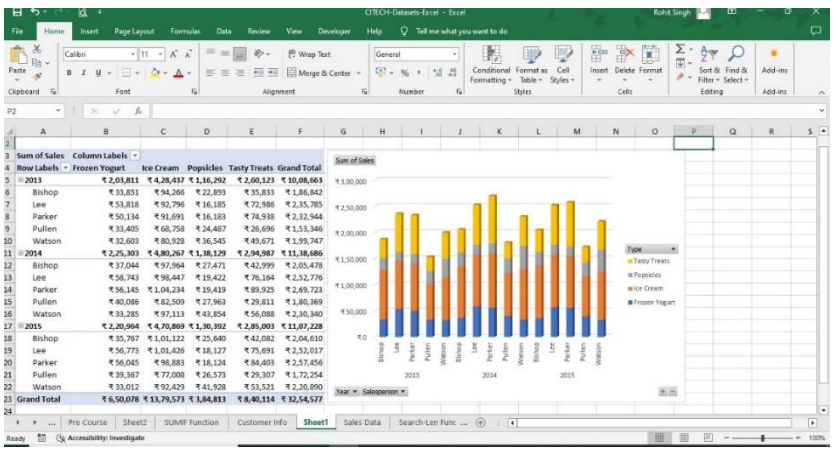


Row Labels	Sum of Sales	Average of Sales
2013	1008662.75	6815.288851
2014	1138686	7693.824324
2015	1107228.2	7481.271622
Grand Total	**3254576.95**	**7330.128266**


CITECH-Datasets-Excel - Excel
PivotTable Tools
Rohit Singh
PivotTable Analyze
Design
Insert Slicers
Year
Month
Type
Salesperson
Region
Sales
Units
Order #
OK
Cancel
PivotTable Fields
Choose fields to add to report:
Drag fields between areas below:
Filters
Columns
Type
Rows
Year
Salesperson
Values
Sum of Sales
Defer Layo...
Update
Sum of Sales | Column Labels
Row Labels | Frozen Yogurt | Ice Cream | Popsicles | Tasty Treats | Grand Total
2013 | ₹ 2,03,811 | ₹ 4,28,437 | ₹ 1,16,292 | ₹ 2,60,123 | ₹ 10,08,663
Bishop | ₹ 33,851 | ₹ 94,266 | ₹ 22,893 | ₹ 35,833 | ₹ 1,86,842
Lee | ₹ 53,818 | ₹ 92,796 | ₹ 16,185 | ₹ 72,986 | ₹ 2,35,785
Parker | ₹ 50,134 | ₹ 91,691 | ₹ 16,183 | ₹ 74,938 | ₹ 2,32,944
Pullen | ₹ 33,405 | ₹ 68,758 | ₹ 24,487 | ₹ 26,696 | ₹ 1,53,346
Watson | ₹ 32,603 | ₹ 80,928 | ₹ 36,545 | ₹ 49,671 | ₹ 1,99,747
2014 | ₹ 2,25,303 | ₹ 4,80,267 | ₹ 1,38,129 | ₹ 2,94,987 | ₹ 11,38,686
Bishop | ₹ 37,044 | ₹ 97,964 | ₹ 27,471 | ₹ 42,999 | ₹ 2,05,478
Lee | ₹ 58,743 | ₹ 98,447 | ₹ 19,422 | ₹ 76,164 | ₹ 2,52,776
Parker | ₹ 56,145 | ₹ 1,04,234 | ₹ 19,419 | ₹ 89,925 | ₹ 2,69,723
Pullen | ₹ 40,086 | ₹ 82,509 | ₹ 27,963 | ₹ 29,811 | ₹ 1,80,369
Watson | ₹ 33,285 | ₹ 97,113 | ₹ 43,854 | ₹ 56,088 | ₹ 2,30,340
2015 | ₹ 2,20,964 | ₹ 4,70,869 | ₹ 1,30,392 | ₹ 2,85,003 | ₹ 11,07,228
Bishop | ₹ 35,767 | ₹ 1,01,122 | ₹ 25,640 | ₹ 42,082 | ₹ 2,04,610
Lee | ₹ 56,773 | ₹ 1,01,426 | ₹ 18,127 | ₹ 75,691 | ₹ 2,52,017
Parker | ₹ 56,045 | ₹ 98,883 | ₹ 18,124 | ₹ 84,403 | ₹ 2,57,456
Pullen | ₹ 39,367 | ₹ 77,008 | ₹ 26,573 | ₹ 29,307 | ₹ 1,72,254
Watson | ₹ 33,012 | ₹ 92,429 | ₹ 41,928 | ₹ 53,521 | ₹ 2,20,890
Grand Total | ₹ 6,50,078 | ₹ 13,79,573 | ₹ 3,84,813 | ₹ 8,40,114 | ₹ 32,54,577
Pre Course
Sheet2
SUMIF Function
Customer Info
Sheet1
Ready
Accessibility: Investigate
100%


CITECH-Datasets-Excel - Excel
Rohit Singh
Type
Frozen Yogurt
Ice Cream
Popsicles
Tasty Treats
Salesperson
Bishop
Lee
Parker
Pullen
Watson
Year
2013
2014
2015
Sum of Sales | Column Labels
Row Labels | Frozen Yogurt | Ice Cream | Popsicles | Tasty Treats | Grand Total
2013 | ₹ 2,03,811 | ₹ 4,28,437 | ₹ 1,16,292 | ₹ 2,60,123 | ₹ 10,08,663
Bishop | ₹ 33,851 | ₹ 94,266 | ₹ 22,893 | ₹ 35,833 | ₹ 1,86,842
Lee | ₹ 53,818 | ₹ 92,796 | ₹ 16,185 | ₹ 72,986 | ₹ 2,35,785
Parker | ₹ 50,134 | ₹ 91,691 | ₹ 16,183 | ₹ 74,938 | ₹ 2,32,944
Pullen | ₹ 33,405 | ₹ 68,758 | ₹ 24,487 | ₹ 26,696 | ₹ 1,53,346
Watson | ₹ 32,603 | ₹ 80,928 | ₹ 36,545 | ₹ 49,671 | ₹ 1,99,747
2014 | ₹ 2,25,303 | ₹ 4,80,267 | ₹ 1,38,129 | ₹ 2,94,987 | ₹ 11,38,686
Bishop | ₹ 37,044 | ₹ 97,964 | ₹ 27,471 | ₹ 42,999 | ₹ 2,05,478
Lee | ₹ 58,743 | ₹ 98,447 | ₹ 19,422 | ₹ 76,164 | ₹ 2,52,776
Parker | ₹ 56,145 | ₹ 1,04,234 | ₹ 19,419 | ₹ 89,925 | ₹ 2,69,723
Pullen | ₹ 40,086 | ₹ 82,509 | ₹ 27,963 | ₹ 29,811 | ₹ 1,80,369
Watson | ₹ 33,285 | ₹ 97,113 | ₹ 43,854 | ₹ 56,088 | ₹ 2,30,340
2015 | ₹ 2,20,964 | ₹ 4,70,869 | ₹ 1,30,392 | ₹ 2,85,003 | ₹ 11,07,228
Bishop | ₹ 35,767 | ₹ 1,01,122 | ₹ 25,640 | ₹ 42,082 | ₹ 2,04,610
Lee | ₹ 56,773 | ₹ 1,01,426 | ₹ 18,127 | ₹ 75,691 | ₹ 2,52,017
Parker | ₹ 56,045 | ₹ 98,883 | ₹ 18,124 | ₹ 84,403 | ₹ 2,57,456
Pullen | ₹ 39,367 | ₹ 77,008 | ₹ 26,573 | ₹ 29,307 | ₹ 1,72,254
Watson | ₹ 33,012 | ₹ 92,429 | ₹ 41,928 | ₹ 53,521 | ₹ 2,20,890
Grand Total | ₹ 6,50,078 | ₹ 13,79,573 | ₹ 3,84,813 | ₹ 8,40,114 | ₹ 32,54,577
Pre Course
Sheet2
SUMIF Function
Customer Info
Sheet1
Sales Data
Search-Len Func
Ready
Accessibility: Investigate
100%

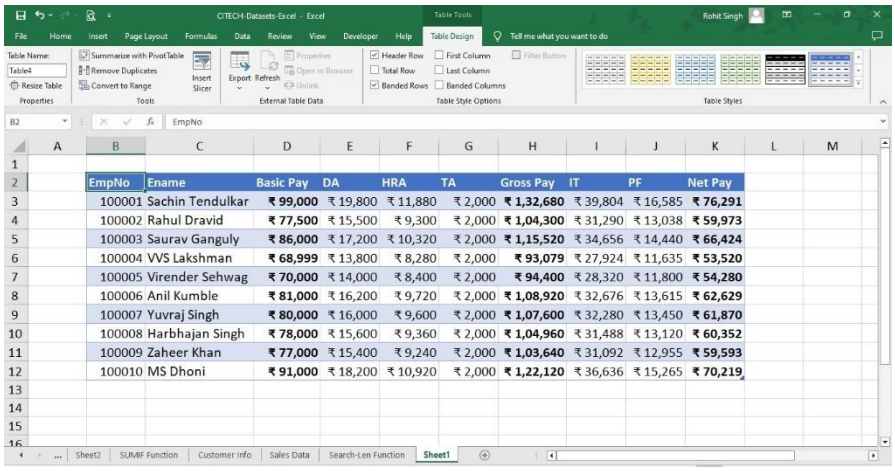

CITECH-Datasets-Excel - Excel
PivotTable Tools
Rohit Singh
Insert Chart
All Charts
Recent
Templates
Column
Line
Pie
Bar
Area
X Y (Scatter)
Stock
Surface
Radar
Treemap
Sunburst
Histogram
Box & Whisker
Waterfall
Combo
3-D Stacked Column
OK
Cancel
Drag fields between areas below:
Filters
Columns
Type
Rows
Year
Salesperson
Values
Sum of Sales
Defer Layo...
Update
Sum of Sales | Column Labels
Row Labels | Frozen Yogurt | Ice Cream | Popsicles | Tasty Treats | Grand Total
2013 | ₹ 2,03,811 | ₹ 4,28,437 | ₹ 1,16,292 | ₹ 2,60,123 | ₹ 10,08,663
Bishop | ₹ 33,851 | ₹ 94,266 | ₹ 22,893 | ₹ 35,833 | ₹ 1,86,842
Lee | ₹ 53,818 | ₹ 92,796 | ₹ 16,185 | ₹ 72,986 | ₹ 2,35,785
Parker | ₹ 50,134 | ₹ 91,691 | ₹ 16,183 | ₹ 74,938 | ₹ 2,32,944
Pullen | ₹ 33,405 | ₹ 68,758 | ₹ 24,487 | ₹ 26,696 | ₹ 1,53,346
Watson | ₹ 32,603 | ₹ 80,928 | ₹ 36,545 | ₹ 49,671 | ₹ 1,99,747
2014 | ₹ 2,25,303 | ₹ 4,80,267 | ₹ 1,38,129 | ₹ 2,94,987 | ₹ 11,38,686
Bishop | ₹ 37,044 | ₹ 97,964 | ₹ 27,471 | ₹ 42,999 | ₹ 2,05,478
Lee | ₹ 58,743 | ₹ 98,447 | ₹ 19,422 | ₹ 76,164 | ₹ 2,52,776
Parker | ₹ 56,145 | ₹ 1,04,234 | ₹ 19,419 | ₹ 89,925 | ₹ 2,69,723
Pullen | ₹ 40,086 | ₹ 82,509 | ₹ 27,963 | ₹ 29,811 | ₹ 1,80,369
Watson | ₹ 33,285 | ₹ 97,113 | ₹ 43,854 | ₹ 56,088 | ₹ 2,30,340
2015 | ₹ 2,20,964 | ₹ 4,70,869 | ₹ 1,30,392 | ₹ 2,85,003 | ₹ 11,07,228
Bishop | ₹ 35,767 | ₹ 1,01,122 | ₹ 25,640 | ₹ 42,082 | ₹ 2,04,610
Lee | ₹ 56,773 | ₹ 1,01,426 | ₹ 18,127 | ₹ 75,691 | ₹ 2,52,017
Parker | ₹ 56,045 | ₹ 98,883 | ₹ 18,124 | ₹ 84,403 | ₹ 2,57,456
Pullen | ₹ 39,367 | ₹ 77,008 | ₹ 26,573 | ₹ 29,307 | ₹ 1,72,254
Watson | ₹ 33,012 | ₹ 92,429 | ₹ 41,928 | ₹ 53,521 | ₹ 2,20,890
Grand Total | ₹ 6,50,078 | ₹ 13,79,573 | ₹ 3,84,813 | ₹ 8,40,114 | ₹ 32,54,577
Pre Course
Sheet2
SUMIF Function
Customer Info
Sheet1
Ready
Accessibility: Good to go
100%


CITECH-Datasets-Excel - Excel
Rohit Singh
Sum of Sales | Column Labels
Row Labels | Frozen Yogurt | Ice Cream | Popsicles | Tasty Treats | Grand Total
2013 | ₹ 2,03,811 | ₹ 4,28,437 | ₹ 1,16,292 | ₹ 2,60,123 | ₹ 10,08,663
Bishop | ₹ 33,851 | ₹ 94,266 | ₹ 22,893 | ₹ 35,833 | ₹ 1,86,842
Lee | ₹ 53,818 | ₹ 92,796 | ₹ 16,185 | ₹ 72,986 | ₹ 2,35,785
Parker | ₹ 50,134 | ₹ 91,691 | ₹ 16,183 | ₹ 74,938 | ₹ 2,32,944
Pullen | ₹ 33,405 | ₹ 68,758 | ₹ 24,487 | ₹ 26,696 | ₹ 1,53,346
Watson | ₹ 32,603 | ₹ 80,928 | ₹ 36,545 | ₹ 49,671 | ₹ 1,99,747
2014 | ₹ 2,25,303 | ₹ 4,80,267 | ₹ 1,38,129 | ₹ 2,94,987 | ₹ 11,38,686
Bishop | ₹ 37,044 | ₹ 97,964 | ₹ 27,471 | ₹ 42,999 | ₹ 2,05,478
Lee | ₹ 58,743 | ₹ 98,447 | ₹ 19,422 | ₹ 76,164 | ₹ 2,52,776
Parker | ₹ 56,145 | ₹ 1,04,234 | ₹ 19,419 | ₹ 89,925 | ₹ 2,69,723
Pullen | ₹ 40,086 | ₹ 82,509 | ₹ 27,963 | ₹ 29,811 | ₹ 1,80,369
Watson | ₹ 33,285 | ₹ 97,113 | ₹ 43,854 | ₹ 56,088 | ₹ 2,30,340
2015 | ₹ 2,20,964 | ₹ 4,70,869 | ₹ 1,30,392 | ₹ 2,85,003 | ₹ 11,07,228
Bishop | ₹ 35,767 | ₹ 1,01,122 | ₹ 25,640 | ₹ 42,082 | ₹ 2,04,610
Lee | ₹ 56,773 | ₹ 1,01,426 | ₹ 18,127 | ₹ 75,691 | ₹ 2,52,017
Parker | ₹ 56,045 | ₹ 98,883 | ₹ 18,124 | ₹ 84,403 | ₹ 2,57,456
Pullen | ₹ 39,367 | ₹ 77,008 | ₹ 26,573 | ₹ 29,307 | ₹ 1,72,254
Watson | ₹ 33,012 | ₹ 92,429 | ₹ 41,928 | ₹ 53,521 | ₹ 2,20,890
Grand Total | ₹ 6,50,078 | ₹ 13,79,573 | ₹ 3,84,813 | ₹ 8,40,114 | ₹ 32,54,577
Sum of Sales
Type
Tasty Treats
Popsicles
Ice Cream
Frozen Yogurt
2013
2014
2015
Year
Salesperson
Pre Course
Sheet2
SUMIF Function
Customer Info
Sheet1
Sales Data
Search-Len Func
Ready
Accessibility: Investigate
100%

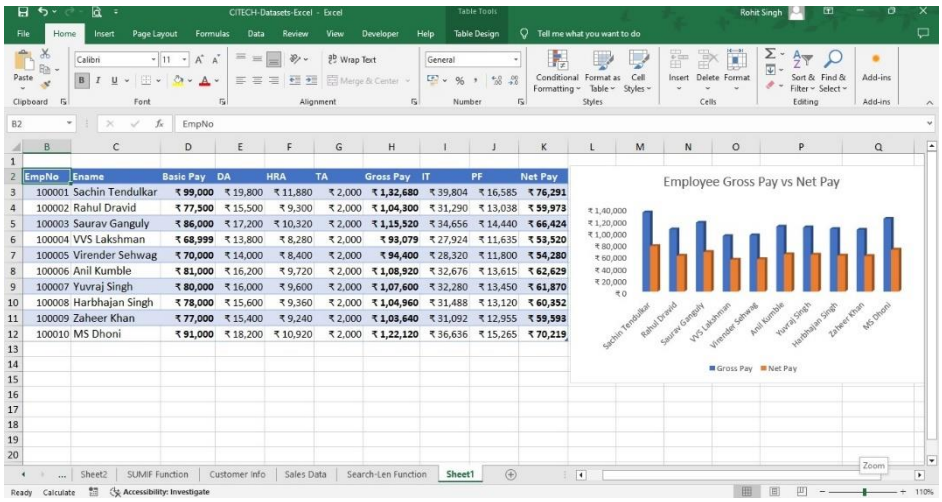
9. Create worksheet with following fields: Empno, Ename, Basic Pay(BP), Travelling Allowance(TA), Dearness Allowance(DA), House Rent Allowance(HRA), Income Tax(IT), Provident Fund(PF), Net Pay(NP). Use appropriate formulas to calculate the above scenario. Analyse the data using appropriate chart and report the data.

Answer:

- Create columns with the headers as given in the question.
- Create records of 10 people and use the following formulas to find the solutions and arrive at Net Pay
- Dearness Allowance (DA) = 20% of Basic Salary
- House Rent Allowance (HRA) = 12% of Basic Salary
- Travel Allowance(TA) – ₹2000/-
- Gross Pay = Basic Pay + DA + HRA + TA.
- The deductions will be as follows
- Income Tax (IT) = 30% of Gross Pay
- Provident Fund (PF) – 12.5% of Gross Pay
- Net Pay = Gross Pay – sum (IT + PF).
- Generate Net Pay for all the 10 records using this formula.
- Convert the data into a Table by using “Ctrl + t”.
- Select data of your choice to create a Chart of your choice.
- Here we are selecting the EName, Gross Pay and Net Pay as the input for the Chart.



EmpNo	Ename	Basic Pay	DA	HRA	TA	Gross Pay	IT	PF	Net Pay
100001	Sachin Tendulkar	₹ 99,000	₹ 19,800	₹ 11,880	₹ 2,000	₹ 1,32,680	₹ 39,804	₹ 16,585	₹ 76,291
100002	Rahul Dravid	₹ 77,500	₹ 15,500	₹ 9,300	₹ 2,000	₹ 1,04,300	₹ 31,290	₹ 13,038	₹ 59,973
100003	Saurav Ganguly	₹ 86,000	₹ 17,200	₹ 10,320	₹ 2,000	₹ 1,15,520	₹ 34,656	₹ 14,440	₹ 66,424
100004	VVS Lakshman	₹ 68,999	₹ 13,800	₹ 8,280	₹ 2,000	₹ 93,079	₹ 27,924	₹ 11,635	₹ 53,520
100005	Virender Sehwag	₹ 70,000	₹ 14,000	₹ 8,400	₹ 2,000	₹ 94,400	₹ 28,320	₹ 11,800	₹ 54,280
100006	Anil Kumble	₹ 81,000	₹ 16,200	₹ 9,720	₹ 2,000	₹ 1,08,920	₹ 32,676	₹ 13,615	₹ 62,629
100007	Yuvraj Singh	₹ 80,000	₹ 16,000	₹ 9,600	₹ 2,000	₹ 1,07,600	₹ 32,280	₹ 13,450	₹ 61,870
100008	Harbhajan Singh	₹ 78,000	₹ 15,600	₹ 9,360	₹ 2,000	₹ 1,04,960	₹ 31,488	₹ 13,120	₹ 60,352
100009	Zaheer Khan	₹ 77,000	₹ 15,400	₹ 9,240	₹ 2,000	₹ 1,03,640	₹ 31,092	₹ 12,955	₹ 59,593
100010	MS Dhoni	₹ 91,000	₹ 18,200	₹ 10,920	₹ 2,000	₹ 1,22,120	₹ 36,636	₹ 15,265	₹ 70,219

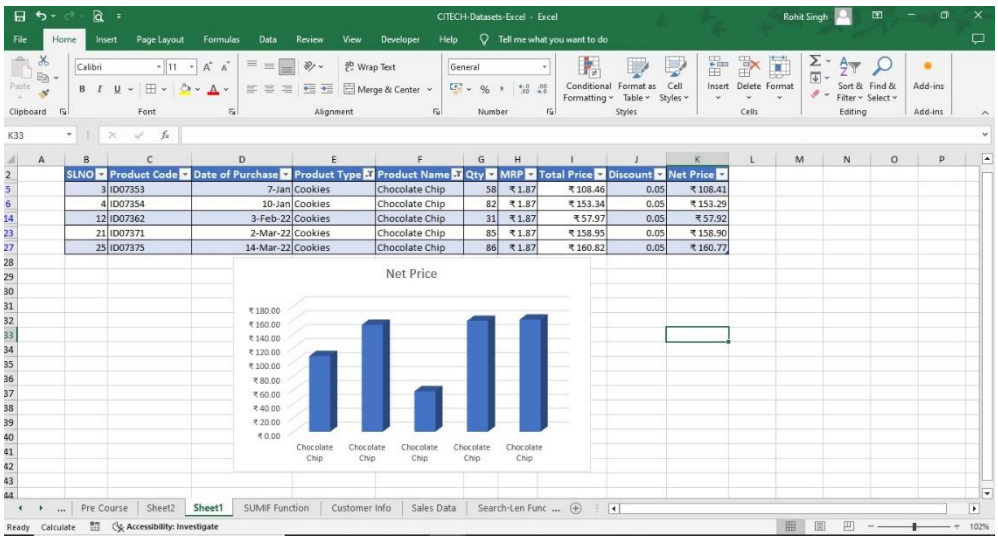


10. Create worksheet on Inventory Management: Sheet should contain Product code, Product name, Product type, MRP, Cost after % of discount, Date of purchase. Use appropriate formulas to calculate the above scenario. Analyse the data using appropriate chart and report the data.

Answer:

SLNO	Product Code	Date of Purchase	Product Type	Product Name	Qty	MRP	Total Price	Discount	Net Price
1	ID07351	1-Jan	Bars	Carrot	33	₹ 1.77	₹ 58.41	0.05	₹ 58.36
2	ID07352	4-Jan	Crackers	Whole Wheat	87	₹ 3.49	₹ 303.63	0.05	₹ 303.58
3	ID07353	7-Jan	Cookies	Chocolate Chip	58	₹ 1.87	₹ 108.46	0.05	₹ 108.41
4	ID07354	10-Jan	Cookies	Chocolate Chip	82	₹ 1.87	₹ 153.34	0.05	₹ 153.29
5	ID07355	13-Jan-22	Cookies	Arrowroot	38	₹ 2.18	₹ 82.84	0.05	₹ 82.79
6	ID07356	16-Jan-22	Bars	Carrot	54	₹ 1.77	₹ 95.58	0.05	₹ 95.53
7	ID07357	19-Jan-22	Crackers	Whole Wheat	149	₹ 3.49	₹ 520.01	0.05	₹ 519.96
8	ID07358	22-Jan-22	Bars	Carrot	51	₹ 1.77	₹ 90.27	0.05	₹ 90.22
9	ID07359	25-Jan-22	Bars	Carrot	100	₹ 1.77	₹ 177.00	0.05	₹ 176.95
10	ID07360	28-Jan-22	Snacks	Potato Chips	28	₹ 1.35	₹ 37.80	0.05	₹ 37.75
11	ID07361	31-Jan-22	Cookies	Arrowroot	36	₹ 2.18	₹ 78.48	0.05	₹ 78.43
12	ID07362	3-Feb-22	Cookies	Chocolate Chip	31	₹ 1.87	₹ 57.97	0.05	₹ 57.92
13	ID07363	6-Feb-22	Crackers	Whole Wheat	28	₹ 3.49	₹ 97.72	0.05	₹ 97.67
14	ID07364	9-Feb-22	Bars	Carrot	44	₹ 1.77	₹ 77.88	0.05	₹ 77.83
15	ID07365	12-Feb-22	Bars	Carrot	23	₹ 1.77	₹ 40.71	0.05	₹ 40.66
16	ID07366	15-Feb-22	Snacks	Potato Chips	27	₹ 1.35	₹ 36.45	0.05	₹ 36.40
17	ID07367	18-Feb-22	Cookies	Arrowroot	43	₹ 2.18	₹ 93.74	0.05	₹ 93.69
18	ID07368	21-Feb-22	Cookies	Oatmeal Raisin	123	₹ 2.84	₹ 349.32	0.05	₹ 349.27
19	ID07369	24-Feb-22	Bars	Bran	42	₹ 1.87	₹ 78.54	0.05	₹ 78.49
20	ID07370	27-Feb-22	Cookies	Oatmeal Raisin	33	₹ 2.84	₹ 93.72	0.05	₹ 93.67
21	ID07371	2-Mar-22	Cookies	Chocolate Chip	85	₹ 1.87	₹ 158.95	0.05	₹ 158.90
22	ID07372	5-Mar-22	Cookies	Oatmeal Raisin	30	₹ 2.84	₹ 85.20	0.05	₹ 85.15
23	ID07373	8-Mar-22	Bars	Carrot	61	₹ 1.77	₹ 107.97	0.05	₹ 107.92
24	ID07374	11-Mar-22	Crackers	Whole Wheat	40	₹ 3.49	₹ 139.60	0.05	₹ 139.55
25	ID07375	14-Mar-22	Cookies	Chocolate Chip	86	₹ 1.87	₹ 160.82	0.05	₹ 160.77

- Create columns with the headers as given in the question.
- Create records of 25 items and use the following formulas to find the solutions and arrive at Net Price
- Give the Quantity, MRP and Discount % of your choice.
- Calculate the Net Price after Discount using the formula below
- Net Price = MRP * (1- Discount%).
- We will get a list of all items at their Net Price.
- Select the data and convert it into a Table using “Ctrl + t”
- Select the Data and Use the chart of your choice.

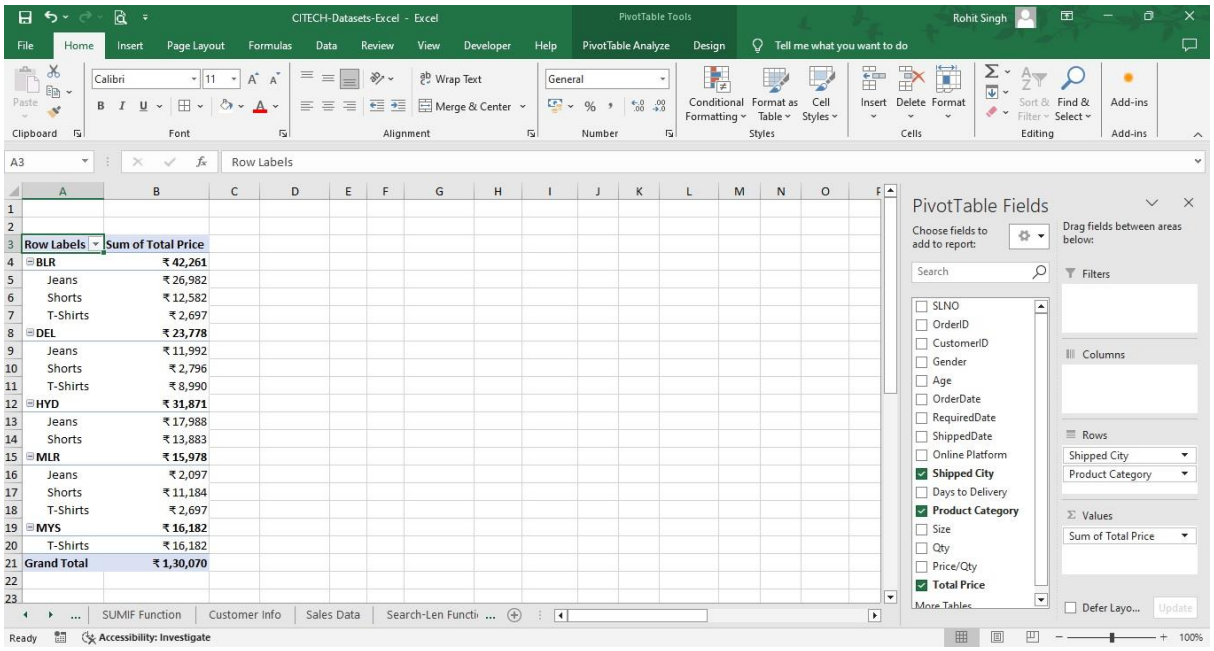


11. 11. Create worksheet on Sales analysis of Merchandise Store: data consisting of Order ID, Customer ID, Gender, age, date of order, month, online platform, Category of product, size, quantity, amount, shipping city and other details. Use of formula to segregate different categories and perform a comparative study using pivot tables and different sort of charts

Answer:

SLNO	OrderID	CustomerID	Gender	Age	OrderDate	RequiredDate	ShippedDate	Online Platform	Shipped City	Days to Delivery	Product Category	Size	Qty	Price/Qty	Total Price
1	10643	ALFKI	M	24	25-08-1997	22-09-1997	02-09-1997	Flipkart	BLR	8	Jeans	L	3	₹ 1,499	₹ 4,497
2	10692	ALFKI	M	26	03-10-1997	31-10-1997	13-10-1997	Amazon	DEL	10	T-Shirts	L	2	₹ 899	₹ 1,798
3	10702	ALFKI	F	22	13-10-1997	24-11-1997	21-10-1997	Meesho	HYD	8	Jeans	XL	5	₹ 1,499	₹ 7,495
4	10835	ALFKI	M	21	15-01-1998	12-02-1998	21-01-1998	Flipkart	HYD	6	Shorts	XXL	7	₹ 699	₹ 4,893
5	10952	ALFKI	F	23	16-03-1998	27-04-1998	24-03-1998	Meesho	DEL	8	Jeans	XL	8	₹ 1,499	₹ 11,992
6	11011	ALFKI	F	36	09-04-1998	07-05-1998	13-04-1998	Amazon	BLR	4	Jeans	L	11	₹ 1,499	₹ 16,489
7	10308	ANATR	F	32	18-09-1996	16-10-1996	24-09-1996	Flipkart	HYD	6	Shorts	XXL	10	₹ 899	₹ 8,990
8	10625	ANATR	M	35	08-08-1997	05-09-1997	14-08-1997	Meesho	HYD	6	Jeans	XXL	2	₹ 1,499	₹ 2,998
9	10759	ANATR	M	37	28-11-1997	26-12-1997	12-12-1997	Amazon	BLR	14	Shorts	XL	5	₹ 699	₹ 3,495
10	10926	ANATR	F	33	04-03-1998	01-04-1998	11-03-1998	Flipkart	MLR	7	Shorts	L	7	₹ 699	₹ 4,893
11	10365	ANTON	M	30	27-11-1996	25-12-1996	02-12-1996	Meesho	DEL	5	T-Shirts	XXL	2	₹ 899	₹ 1,798
12	10507	ANTON	M	41	15-04-1997	13-05-1997	22-04-1997	Amazon	MLR	7	Jeans	XL	3	₹ 699	₹ 2,097
13	10535	ANTON	M	32	13-05-1997	10-06-1997	21-05-1997	Meesho	HYD	8	Jeans	L	5	₹ 1,499	₹ 7,495
14	10573	ANTON	F	43	19-06-1997	17-07-1997	20-06-1997	Meesho	BLR	1	Shorts	M	7	₹ 699	₹ 4,893
15	10677	ANTON	F	44	22-09-1997	20-10-1997	26-09-1997	Amazon	MLR	4	Shorts	XL	9	₹ 699	₹ 6,291
16	10682	ANTON	F	47	25-09-1997	23-10-1997	01-10-1997	Flipkart	DEL	6	T-Shirts	L	6	₹ 899	₹ 5,394
17	10856	ANTON	M	43	28-01-1998	25-02-1998	10-02-1998	Flipkart	MYS	13	T-Shirts	M	7	₹ 899	₹ 6,293
18	10355	AROUT	M	31	15-11-1996	13-12-1996	20-11-1996	Meesho	BLR	5	Jeans	M	4	₹ 1,499	₹ 5,996
19	10383	AROUT	M	23	16-12-1996	13-01-1997	18-12-1996	Flipkart	DEL	2	Shorts	XL	2	₹ 699	₹ 1,398
20	10453	AROUT	F	56	21-02-1997	21-03-1997	26-02-1997	Meesho	MLR	5	T-Shirts	L	3	₹ 899	₹ 2,697
21	10558	AROUT	F	48	04-06-1997	02-07-1997	10-06-1997	Amazon	MYS	6	T-Shirts	M	5	₹ 899	₹ 4,495
22	10707	AROUT	F	22	16-10-1997	30-10-1997	23-10-1997	Meesho	DEL	7	Shorts	M	2	₹ 699	₹ 1,398
23	10741	AROUT	F	32	14-11-1997	28-11-1997	18-11-1997	Amazon	BLR	4	Shorts	XL	6	₹ 699	₹ 4,194
24	10743	AROUT	M	43	17-11-1997	15-12-1997	21-11-1997	Flipkart	MYS	4	T-Shirts	L	6	₹ 899	₹ 5,394
25	10768	AROUT	M	33	08-12-1997	05-01-1998	15-12-1997	Flipkart	BLR	7	T-Shirts	M	3	₹ 899	₹ 2,697

- Create the Table as shown above in the Excel Worksheet.
- Calculate the Total Price as Price/Qty * Qty.
- Also find the Days to delivery by subtracting Shipped Date with the Order Date
- Convert it into a table using “Ctrl + t”
- Go to -> Insert -> Pivot Table -> New Worksheet -> Ok.
- Go to Pivot Table fields and perform operations of your choice.

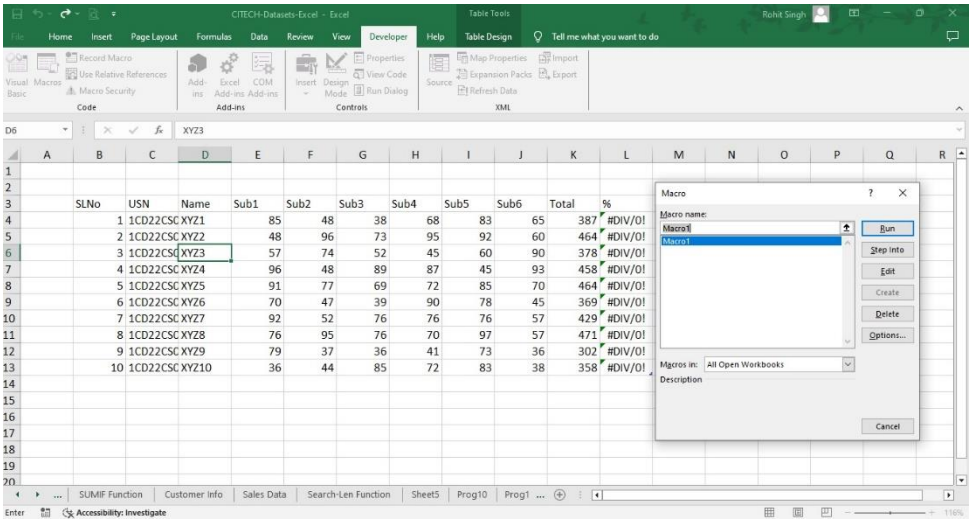


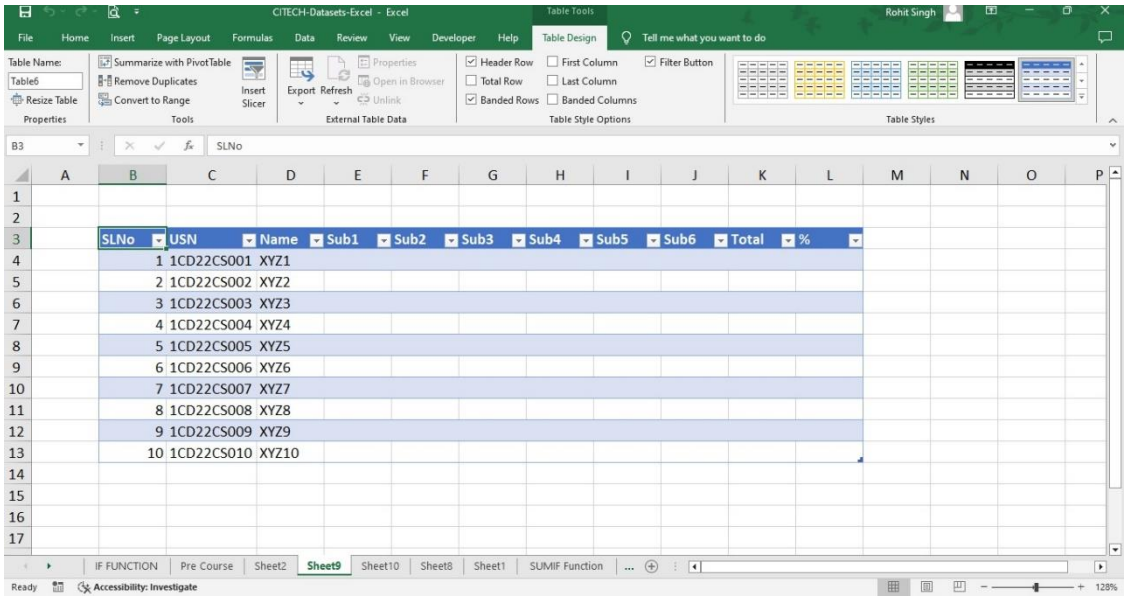
Row Labels	Sum of Total Price
BLR	₹ 42,261
Jeans	₹ 26,982
Shorts	₹ 12,582
T-Shirts	₹ 2,697
DEL	₹ 23,778
Jeans	₹ 11,992
Shorts	₹ 2,796
T-Shirts	₹ 8,990
HYD	₹ 31,871
Jeans	₹ 17,988
Shorts	₹ 13,883
MLR	₹ 15,978
Jeans	₹ 2,097
Shorts	₹ 11,184
T-Shirts	₹ 2,697
MYS	₹ 16,182
T-Shirts	₹ 16,182
Grand Total	₹ 1,30,070

12.Create a Worksheet of 20 Students (using auto fill) with Column Headers –Name, Subject 1 to Subject 6, Total, Percentage. Assign random marks to these subjects and make it constant. Create and Record a MACRO to Format the Headers. Run the MACRO to showcase your results

Answer:

- Open an Excel Workbook
- Type in the USN, Name, Sub1 to Sub 6, Total Percentage in the Columns.
- Give the USN in the first column, Click and Drag the USN till 20 rows. Go to the next Column -> Name. Give Name as XYZ1, click and drag till 20 rows.
- Go to the third column ie Sub1. In the active cell type in the following formula
    - =randbetween (35,99) -> =randbetween (bottom,top)
- A random number will be allocated in that cell.
- Click and drag till Sub 6 for the first student and thereby for the 20th student and fill the excel sheet with marks for all the 20 students.
- However the numbers will be volatile and will keep changing again and again. Hence we got to make it constant.
- To make the numbers constant. Select all the numbers for all 20 students from subject 1 to subject 6. Copy -> Go to PASTE -> PASTE SPEIAL -> Click on Values -> OK.
- The values have become constant now.
- Use SUM and PERCENTAGE function to find the Total Marks and Percentage of these 20 students
- Open a Word Document. Go to VIEW RIBBON -> Macros Group -> Click on Record Macro
- A new Dialog Box will open. Give a Macro Name of your choice. A keyboard shortcut of your choice, If you want to describe what your MACRO does, give the details in Description Section. Click on OK.
- The MACRO has started Recording.
- Go to Insert Ribbon -> Click on Table -> Select 20 rows and 11 Columns.
- Fill in the details as specified in the question in the 11 columns. Format the HEADERS by giving a different font size, colour and background colour.
- Once all this is done. Go to VIEW -> Macros -> Stop Recording.
- The Macro has been recorded.
- Open a new Excel Workbook with the data. Click on VIEW RIBBON -> Macros Group -> View Macros -> Select the Macro Name which you have given. Click on RUN.
- The Macro will run and will insert the Table with all the details within a fraction of a second.




CITECH-Datasets-Excel - Excel
Table Tools
Rohit Singh
File Home Insert Page Layout Formulas Data Review View Developer Help Table Design
Tell me what you want to do
Table Name: Table6
Resize Table
Summarize with PivotTable
Remove Duplicates
Convert to Range
Insert Slicer
Export Refresh
Properties
Open in Browser
Unlink
Header Row
Total Row
Banded Rows
First Column
Last Column
Banded Columns
Filter Button
Properties
Tools
External Table Data
Table Style Options
Table Styles
B3
SLNo
SLNo USN Name Sub1 Sub2 Sub3 Sub4 Sub5 Sub6 Total %
1 1CD22CS001 XYZ1
2 1CD22CS002 XYZ2
3 1CD22CS003 XYZ3
4 1CD22CS004 XYZ4
5 1CD22CS005 XYZ5
6 1CD22CS006 XYZ6
7 1CD22CS007 XYZ7
8 1CD22CS008 XYZ8
9 1CD22CS009 XYZ9
10 1CD22CS010 XYZ10
IF FUNCTION
Pre Course
Sheet2
Sheet9
Sheet10
Sheet8
Sheet1
SUMIF Function
Ready
Accessibility: Investigate
128%