DAE

LAB WORK

MS EXCEL

Sakshi Chaturvedi

10722043 7008

Q1. Execute the following:

a. Change a Sheet Tab colour and Rearrange Work sheets

b. Hide a Worksheet

c. Compare sheet side-by-side

d. Use Find and Replace with an example

e. Insert water mark in sheet 4 and get total marks in sheet 4 using define name concept.

Sheet1		Sheet 2		Sheet 3	
Roll No	Marks in FA	Roll No	Marks in IT	Roll No	Marks in BM
1	85	1	80	1	75
2					
3					
4					
5					

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Record the data as per asked in the above question in various sheets as mentioned.

4. To change a sheet tab colour, right click on the sheet tab, then select 'Tab Colour' from the options displayed and then select the desired sheet tab colour.

5. To rearrange the worksheets you can simply click and drag as per the required arrangement.

6. To hide a worksheet, right click on the sheet tab and select 'Hide' from the options that pop-up. Then to bring back the hidden worksheet, right click on the other available sheet tab then click on 'Unhide' and from the dialog box that pops-up select the required sheet and click on 'Ok'.

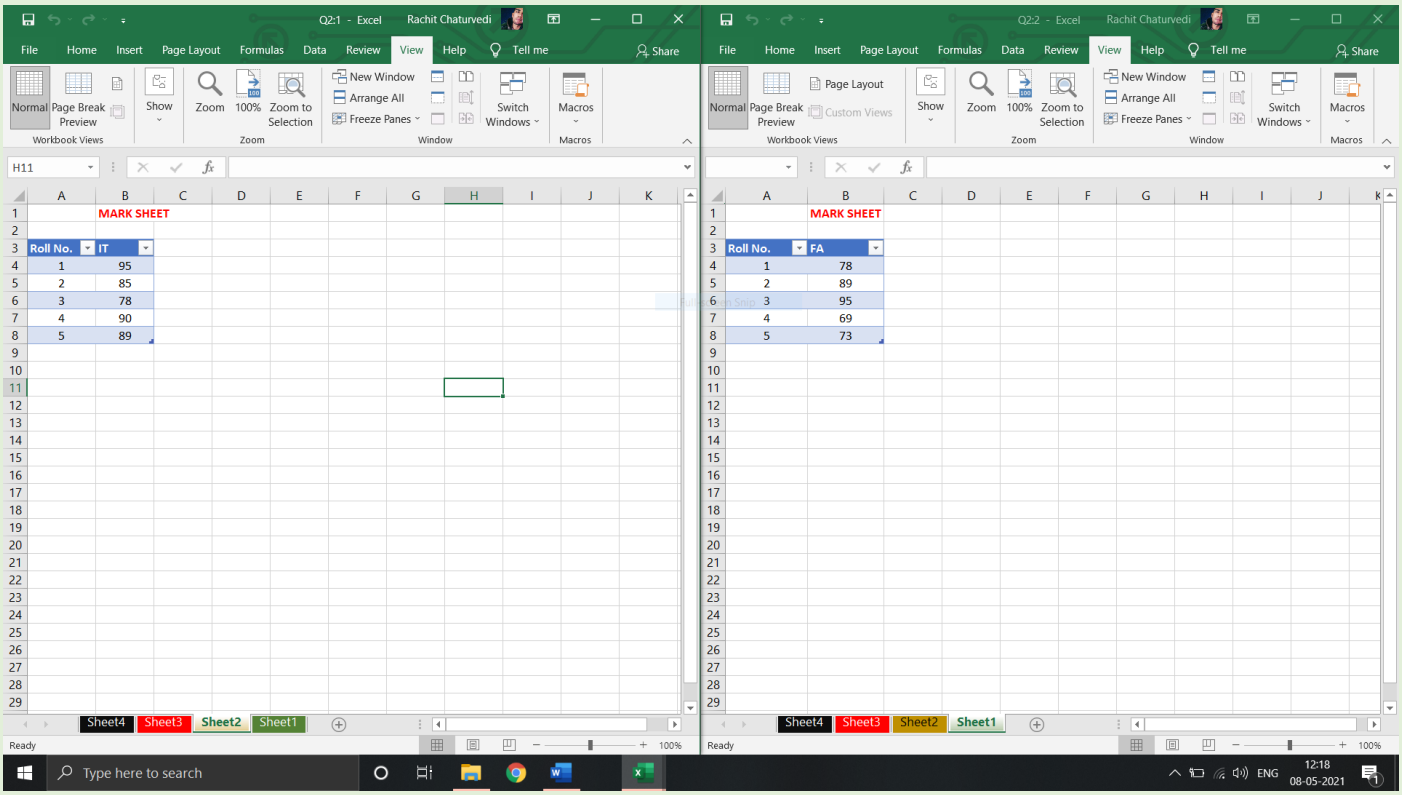
7. To compare sheets side-by-side, select the sheets that you want to compare then go to ‘View’ tab and click on ‘View Side by Side’ in the ‘Window’ group. By default, the worksheets will be arranged horizontally, you can arrange it vertically by editing the options under ‘Arrange All’ button in ‘Window’ group of ‘View’ tab. To scroll both worksheets at the same time, click ‘Synchronous Scrolling’.

8.Now, to find and replace FA with FA-1, first click on ‘Find & Select’ button in ‘Editing’ group under ‘Home’ tab, followed by clicking on ‘Find’ option. Type FA in the ‘Find what’ box. Then, click on ‘Replace’ at the top of the dialog box. In the ‘Replace with’ box type FA-1 and click on ‘Replace’ at the bottom of the dialog box.

9. To insert watermark in Sheet 4, Click on ‘Header & Footer’ button in ‘Text’ group under ‘Insert’ tab, then click on ‘Picture’ in ‘Header & Footer elements’ group. Choose the location from where you want to insert the watermark, you can also choose online watermark images, click on ‘Ok’ after selecting the desired watermark image.

10. Select the FA marks of all the five students and click on ‘Define Name’ button in ‘Defined Names’ group under ‘Formulas’ tab, a dialog-box pops-up, type the suitable name in the name box, select the scope as required and click o*n ‘Ok’. Likewise define names for the marks of all the five students in the subjects - IT and BM.

11. Now to get the total marks click on the required cell, press ‘=’,type ‘SUM, and select the defined name from the ‘Name Box’ (put it under parenthesis) and press enter to get the total marks of the required subject. Likewise, calculate the total marks of the students in all the three subjects.

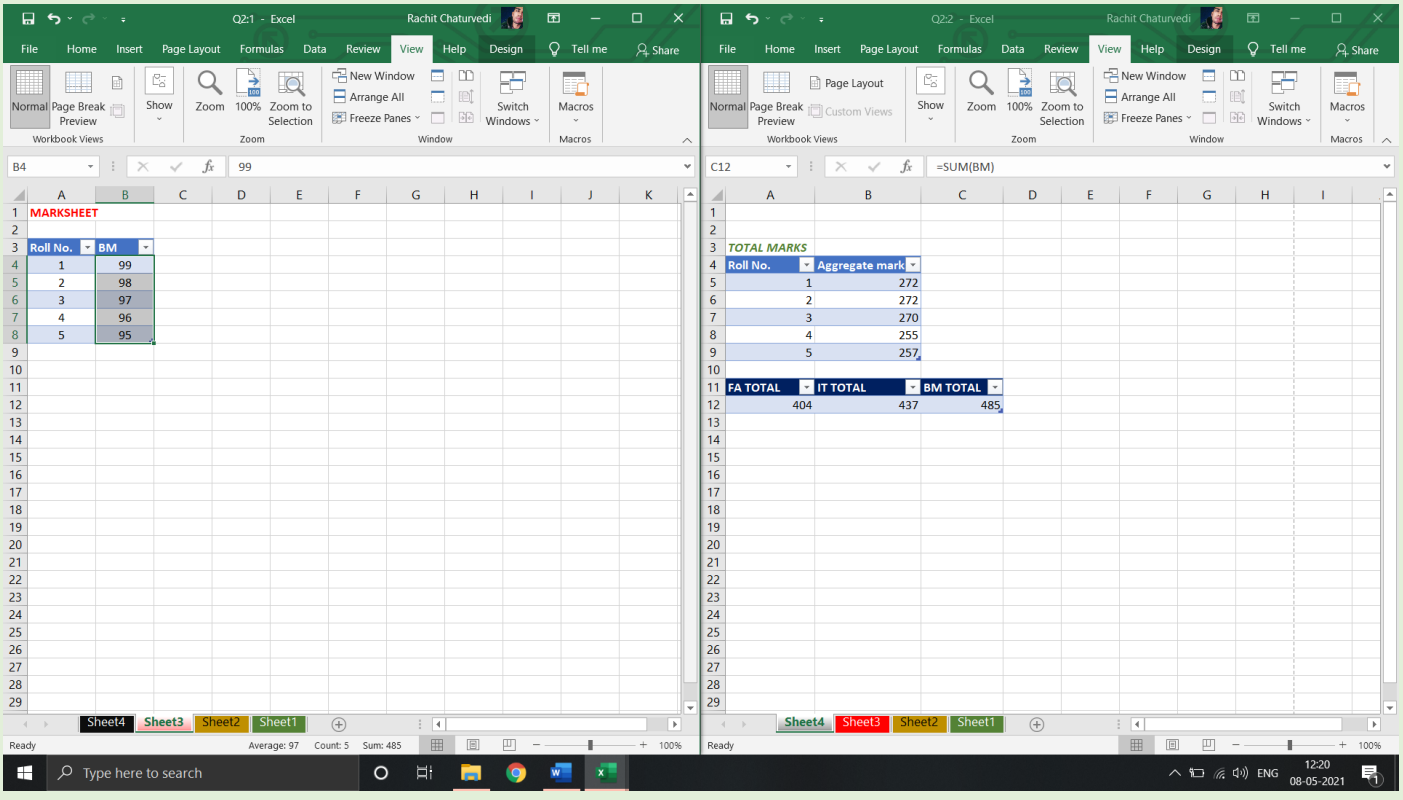


MARK SHEET

Roll No.	IT
1	95
2	85
3	78
4	90
5	89

MARK SHEET

Roll No.	FA
1	78
2	89
3	95
4	69
5	73



MARKSHEET

Roll No.	BM
1	99
2	98
3	97
4	96
5	95

TOTAL MARKS

Roll No.	Aggregate mark
1	272
2	272
3	270
4	255
5	257

FA TOTAL	IT TOTAL	BM TOTAL
404	437	485

Q2. Create the following Student worksheet with following fields and 10 records

Name	Marks1	Marks2	Marks3	Marks4	Marks5	Total

a) Using Auto Sum calculate the total marks.

b) Find Maximum and Minimum marks in columns marks1, marks2, marks3, marks4, marks5 and total.

c) Using Conditional Formatting list out students who scored

(i). Less than 50 in BOM (ii). More than 65 in IT (iii). Between 60 & 80 in FA

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a student table with 10 records with the fields – Name, Marks1, Marks2, Marks3, Marks4, Marks5 and Total. To insert a table, click on table option in Tables group under 'Insert' tab. Click 'Ok' on the dialog box that pops up. You can click an drag the bottom right corner of the table cell to adjust the required number of rows and columns.

4.To calculate the total marks of each student, firstly, select the marks of each student in all the five subjects and click on 'Autosum' button in 'Editing' group of 'Home' tab. Repeat this step to calculate the total marks of each student.

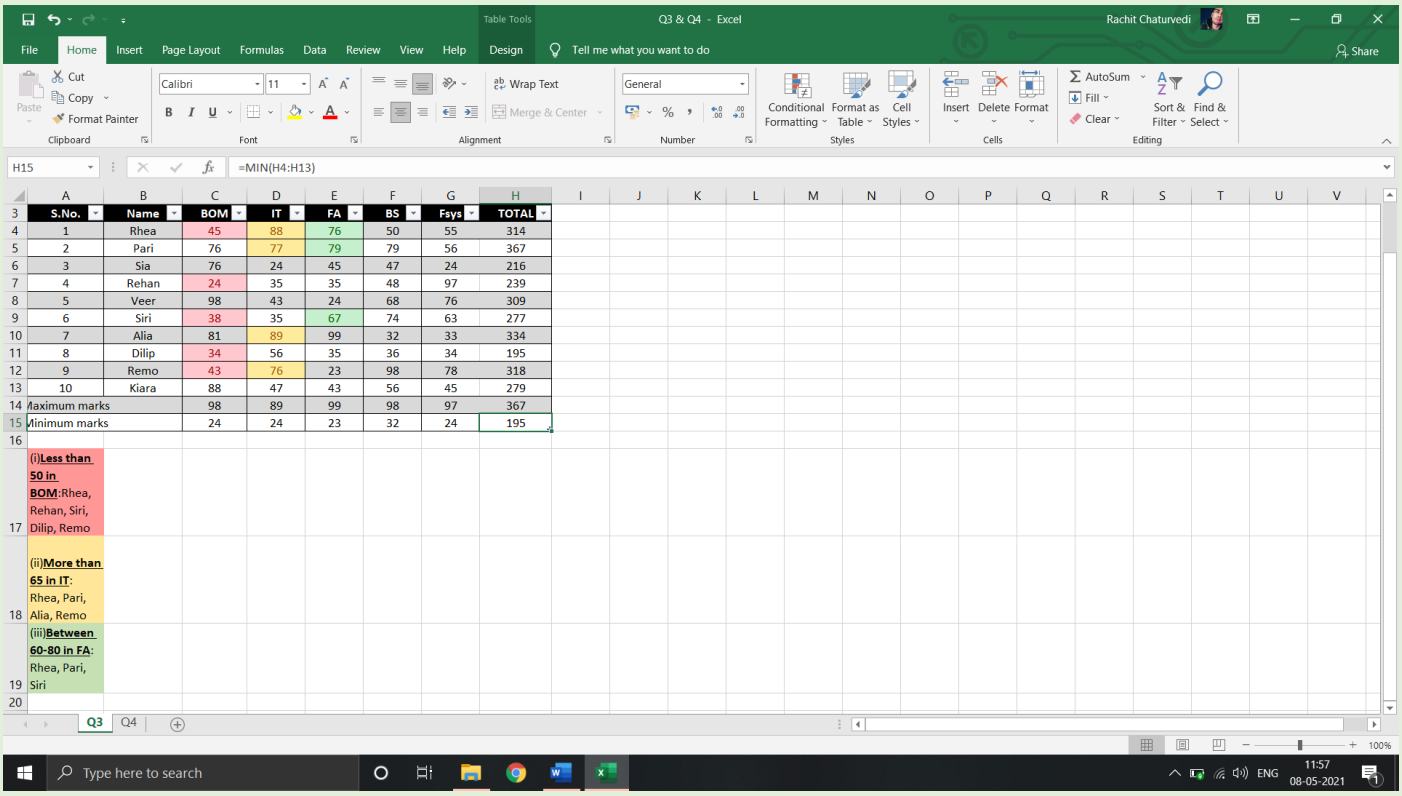
5. To calculate the maximum marks in each subject, type '=' followed by marks, then within the parenthesis select the cell range. Likewise find the maximum marks for each subject.

6. To calculate the minimum marks in each subject, type '=' followed by marks, then within the parenthesis select the cell range. Likewise find the minimum marks for each subject.

7. Select the marks of all the students in BOM subject, click on 'Conditional Formatting' button in 'Styles' group under 'Home' tab. From the options that pop-up click on 'Highlight Cell Rules' and from the next set of popped options click on 'Less Than' and in the dialog box that pops-up type 50 under the 'Format cells that are LESS THAN' box and select the text and background colour formatting by clicking on the dropdown menu, you can also edit the formatting styles by clicking on 'Custom format', finally click on 'Ok'.

8.Then, select the marks of all the students in IT subject, click on ‘Conditional Formatting’ button in ‘Styles’ group under ‘Home’ tab. From the options that pop-up click on ‘Highlight Cell Rules’ and from the next set of popped options click on ‘Greater Than’ and in the dialog box that pops-up type 65 under the ‘Format cells that are ‘GREATER THAN’ box and select the text and background colour formatting by clicking on the dropdown menu, you can also edit the formatting styles by clicking on ‘Custom format’, finally click on ‘Ok’.

9. Lastly, select the marks of all the students in FA subject, click on ‘Conditional Formatting’ button in ‘Styles’ group under ‘Home’ tab. From the options that pop-up click on ‘Highlight Cell Rules’ and from the next set of popped options click on ‘Between’ and in the dialog box that pops-up type 60 in the first box followed by 80 in the second box under the ‘Format cells that are BETWEEN’ and select the text and background colour formatting by clicking on the dropdown menu, you can also edit the formatting styles by clicking on ‘Custom format’, finally click on ‘Ok’.



S.No.	Name	BOM	IT	FA	BS	Fsys	TOTAL
1	Rhea	45	88	76	50	55	314
2	Pari	76	77	79	79	56	367
3	Sia	76	24	45	47	24	216
4	Rehan	24	35	35	48	97	239
5	Veer	98	43	24	68	76	309
6	Siri	38	35	67	74	63	277
7	Alia	81	89	99	32	33	334
8	Dilip	34	56	35	36	34	195
9	Remo	43	76	23	98	78	318
10	Kiara	88	47	43	56	45	279
Maximum marks		98	89	99	98	97	367
Minimum marks		24	24	23	32	24	195

(i)**Less than 50 in BOM**:Rhea, Rehan, Siri, Dilip, Remo

(ii)**More than 65 in IT**: Rhea, Pari, Alia, Remo

(iii)**Between 60-80 in FA**: Rhea, Pari, Siri

Q3. Create a Sale table (15 records) with fields

i. Sort the data agent wise

ii. Obtain the data of the salesman who has sales > 150000 per month

iii. Also get the data of salesman in the North with a sales<40000

a. Agent name

b. Region

c. Month

d. Sales (in INR)

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

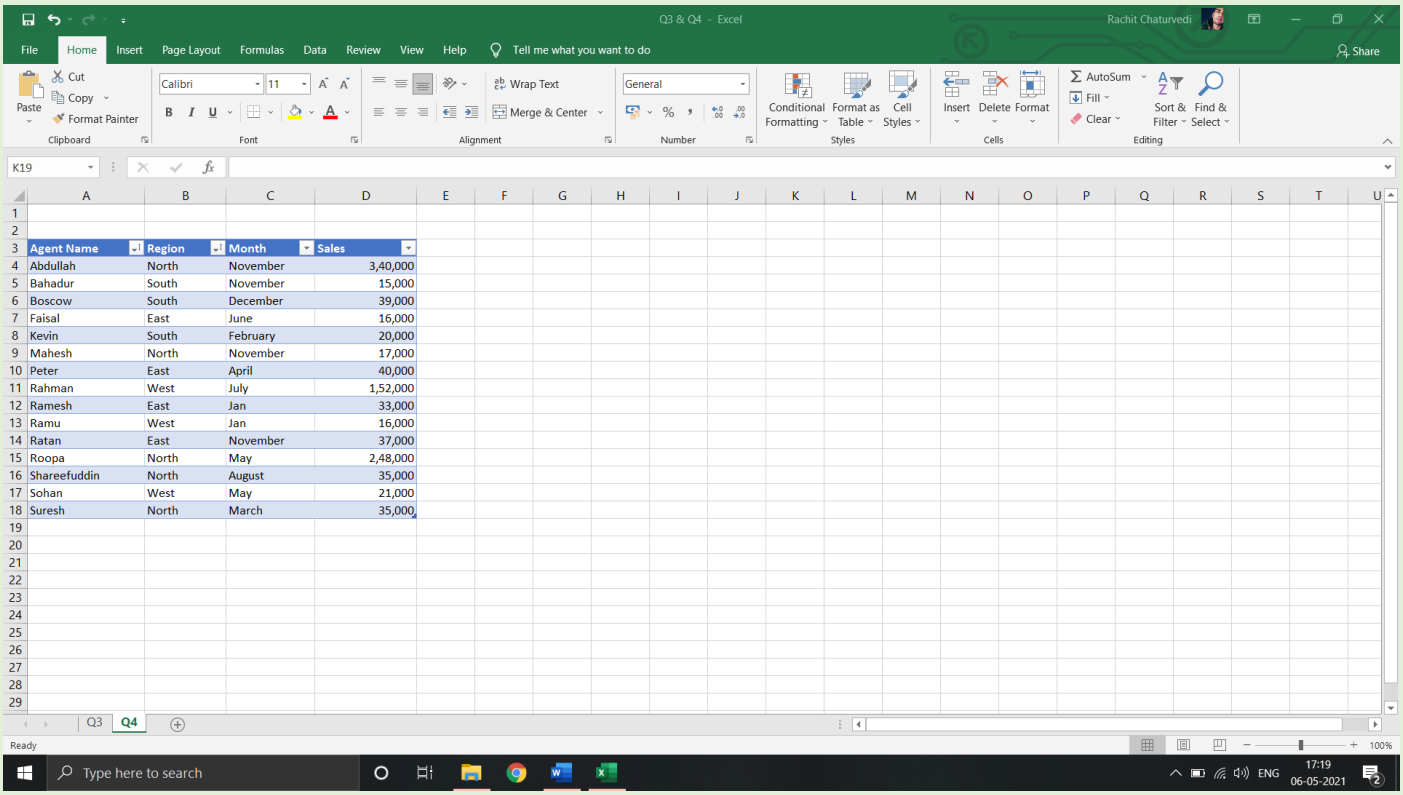
3. Create a Sales table with 15 records with the fields – Agent name, Region, Month and Sales (in INR). To insert a table, click on table option in Tables group under 'Insert' tab. Click 'Ok' on the dialog box that pops up. You can click an drag the bottom right corner of the table cell to adjust the required number of rows and columns.

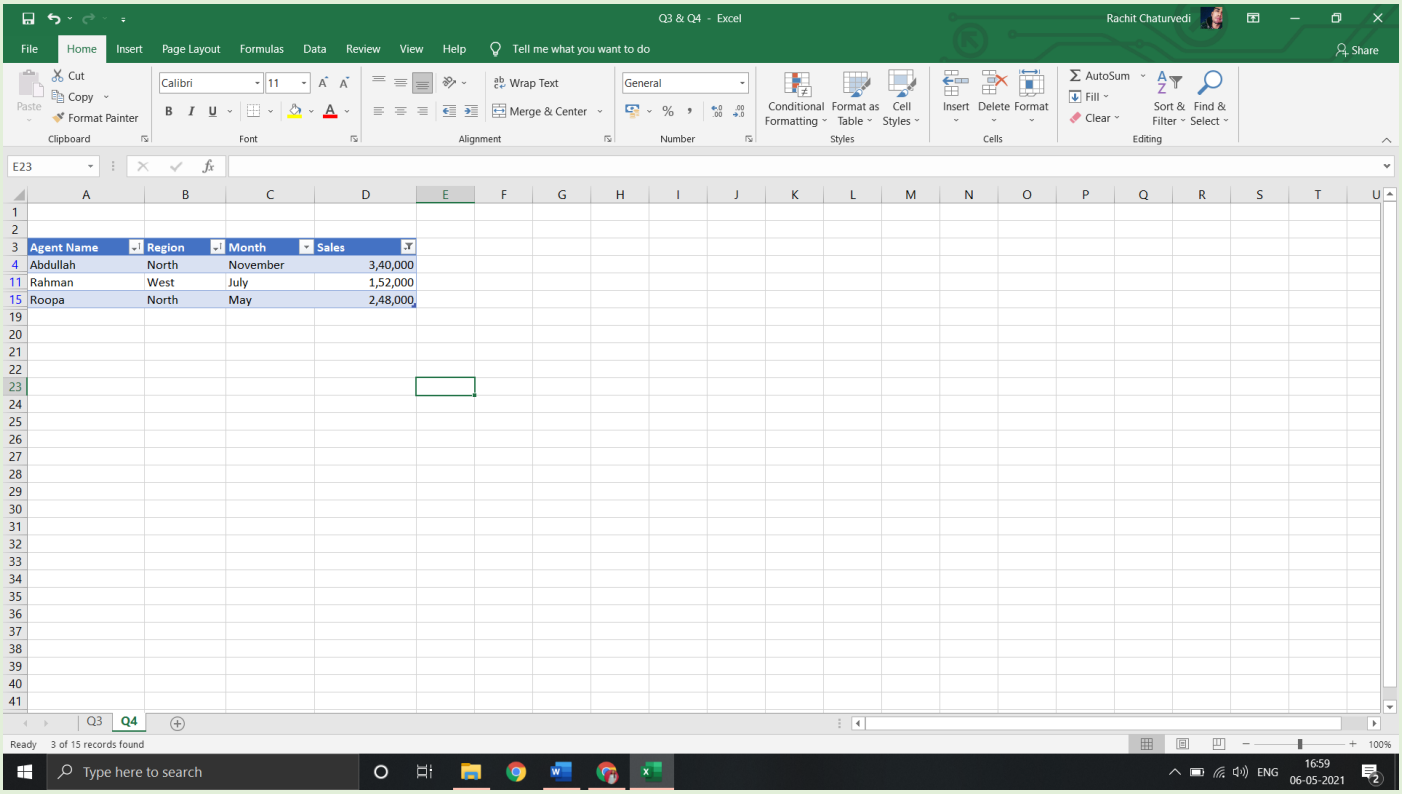
4. To sort the data agent wise, select the entire data and then click on 'Sort & Filter' button in 'Editing' group of 'Home' tab. From the window that pops-up click on 'Custom sort..' a dialog box pops-up, under the 'Sort by' box click on the drop-down arrow and select 'Agent Name', then select the Order(A to Z or Z to A as wished) and click on 'Ok'.

5. To obtain the data of salesmen who have sales greater than 1,50,000 per month, select the entire data under sales and click on the drop-down arrow next to sales and click on 'Number Filters' on the popped-up dialog box and choose 'Greater Than..' from the options under that, another dialog-box pops-up (Custom AutoFilter), type 1,50,000 in the box next to sales box and click on 'Ok' to finish filtering.

6.To get the data of salesmen in the North with sales less than 40,000, select the entire data and click on the drop-down arrow next to Region and then click on 'Text Filters' and choose 'Contains..' from the options under that, another dialog box pops-up(Custom AutoFilter), select North from the options of the

second box under Region and click on ‘Ok’. Then click on the drop-down arrow next to sales and click on ‘Number Filters’ on the popped-up dialog box and choose ‘Less Than..’ from the options under that, another dialog-box pops-up (Custom AutoFilter), type 40,000 in the second box under sales and click on ‘Ok’ to finish filtering.




Q3 & Q4 - Excel
Rachit Chaturvedi
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E23
Agent Name Region Month Sales
Abdullah North November 3,40,000
Rahman West July 1,52,000
Roopa North May 2,48,000
Q3 Q4
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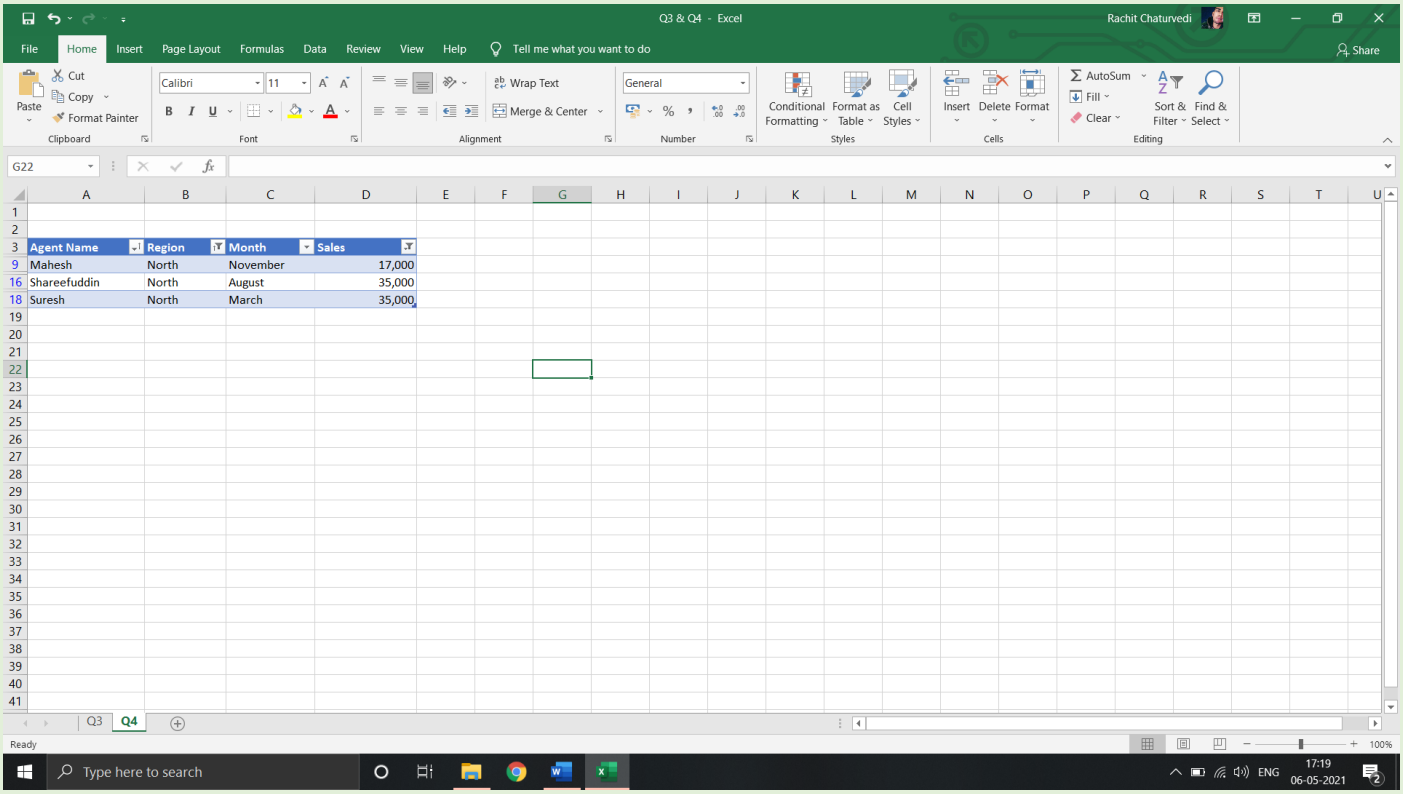
Q3 & Q4 - Excel
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Format as Table
Cell Styles
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G22
Agent Name Region Month Sales
Mahesh North November 17,000
Shareefuddin North August 35,000
Suresh North March 35,000
Q3 Q4
Ready
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06-05-2021

Q4. Consider Employee details data with the columns: Emp id, Employee name, Department and Salary. Generate Department wise sub-totals. Create the following worksheet Salary (Enter at least 20 records)

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create an Employees table with 20 records with the fields – Emp ID, Employee Name, Department and Salary.

4. To insert a table, click on table option in Tables group under 'Insert' tab. Click 'Ok' on the dialog box that pops up.

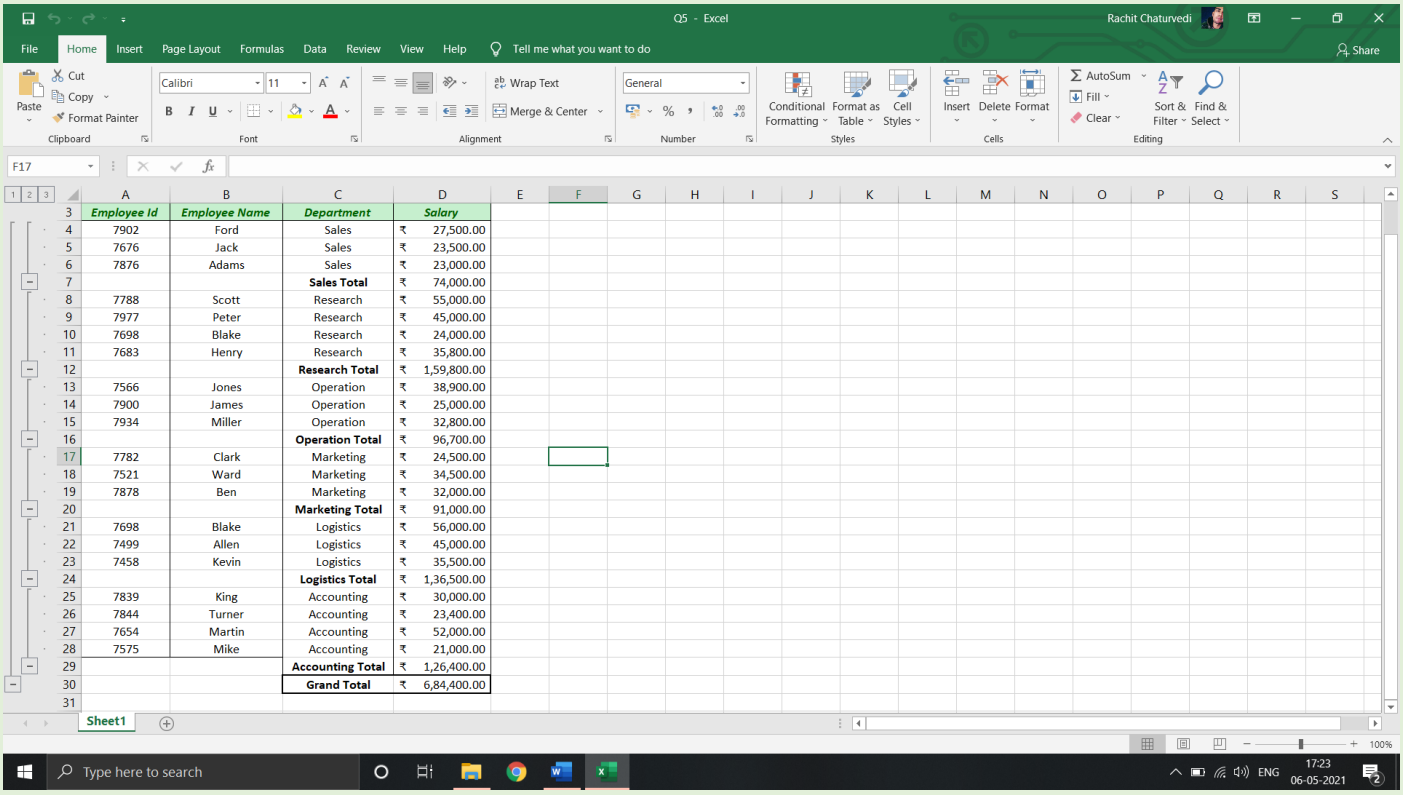
5. You can click an drag the bottom right corner of the table cell to adjust the required number of rows and columns.

6. To sort the data department wise, select the entire data and click on 'Sort & Filter' button in 'Editing' group of 'Home' tab. From the window that pops-up click on 'Custom sort..' a dialog box pops-up, under the 'Sort by' box click on the drop-down arrow and select 'Department', then select the Order(A to Z or Z to A as wished) and click on 'Ok'.

7. Select the entire range of data and click on 'Subtotal' button in 'Outline' group of 'Data' tab.

8. A dialog box pops-up, under 'At each change in:' click on the drop-down arrow and select 'Department', under 'Use function' choose 'Sum', under 'Add Subtotal to:' check mark the options that you want to include for adding the subtotal and click on 'Ok'.

9. Three boxes with numbers 1,2 and 3 written in them appears towards the very left of the screen, you can click on each of them and have a look at the totals. Box-1 will show only the grand total, box-2 will show department wise totals(subtotals) including the grand total and the last box i.e box-3 will show the entire data along with subtotals and the grand total.



Employee Id	Employee Name	Department	Salary
7902	Ford	Sales	₹ 27,500.00
7676	Jack	Sales	₹ 23,500.00
7876	Adams	Sales	₹ 23,000.00
		Sales Total	₹ 74,000.00
7788	Scott	Research	₹ 55,000.00
7977	Peter	Research	₹ 45,000.00
7698	Blake	Research	₹ 24,000.00
7683	Henry	Research	₹ 35,800.00
		Research Total	₹ 1,59,800.00
7566	Jones	Operation	₹ 38,900.00
7900	James	Operation	₹ 25,000.00
7934	Miller	Operation	₹ 32,800.00
		Operation Total	₹ 96,700.00
7782	Clark	Marketing	₹ 24,500.00
7521	Ward	Marketing	₹ 34,500.00
7878	Ben	Marketing	₹ 32,000.00
		Marketing Total	₹ 91,000.00
7698	Blake	Logistics	₹ 56,000.00
7499	Allen	Logistics	₹ 45,000.00
7458	Kevin	Logistics	₹ 35,500.00
		Logistics Total	₹ 1,36,500.00
7839	King	Accounting	₹ 30,000.00
7844	Turner	Accounting	₹ 23,400.00
7654	Martin	Accounting	₹ 52,000.00
7575	Mike	Accounting	₹ 21,000.00
		Accounting Total	₹ 1,26,400.00
		Grand Total	₹ 6,84,400.00

Q5. Calculate the Present Value (PV), Net Present Value (NPV) and Internal Rate of Return on the given data. Rate of interest – 10%

Year	Cash flows
0	-₹350000
1	₹100000
2	₹200000
3	₹150000
4	₹75000

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

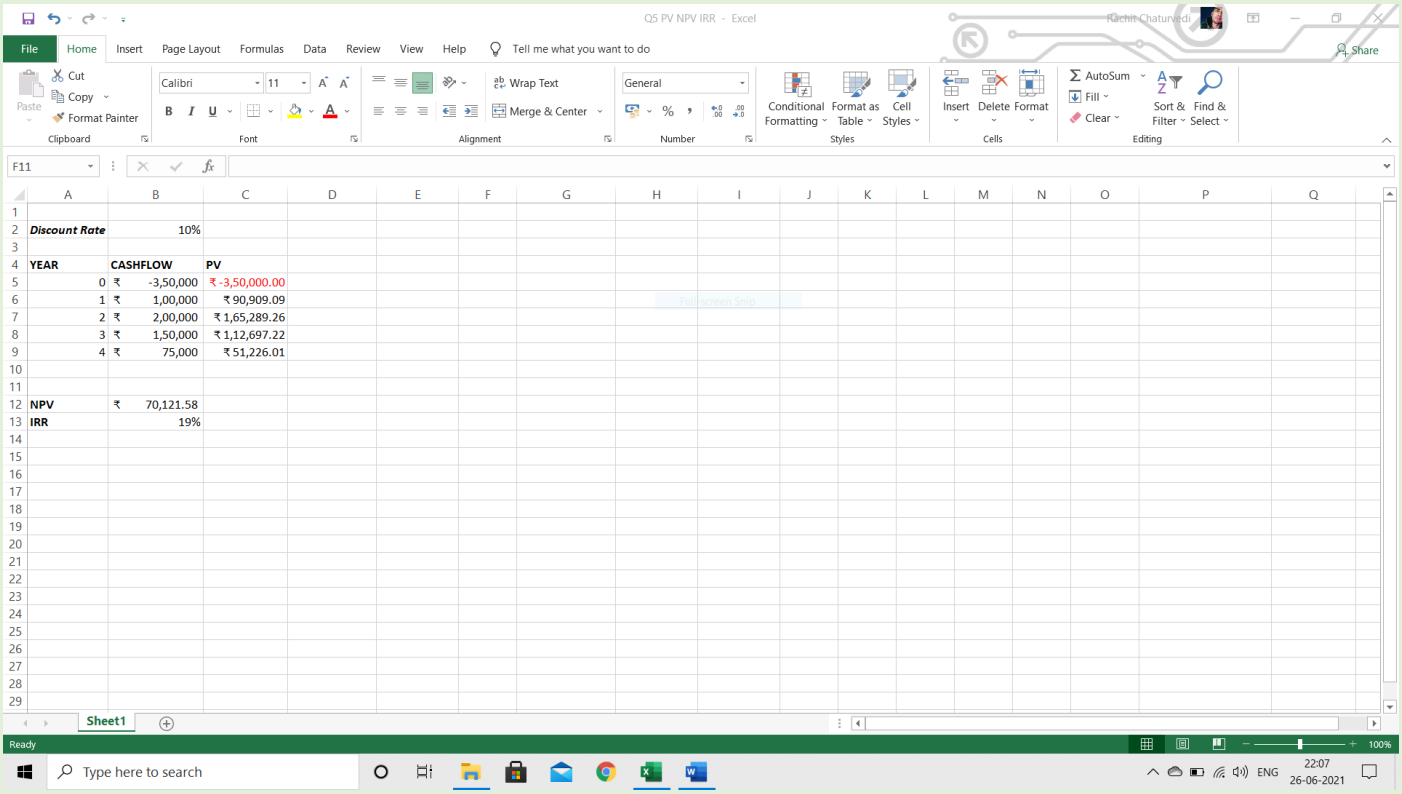
2. Open a blank document.

3. Record the given tabulated data in the excel sheet.

4. To calculate the Present Value (PV) of cashflow, type =PV and then select the column with the rate of interest (10% here), then select the respective cell under year for the number of periods, type 0 for pmt and after that select the respective amount under cashflow as the future value, close the bracket and press enter on the keyboard to get the result. Click on the bottom-right end of the cell and drag it down to the required number of cells to get the present value of cashflow to the end of four years.

5.To calculate the Net Present Value (NPV) on the given data, type =NPV and then enter the rate of interest (10% here) followed by selecting the entire range under cash flows leaving the first one within brackets and then add the first amount (-₹3,50,000) and press enter.

6. To calculate the Internal Rate of Return (IRR), type =IRR on the keyboard and give range of the entire amount under cash flow within brackets and press enter to get the result.


Q5 PV NPV IRR - Excel
Rachit Chaturvedi
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Conditional Formatting
Format as Table
Cell Styles
Styles
Insert
Delete
Format
Cells
AutoSum
Fill
Clear
Sort & Filter
Find & Select
Editing
F11
Discount Rate 10%
YEAR CASHFLOW PV
0 ₹ -3,50,000 ₹ -3,50,000.00
1 ₹ 1,00,000 ₹ 90,909.09
2 ₹ 2,00,000 ₹ 1,65,289.26
3 ₹ 1,50,000 ₹ 1,12,697.22
4 ₹ 75,000 ₹ 51,226.01
NPV ₹ 70,121.58
IRR 19%
Sheet1
Ready
100%
Type here to search
ENG
22:07
26-06-2021

Q6. Calculate Annual payment/installment for a loan using an appropriate function:

Loan amount: Rs. 10,00,000; Years of repayment: 10 years; Rate of interest- 10%

(a) If the payments are Monthly, instead of Annual, what is the installment
(b) If the payments are quarterly, instead of Annual, what is the installment
(c)If the rate of interest is changed to 15% on Annual payment basis, what is the installment
Also make a sensitivity analysis table with payment per month, principal payment per month, interest payment per month and principal outstanding

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Record the loan amount, years of repayment and rate of interest given in the question in a tabular form.

4. Prepare a sensitivity analysis table with the headers – No. of the period, PMT, PPMT, IPMT and Principal O/S.

5. To calculate payment per month when the payments are monthly, type =PMT(then press Ctrl+A on the keyboard, function arguments dialog box pops-up, under rate select the rate of interest from the first table and divide it by twelve and make it an absolute reference, under nper type the period and multiply it by twelve, finally under PV i.e., present value select the loan amount from the first table and freeze it by providing absolute reference, close the bracket and press enter to get the result.

6. Since the years of repayment is given as 10 years and the payments are monthly the number of period will range to 120(12*10).

7. The Payment per month will remain the same till the end of the installment period. So drag down the PMT to 120 periods.

8. To calculate Principal payment per month, type =PPMT(then press Ctrl+A on the keyboard, function arguments dialog box pops-up, under rate select the rate of interest from the first table and divide it by twelve and make it an absolute reference, under per select the no. of the period, under nper type the period and multiply it by twelve, finally under PV i.e., present value select the loan amount from the first table and freeze it by providing absolute reference, close the bracket and press enter to get the result. Drag down the cell to required number of cells so as to get the result.

9. To calculate Interest payment per month, type =IPMT(then press Ctrl+A on the keyboard, function arguments dialog box pops-up, under rate select the rate of interest from the first table and divide it by twelve and make it an absolute reference, under per select the no. of the period, under nper type the period and multiply it by twelve, finally under PV i.e., present value select the loan amount from the first table and freeze it by providing absolute reference, close the bracket and press enter to get the result. Drag down the cell to required number of cells so as to get the result.

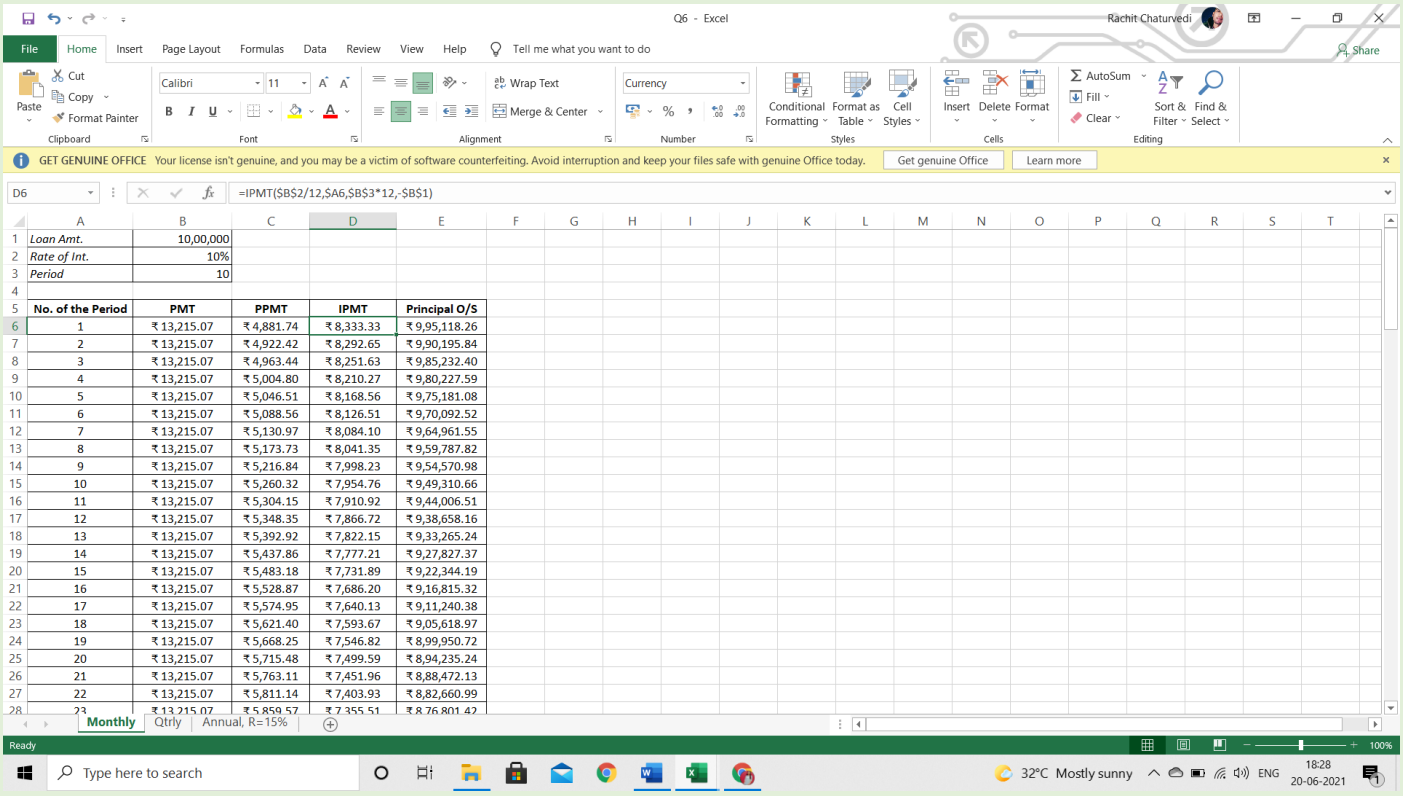
10. To calculate principal outstanding amount for the first period subtract the PPMT of period 1 from the loan amount. For the second year subtract the PMT of the second period from the principal outstanding amount of the first period. Select the principal outstanding amount of the second period and drag it to the required number of cells. The principal outstanding amount for the last period (120^{th} period) becomes zero proving our calculation to be right.

11. To calculate the PMT, PPMT, IPMT and principal outstanding when the payments are quarterly instead of annual repeat the same above steps but instead of dividing the rate of interest by twelve divide it by four and multiply the nper by four instead of twelve.

12. The number of period will range upto 40 (10*4).

13. To calculate the PMT, PPMT, IPMT and principal outstanding when the rate of interest is changed to 15% on annual payment basis, repeat the same above steps with rate of interest changed to 15% and taking the rate and nper without any division and multiplication.

14. Since the years of repayment is ten and the payment is on annual basis the number of period will be only ten.



Q6 - Excel

Rachit Chaturvedi

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=IPMT($B$2/12,$A6,$B$3*12,-$B$1)

	A	B	C	D	E
1	*Loan Amt.*	10,00,000			
2	*Rate of Int.*	10%			
3	*Period*	10			
4					
5	**No. of the Period**	**PMT**	**PPMT**	**IPMT**	**Principal O/S**
6	1	₹ 13,215.07	₹ 4,881.74	₹ 8,333.33	₹ 9,95,118.26
7	2	₹ 13,215.07	₹ 4,922.42	₹ 8,292.65	₹ 9,90,195.84
8	3	₹ 13,215.07	₹ 4,963.44	₹ 8,251.63	₹ 9,85,232.40
9	4	₹ 13,215.07	₹ 5,004.80	₹ 8,210.27	₹ 9,80,227.59
10	5	₹ 13,215.07	₹ 5,046.51	₹ 8,168.56	₹ 9,75,181.08
11	6	₹ 13,215.07	₹ 5,088.56	₹ 8,126.51	₹ 9,70,092.52
12	7	₹ 13,215.07	₹ 5,130.97	₹ 8,084.10	₹ 9,64,961.55
13	8	₹ 13,215.07	₹ 5,173.73	₹ 8,041.35	₹ 9,59,787.82
14	9	₹ 13,215.07	₹ 5,216.84	₹ 7,998.23	₹ 9,54,570.98
15	10	₹ 13,215.07	₹ 5,260.32	₹ 7,954.76	₹ 9,49,310.66
16	11	₹ 13,215.07	₹ 5,304.15	₹ 7,910.92	₹ 9,44,006.51
17	12	₹ 13,215.07	₹ 5,348.35	₹ 7,866.72	₹ 9,38,658.16
18	13	₹ 13,215.07	₹ 5,392.92	₹ 7,822.15	₹ 9,33,265.24
19	14	₹ 13,215.07	₹ 5,437.86	₹ 7,777.21	₹ 9,27,827.37
20	15	₹ 13,215.07	₹ 5,483.18	₹ 7,731.89	₹ 9,22,344.19
21	16	₹ 13,215.07	₹ 5,528.87	₹ 7,686.20	₹ 9,16,815.32
22	17	₹ 13,215.07	₹ 5,574.95	₹ 7,640.13	₹ 9,11,240.38
23	18	₹ 13,215.07	₹ 5,621.40	₹ 7,593.67	₹ 9,05,618.97
24	19	₹ 13,215.07	₹ 5,668.25	₹ 7,546.82	₹ 8,99,950.72
25	20	₹ 13,215.07	₹ 5,715.48	₹ 7,499.59	₹ 8,94,235.24
26	21	₹ 13,215.07	₹ 5,763.11	₹ 7,451.96	₹ 8,88,472.13
27	22	₹ 13,215.07	₹ 5,811.14	₹ 7,403.93	₹ 8,82,660.99
28	23	₹ 13,215.07	₹ 5,859.57	₹ 7,355.51	₹ 8,76,801.42

Monthly | Qtrly | Annual, R=15%

Ready

Type here to search

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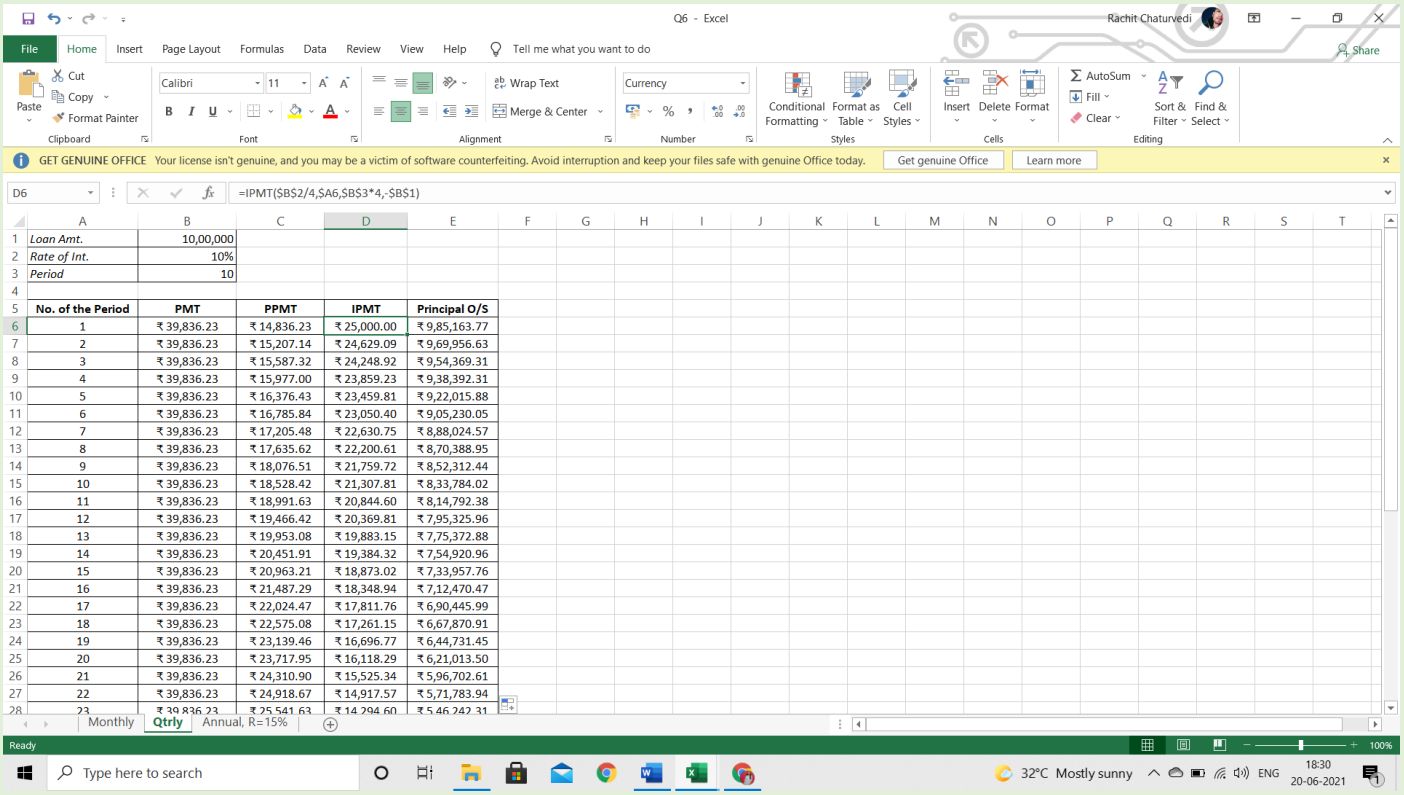

Q6 - Excel

Rachit Chaturvedi

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=IPMT($B$2/4,$A6,$B$3*4,-$B$1)

	A	B	C	D	E
1	*Loan Amt.*	10,00,000			
2	*Rate of Int.*	10%			
3	*Period*	10			
4					
5	**No. of the Period**	**PMT**	**PPMT**	**IPMT**	**Principal O/S**
6	1	₹ 39,836.23	₹ 14,836.23	₹ 25,000.00	₹ 9,85,163.77
7	2	₹ 39,836.23	₹ 15,207.14	₹ 24,629.09	₹ 9,69,956.63
8	3	₹ 39,836.23	₹ 15,587.32	₹ 24,248.92	₹ 9,54,369.31
9	4	₹ 39,836.23	₹ 15,977.00	₹ 23,859.23	₹ 9,38,392.31
10	5	₹ 39,836.23	₹ 16,376.43	₹ 23,459.81	₹ 9,22,015.88
11	6	₹ 39,836.23	₹ 16,785.84	₹ 23,050.40	₹ 9,05,230.05
12	7	₹ 39,836.23	₹ 17,205.48	₹ 22,630.75	₹ 8,88,024.57
13	8	₹ 39,836.23	₹ 17,635.62	₹ 22,200.61	₹ 8,70,388.95
14	9	₹ 39,836.23	₹ 18,076.51	₹ 21,759.72	₹ 8,52,312.44
15	10	₹ 39,836.23	₹ 18,528.42	₹ 21,307.81	₹ 8,33,784.02
16	11	₹ 39,836.23	₹ 18,991.63	₹ 20,844.60	₹ 8,14,792.38
17	12	₹ 39,836.23	₹ 19,466.42	₹ 20,369.81	₹ 7,95,325.96
18	13	₹ 39,836.23	₹ 19,953.08	₹ 19,883.15	₹ 7,75,372.88
19	14	₹ 39,836.23	₹ 20,451.91	₹ 19,384.32	₹ 7,54,920.96
20	15	₹ 39,836.23	₹ 20,963.21	₹ 18,873.02	₹ 7,33,957.76
21	16	₹ 39,836.23	₹ 21,487.29	₹ 18,348.94	₹ 7,12,470.47
22	17	₹ 39,836.23	₹ 22,024.47	₹ 17,811.76	₹ 6,90,445.99
23	18	₹ 39,836.23	₹ 22,575.08	₹ 17,261.15	₹ 6,67,870.91
24	19	₹ 39,836.23	₹ 23,139.46	₹ 16,696.77	₹ 6,44,731.45
25	20	₹ 39,836.23	₹ 23,717.95	₹ 16,118.29	₹ 6,21,013.50
26	21	₹ 39,836.23	₹ 24,310.90	₹ 15,525.34	₹ 5,96,702.61
27	22	₹ 39,836.23	₹ 24,918.67	₹ 14,917.57	₹ 5,71,783.94
28	23	₹ 39,836.23	₹ 25,541.63	₹ 14,294.60	₹ 5,46,242.31

Monthly | Qtrly | Annual, R=15%

Ready

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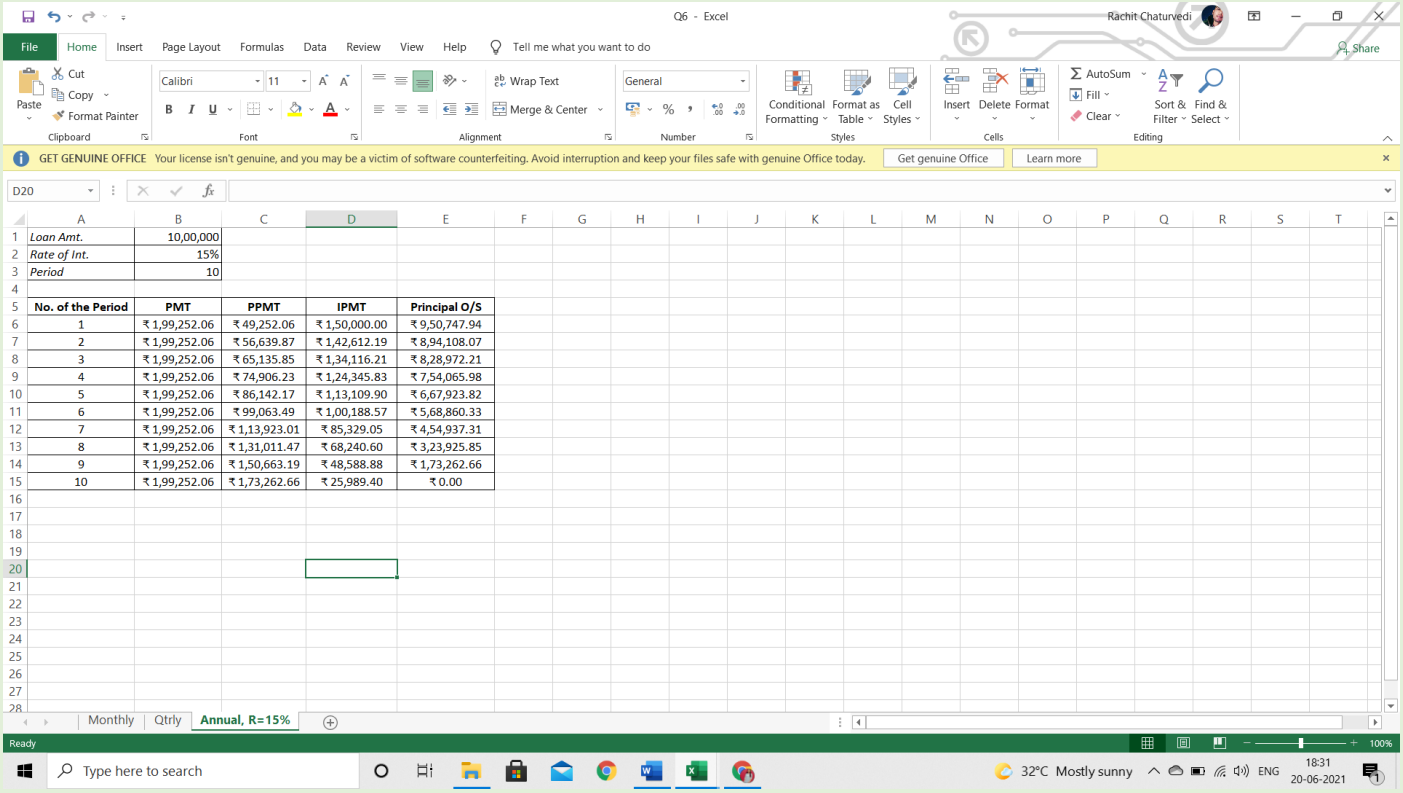
Q6 - Excel
Rachit Chaturvedi
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D20
Loan Amt. 10,00,000
Rate of Int. 15%
Period 10
No. of the Period | PMT | PPMT | IPMT | Principal O/S
1 | ₹1,99,252.06 | ₹49,252.06 | ₹1,50,000.00 | ₹9,50,747.94
2 | ₹1,99,252.06 | ₹56,639.87 | ₹1,42,612.19 | ₹8,94,108.07
3 | ₹1,99,252.06 | ₹65,135.85 | ₹1,34,116.21 | ₹8,28,972.21
4 | ₹1,99,252.06 | ₹74,906.23 | ₹1,24,345.83 | ₹7,54,065.98
5 | ₹1,99,252.06 | ₹86,142.17 | ₹1,13,109.90 | ₹6,67,923.82
6 | ₹1,99,252.06 | ₹99,063.49 | ₹1,00,188.57 | ₹5,68,860.33
7 | ₹1,99,252.06 | ₹1,13,923.01 | ₹85,329.05 | ₹4,54,937.31
8 | ₹1,99,252.06 | ₹1,31,011.47 | ₹68,240.60 | ₹3,23,925.85
9 | ₹1,99,252.06 | ₹1,50,663.19 | ₹48,588.88 | ₹1,73,262.66
10 | ₹1,99,252.06 | ₹1,73,262.66 | ₹25,989.40 | ₹0.00
Monthly Qtrly Annual, R=15%
Ready
100%
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20-06-2021

Q7. Create an employee database with following fields

First name, Last name, Full name, Basic pay, DA, HRA, Deductions, Gross pay, Tax, Net pay. Get the full name by using appropriate function

Calculations are done as follows:

DA – 10% of Basic; HRA - 50% of Basic; Deductions- 20% of Basic;

Tax up to Rs. 2,50,000 - Nil; Rs. 2,50,001- Rs. 5,00,000 5%; Rs. 5,00,001- Rs. 10,00,000 20%; Above 10,00,000- 30%

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create an employee database with the fields – First name, Last name, Full name, Basic pay, DA, HRA, Gross pay, Deductions, Net pay, Tax.

4.To calculate DA, type '=' then click on the first data under basic pay then press '*' on the keyboard and then type 10% and press enter. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.

5. To calculate HRA, type '=' then click on the first data under basic pay then press '*' on the keyboard and then type 50% and press enter. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.

6.To calculate Deductions, type '=' then click on the first data under basic pay then press '*' on the keyboard and then type 20% and press enter. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.

7. To calculate the gross pay (Sum of Basic pay, DA and HRA), type =SUM and then click on the first data under Basic pay press and hold shift on the keyboard and click on the first data under DA and HRA and press enter at last. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.

8. To calculate Net pay (Difference between Gross pay and deductions), Press '=' then Click on the first data under gross pay, press '-' on the keyboard followed

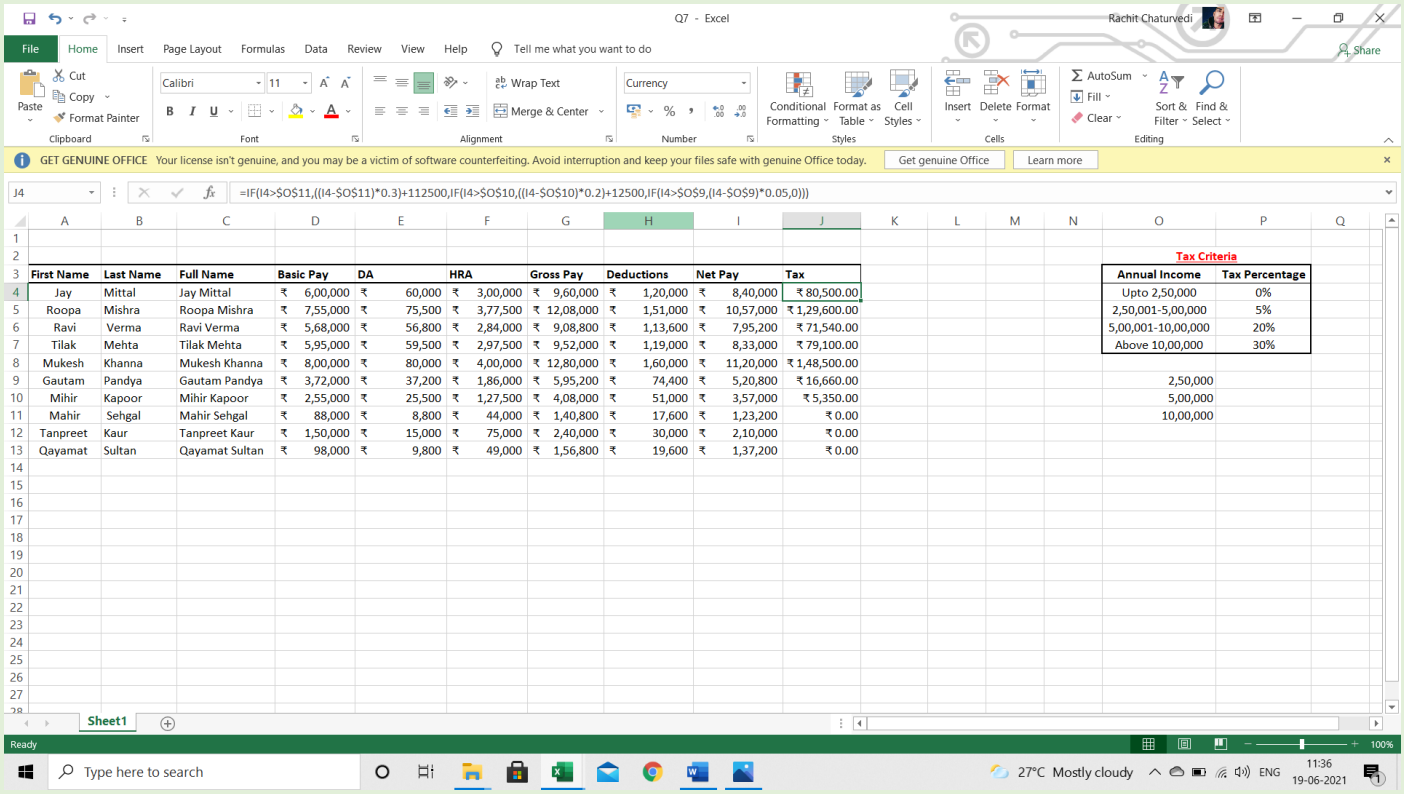
by clicking on the first data deductions and then press enter to proceed. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.

9. Then create a tax criteria table with the details - Tax up to Rs. 2,50,000 - Nil; Rs. 2,50,001- Rs. 5,00,000 5%; Rs. 5,00,001- Rs. 10,00,000 20%; Above 10,00,000- 30%

10. For your convenience, calculate the tax amount

11. To calculate the tax amount based on the criteria given type the formula using nested IF function (‘=IF(I4>$O$11,((I4-$O$11)*0.3)+112500,IF(I4>$O$10,((I4-$O$10)*0.2)+12500,IF(I4>$O$9,(I4-$O$9)*0.05,0)))’ here)

12. Click on the bottom right corner of the cell and hold and drag to apply the formula to the desired cells.



First Name	Last Name	Full Name	Basic Pay	DA	HRA	Gross Pay	Deductions	Net Pay	Tax
Jay	Mittal	Jay Mittal	₹ 6,00,000	₹ 60,000	₹ 3,00,000	₹ 9,60,000	₹ 1,20,000	₹ 8,40,000	₹ 80,500.00
Roopa	Mishra	Roopa Mishra	₹ 7,55,000	₹ 75,500	₹ 3,77,500	₹ 12,08,000	₹ 1,51,000	₹ 10,57,000	₹ 1,29,600.00
Ravi	Verma	Ravi Verma	₹ 5,68,000	₹ 56,800	₹ 2,84,000	₹ 9,08,800	₹ 1,13,600	₹ 7,95,200	₹ 71,540.00
Tilak	Mehta	Tilak Mehta	₹ 5,95,000	₹ 59,500	₹ 2,97,500	₹ 9,52,000	₹ 1,19,000	₹ 8,33,000	₹ 79,100.00
Mukesh	Khanna	Mukesh Khanna	₹ 8,00,000	₹ 80,000	₹ 4,00,000	₹ 12,80,000	₹ 1,60,000	₹ 11,20,000	₹ 1,48,500.00
Gautam	Pandya	Gautam Pandya	₹ 3,72,000	₹ 37,200	₹ 1,86,000	₹ 5,95,200	₹ 74,400	₹ 5,20,800	₹ 16,660.00
Mihir	Kapoor	Mihir Kapoor	₹ 2,55,000	₹ 25,500	₹ 1,27,500	₹ 4,08,000	₹ 51,000	₹ 3,57,000	₹ 5,350.00
Mahir	Sehgal	Mahir Sehgal	₹ 88,000	₹ 8,800	₹ 44,000	₹ 1,40,800	₹ 17,600	₹ 1,23,200	₹ 0.00
Tanpreet	Kaur	Tanpreet Kaur	₹ 1,50,000	₹ 15,000	₹ 75,000	₹ 2,40,000	₹ 30,000	₹ 2,10,000	₹ 0.00
Qayamat	Sultan	Qayamat Sultan	₹ 98,000	₹ 9,800	₹ 49,000	₹ 1,56,800	₹ 19,600	₹ 1,37,200	₹ 0.00

Q8. The following are the marks obtained by the students in three different subjects. Calculate the total marks and represent through a Bar Diagram:

Roll No	Name	QT	FIT	IOM
101	Radhika	50	90	80
102	Sarika	60	80	60
103	Geethika	50	70	75
104	Bhoomika	80	60	80
105	Karthika	84	57	84

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Record the given data in a table format as given with the fields – Roll No., Name, QT, FIT, IOM and Total.

4. To calculate the total marks scored by each student in all the three subjects, click on the first cell under total and click on 'AutoSum' button under 'Editing' group of 'Home' Tab.

5. To represent the entire data through a bar diagram, select the entire data, go to 'Insert' tab, click on the drop-down menu of 'Insert column or bar chart' button under 'Charts' group.

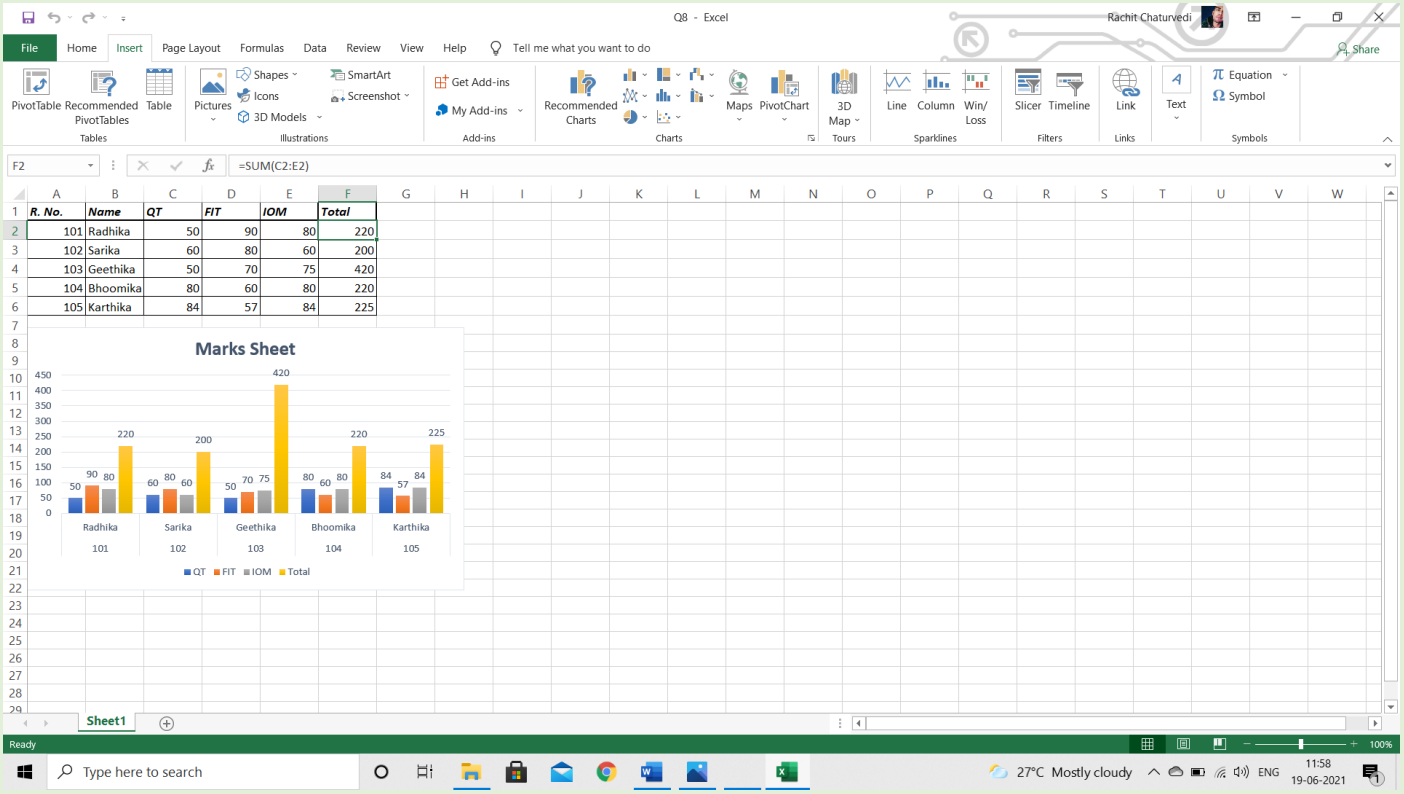
6. From the options displayed on the screen click on the desired type.

7. Click on the bar diagram, three options will be displayed at the top right corner.

8. Click on the first button (Chart Elements) and check and uncheck the various options provided as per your requirement.

9.Click on the second button (Style and Colour) and change the style and colour of the chart as wished.

10. Click on the third button (Filter) and adjust the values and names as per requirement.


Q8 - Excel
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Shapes
Icons
3D Models
SmartArt
Screenshot
Get Add-ins
My Add-ins
Recommended Charts
Maps
PivotChart
3D Map
Line
Column
Win/ Loss
Slicer
Timeline
Link
Text
Equation
Symbol
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Illustrations
Add-ins
Charts
Tours
Sparklines
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F2
=SUM(C2:E2)
R. No.
Name
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FIT
IOM
Total
101 Radhika 50 90 80 220
102 Sarika 60 80 60 200
103 Geethika 50 70 75 420
104 Bhoomika 80 60 80 220
105 Karthika 84 57 84 225
Marks Sheet
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200
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50 90 80 220
60 80 60 200
50 70 75 420
80 60 80 220
84 57 84 225
Radhika
Sarika
Geethika
Bhoomika
Karthika
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19-06-2021

Q9. Create a table showing the distribution of income of a family over various heads of expenditure and represent the same through a pie diagram.

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a table showing the distribution of income of a family over various heads of expenditure like – Food, Clothing, Housing, Children's education, Transport, Others, savings using various options under 'Home' tab.

4. To represent the data through a pie diagram, select the data and go to 'Insert' tab, click on the drop-down menu of 'Insert pie or doughnut chart' button under 'Charts' group.

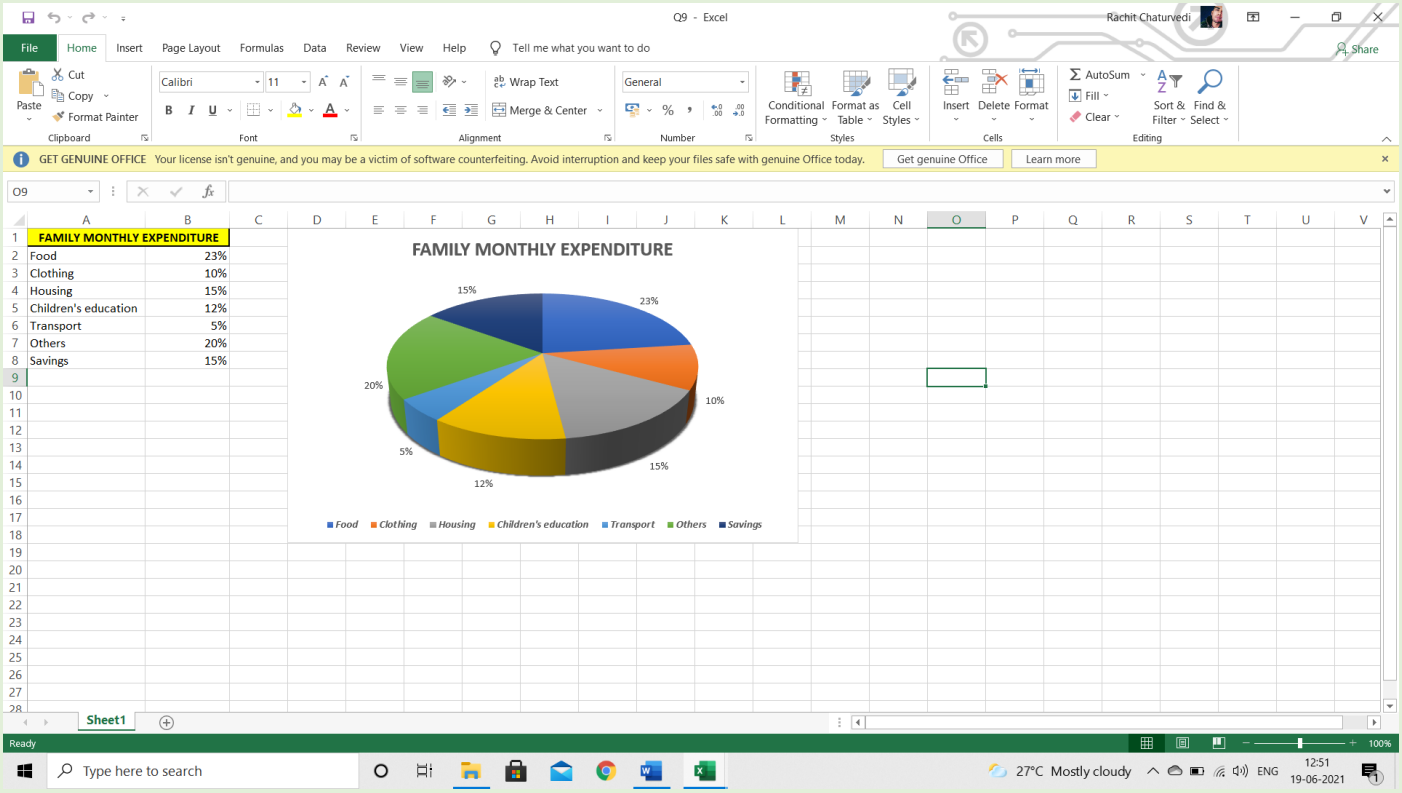
5. From the options displayed on the screen click on the desired type.

6. Click on the Pie chart, three options will be displayed at the top right corner.

7. Click on the first button (Chart Elements) and check and uncheck the various options provided as per your requirement.

8.Click on the second button (Style and Colour) and change the style and colour of the chart as wished.

9. Click on the third button (Filter) and adjust the values and names as per requirement.


Q9 - Excel
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Conditional Formatting
Format as Table
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Q9
FAMILY MONTHLY EXPENDITURE
Food 23%
Clothing 10%
Housing 15%
Children's education 12%
Transport 5%
Others 20%
Savings 15%
FAMILY MONTHLY EXPENDITURE
23%
10%
15%
12%
5%
20%
15%
Food
Clothing
Housing
Children's education
Transport
Others
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19-06-2021

Q10. Create a table with the fields- product, region, qty sold, Cost per unit, SP per unit, total cost of goods sold, revenue generated. Generate pivot tables to show the sales region wise and product wise. After generating pivot tables, calculate profit from each category of product.

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a table with the fields - product, region, qty. sold, Cost per unit, SP per unit, total cost of goods sold and revenue generated. Make sure the data is in tabular format with proper headers and no empty cells.

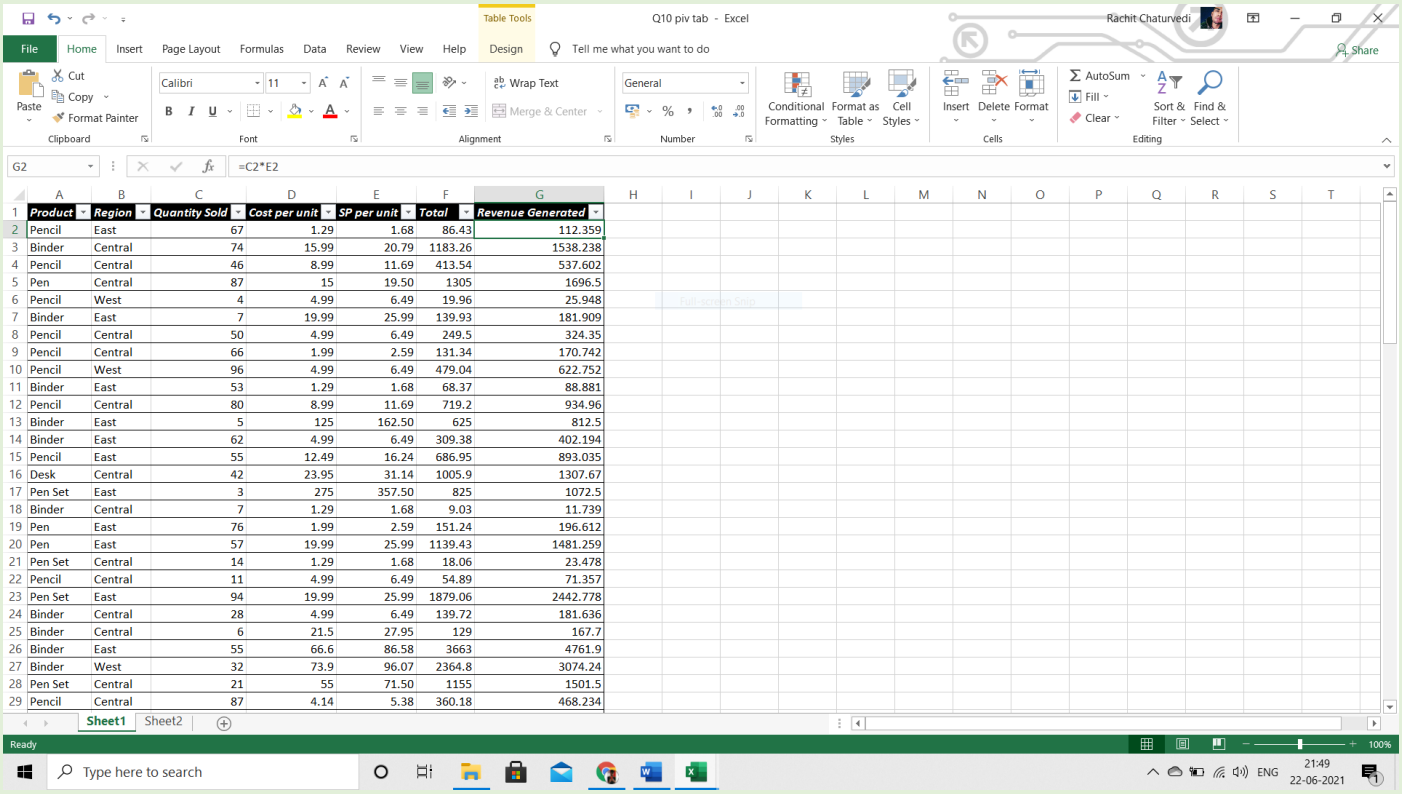
4. Select the entire data, go to 'Formulas' tab and click on the 'Define Name' button under 'Defined Names' group, in the dialog box that pops-up define a name for the database and click on 'Ok'.

5. Move to another sheet where the pivot table is to be inserted, click on 'Pivot Table' button in 'Tables' group of 'Insert' tab. A dialog box pops-up, Type the name defined to the table under Table/Range, select the location where the pivot table is to be inserted and click on 'Ok'. 'PivotTable Fields' appears towards the right.

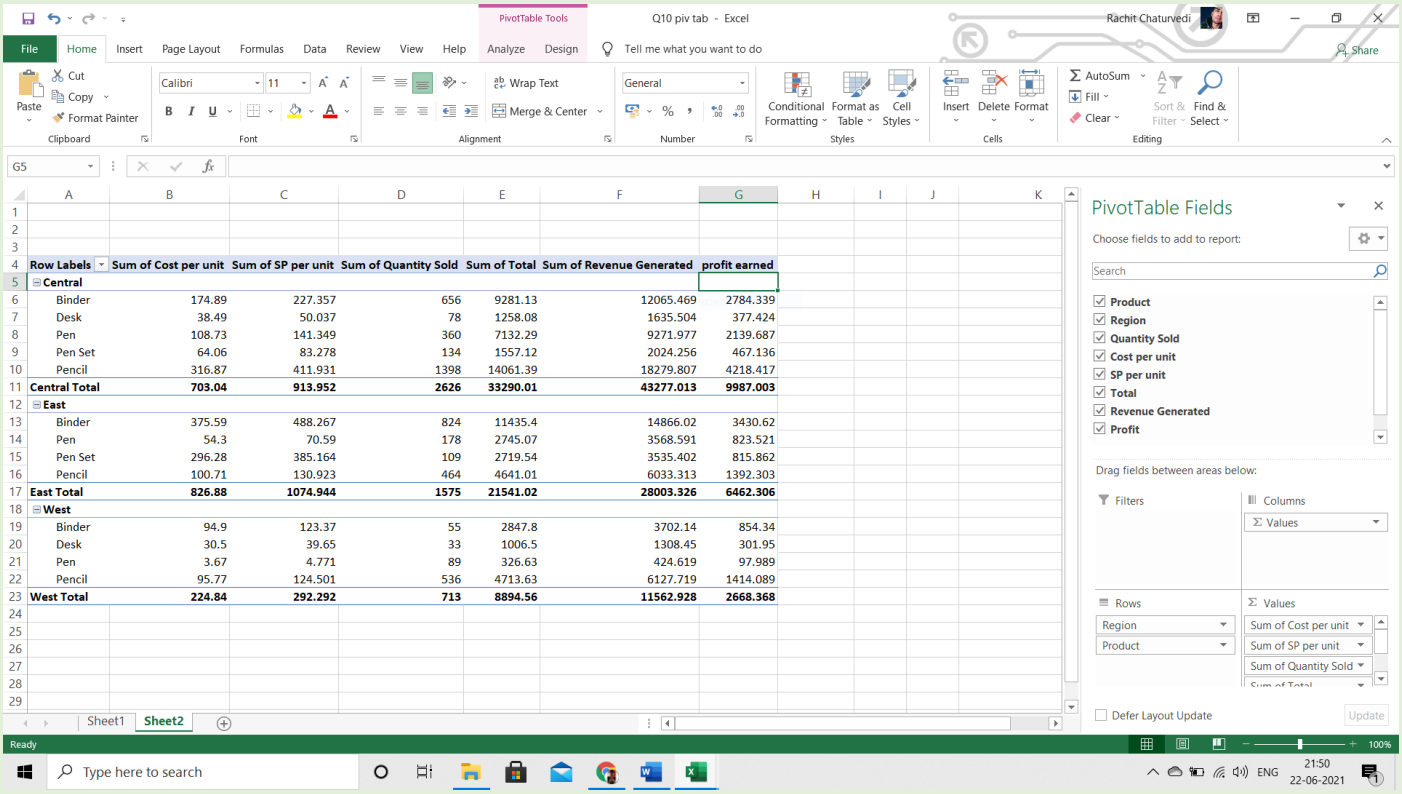
6. To show the sales region wise and product wise, Drag and drop the fields region and product to 'Rows' box respectively.

7. Drag and drop the fields Cost per unit, SP per unit, total cost of goods sold and revenue generated in the 'Values' box respectively. By default we get the sum of these fields but that can be changed if required by first clicking on the drop down arrow of the particular field, then click on 'Value field settings' and select the type of operation from the various options under 'Summarize field by' and click on 'Ok'.

8. After generating the pivot tables, to calculate the profit from each category of product, first click on the data, then go to 'Analyze' tab and click on the 'Fields, Items & Sets' button in 'Calculations' group, a dialog box pops-up, click on 'Calculate Field'. 'Insert Calculated Field' dialog box pops-up, Type 'profit earned' under name and under the formula type =Revenue generated-Total sales, click on 'Add' and then click on 'Ok' to get the profit earned column in the table along with the calculations.



Product	Region	Quantity Sold	Cost per unit	SP per unit	Total	Revenue Generated
Pencil	East	67	1.29	1.68	86.43	112.359
Binder	Central	74	15.99	20.79	1183.26	1538.238
Pencil	Central	46	8.99	11.69	413.54	537.602
Pen	Central	87	15	19.50	1305	1696.5
Pencil	West	4	4.99	6.49	19.96	25.948
Binder	East	7	19.99	25.99	139.93	181.909
Pencil	Central	50	4.99	6.49	249.5	324.35
Pencil	Central	66	1.99	2.59	131.34	170.742
Pencil	West	96	4.99	6.49	479.04	622.752
Binder	East	53	1.29	1.68	68.37	88.881
Pencil	Central	80	8.99	11.69	719.2	934.96
Binder	East	5	125	162.50	625	812.5
Binder	East	62	4.99	6.49	309.38	402.194
Pencil	East	55	12.49	16.24	686.95	893.035
Desk	Central	42	23.95	31.14	1005.9	1307.67
Pen Set	East	3	275	357.50	825	1072.5
Binder	Central	7	1.29	1.68	9.03	11.739
Pen	East	76	1.99	2.59	151.24	196.612
Pen	East	57	19.99	25.99	1139.43	1481.259
Pen Set	Central	14	1.29	1.68	18.06	23.478
Pencil	Central	11	4.99	6.49	54.89	71.357
Pen Set	East	94	19.99	25.99	1879.06	2442.778
Binder	Central	28	4.99	6.49	139.72	181.636
Binder	Central	6	21.5	27.95	129	167.7
Binder	East	55	66.6	86.58	3663	4761.9
Binder	West	32	73.9	96.07	2364.8	3074.24
Pen Set	Central	21	55	71.50	1155	1501.5
Pencil	Central	87	4.14	5.38	360.18	468.234



Row Labels	Sum of Cost per unit	Sum of SP per unit	Sum of Quantity Sold	Sum of Total	Sum of Revenue Generated	profit earned
Central						
Binder	174.89	227.357	656	9281.13	12065.469	2784.339
Desk	38.49	50.037	78	1258.08	1635.504	377.424
Pen	108.73	141.349	360	7132.29	9271.977	2139.687
Pen Set	64.06	83.278	134	1557.12	2024.256	467.136
Pencil	316.87	411.931	1398	14061.39	18279.807	4218.417
Central Total	**703.04**	**913.952**	**2626**	**33290.01**	**43277.013**	**9987.003**
East						
Binder	375.59	488.267	824	11435.4	14866.02	3430.62
Pen	54.3	70.59	178	2745.07	3568.591	823.521
Pen Set	296.28	385.164	109	2719.54	3535.402	815.862
Pencil	100.71	130.923	464	4641.01	6033.313	1392.303
East Total	**826.88**	**1074.944**	**1575**	**21541.02**	**28003.326**	**6462.306**
West						
Binder	94.9	123.37	55	2847.8	3702.14	854.34
Desk	30.5	39.65	33	1006.5	1308.45	301.95
Pen	3.67	4.771	89	326.63	424.619	97.989
Pencil	95.77	124.501	536	4713.63	6127.719	1414.089
West Total	**224.84**	**292.292**	**713**	**8894.56**	**11562.928**	**2668.368**

Q11. Create a table with product name, qty produced in each month for an year and cost of production. Group the data (in 4 quarters) after generating pivot tables showing production details. Represent the same through line graph and show a trend line.

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a table with the fields – date, product name, quantity produced in quarters 1,2,3 and 4, total quantity produced, price per unit, cost of production (total quantity produced*price per unit).

4. Select the entire data, go to 'Formulas' tab and click on the 'Define Name' button under 'Defined Names' group, in the dialog box that pops-up define a name for the database and click on 'Ok'.

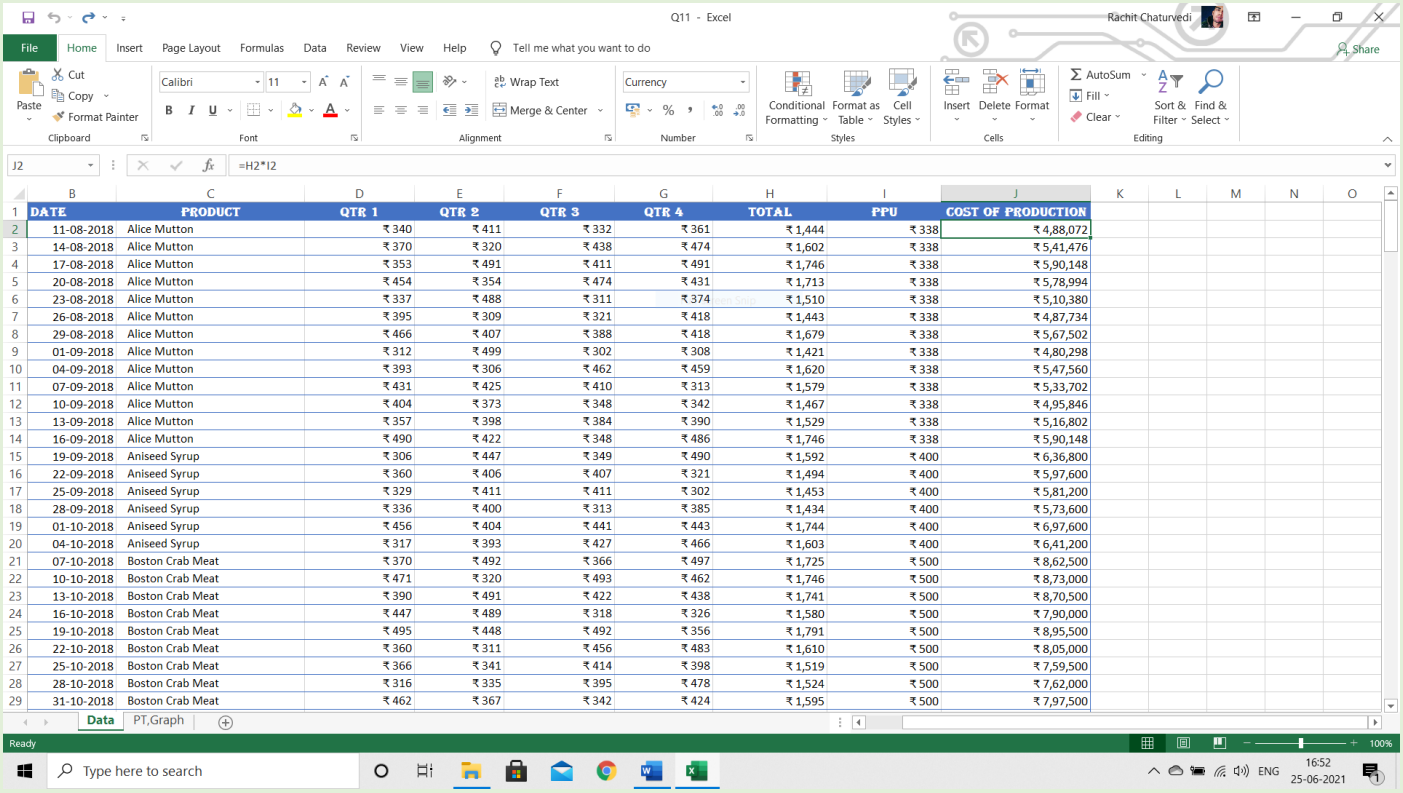
5. Move to another sheet where the pivot table is to be inserted, click on 'Pivot Table' button in 'Tables' group of 'Insert' tab. A dialog box pops-up, Type the name defined to the table under Table/Range, select the location where the pivot table is to be inserted and click on 'Ok'. 'PivotTable Fields' appears towards the right.

6. Drag and drop the product and date fields to the 'Rows' box. Since the excel version in this case is 2019, the data is grouped by default, so right click on the data and select 'Ungroup' from the popped-up options, then right click on the data again and this time select 'Group' from the popped-up options, a dialog-box pops-up, select 'Quarters' from the list and click on 'Ok'. Then drag and drop the Date field in the 'Columns' box and cost of production field in the 'Values' box.

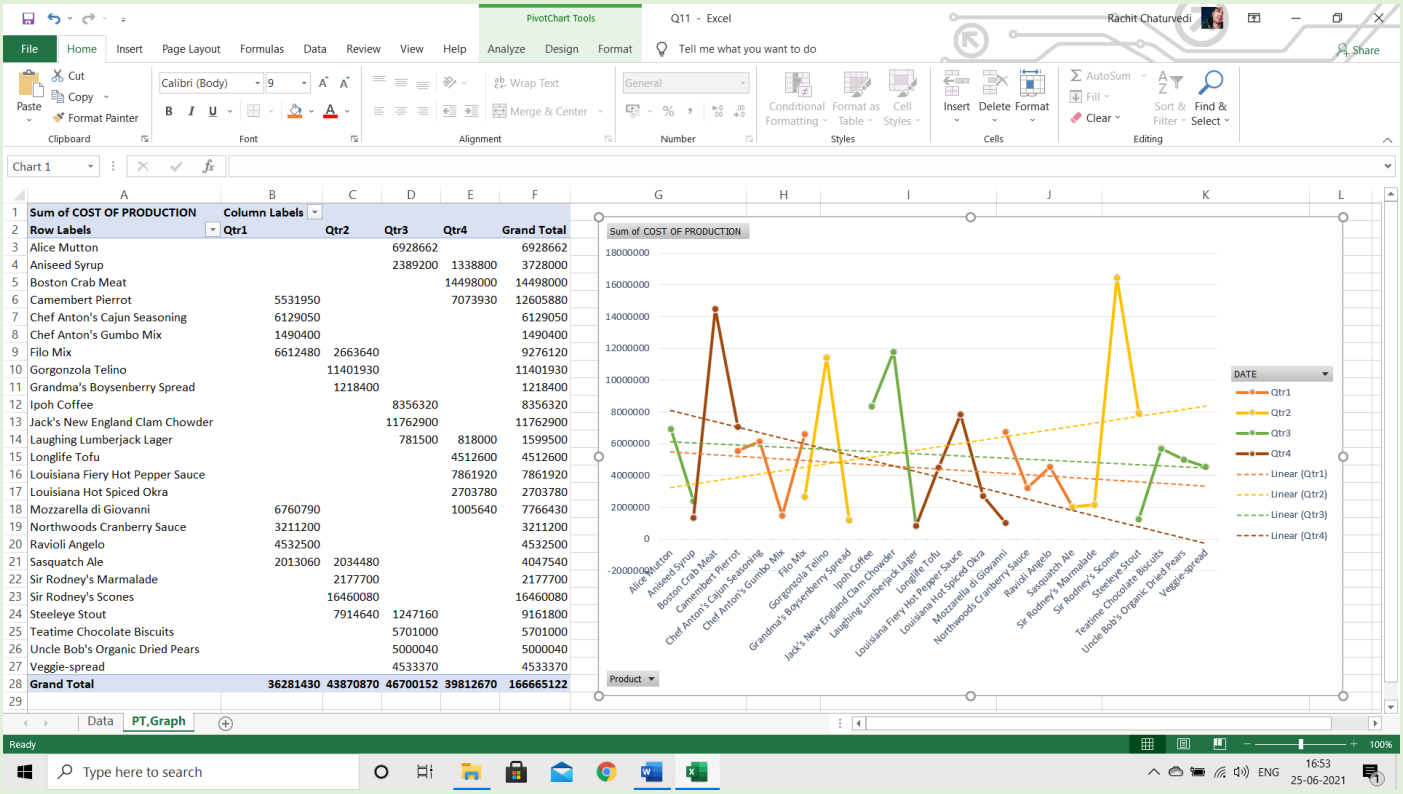
7. Click on the 'Analyze' tab and then click on the 'Insert PivotChart' button and select desired 'Line' chart from the popped-up options and click on it. The line chart of the provided data appears on the screen.

8. Click on the chart, Chart Elements(+ symbol) and Style and colour options appear at the top-right corner of the chart. Click on the + symbol and check mark the 'Trendline' box and click on 'More options' from the popped-up options and select 'Qtr 1' from the dialog box, repeat the same step to add trendlines for all the four quarters.

9. Click on the second button i.e., Style and colour option and do the modifications as wished.



DATE	PRODUCT	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL	PPU	COST OF PRODUCTION
11-08-2018	Alice Mutton	₹ 340	₹ 411	₹ 332	₹ 361	₹ 1,444	₹ 338	₹ 4,88,072
14-08-2018	Alice Mutton	₹ 370	₹ 320	₹ 438	₹ 474	₹ 1,602	₹ 338	₹ 5,41,476
17-08-2018	Alice Mutton	₹ 353	₹ 491	₹ 411	₹ 491	₹ 1,746	₹ 338	₹ 5,90,148
20-08-2018	Alice Mutton	₹ 454	₹ 354	₹ 474	₹ 431	₹ 1,713	₹ 338	₹ 5,78,994
23-08-2018	Alice Mutton	₹ 337	₹ 488	₹ 311	₹ 374	₹ 1,510	₹ 338	₹ 5,10,380
26-08-2018	Alice Mutton	₹ 395	₹ 309	₹ 321	₹ 418	₹ 1,443	₹ 338	₹ 4,87,734
29-08-2018	Alice Mutton	₹ 466	₹ 407	₹ 388	₹ 418	₹ 1,679	₹ 338	₹ 5,67,502
01-09-2018	Alice Mutton	₹ 312	₹ 499	₹ 302	₹ 308	₹ 1,421	₹ 338	₹ 4,80,298
04-09-2018	Alice Mutton	₹ 393	₹ 306	₹ 462	₹ 459	₹ 1,620	₹ 338	₹ 5,47,560
07-09-2018	Alice Mutton	₹ 431	₹ 425	₹ 410	₹ 313	₹ 1,579	₹ 338	₹ 5,33,702
10-09-2018	Alice Mutton	₹ 404	₹ 373	₹ 348	₹ 342	₹ 1,467	₹ 338	₹ 4,95,846
13-09-2018	Alice Mutton	₹ 357	₹ 398	₹ 384	₹ 390	₹ 1,529	₹ 338	₹ 5,16,802
16-09-2018	Alice Mutton	₹ 490	₹ 422	₹ 348	₹ 486	₹ 1,746	₹ 338	₹ 5,90,148
19-09-2018	Aniseed Syrup	₹ 306	₹ 447	₹ 349	₹ 490	₹ 1,592	₹ 400	₹ 6,36,800
22-09-2018	Aniseed Syrup	₹ 360	₹ 406	₹ 407	₹ 321	₹ 1,494	₹ 400	₹ 5,97,600
25-09-2018	Aniseed Syrup	₹ 329	₹ 411	₹ 411	₹ 302	₹ 1,453	₹ 400	₹ 5,81,200
28-09-2018	Aniseed Syrup	₹ 336	₹ 400	₹ 313	₹ 385	₹ 1,434	₹ 400	₹ 5,73,600
01-10-2018	Aniseed Syrup	₹ 456	₹ 404	₹ 441	₹ 443	₹ 1,744	₹ 400	₹ 6,97,600
04-10-2018	Aniseed Syrup	₹ 317	₹ 393	₹ 427	₹ 466	₹ 1,603	₹ 400	₹ 6,41,200
07-10-2018	Boston Crab Meat	₹ 370	₹ 492	₹ 366	₹ 497	₹ 1,725	₹ 500	₹ 8,62,500
10-10-2018	Boston Crab Meat	₹ 471	₹ 320	₹ 493	₹ 462	₹ 1,746	₹ 500	₹ 8,73,000
13-10-2018	Boston Crab Meat	₹ 390	₹ 491	₹ 422	₹ 438	₹ 1,741	₹ 500	₹ 8,70,500
16-10-2018	Boston Crab Meat	₹ 447	₹ 489	₹ 318	₹ 326	₹ 1,580	₹ 500	₹ 7,90,000
19-10-2018	Boston Crab Meat	₹ 495	₹ 448	₹ 492	₹ 356	₹ 1,791	₹ 500	₹ 8,95,500
22-10-2018	Boston Crab Meat	₹ 360	₹ 311	₹ 456	₹ 483	₹ 1,610	₹ 500	₹ 8,05,000
25-10-2018	Boston Crab Meat	₹ 366	₹ 341	₹ 414	₹ 398	₹ 1,519	₹ 500	₹ 7,59,500
28-10-2018	Boston Crab Meat	₹ 316	₹ 335	₹ 395	₹ 478	₹ 1,524	₹ 500	₹ 7,62,000
31-10-2018	Boston Crab Meat	₹ 462	₹ 367	₹ 342	₹ 424	₹ 1,595	₹ 500	₹ 7,97,500



Sum of COST OF PRODUCTION	Column Labels				
Row Labels	Qtr1	Qtr2	Qtr3	Qtr4	Grand Total
Alice Mutton			6928662		6928662
Aniseed Syrup			2389200	1338800	3728000
Boston Crab Meat				14498000	14498000
Camembert Pierrot	5531950			7073930	12605880
Chef Anton's Cajun Seasoning	6129050				6129050
Chef Anton's Gumbo Mix	1490400				1490400
Filo Mix	6612480	2663640			9276120
Gorgonzola Telino		11401930			11401930
Grandma's Boysenberry Spread		1218400			1218400
Ipoh Coffee			8356320		8356320
Jack's New England Clam Chowder			11762900		11762900
Laughing Lumberjack Lager			781500	818000	1599500
Longlife Tofu				4512600	4512600
Louisiana Fiery Hot Pepper Sauce				7861920	7861920
Louisiana Hot Spiced Okra				2703780	2703780
Mozzarella di Giovanni	6760790			1005640	7766430
Northwoods Cranberry Sauce	3211200				3211200
Ravioli Angelo	4532500				4532500
Sasquatch Ale	2013060	2034480			4047540
Sir Rodney's Marmalade		2177700			2177700
Sir Rodney's Scones		16460080			16460080
Steeleye Stout		7914640	1247160		9161800
Teatime Chocolate Biscuits			5701000		5701000
Uncle Bob's Organic Dried Pears			5000040		5000040
Veggie-spread			4533370		4533370
Grand Total	**36281430**	**43870870**	**46700152**	**39812670**	**166665122**

Q12. Create a student application form with following fields and criteria

a. Name (length between 5-15 characters) (repeat a few names)

b. Date of Birth (Not born after 31/12/2001)

c. Group opted (list the options)

d. Percentage (Only whole number)

e. Mobile No (Exactly 10 digits)

Remove duplicates from the table and find the total number of students registered for each course by generating a pivot table.

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Select the cell where the name has to be entered, go to 'Data' tab, click on 'Data Validation' button in 'Data Tools' group, select data validation from the popped-up options, a dialog box pops-up, in settings, under 'Allow' select 'Text length', under 'Data' select 'Between' and type 5 under min and 15 under max. Then click on 'Input Message' on the top and type 'Your name(length between 5-15 characters)' as the input message. After that, click on 'Error Alert' on the top and type 'Text Length between 5-15 characters!' as the error message and click on 'Ok'.

4. Select the cell where the date of birth has to be entered, go to 'Data' tab, click on 'Data Validation' button in 'Data Tools' group, select data validation from the popped-up options, a dialog box pops-up, in settings, under 'Allow' select 'Date', under 'Data' select 'less than' and under 'End date' type 31-12-2001. Then click on 'Input Message' on the top and type 'Your date of birth in DD-MM-YYYY format' as the input message. After that, click on 'Error Alert' on the top and type 'Your age shouldn't be less than 18 years and should be written in the mentioned format only' as the error message and click on 'Ok'.

5. Select the cell where the group opted has to be entered, go to 'Data' tab, click on 'Data Validation' button in 'Data Tools' group, select data validation from the popped-up options, a dialog box pops-up, in settings, under 'Allow' select 'List'

and type the groups – BSc., BCom., BA under the source. Then click on ‘Input Message’ on the top and type ‘Your group’ as the input message. After that, click on ‘Error Alert’ on the top and type ‘Select from the list provided’ as the error message and click on ‘Ok’.

6. Select the cell where the percentage of marks scored has to be entered, go to ‘Data’ tab, click on ‘Data Validation’ button in ‘Data Tools’ group, select data validation from the popped-up options, a dialog box pops-up, in settings, under ‘Allow’ select ‘Whole number’, under ‘Data’ select ‘Between’ and type 35 under min and 100 under max. Then click on ‘Input Message’ on the top and type ‘Enter your percentage of marks’ as the input message. After that, click on ‘Error Alert’ on the top and type ‘If your score is below 35%, you're not eligible to fill in the form.’ as the error message and click on ‘Ok’.

7. Select the cell where the phone number has to be entered, go to ‘Data’ tab, click on ‘Data Validation’ button in ‘Data Tools’ group, select data validation from the popped-up options, a dialog box pops-up, in settings, under ‘Allow’ select ‘Text length’, under ‘Data’ select ‘equal to’ and type 10 under ‘Length’. Then click on ‘Input Message’ on the top and type ‘Please enter your 10 digit Mobile Number’ as the input message. After that, click on ‘Error Alert’ on the top and type ‘Please enter your full phone no. (10digits)’ as the error message and click on ‘Ok’. Select the entire phone number column and format it as text from ‘Number’ group of ‘Home’ tab.

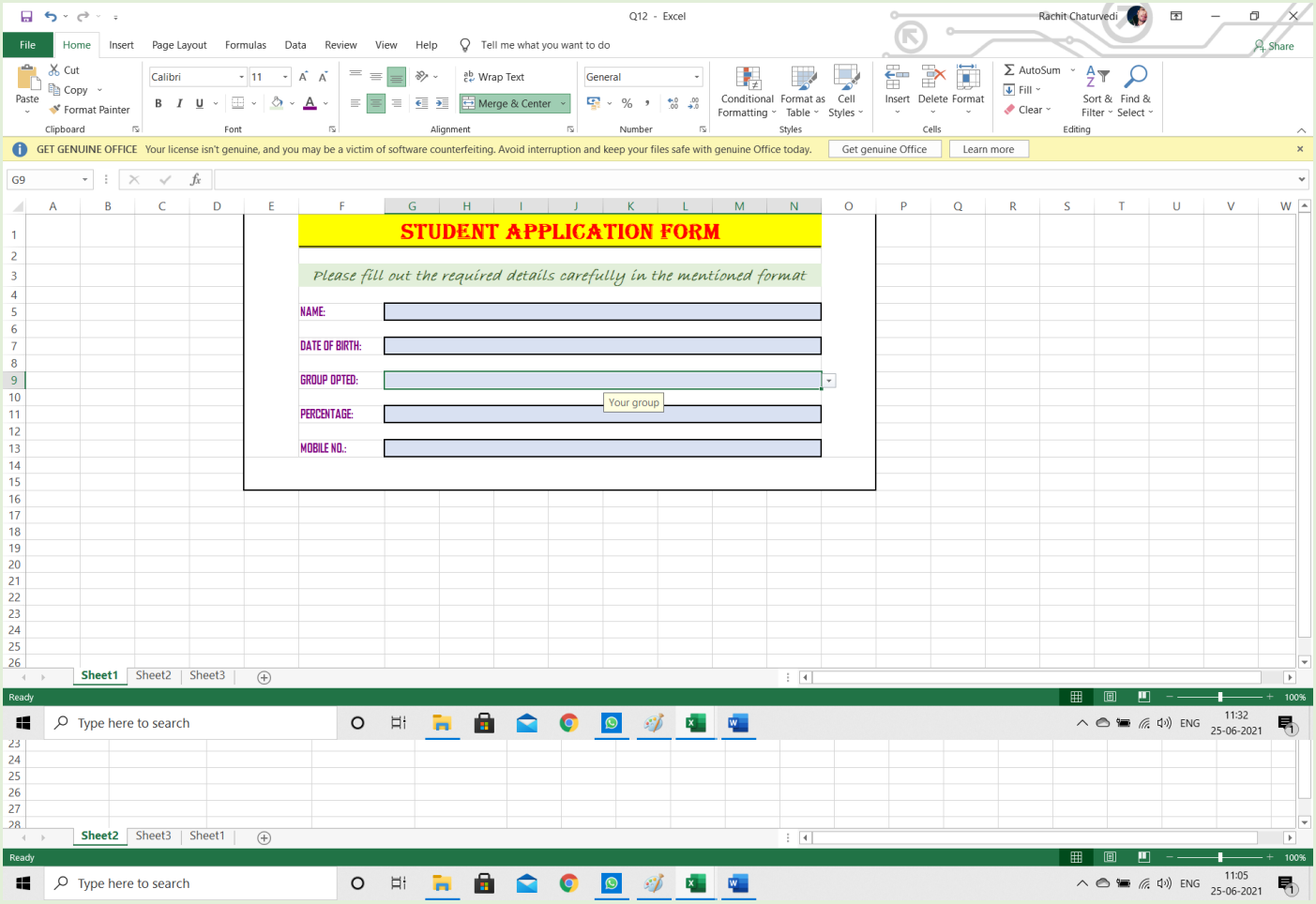
8. Now enter the details in the form with a few repetitions and format it as a table by selecting the entire range of data and clicking on ‘Format as Table’ button in ‘Styles’ group of ‘Home’ tab and a name is defined to it by default.

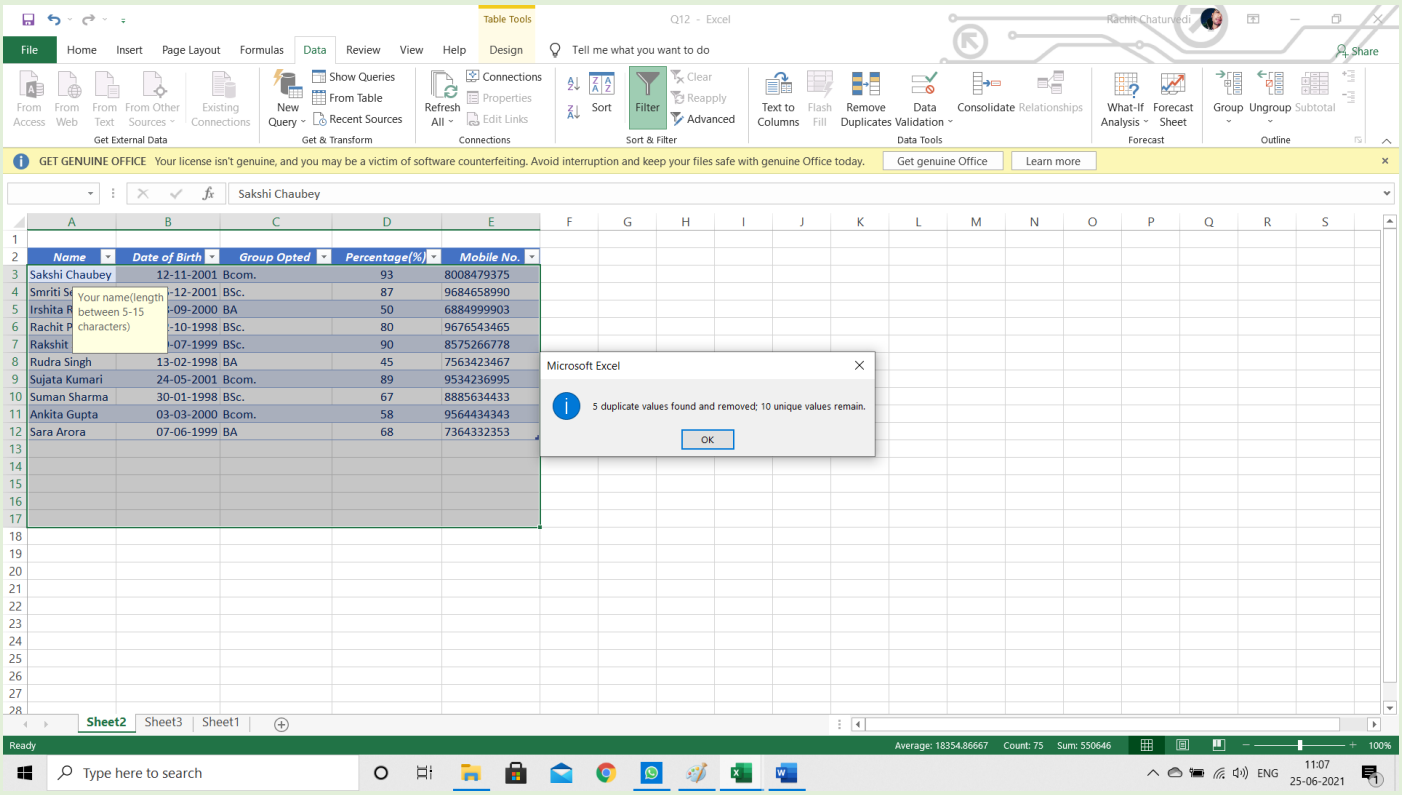
9. Select the table column consisting duplicate data and click on ‘Remove duplicates’ button in ‘Data Tools’ group of ‘Home’ tab to remove the duplicates from the table.

10. Move to another sheet where the pivot table is to be inserted, click on ‘Pivot Table’ button in ‘Tables’ group of ‘Insert’ tab. A dialog box pops-up, Type the name defined to the table under Table/Range, select the location where the pivot table is to be inserted and click on ‘Ok’. ‘PivotTable Fields’ appears towards the right.

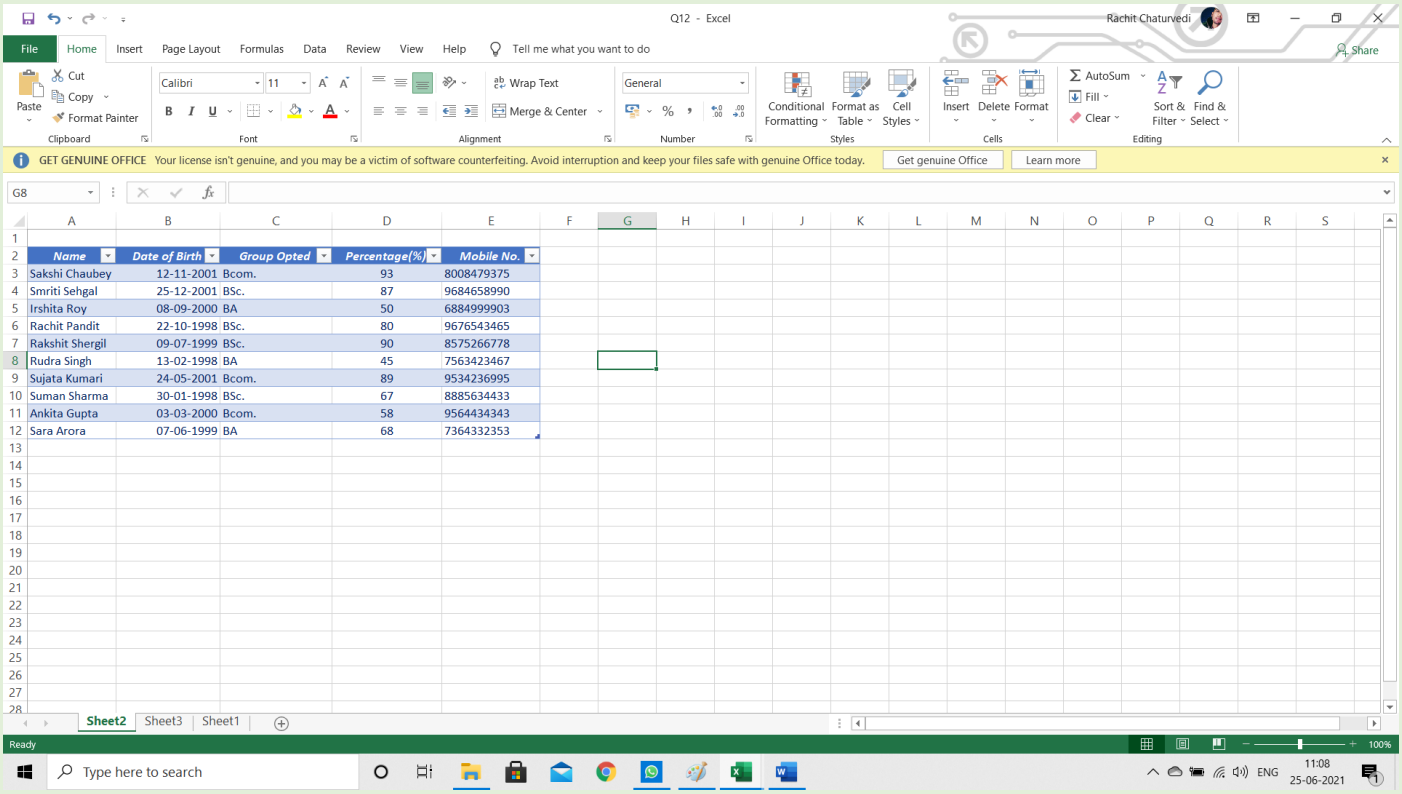
11. To find the total number of students registered for each course, drag and drop the ‘Group opted’ field in ‘Row’ box and ‘Name’ field in the ‘Values’ box.

12. Click on the drop-down arrow of ‘Name’ field, and select ‘Value field settings’ from the displayed options, a dialog box pops-up, under ‘Summarize value field by’ select ‘count’ and change the custom name to ‘No. of students’ and click on ‘Ok’.

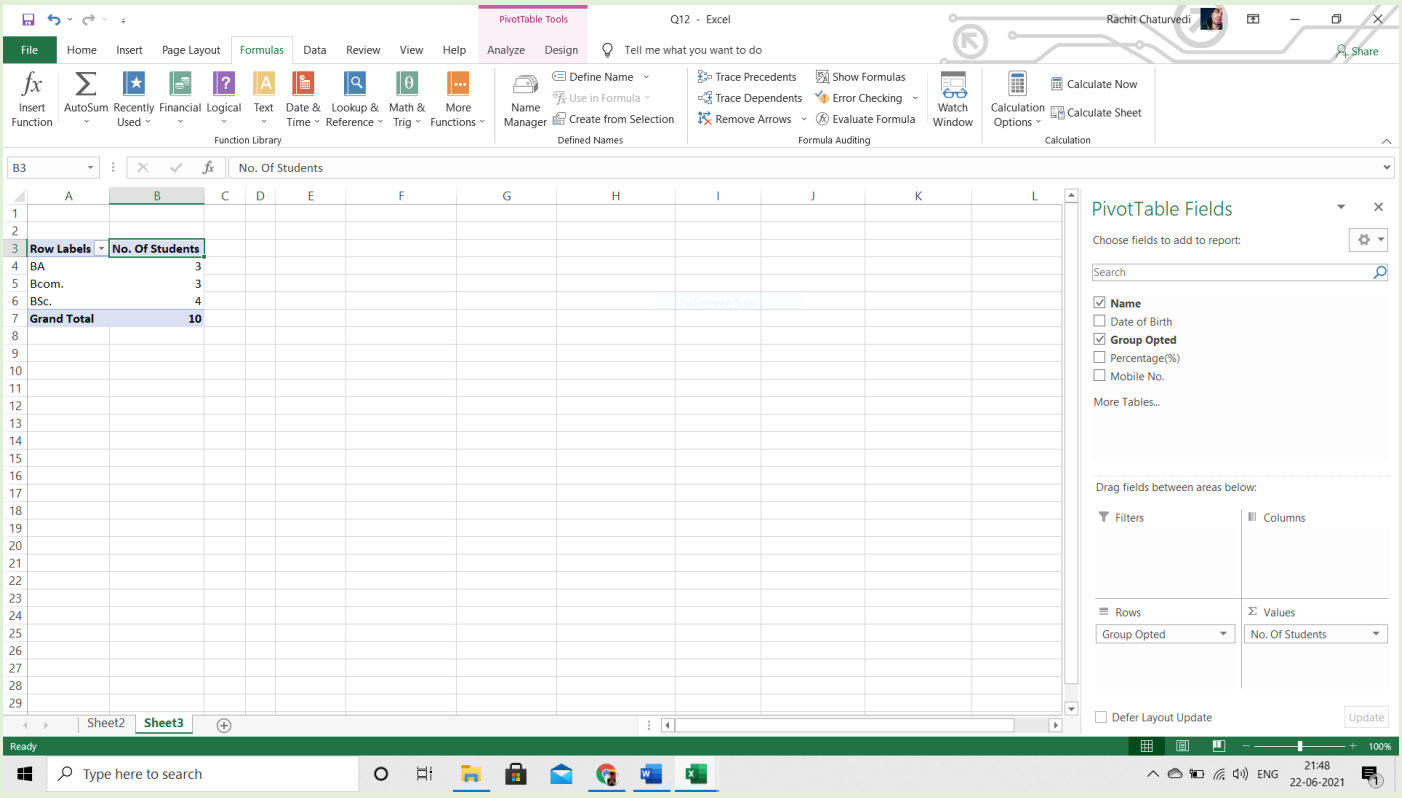




Name	Date of Birth	Group Opted	Percentage(%)	Mobile No.
Sakshi Chaubey	12-11-2001	Bcom.	93	8008479375
Smriti Sehgal	25-12-2001	BSc.	87	9684658990
Irshita Roy	08-09-2000	BA	50	6884999903
Rachit Pandit	22-10-1998	BSc.	80	9676543465
Rakshit Shergil	09-07-1999	BSc.	90	8575266778
Rudra Singh	13-02-1998	BA	45	7563423467
Sujata Kumari	24-05-2001	Bcom.	89	9534236995
Suman Sharma	30-01-1998	BSc.	67	8885634433
Ankita Gupta	03-03-2000	Bcom.	58	9564434343
Sara Arora	07-06-1999	BA	68	7364332353



Name	Date of Birth	Group Opted	Percentage(%)	Mobile No.
Sakshi Chaubey	12-11-2001	Bcom.	93	8008479375
Smriti Sehgal	25-12-2001	BSc.	87	9684658990
Irshita Roy	08-09-2000	BA	50	6884999903
Rachit Pandit	22-10-1998	BSc.	80	9676543465
Rakshit Shergil	09-07-1999	BSc.	90	8575266778
Rudra Singh	13-02-1998	BA	45	7563423467
Sujata Kumari	24-05-2001	Bcom.	89	9534236995
Suman Sharma	30-01-1998	BSc.	67	8885634433
Ankita Gupta	03-03-2000	Bcom.	58	9564434343
Sara Arora	07-06-1999	BA	68	7364332353


PivotTable Tools
Q12 - Excel
Rachit Chaturvedi
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Help
Analyze
Design
Tell me what you want to do
Share
Insert Function
AutoSum
Recently Used
Financial
Logical
Text
Date & Time
Lookup & Reference
Math & Trig
More Functions
Function Library
Name Manager
Define Name
Use in Formula
Create from Selection
Defined Names
Trace Precedents
Trace Dependents
Remove Arrows
Show Formulas
Error Checking
Evaluate Formula
Formula Auditing
Watch Window
Calculation Options
Calculate Now
Calculate Sheet
Calculation
B3
No. Of Students
Row Labels
No. Of Students
BA 3
Bcom. 3
BSc. 4
Grand Total 10
PivotTable Fields
Choose fields to add to report:
Search
Name
Date of Birth
Group Opted
Percentage(%)
Mobile No.
More Tables...
Drag fields between areas below:
Filters
Columns
Rows
Values
Group Opted
No. Of Students
Defer Layout Update
Update
Sheet2
Sheet3
Ready
100%
Type here to search
ENG
21:48
22-06-2021

Q13. Create a table with the fields student name, marks, grade, fee concession (rate) and fees payable after concession. Another table containing the fee concession rates applicable for different percentages. Show the fee concession rates and fees to be paid by each student if the annual fee is Rs.75000 (At least 10 records). The concession rates are as follows

Percentage of marks	Fee concession (%)
Upto 50 %	Nil
50-70 %	5%
70-80%	20%
Above 90%	40%

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a table with the fields student name, marks, grade, fee concession (rate) and fees payable after concession.

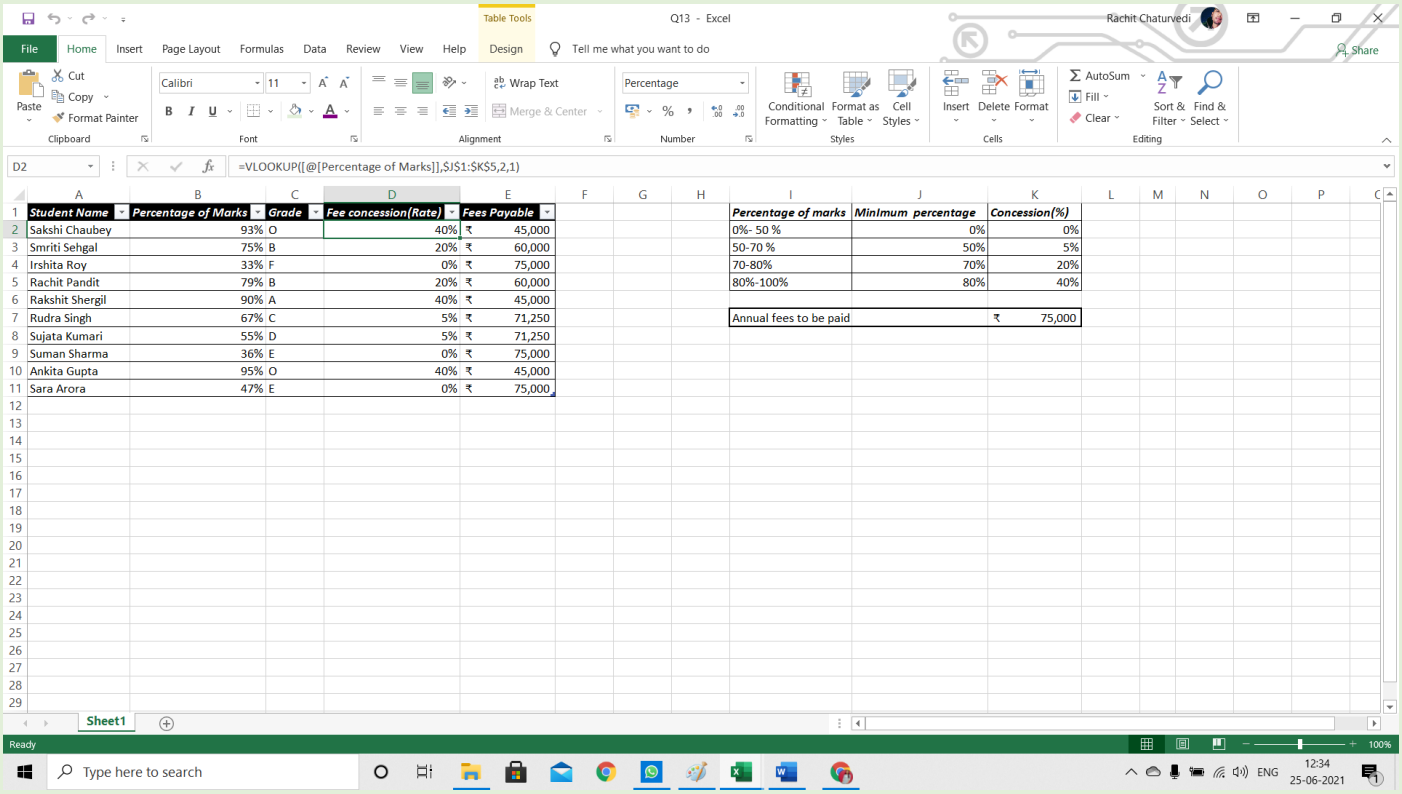
4. Create another table containing the fee concession rates applicable for different percentages.

5. To get the fee concession rates for different percentages of marks scored by each student, VLOOKUP Function can be used.

6. In the first cell under fee concession rate, type =VLOOKUP(then select the first cell under percentage, then select the entire range of minimum percentage and concession from the second table, then type the column index number for the concession(%) column, after that type 1 for approximate match and press enter to get the result. Click on the bottom-right corner of the cell and drag it down to the required number of cells.

6. To get the fees payable after concession the annual fee amount is to be multiplied by the fee concession rates for different percentages of marks scored by each student.

7. The student with less than 50% of marks will have to pay the entire annual fee without any concession rate.



Student Name	Percentage of Marks	Grade	Fee concession(Rate)	Fees Payable
Sakshi Chaubey	93%	O	40%	₹ 45,000
Smriti Sehgal	75%	B	20%	₹ 60,000
Irshita Roy	33%	F	0%	₹ 75,000
Rachit Pandit	79%	B	20%	₹ 60,000
Rakshit Shergil	90%	A	40%	₹ 45,000
Rudra Singh	67%	C	5%	₹ 71,250
Sujata Kumari	55%	D	5%	₹ 71,250
Suman Sharma	36%	E	0%	₹ 75,000
Ankita Gupta	95%	O	40%	₹ 45,000
Sara Arora	47%	E	0%	₹ 75,000

Percentage of marks	Minimum percentage	Concession(%)
0%- 50 %	0%	0%
50-70 %	50%	5%
70-80%	70%	20%
80%-100%	80%	40%

Annual fees to be paid	₹ 75,000

Q14. Create a table with a list of different products and their prices. Create another table to display the product name, no of units sold, price per unit and total sales. Take necessary references from the first table.

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create a table with product name, product code and price per unit.

4. Create another table as Bill with the fields – Product, Product code, ppu, no. of units sold and total.

5. Select the first cell under Product, go to 'Data' tab, click on 'Data Validation' button in 'Data Tools' group, select data validation from the popped-up options, a dialog box pops-up, in settings, under 'Allow' select 'List' and enter the cell range of the product column of the first table under 'Source' and click on 'Ok'. Drag down the cell to ten cells to copy the source formatting.

6. For the product code use VLOOKUP function along with IF function and OR function(=IF(OR(G3=$A$3,G3=$A$4,G3=$A$5,G3=$A$6,G3=$A$7,G3=$A$8,G3=$A$9,G3=$A$10,G3=$A$11),VLOOKUP(G3,Table1[#All],2,0)," ")). This means that if the product is anything from the product range then the vlookup function will lookup for the product code of that particular product in the first table in the second column for an exact match(in the end of the formula, the space under double quotations is for the empty cells). Drag down the cell to ten cells to copy the formatting and formula.

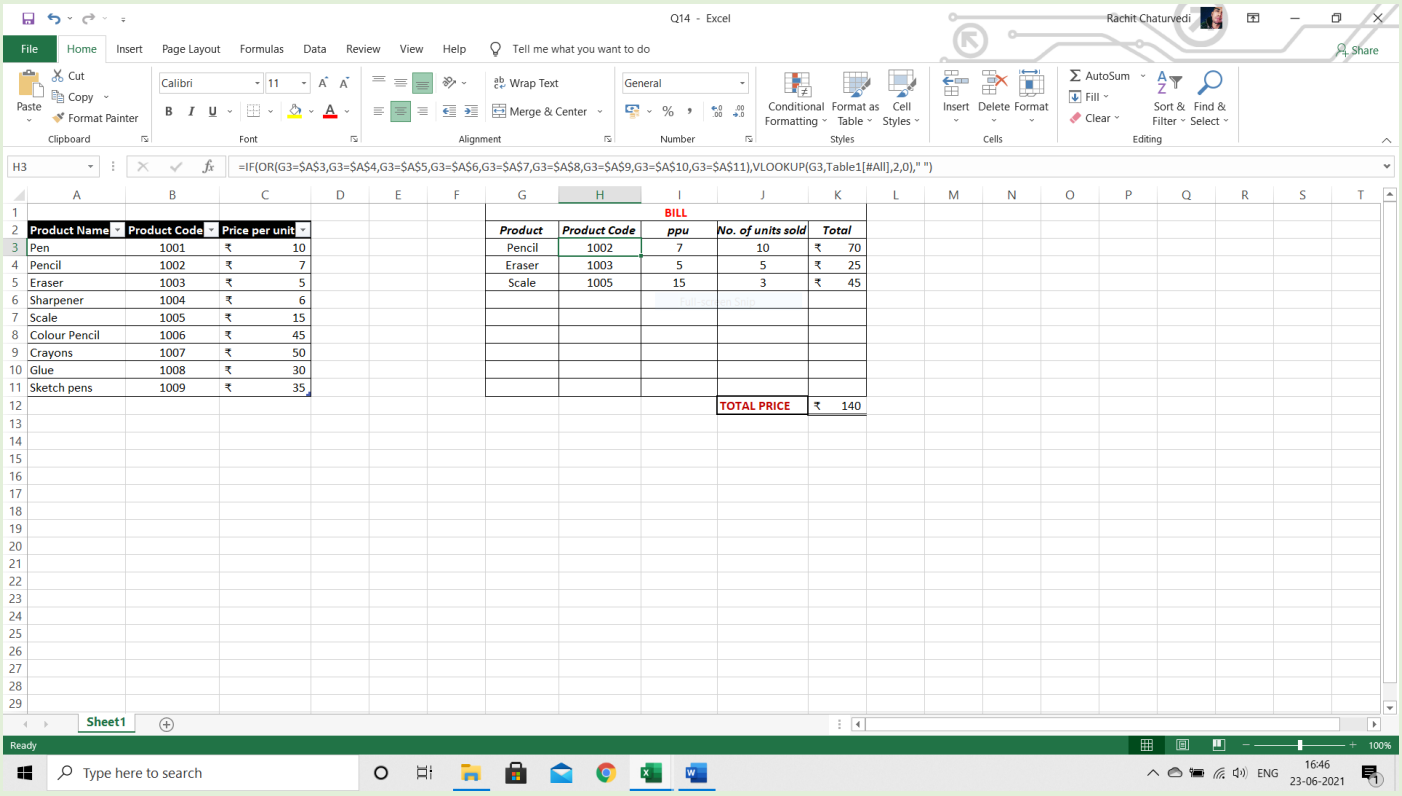
7. For the price per unit, again use VLOOKUP function along with IF function and OR function can be used (=IF(OR(G3=$A$3,G3=$A$4,G3=$A$5,G3=$A$6,G3=$A$7,G3=$A$8,G3=$A$9,G3=$A$10,G3=$A$11),VLOOKUP(G3,Table,3,0)," ")). This means This means that if the product is anything from the product range then the vlookup function will lookup for the per unit price of that particular product in the first table in the second column for an exact match(in the end of the formula, the space under double quotations is for the empty cells). Drag down the cell to ten cells to copy the formatting and formula.

8. In the next column i.e., no. of units sold the data has to be typed.

9. For the total sales, IF function along with OR function can be used(=IF(OR(G3=$A$3,G3=$A$4,G3=$A$5,G3=$A$6,G3=$A$7,G3=$A$8,G3=$A$9,G3=$A$10,G3=$A$11),I3*J3," ")). This means that if the product is anything from the product range then in the first column then it will show the result of multiplication of the values under ppu column and no. of units sold column (in the end of the formula, the space under double quotations is for the empty cells). Drag down the cell to ten cells to copy the formatting and formula.

10. The IF and OR functions are used in the above formulae so that the formulae can be applied to empty cells too.

11. Select the cell at the end of the total column and click on ‘AutoSum’ button in ‘Editing’ group of ‘Home’ tab to get the total price on the bill.



Product Name	Product Code	Price per unit
Pen	1001	₹ 10
Pencil	1002	₹ 7
Eraser	1003	₹ 5
Sharpener	1004	₹ 6
Scale	1005	₹ 15
Colour Pencil	1006	₹ 45
Crayons	1007	₹ 50
Glue	1008	₹ 30
Sketch pens	1009	₹ 35

BILL

Product	Product Code	ppu	No. of units sold	Total
Pencil	1002	7	10	₹ 70
Eraser	1003	5	5	₹ 25
Scale	1005	15	3	₹ 45
			TOTAL PRICE	₹ 140

Q15. Create an employee database with Emp No, Name, Department and Salary. Get the following data using appropriate function (150 records)

a. Emp No of 23rd employee in the list

b. Salary of 78th employee

c. Name of 116th employee with his department

d. Department of 148th employee

PROCEDURE

1. Firstly, click on the 'Start' menu and open MS Excel.

2. Open a blank document.

3. Create an employee database table with the fields – Employee No., Name, Department and Salary with 12 records.

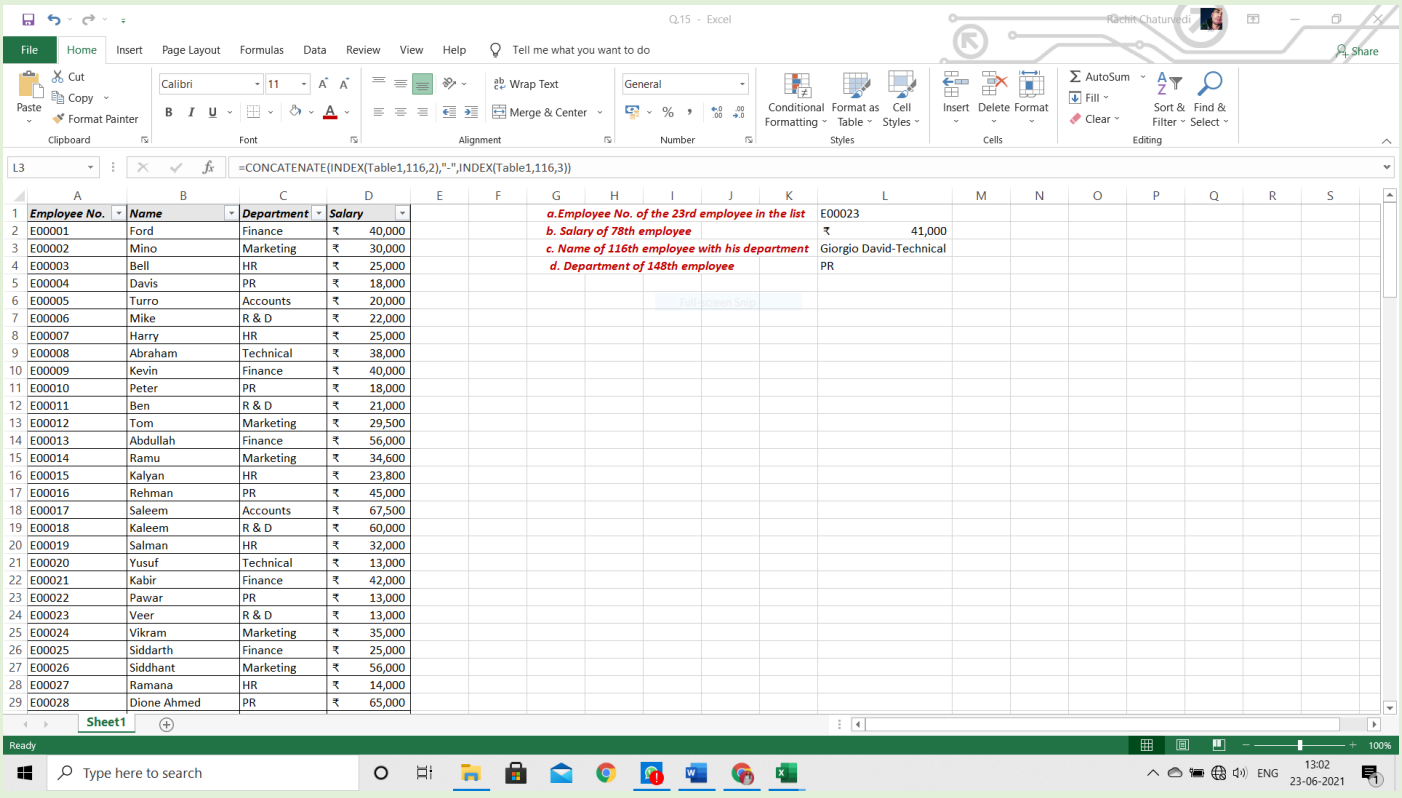
4. Select the entire database, go to 'Formulas' tab and click on the 'Define Name' button under 'Defined Names' group, in the dialog box that pops-up define a name for the database and click on 'Ok'.

5. To get the employee number of the twenty third employee in the list INDEX function can be used. Type =INDEX(and press Ctrl+A on your keyboard, function arguments dialog box pops-up, under table array type the name defined in the previous step and then type the index number of the desired row followed by index number of the desired column, close the brackets and press enter to get the result.

6.To get the salary of the 78^{th} employee in the list INDEX function can be used. Type =INDEX(and press Ctrl+A on the keyboard, function arguments dialog box pops-up, under table array type the name defined in the previous step and then type the index number of the desired row followed by index number of the desired column, close the brackets and press enter to get the result.

7. To get the name of the 116^{th} employee along with his department two INDEX functions can be concatenated using CONCATENATE function. Type =CONCATENATE(INDEX(table_array, row_Index_number, column_Index_Number),"-", INDEX(table_array, row_Index_number, column_Index_Number)) and press enter to get the result.

8. To get the department of the 148th employee in the list INDEX function can be used. Type =INDEX(and press Ctrl+A on the keyboard, function arguments dialog box pops-up, under table array type the name defined in the previous step and then type the index number of the desired row followed by index number of the desired column, close the brackets and press enter to get the result.



Q.15 - Excel

Rachit Chaturvedi

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do Share

Cut Copy Format Painter Paste Clipboard

Calibri 11 Font

Wrap Text Merge & Center Alignment

General Number

Conditional Formatting Format as Table Cell Styles Styles

Insert Delete Format Cells

AutoSum Fill Clear Sort & Filter Find & Select Editing

L3

=CONCATENATE(INDEX(Table1,116,2),"-",INDEX(Table1,116,3))

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	***Employee No.***	***Name***	***Department***	***Salary***			***a.Employee No. of the 23rd employee in the list***					E00023							
2	E00001	Ford	Finance	₹ 40,000			***b. Salary of 78th employee***					₹ 41,000							
3	E00002	Mino	Marketing	₹ 30,000			***c. Name of 116th employee with his department***					Giorgio David-Technical							
4	E00003	Bell	HR	₹ 25,000			***d. Department of 148th employee***					PR							
5	E00004	Davis	PR	₹ 18,000															
6	E00005	Turro	Accounts	₹ 20,000															
7	E00006	Mike	R & D	₹ 22,000															
8	E00007	Harry	HR	₹ 25,000															
9	E00008	Abraham	Technical	₹ 38,000															
10	E00009	Kevin	Finance	₹ 40,000															
11	E00010	Peter	PR	₹ 18,000															
12	E00011	Ben	R & D	₹ 21,000															
13	E00012	Tom	Marketing	₹ 29,500															
14	E00013	Abdullah	Finance	₹ 56,000															
15	E00014	Ramu	Marketing	₹ 34,600															
16	E00015	Kalyan	HR	₹ 23,800															
17	E00016	Rehman	PR	₹ 45,000															
18	E00017	Saleem	Accounts	₹ 67,500															
19	E00018	Kaleem	R & D	₹ 60,000															
20	E00019	Salman	HR	₹ 32,000															
21	E00020	Yusuf	Technical	₹ 13,000															
22	E00021	Kabir	Finance	₹ 42,000															
23	E00022	Pawar	PR	₹ 13,000															
24	E00023	Veer	R & D	₹ 13,000															
25	E00024	Vikram	Marketing	₹ 35,000															
26	E00025	Siddarth	Finance	₹ 25,000															
27	E00026	Siddhant	Marketing	₹ 56,000															
28	E00027	Ramana	HR	₹ 14,000															
29	E00028	Dione Ahmed	PR	₹ 65,000															

Sheet1

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