

DAY 2

Monday, March 18, 2024 9:16 AM

- RELATIVE REFERENCING

A screenshot of Microsoft Excel showing a table of data. The table has columns labeled 'DATE', 'RADIUS', 'PI', and 'AREA'. The formula in cell C5 is =A5*B5*\$B\$5. The cell containing the formula is highlighted with a red border. The status bar at the bottom shows 'factTable'.

DATE	RADIUS	PI	AREA
1	28	3.142	276.4206
2	48	0	
3	48	0	
4	43	=A5*B5*\$B\$5	
5	24	0	
6	41	0	
7	25	0	
8	15	0	
9	10	0	
10	28	0	
11			
12			
13			
14			
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16			
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29			
30			

- FIX POSITIONING / ABSOLUTE REFERENCING:

A screenshot of Microsoft Excel showing the same table as above, but with absolute referencing. The formula in cell C8 is =A8*\$B\$2*\$B\$2. The cell containing the formula is highlighted with a red border. The status bar at the bottom shows 'factTable'.

DATE	RADIUS	PI	AREA
1	28	3.142	276.4206
2	48	473.8639	
3	48	473.8639	
4	43	424.5031	
5	24	236.9319	
6	41	404.7587	
7	25	=A8*\$B\$2*\$B\$2	
8	15	148.0825	
9	10	98.72164	
10	28	276.4206	
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

- HERE IN AREA COLUMN, RADIUS VARIES FOR EACH ROW BUT PI VALUE CELL IS FIXED NOW BY ENTERING \$B\$2

♦ VLOOKUP AND HLOOKUP

- VLOOKUP:

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDACxlsx - Excel". The formula bar at the top contains the formula `=VLOOKUP(C2,Location!A1:D157,2,FALSE)`. The tooltip below the formula bar displays the expanded formula `=VLOOKUP(lookup_value,table_array,col_index_num,[range_lookup])`. The table "factTable" is selected. The data in the table includes columns for ProductId, Area Code, State, Market, MarketSize, Actual Sales, Actual Profit, and Actual. The table has 10 rows of data from 1 to 10.

	B	C	D	E	F	G	H	I
1	ProductId	Area Code	STATE	MARKET	MARKETSIZE	Actual Sales	Actual Profit	Actual
2	1	=VLOOKUP(C2,Location!A1:D157,2,FALSE)				219	94	89
3	2		VLOOKUP(lookup_value,table_array,col_index_num,[range_lookup])			190	68	83
4	3	970				234	101	95
5	13	303				100	30	44
6	5	303				134	54	54
7	6	720				180	53	72
8	8	970				341	99	22
9	9	719				150	0	63
10	10	970				140	33	60
11	11	719				130	17	58
12	12	303				140	36	64
13	2	217				345	111	22
14	3	309				234	87	95
15	5	309				546	203	25
16	6	630				456	140	15
17	8	312				219	95	89
18	9	630				190	68	83
19	10	773				234	101	95

=VLOOKUP(VALUE TO BE SEARCHED , TABLENAME!ALL ROWS AND COLUMNS , COLUMN TO BE RETURNED, FALSE)

- FALSE - FOR EXACT MATCHING
- TRUE - FOR APPROXIMATE MATCHING

- HLOOKUP:

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDACxlsx - Excel". The formula bar at the top contains the formula `=HLOOKUP(B2,Product!A1:N4,2,FALSE)`. The tooltip below the formula bar displays the expanded formula `=HLOOKUP(lookup_value,table_array, row_index_num,[range_lookup])`. The table "factTable" is selected. The data in the table includes columns for ProductId, Product Name, Product Type, Main Type, Area Code, State, Market, and Market Size. The table has 17 rows of data from 1 to 17.

	B	C	D	E	F	G	H	I
1	ProductId	Product Name	Product Type	Main Type	Area Code	STATE	MARKET	MARKET SIZE
2	1	=HLOOKUP(B2,Product!A1:N4,2,FALSE)			719	Colorado	Central	Major Market
3	2		HLOOKUP(lookup_value,table_array, row_index_num,[range_lookup])		970	Colorado	Central	Major Market
4	3				970	Colorado	Central	Major Market
5	13				303	Colorado	Central	Major Market
6	5				303	Colorado	Central	Major Market
7	6				720	Colorado	Central	Major Market
8	8				970	Colorado	Central	Major Market
9	9				719	Colorado	Central	Major Market
10	10				970	Colorado	Central	Major Market
11	11				719	Colorado	Central	Major Market
12	12				303	Colorado	Central	Major Market
13	2				217	Illinois	Central	Major Market
14	3				309	Illinois	Central	Major Market
15	5				309	Illinois	Central	Major Market
16	6				630	Illinois	Central	Major Market
17	8				312	Illinois	Central	Major Market

- AFTER VLOOKUP AND HLOOKUP:

	A	B	C	D	E	F	G	H	I	J
1	Tran Date	ProductId	Product Name	Product Type	Main Type	Area Code	STATE	MARKET	MARKET SIZE	Actual Sales
2	1/1/2021	1	Amaretto	Coffee	Regular	719	Colorado	Central	Major Market	219
3	1/1/2021	2	Columbian	Coffee	Regular	970	Colorado	Central	Major Market	190
4	1/1/2021	3	Decaf Irish Cream	Coffee	Decaf	970	Colorado	Central	Major Market	234
5	1/1/2021	13	Green Tea	Tea	Regular	303	Colorado	Central	Major Market	100
6	1/1/2021	5	Caffe Mocha	Espresso	Regular	303	Colorado	Central	Major Market	134
7	1/1/2021	6	Decaf Espresso	Espresso	Decaf	720	Colorado	Central	Major Market	180
8	1/1/2021	8	Chamomile	Herbal Tea	Decaf	970	Colorado	Central	Major Market	341
9	1/1/2021	9	Lemon	Herbal Tea	Decaf	719	Colorado	Central	Major Market	150
10	1/1/2021	10	Mint	Herbal Tea	Decaf	970	Colorado	Central	Major Market	140
11	1/1/2021	11	Darjeeling	Tea	Regular	719	Colorado	Central	Major Market	130
12	1/1/2021	12	Earl Grey	Tea	Regular	303	Colorado	Central	Major Market	140
13	1/1/2021	2	Columbian	Coffee	Regular	217	Illinois	Central	Major Market	345
14	1/1/2021	3	Decaf Irish Cream	Coffee	Decaf	309	Illinois	Central	Major Market	234
15	1/1/2021	5	Caffe Mocha	Espresso	Regular	309	Illinois	Central	Major Market	546
16	1/1/2021	6	Decaf Espresso	Espresso	Decaf	630	Illinois	Central	Major Market	456
17	1/1/2021	8	Chamomile	Herbal Tea	Decaf	312	Illinois	Central	Major Market	219
18	1/1/2021	9	Lemon	Herbal Tea	Decaf	630	Illinois	Central	Major Market	190
19	1/1/2021	10	Mint	Herbal Tea	Decaf	773	Illinois	Central	Major Market	234
20	1/1/2021	11	Darjeeling	Tea	Regular	217	Illinois	Central	Major Market	134
21	1/1/2021	12	Earl Grey	Tea	Regular	708	Illinois	Central	Major Market	180
22	1/1/2021	1	Amaretto	Coffee	Regular	319	Iowa	Central	Small Market	45
23	1/1/2021	2	Columbian	Coffee	Regular	641	Iowa	Central	Small Market	62

- WE ADDED COLUMNS PRODUCTNAME, PRODUCTTYPE, MAINTYPE FROM PRODUCT TABLE ON BASIS OF PRODUCTID USING HLOOKUP(HORIZONTAL)
- WE ADDED COLUMNS STATE, MARKET , MARKET SIZE FROM LOCATION TABLE ON BASIS OF PRODUCTID USING VLOOKUP(VERTICAL)
- MISCELLANEOUS:

CTRL+T

- TO AUTOMATICALLY CREATE A TABLE WITH PREAPPLIED FEATURES LIKE SUM , FILTERS, SORTING, CELL COLORS, ETC BY THE EXCEL

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDAC.xlsx - Excel". The ribbon at the top has tabs for File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, and Table Design. The "Table Design" tab is currently selected. The main area displays a table with the following data:

	A	B	C	D	E	F	G	H	I	J
1	Tran Date	ProductId	Product Name	Product Type	Main Type	Area Code	STATE	MARKET	MARKET SIZE	Actual Sale
5	1/1/2021	13	Green Tea	Tea	Regular	303	Colorado	Central	Major Market	100
6	1/1/2021	5	Caffe Mocha	Espresso	Regular	303	Colorado	Central	Major Market	134
7	1/1/2021	6	Decaf Espresso	Espresso	Decaf	720	Colorado	Central	Major Market	180
8	1/1/2021	8	Chamomile	Herbal Tea	Decaf	970	Colorado	Central	Major Market	341
9	1/1/2021	9	Lemon	Herbal Tea	Decaf	719	Colorado	Central	Major Market	150
10	1/1/2021	10	Mint	Herbal Tea	Decaf	970	Colorado	Central	Major Market	140
11	1/1/2021	11	Darjeeling	Tea	Regular	719	Colorado	Central	Major Market	130
12	1/1/2021	12	Earl Grey	Tea	Regular	303	Colorado	Central	Major Market	140
13	1/1/2021	2	Columbian	Coffee	Regular	217	Illinois	Central	Major Market	345
14	1/1/2021	3	Decaf Irish Cream	Coffee	Decaf	309	Illinois	Central	Major Market	234
15	1/1/2021	5	Caffe Mocha	Espresso	Regular	309	Illinois	Central	Major Market	546
16	1/1/2021	6	Decaf Espresso	Espresso	Decaf	630	Illinois	Central	Major Market	456
17	1/1/2021	8	Chamomile	Herbal Tea	Decaf	312	Illinois	Central	Major Market	219
18	1/1/2021	9	Lemon	Herbal Tea	Decaf	630	Illinois	Central	Major Market	190
19	1/1/2021	10	Mint	Herbal Tea	Decaf	773	Illinois	Central	Major Market	234
20	1/1/2021	11	Darjeeling	Tea	Regular	217	Illinois	Central	Major Market	134
21	1/1/2021	12	Earl Grey	Tea	Regular	708	Illinois	Central	Major Market	180
22	1/1/2021	1	Amaretto	Coffee	Regular	319	Iowa	Central	Small Market	45
23	1/1/2021	2	Columbian	Coffee	Regular	641	Iowa	Central	Small Market	62
24	1/1/2021	3	Decaf Irish Cream	Coffee	Decaf	712	Iowa	Central	Small Market	54
25	1/1/2021	5	Caffe Mocha	Espresso	Regular	563	Iowa	Central	Small Market	43
26	1/1/2021	6	Decaf Espresso	Espresso	Decaf	563	Iowa	Central	Small Market	43

The ribbon also shows "Accessibility: Investigate". The status bar at the bottom right shows "10:12 AM 3/18/2024 25°C ENG".

◆ PIVOT TABLE

SELECT A CELL-> GO TO INSERT-> SELECT PIVOT TABLE-> FROM TABLE/RANGE->ENTER

Excel Exercise CDAC.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View Help PivotTable Analyze Design

PivotTable Recommended Charts Pictures Icons SmartArt Screenshot Recommended Charts Maps PivotChart 3D Map Tours Sparklines Filters Links Text Box Header & Footer Equations Symbols

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A3 Row Labels

	A	B	C	D
3	Row Labels	Sum of Actual Sales		
4	Central	265045		
5	East	178576		
6	South	103926		
7	West	272264		
8	Grand Total	819811		
9				
10				
11				
12				
13				
14				
15				

PivotTable Fields

Choose fields to add to report:

Search

Marketing
Inventory
Margin
Budget Profit
Budget COGS
Budget Margin
Budget Sales

Drag fields between areas below:

Filters Columns

Rows Values

MARKET Sum of Actual Sales

Defer Layout Update Update

Sheet9 factTable Sheet8 Sheet6 Sheet7 Sheet4 Sheet5 Sheet3 Sheet1 Sheet2 Location P ... + : ← →

Ready Accessibility: Investigate

Type here to search

25°C ENG 10:20 AM 3/18/2024

- THIS IS ALSO CALLED DIMENSION ANALYSIS
AS WE PERFORMED OPERATIONS ON MARKET ONLY WITH SUM OF ACTUAL SALES, ITS ONE DIMENSIONAL ANALYSIS

- 2D ANALYSIS : MARKET AND PRODUCT TYPE WITH SUM OF ACTUAL PROFIT

The screenshot shows a Microsoft Excel window with the ribbon menu open. The active tab is "PivotTable Analyze". A message bar at the top right says "Rohan Chavan CR7". The main area displays a PivotTable with the following data:

Row Labels		Sum of Actual Profit
Central		93852
Coffee		23264
Espresso		23501
Herbal Tea		24757
Tea		22330
East		59217
Coffee		30992
Espresso		6244
Herbal Tea		6423
Tea		15558
South		32478
Coffee		11702
Espresso		15005
Herbal Tea		5771
West		73996
Coffee		8725
Espresso		23870
Herbal Tea		26303
Tea		15098
Grand Total		259543

The PivotTable Fields pane on the right shows the fields used: Product Name, Product Type, Main Type, Area Code, STATE, MARKET, and MARKET SIZE. The "Values" section shows "Sum of Actual Profit" under the "Market" and "Product Type" rows.

PIVOT TABLE

Q1 PRODUCT NAME AND MARKET SIZE WITH INVENTORY

The screenshot shows a Microsoft Excel window with the ribbon menu open. The active tab is "PivotTable Analyze". A message bar at the top right says "Rohan Chavan CR7". The main area displays a PivotTable with the following data:

Row Labels		Sum of Inventory
Amaretto		142276
Major Market		70686
Small Market		71590
Caffe Latte		55294
Major Market		31056
Small Market		24238
Caffe Mocha		362996
Major Market		198796
Small Market		164200
Chamomile		273656
Major Market		106430
Small Market		167226
Columbian		339624
Major Market		173764
Small Market		165860
Darjeeling		283328
Major Market		123376
Small Market		159952
Decaf Espresso		308124
Major Market		125484
Small Market		182640
Decaf Irish Cream		322054
Major Market		139602
Small Market		182452
Earl Grey		218066
Major Market		87214
Small Market		130852
Green Tea		259308
Major Market		73010

The PivotTable Fields pane on the right shows the fields used: Actual Sales, Actual Profit, Actual COGS, Total Expenses, Marketing, Inventory, and Margin. The "Values" section shows "Sum of Inventory" under the "Product Name" and "Market Size" rows.

Q2 STATE ON ROW AND MAIN TYPE ON COLUMN WITH MARKETING

Excel Exercise CDAC.xlsx - Excel

PivotTable Analyze

Row Labels: Decaf

	A	B	C	D	E	F	G	H	I	J	K
4	Row Labels	Decaf	Regular	Grand Total							
5	California		6410	9652	16062						
6	Colorado		2859	2349	5208						
7	Colorado		877	725	1602						
8	Connecticut		1566	2614	4180						
9	Florida		2834	3450	6284						
10	Illinois		4504	4458	8962						
11	Iowa		3100	4494	7594						
12	Louisiana		1854	1936	3790						
13	Massachusetts		472	2956	3428						
14	Missouri		2472	1856	4328						
15	Nevada		5568	6488	12056						
16	New Hampshire		310	2196	2506						
17	New Mexico		1348	1694	3042						
18	New York		4154	8890	13044						
19	Ohio		1872	3294	5166						
20	Oklahoma		3616	1368	4984						
21	Oregon		2010	4016	6026						
22	Texas		1772	2974	4746						
23	Utah		2474	3196	5670						
24	Washington		3906	3338	7244						
25	Wisconsin		1650	4902	6552						
26	Grand Total		55628	76846	132474						
27											
28											

PivotTable Fields

Choose fields to add to report:

Marketing

Drag fields between areas below:

Filters Columns

Rows Values

Defer Layout Update

Update

Q1) HOW TO DISPLAY COUNT OF VALUES

Excel Exercise CDAC.xlsx - Excel

PivotTable Analyze

Row Labels: Count of Product Name

	A	B	C	D	E	F
3	Row Labels	Count of Product Name				
4	Amaretto		192			
5	Caffe Latte		216			
6	Caffe Mocha		480			
7	Chamomile		384			
8	Columbian		480			
9	Darjeeling		384			
10	Decaf Espresso		408			
11	Decaf Irish Cream		384			
12	Earl Grey		288			
13	Green Tea		288			
14	Lemon		480			
15	Mint		192			
16	Regular Espresso		72			
17	Grand Total		4248			
18						
19						

PivotTable Fields

Choose fields to add to report:

Product Name

Drag fields between areas below:

Filters Columns

Rows Values

Defer Layout Update

Update

Q2) HOW TO CONVERT NORMAL VALUES TO AVERAGE

Q3) DISPLAY NO OF RECORDS FOR FOLLOWING: PRODUCT NAME IN ROW AND MARKET IN COLUMN

The screenshot shows a Microsoft Excel interface with a PivotTable selected. The PivotTable Fields pane is open on the right, displaying fields for Product ID, Product Name, and Market. The PivotTable itself shows sales data categorized by Product ID, Region, and Market.

	Column Labels	East	South	West	Grand Total	
Row Labels	Central	96	24	72	192	
1	Amaretto					
2	Caffe Latte			96	120	216
3	Caffe Mocha	144	120	96	120	480
4	Chamomile	144	24	96	120	384
5	Columbian	144	120	96	120	480
6	Darjeeling	144	120		120	384
7	Decaf Espresso	144	48	96	120	408
8	Decaf Irish Cream	144	24	96	120	384
9	Earl Grey	144	24		120	288
10	Green Tea		48	120		288
11	Lemon	144	120	96	120	480
12	Mint	48	72		72	192
13	Regular Espresso			72		72
14	Grand Total	1344	888	672	1344	4248

Q4 FIND AVERAGE PROFIT FOR THE STATE

Excel Exercise CDAC.xlsx - Excel

PivotTable Analyze

PivotTable Name: Active Field: Average of Actual Profit

PivotTable11 Options PivotTable Active Field Group Selection Drill Down Drill Up Group Ungroup Group Field Insert Slicer Insert Timeline Filter Connections Refresh Change Data Source Clear Select Move PivotTable Fields, Items, & Sets Tools PivotChart Recommended PivotTables Tools Field List +/- Buttons Field Headers Show

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B4 : fx 142.689814814815

	A	B	C	D	E	F	G	H	I	J	K
3	Row Labels	Average of Actual Profit									
4	Illinois	\$142.69									
5	Massachusetts	\$114.18									
6	California	\$110.36									
7	New York	\$104.67									
8	Iowa	\$102.83									
9	Texas	\$93.85									
10	Colorado	\$74.39									
11	Colorado	\$65.05									
12	Florida	\$56.99									
13	Oklahoma	\$50.94									
14	Ohio	\$49.88									
15	Washington	\$47.52									
16	Oregon	\$47.12									
17	Connecticut	\$45.36									
18	Louisiana	\$43.78									
19	Wisconsin	\$40.29									
20	Nevada	\$40.21									
21	Utah	\$26.91									
22	Missouri	\$16.67									
23	New Hampshire	\$16.36									
24	New Mexico	\$4.76									
25	Grand Total	\$61.10									
26											
27											
28											

PivotTable Fields

Choose fields to add to report:

Search

MARKET
 MARKET SIZE
 Actual Sales
 Actual Profit
 Actual COGS

Drag fields between areas below:

Filters Columns

Rows Values

STATE Average of Actual Profit

Defer Layout Update

Sheet16 Sheet17 Sheet18 Sheet19 factTable Sheet12 Sheet14 Sheet15 Sheet11 Sheet9 Sheet8 ... + : ← →

Accessibility: Investigate

Type here to search

25° 11:24 AM 3/18/2024 ENG

Q5 FIND AVG INVENTORY FOR PRODUCT TYPE AND MARKET SIZE

Excel Exercise CDAC.xlsx - Excel

PivotTable Fields

Source Name: Inventory
Custom Name: Average of Inventory

Summarize Values By: Show Values As

Summarize value field by:

Choose the type of calculation that you want to use to summarize data from the selected field

Sum Count Average Max Min Product

Number Format

OK Cancel

Format Cells

Category: Number

Sample: Row Labels

Decimal places: 2

Symbol: \$

Negative numbers: -\$1,234.10 \$1,234.10 (\$1,234.10) (\$1,234.10)

Currency formats are used for general monetary values. Use Accounting formats to align decimal points in a column.

OK Cancel

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I J K

PivotTable Fields

Choose fields to add to report:

Actual COGS Total Expenses Marketing **Inventory** Margin Budget Profit

Drag fields between areas below:

Filters Columns

Rows Product Type MARKET SIZE

Values Average of Inventory

Defer Layout Update Update

Row Labels		Average of Inventory
Coffee	\$761.32	
Major Market	\$941.30	
Small Market	\$648.00	
Espresso	\$671.55	
Major Market	\$958.33	
Small Market	\$505.04	
Herbal Tea	\$785.01	
Major Market	\$843.32	
Small Market	\$740.69	
Tea	\$792.40	
Major Market	\$695.10	
Small Market	\$864.32	
Grand Total	\$749.38	

Q6 FIND AVERAGE EXPENSES FOR MARKET AND MAIN TYPE

Excel Exercise CDAC.xlsx - Excel

PivotTable Fields

Choose fields to add to report:

Actual COGS **Total Expenses** Marketing Inventory Margin Budget Profit

Drag fields between areas below:

Filters Columns

Rows MARKET Main Type

Values Average of Total Expenses

Defer Layout Update Update

File Home Insert Page Layout Formulas Data Review Help PivotTable Analyze Design

Cut Copy Paste Format Painter Clipboard Font Alignment Styles Cells Editing Add-ins

Verdana 10 A A Wrap Text Merge & Center Currency Conditional Formatting Format as Table Cell Styles Insert Delete Format AutoSum Fill Sort & Filter Find & Select Clear

B7 56.4335585585586

Row Labels Average of Total Expenses

Row Labels		Average of Total Expenses
West	\$59.16	
Decaf	\$59.92	
Regular	\$58.64	
East	\$56.43	
Decaf	\$58.67	
Regular	\$55.36	
Central	\$51.36	
Decaf	\$47.81	
Regular	\$54.44	
South	\$46.13	
Decaf	\$43.44	
Regular	\$49.73	
Grand Total	\$54.06	

Sheet16 Sheet17 Sheet18 Sheet19 factTable Sheet12 Sheet14 Sheet15 Sheet11 Sheet9 Sheet8 ... +

Ready Accessibility: Investigate Type here to search 25°C 1125 AM 3/18/2024

Q7 PERCENTAGE OF ACTUAL PROFIT PER MARKET

Q7 HORIZONTAL ROW TOTAL

Value Field Settings

Source Name: Actual Profit

Custom Name: Sum of Actual Profit

Show values as

- % of Grand Total
- No Calculation
- % of Row Total**
- % of Column Total
- % of Row Total
- % Of
- % of Parent Row Total

PivotTable Fields

Choose fields to add to report:

Search

MARKET
Actual Profit

PivotTable Fields

Choose fields to add to report:

Search

MARKET
Actual Profit

Drag fields between areas below:

Filters Columns

Rows Values

Defer Layout Update

Q8 HORIZONTAL ROW TOTAL

Value Field Settings

Source Name: Actual Sales

Custom Name: Sum of Actual Sales

Show values as

- % of Row Total
- No Calculation
- % of Row Total**
- % of Column Total
- % of Row Total
- % Of
- % of Parent Row Total

PivotTable Fields

Choose fields to add to report:

Search

MARKET
Actual Sales

PivotTable Fields

Choose fields to add to report:

Search

MARKET
Actual Sales

Drag fields between areas below:

Filters Columns

Rows Values

Defer Layout Update

Q9 VERTICAL COLUMN TOTAL

Excel Exercise CDAC.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View Help PivotTable Analyze Design

PivotTable Name: Active Field: PivotTable12 Group Selection
PivotTable Options
PivotTable Active Field Group Filter
Sum of Actual Sale Drill Down Drill Up
Ungroup Group Field Refresh Change Data Source
Insert Slicer Insert Timeline Filter Connections
Clear Select Move PivotTable
Fields, Items, & Sets Tools
PivotChart Recommended PivotTables
Field List Field Headers
+/- Buttons Show

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A3 Sum of Actual Sales

	A	B	C	D	E	F	G
1							
2							
3	Sum of Actual Sales	Column Labels					
4	Row Labels	Central	East	South	West	Grand Total	
5	Coffee	26.06%	31.72%	32.00%	21.25%	26.45%	
6	Espresso	22.52%	27.10%	43.29%	25.68%	27.20%	
7	Herbal Tea	25.61%	23.16%	24.71%	26.55%	25.28%	
8	Tea	25.80%	18.02%	0.00%	26.53%	21.07%	
9	Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	
10							
11							
12							
13							
14							
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28							
29							
30							

Value Field Settings

Source Name: Actual Sales
Custom Name: Sum of Actual Sales
Summarize Values By Show Values As
Show values as
% of Column Total
No Calculation
% of Grand Total
% of Column Total
% of Row Total
% of
% of Parent Row Total
Area Code

Number Format OK Cancel

PivotTable Fields

Choose fields to add to report:

Search

MARKET
 MARKET SIZE
 Actual Sales
 Actual Profit
 Actual COGS

Drag fields between areas below:

Filters Columns
MARKET

Rows Values
Product Type Sum of Actual Sales

Defer Layout Update Update

Sheet16 Sheet17 Sheet18 Sheet19 Sheet20 factTable Sheet12 Sheet14 Sheet15 Sheet11 Sheet ... + : ← →

Ready Accessibility: Investigate

Type here to search

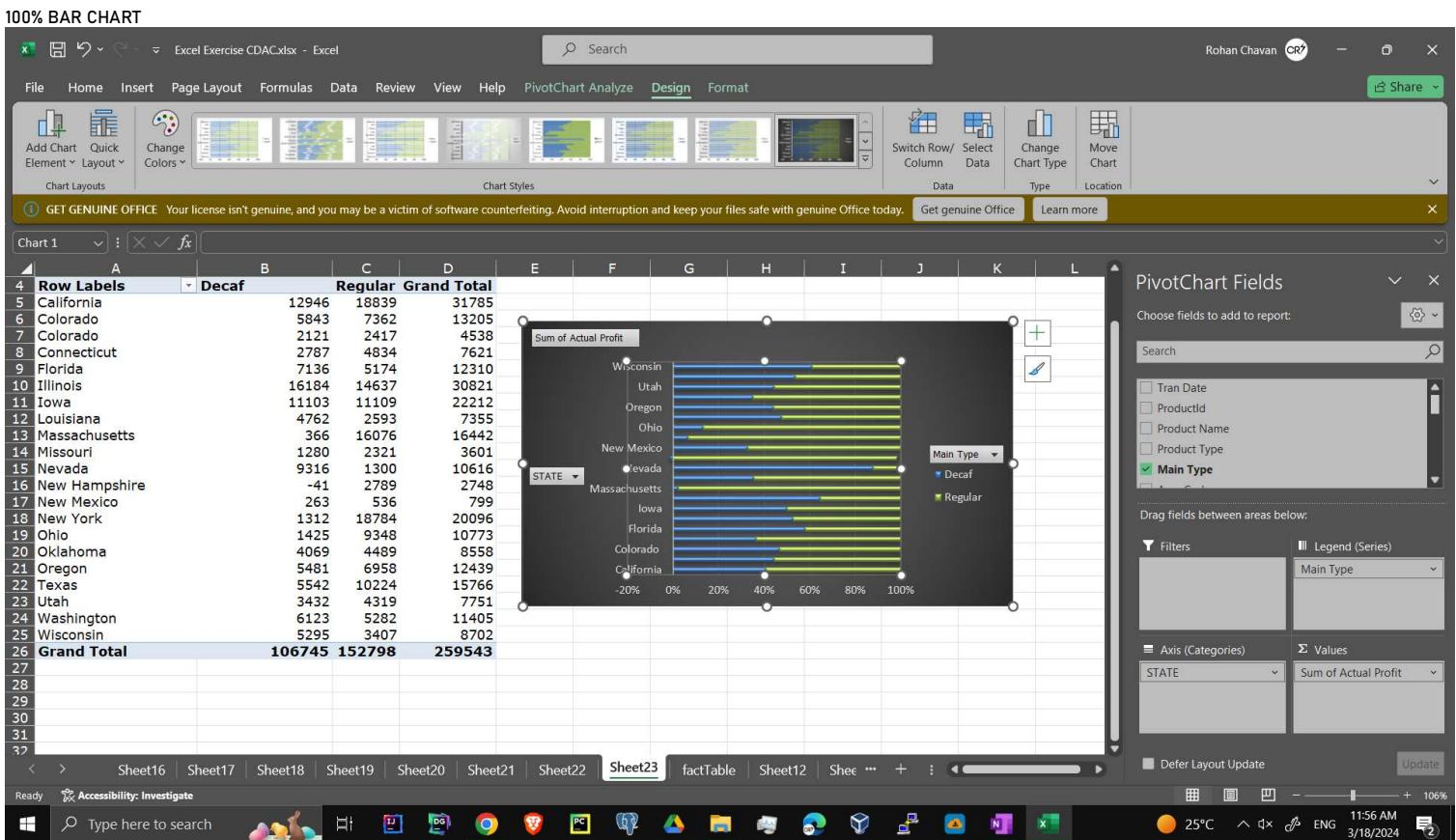
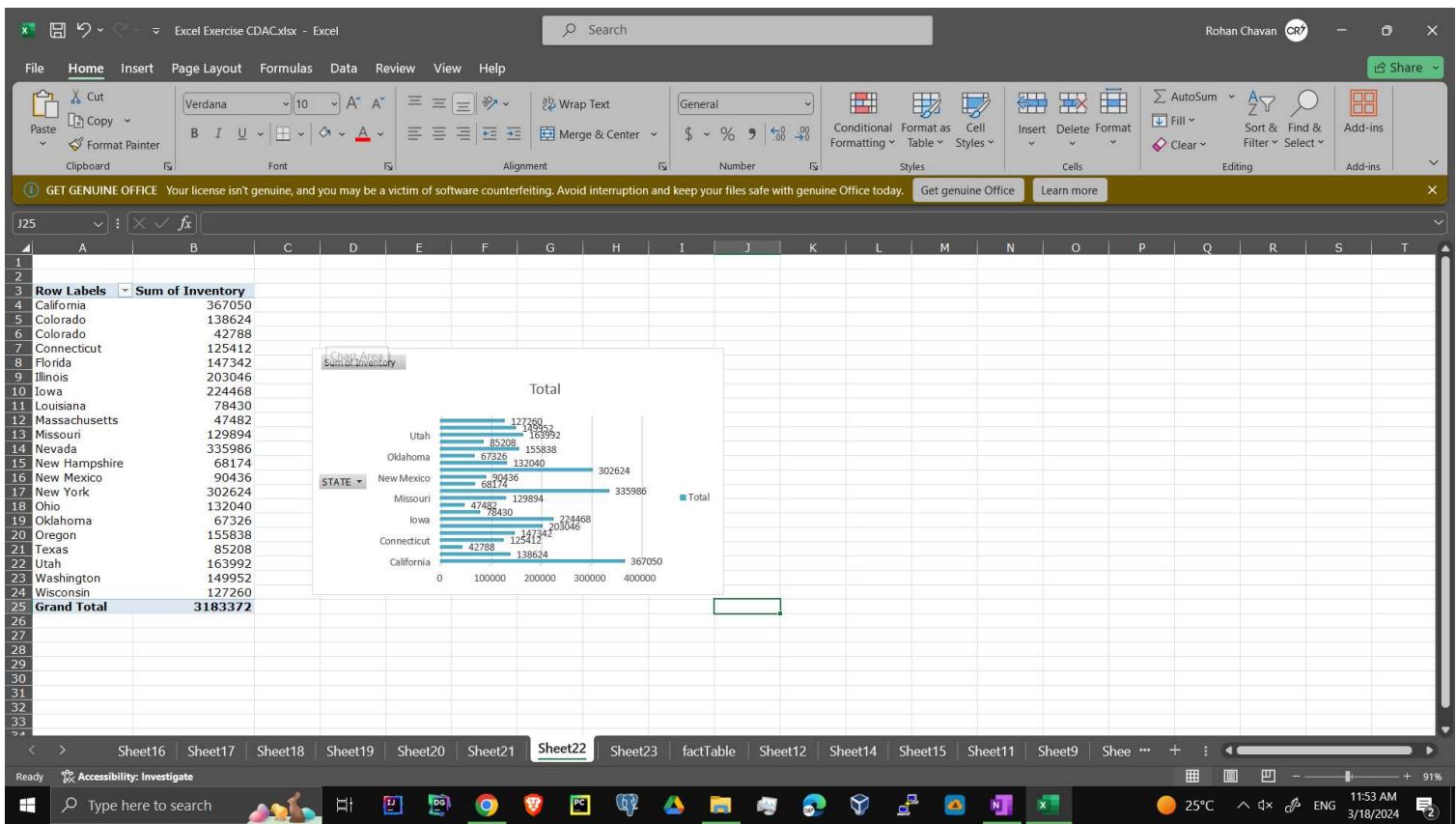
25°C 11:39 AM ENG 3/18/2024

- BAR CHART

- CREATE PIVOT TABLE -> SELECT INSERT -> SELECT PIVOTCHART -> SELECT BAR -> OK

- CHANGE COLOR, TEMPLATE, ETC USING OTHER OPTIONS IN DESIGN AND FORMAT

Q10 BUILD VERTICAL BAR CHART USING STATE AND INVENTORY FIELDS



AVG

The screenshot shows a Microsoft Excel spreadsheet with a 3D pie chart titled "MARKETING % BY PRODUCT TYPE" displayed on the worksheet. The chart is divided into four segments representing different product types: Coffee (25%), Espresso (29%), Herbal Tea (26%), and Tea (20%). The data for the chart is listed in rows 3 to 8 of the worksheet, with "Sum of Marketing" as the formula in row 3 and "Grand Total" in row 8. The PivotChart Fields pane on the right side of the screen lists "Marketing" as the selected field for reporting.

PIE CHART

Excel Exercise CDAC.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View Help PivotChart Analyze Design Format

Add Chart Element Quick Layout Change Colors

Chart Styles

Chart Layouts

Switch Row/Column Select Data

Change Chart Type Move Chart

Data Type Location

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Chart 1 A B C D E F G H I J K L M N O P Q

Row Labels Sum of Marketing

Coffee 25.19%

Espresso 28.85%

Herbal Tea 25.78%

Tea 20.18%

Grand Total 100.00%

Sum of Marketing

MARKETING % BY PRODUCT TYPE

Coffee 25%
Espresso 29%
Herbal Tea 26%
Tea 20%

PivotChart Fields

Choose fields to add to report

Search

Actual Sales
Actual Profit
Actual COGS
Total Expenses
 Marketing

Drag fields between areas below:

Filters

Legend (Series)

Axis (Categories)
Product Type

Values
Sum of Marketing

Defer Layout Update

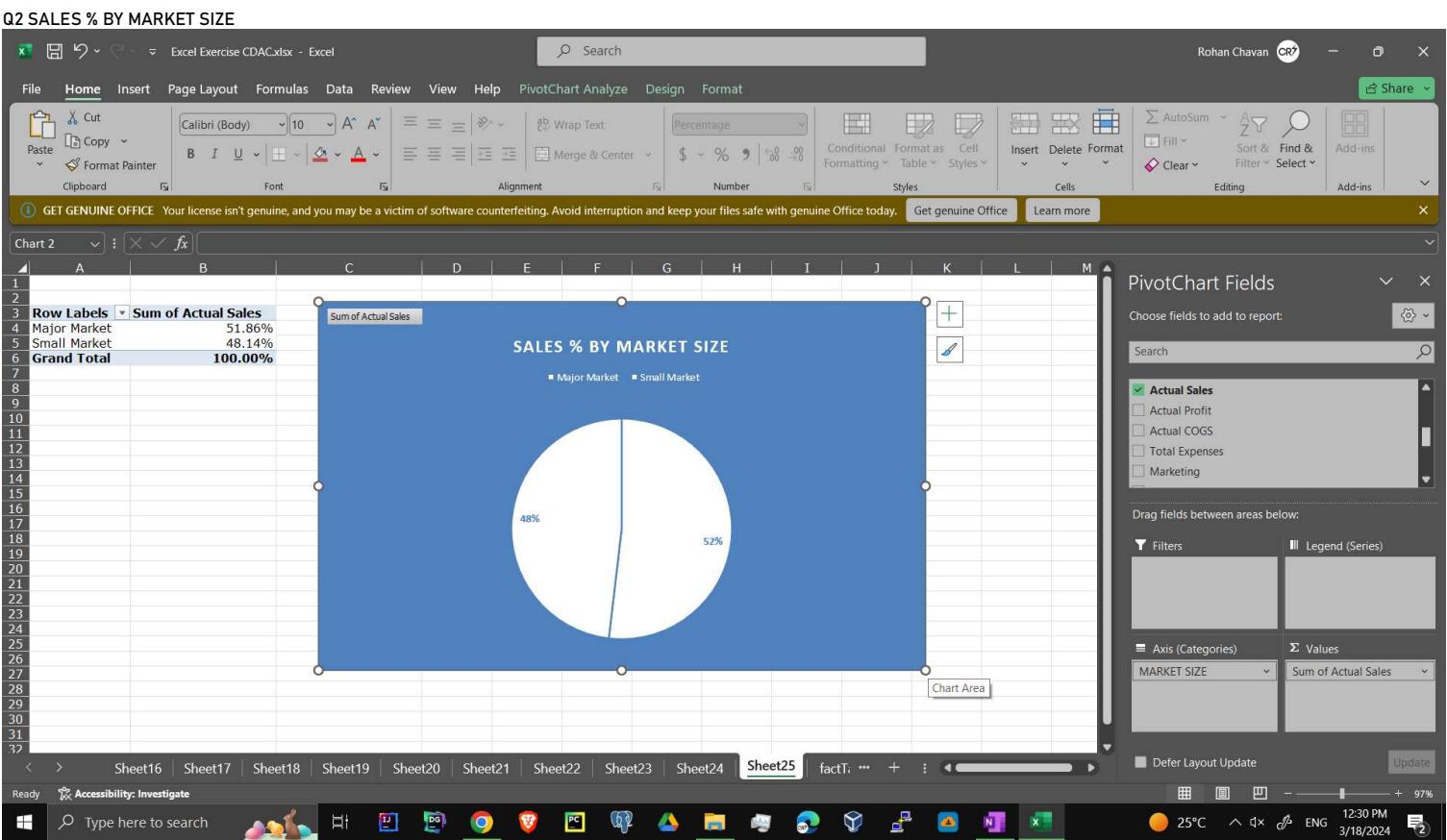
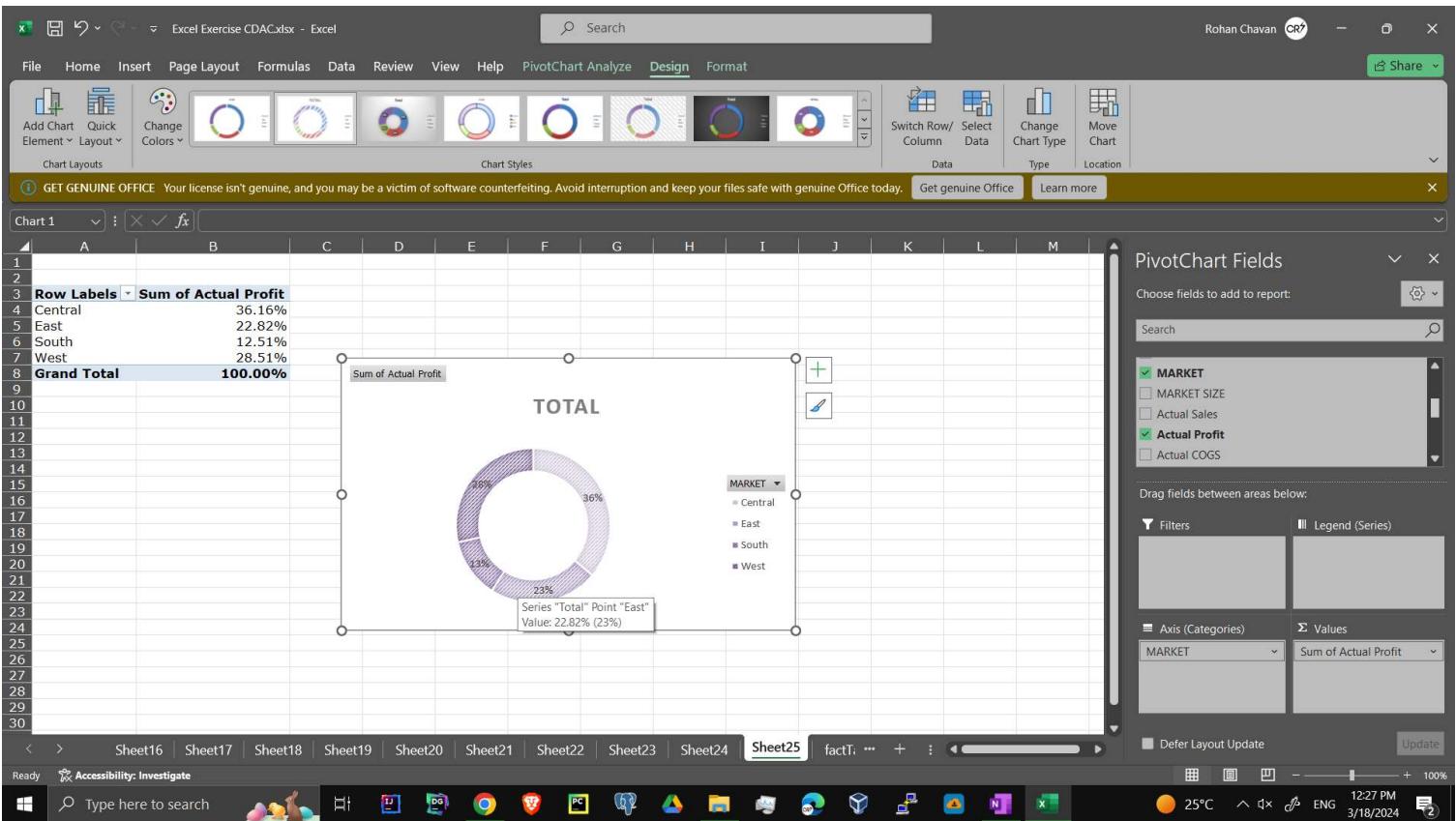
Sheet16 Sheet17 Sheet18 Sheet19 Sheet20 Sheet21 Sheet22 Sheet23 Sheet24 factTable Sheet ... +

Accessibility: Investigate

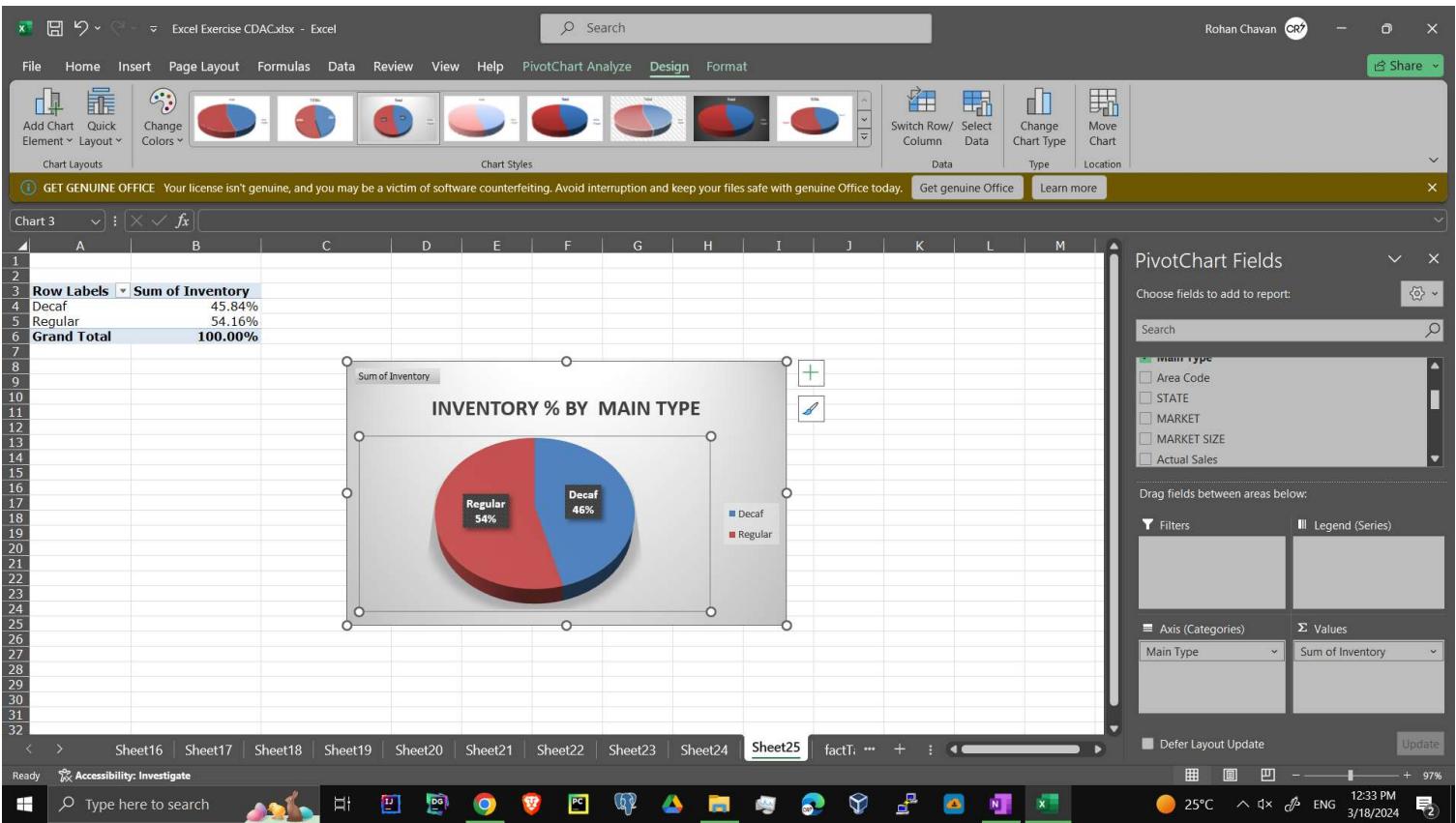
Type here to search

25°C 12:21 PM ENG 3/18/2024

Q1 PROFIT % BY MARKET



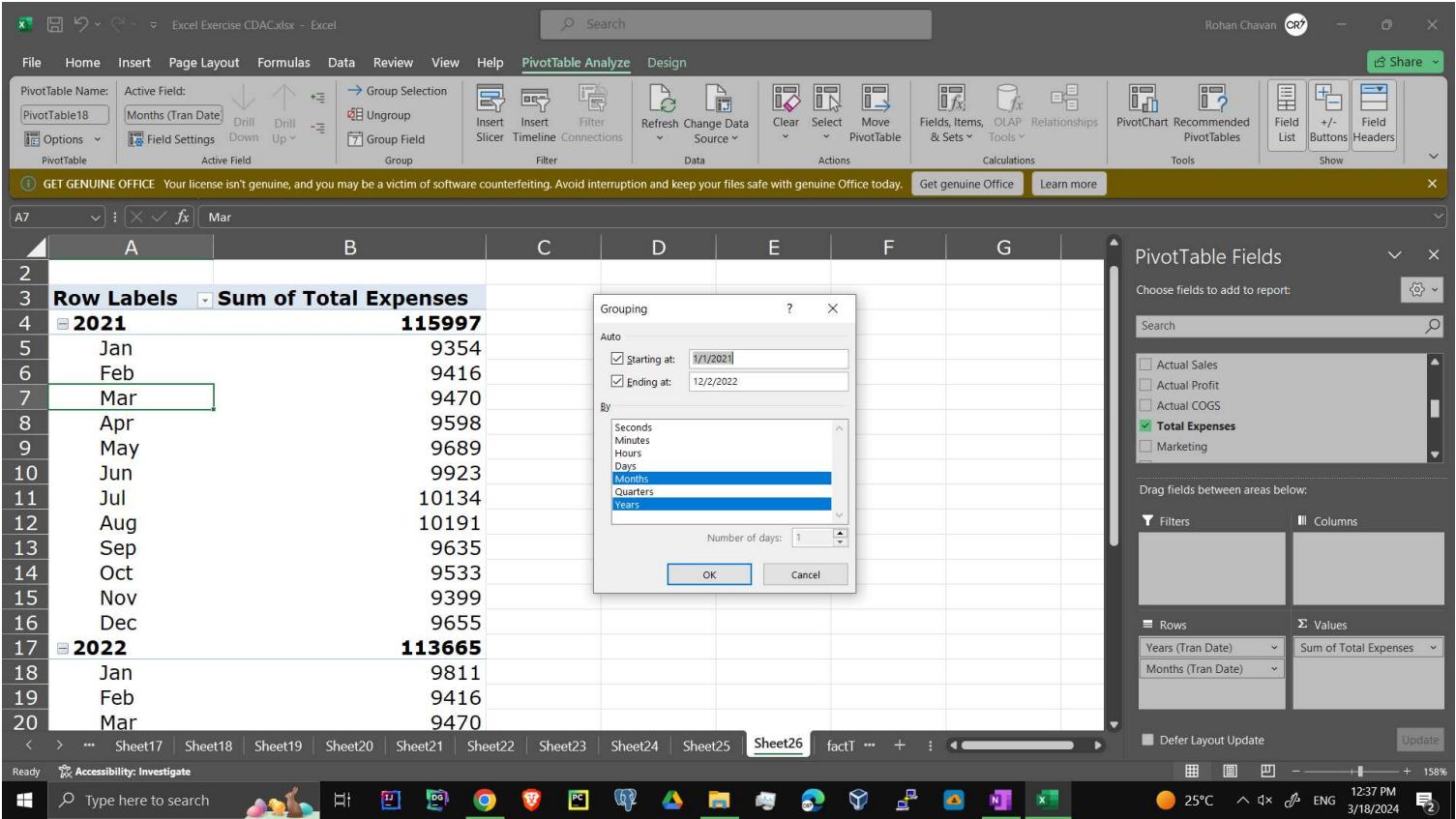
Q3 Inventory % by Main Type

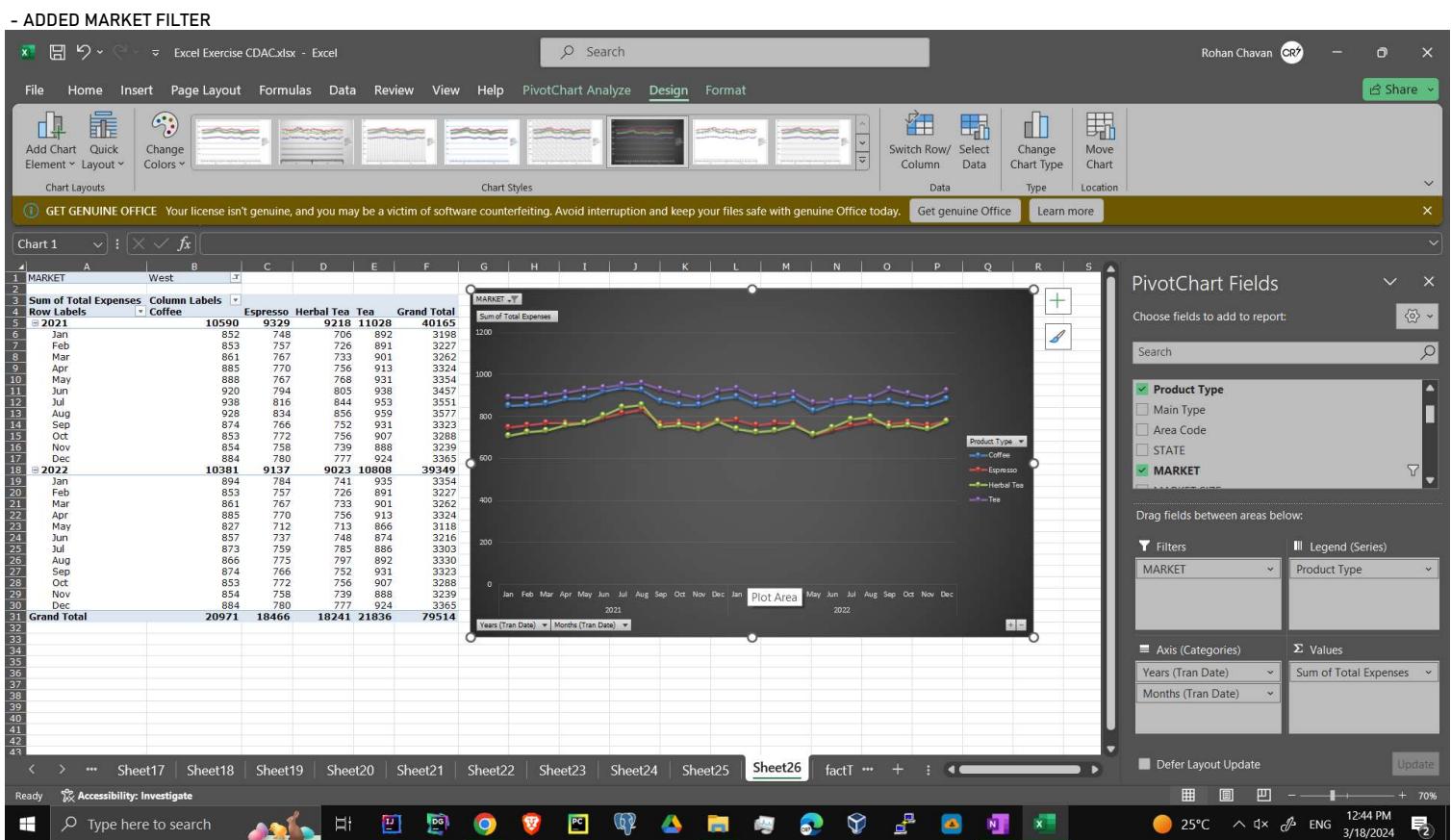
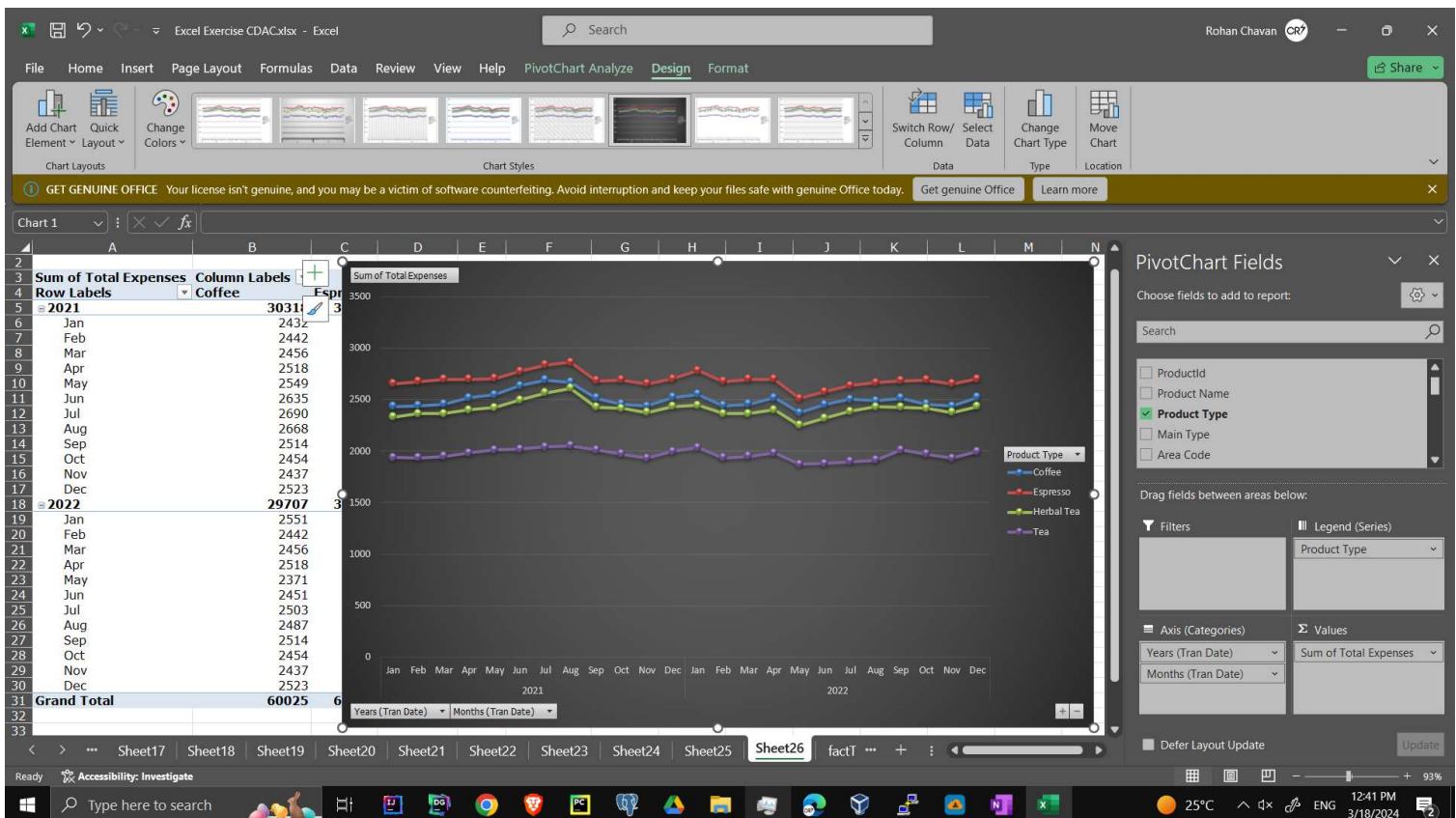


LINE CHART

TIME SERIES DATA : DATA CAPTURED AT A CERTAIN TIME INTERVAL e.g. DAY , WEEK , MONTH, etc.

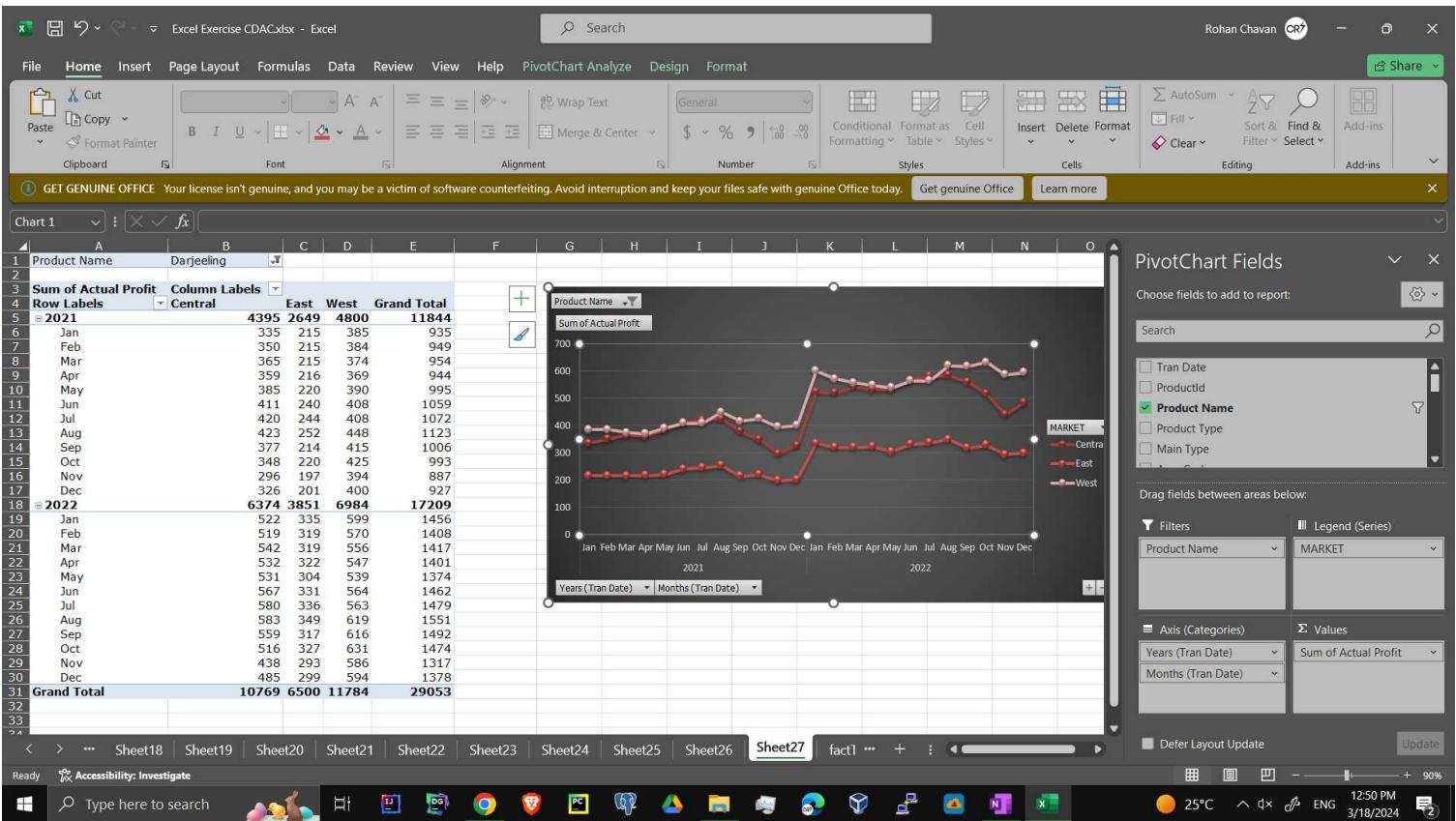
1. RIGHT CLICK -> GROUP -> SELECT MONTHS AND YEARS ONLY



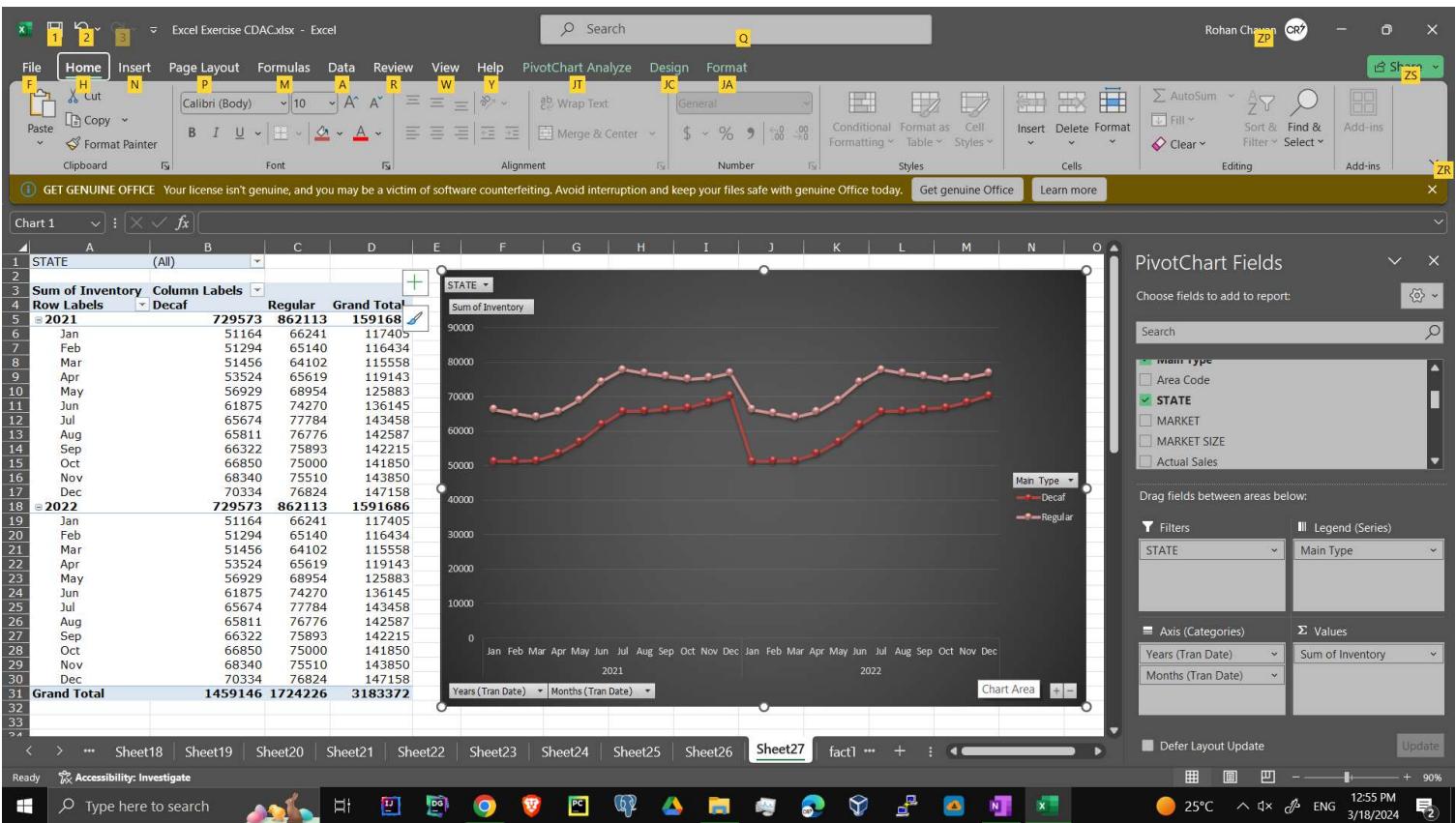


- THIS IS MONTHLY EXPENSE BY PRODUCT TYPE AS PER MARKET TYPE

Q1 BUILD MONTHLY LINE CHART FOR PROFIT. PUT MARKET ON LEGEND AND PRODUCT NAME IN FILTER AND DARJEELING IN PRODUCT NAME

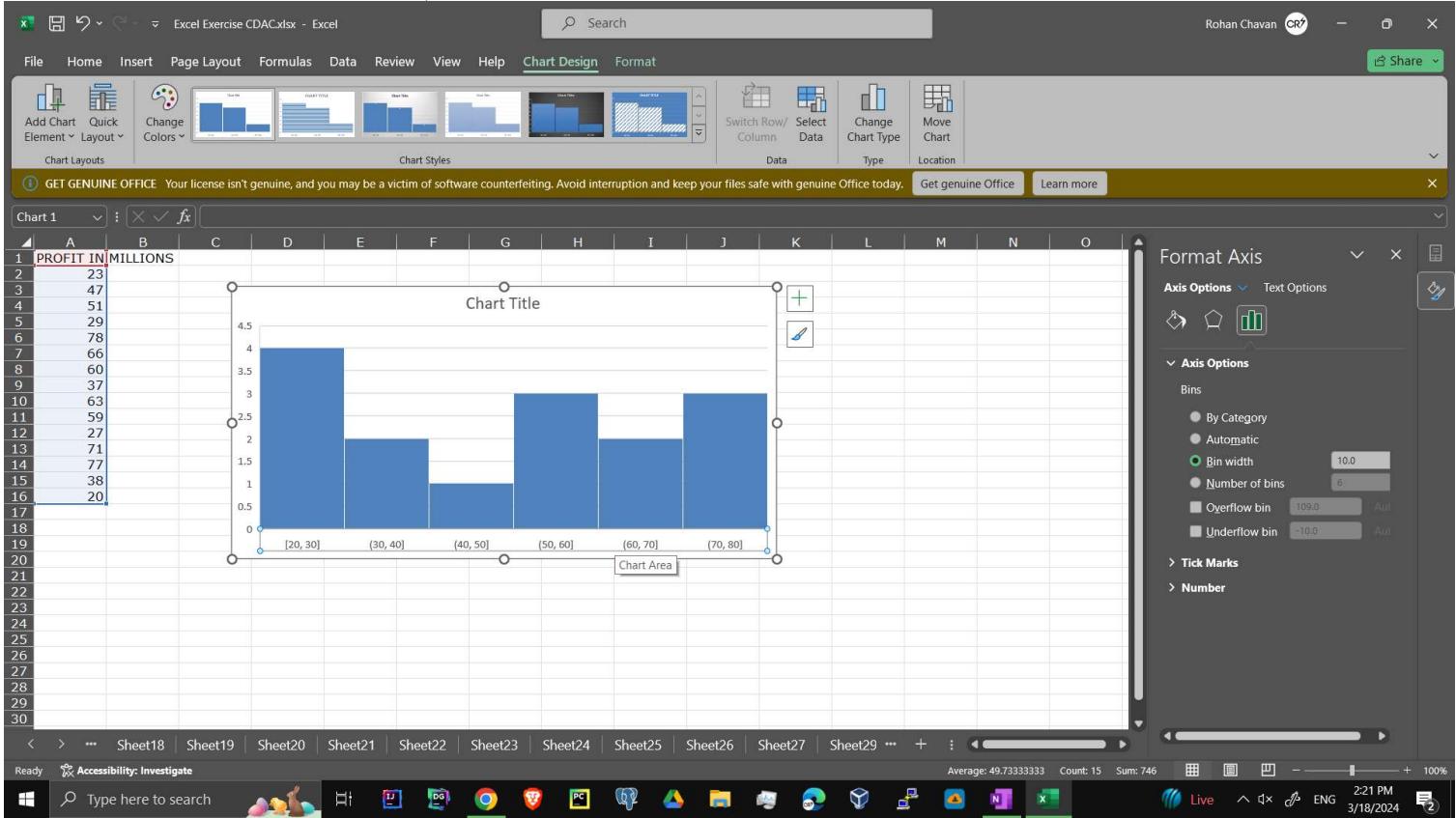


Q2 BUILD MONTHLY LINE CHART FOR INVENTORY. PUT MAIN TYPE ON LEGEND AND STATE IN FILTER

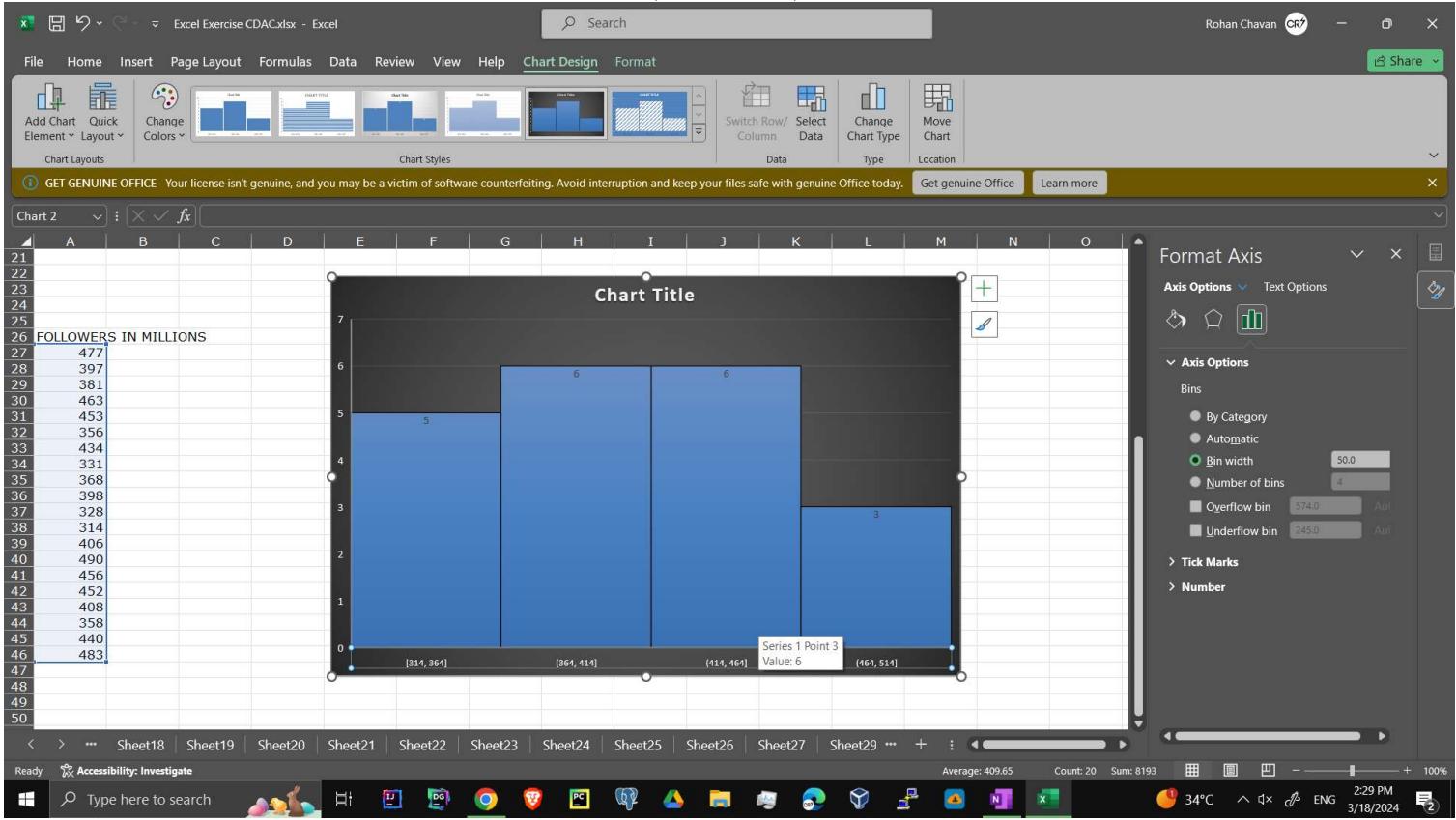


- HISTOGRAM

- HISTOGRAM DOES NOT TAKE ANY AGGREGATION, IT ONLY TAKES THE VALUES AS IT IS



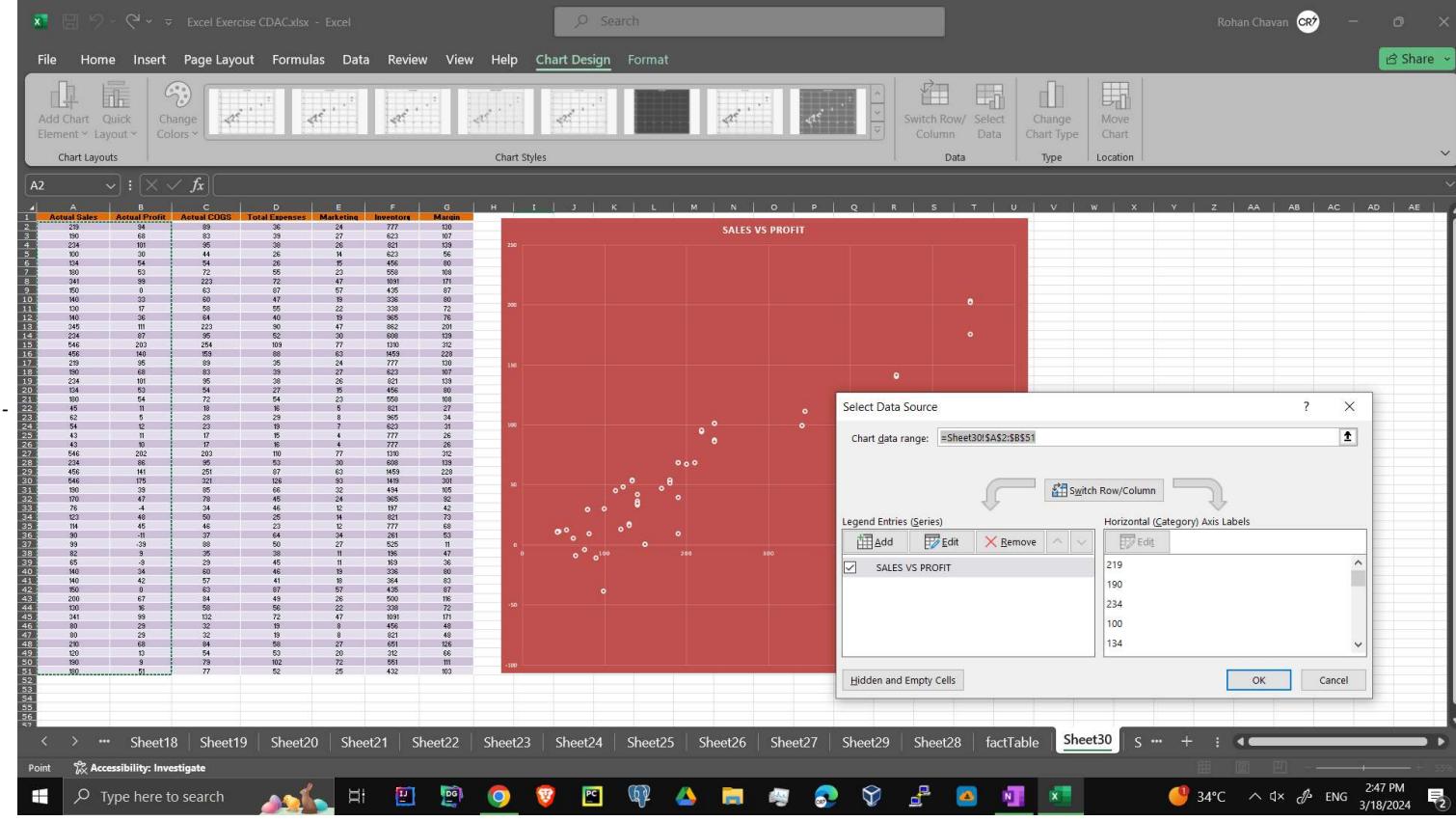
Q1 CREATE 20 RANDOM NUMBERS BETWEEN 300 TO 500 AND BUILD HISTOGRAM (SET BIN SIZE =50)



- SCATTER PLOT IS MADE USING TWO AXIS X AND Y AXIS.
- X IS CALLED INDEPENDENT , Y IS CALLED DEPENDENT.
- USING VALUE OF X, USER CAN PREDICT THE VALUE OF Y WITH HELP OF LINE EQUATION

$$Y = MX + C$$

- M IS SLOPE, C IS CONSTANT



- $R^2 = 0.8616$

- IT MEANS THAT THERE IS 86% IN Y AXIS BECAUSE OF CHANGE IN X AXIS
- REMAINING 14% IS CHANGED DUE TO UNKNOWN FACTOR

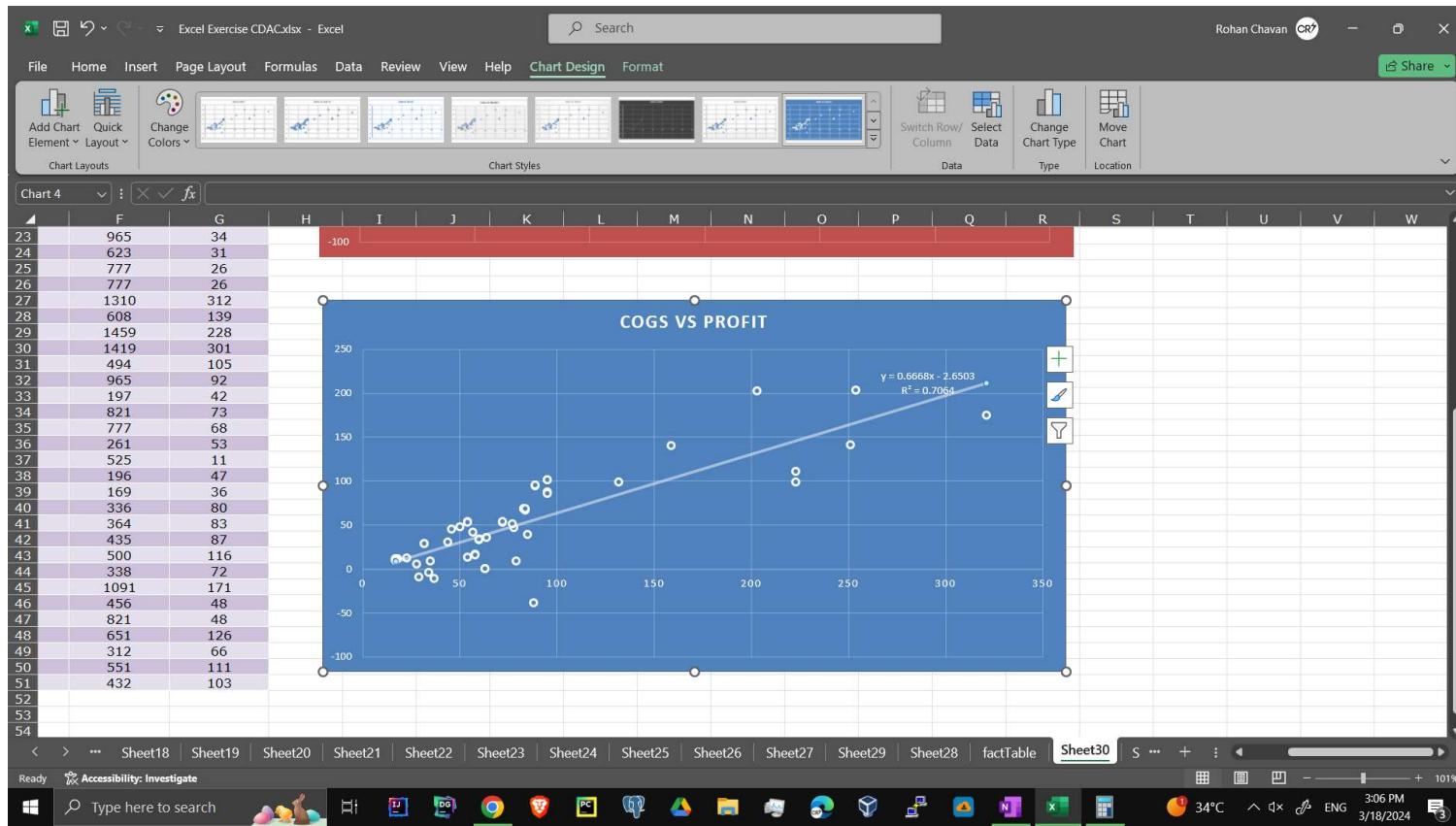
- $Y = 0.3796X - 17.455$

- HENCE , PROFIT = $0.3796 \times \text{SALES} - 17.455$

Q1 HOW MUCH WILL BE PROFIT IF SALES IS 600?

-> PROFIT = $0.3796 \times 600 - 17.455 = 210.3$

Q1 COGS VS PROFIT



Q2 INVENTORY VS PROFIT

Q3 MARKETING VS COGS

• CONSOLIDATION

- 1) DATA->CONSOLIDATE-> REFERENCE: SELECT BLACK ARROW AND SELECT ALL RECORDS OF SHEET 1
- 2) ADD BELOW REFREENCE-> REMOVE ALL FROM REFERENCE-> CLICK BLACK ARROW->GO TO SHEET 2 AND SELECT ALL DATA->ENTER
- 3) SELECT UNDER LABELS IN-> TOP ROW AND LEFT COLUMN -> CLICK OK

• FINANCIAL FUNCTIONS IN EXCEL

1. PMT - TO CALCULATE EMI
2. PV - TO CALCULATE CURRENT INVESTMENT VALUE
3. FV - TO CALCULATE MATURITY AMOUNT ON INVESTMENT

Excel Exercise CDAC.xlsx - Excel

	A	B	C	D	E	F	G	H
1								
2								
3	LOAN AMOUNT			500000				
4	INTEREST RATE			9%				
5	TENURE IN MONTHS			120				
6								
7								
8	EMI			₹-6,333.79	# =PMT(D4/12,D5,D3)			
9	TOTAL PAYMENT			₹-760,054.64	# =D8*D5			
10	TOTAL INTEREST			₹-260,054.64	# =D9+D3			
11								
12								
13								
14								

Ready Accessibility: Investigate

Sheet8 Sheet6 Sheet7 Sheet4 Sheet5 Sheet3 Sheet1 Sheet2 Location Product Quantity Data 1 Quantity Data 2 Sheet31 Sheet32 ...

223% 34°C 4:02 PM ENG 3/18/2024

Q1 CUSTOMER LOAN AMOUNT = 1000000, RATE = 11%, TENURE - 15 YEARS

Q2 CUSTOMER LOAN AMOUNT = 775000 , RATE = 9.75% , TENURE = 13.5 YEARS

Excel Exercise CDAC.xlsx - Excel

	B	C	D	E	F	G	H
1							
2							
3	LOAN AMOUNT		500000		1000000		775000
4	INTEREST RATE		9%		11%		9.75%
5	TENURE IN MONTHS		120	15YRS	180	13.5YRS	162
6							
7							
8	EMI		₹-6,333.79		₹-11,365.97		₹-8,620.76
9	TOTAL PAYMENT		₹-760,054.64		₹-2,045,874.48		₹-1,396,563.83
10	TOTAL INTEREST		₹-260,054.64		₹-1,045,874.48		₹-621,563.83
11							
12							
13							
14							

Ready Accessibility: Investigate

Sheet8 Sheet6 Sheet7 Sheet4 Sheet5 Sheet3 Sheet1 Sheet2 Location Product Quantity Data 1 Quantity Data 2 Sheet31 Sheet32 ...

223% 34°C 4:09 PM ENG 3/18/2024

- PV : PRESENT VALUE:
- THIS IS THE AMOUNT YOU NEED TO INVEST TODAY TO GET CERTAIN AMOUNT IN FUTURE

Q1 HOW MUCH A CUSTOMER NEED TO INVEST TODAY SO THAT HE WILL GET RETURN OF RS.8 LAKHS AFTER 7 YEARS AT INTEREST OF 7% PER ANUM?

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDACxlsx - Excel". The formula bar displays the formula `=PV(F22,F23,0,F21)`. The spreadsheet contains the following data:

	A	B	C	D	E	F	G	H	I	J
13										
14										
15										
16										
17										
18										
19										
20										
21			FUTURE AMOUNT NEEDED INTEREST RATE TENURE IN YEARS			800000				
22						7%				
23						7				
24										
25										
26			CURRENT INVESTMENT NEEDED			=PV(F22,F23,0,F21)		₹ -498,199.79		
27										
28										
29										
30										
31										

The status bar at the bottom shows "Edit Accessibility: Investigate". The taskbar includes icons for File Explorer, Edge, Google Chrome, File Manager, and others.

Q2 HOW MUCH A CUSTOMER NEED TO INVEST TODAY SO THAT HE WILL GET RETURN OF RS.13.5 LAKHS AFTER 11 YEARS AT INTEREST OF 8.25% PER ANUM?

Q3 HOW MUCH A CUSTOMER NEED TO INVEST TODAY SO THAT HE WILL GET RETURN OF RS. 15.75 LAKHS AFTER 15 YEARS AT INTEREST OF 6.75% PER ANUM?

- FUTURE VALUE:
 - THIS IS THE maturity amount CUSTOMER WILL RECEIVE ON HIS FIXED DEPOSIT IN BANK i.e. AMOUNT INVESTED = PV

Q1 IF A CUTOMER INVESTS 9.75 LAKHS IN A BANK FOR 12 YEARS AT RATE 5.75% HOW MUCH WILL HE GET MATURITY AMOUNT?

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDAC.xlsx - Excel". The formula bar displays the formula `=FV(E34,E33,0,E32*-1)`. The spreadsheet contains the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M
30													
31													
32	INVESTED AMT				975000								
33	TENURE IN YEARS				12								
34	INTEREST RATE				5.75%								
35													
36													
37	MATURITY AMOUNT				=FV(E34,E33,0,E32*-1)		₹ 1,907,080.95						
38					FV(rate, nper, pmt, [pv], [type])								
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53													
54													

The formula bar shows the formula `=FV(E34,E33,0,E32*-1)`. The status bar at the bottom right shows the date as 3/18/2024 and the time as 4:35 PM.

Q1 IF A CUTOMER INVESTS 6 LAKHS IN A BANK FOR 5.5 YEARS AT RATE 6.25% HOW MUCH WILL HE GET MATURITY AMOUNT?

The screenshot shows a Microsoft Excel spreadsheet titled "Excel Exercise CDAC.xlsx". The table consists of the following data:

	INVESTED AMT	TENURE IN YEARS	INTEREST RATE	MATURITY AMOUNT	INTEREST EARNED
	975000	12	5.75%	₹ 1,907,080.95	₹ 837,452.94
				₹ 932,080.95	₹ 237,452.94

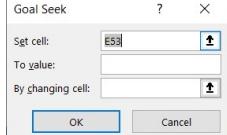
The cells containing "MATURITY AMOUNT" and "INTEREST EARNED" are highlighted in green.

- 'WHAT-IF' ANALYSIS : USED FOR DECISION MAKING

- TECHNIQUES-

1. GOAL SEEK

SELECT THE PROFIT CELL-> FROM DATA MENU-> SELECT WHAT IF ANALYSIS -> GOAL SEEK -> DATA TABLE



Excel Exercise CDAC.xlsx - Excel

Rohan Chavan CR7

File Home Insert Page Layout Formulas Data Review View Help

Get Data From Text/CSV From Web From Table/Range Refresh All Properties Workbook Links Sort & Filter Advanced Text to Columns Flash Fill Consolidate What-If Analysis Forecast Group Ungroup Subtotal

E53 A B C D E F G H

42

43

44

45 UNIT COST ₹4.56 ₹4.36 ₹4.56 ₹4.56

46 TOTAL PRODUCTION 1000 1000 1285.714286 1000

47 TOTAL COST ₹4,560.00 ₹4,360.00 ₹5,862.86 ₹4,560.00

48

49 UNIT SELLING ₹5.26 ₹5.26 ₹5.26 ₹5.46

50 PRICE

51 TOTAL REVENUE ₹5,260.00 ₹5,260.00 ₹6,762.86 ₹5,460.00

52

53 PROFIT ₹700.00 ₹900.00 ₹900.00 ₹900.00

54

55

56

57

58

59

Sheet6 Sheet7 Sheet4 Sheet5 Sheet3 Sheet1 Sheet2 Location Product Quantity Data 1 Quantity Data 2 Sheet31 Sheet32 Sheet33

Type here to search 34°C 457 PM 3/18/2024

2. SCENARIO MANAGER