UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

HIGH PERFORMANCE DATA PROCESSING

SECP 3133

ASSIGNMENT 1

CASE STUDY 2 - SALES PERFORMANCE

SECTION 01

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GROUP 7
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1. **Insert dataset into excel.**

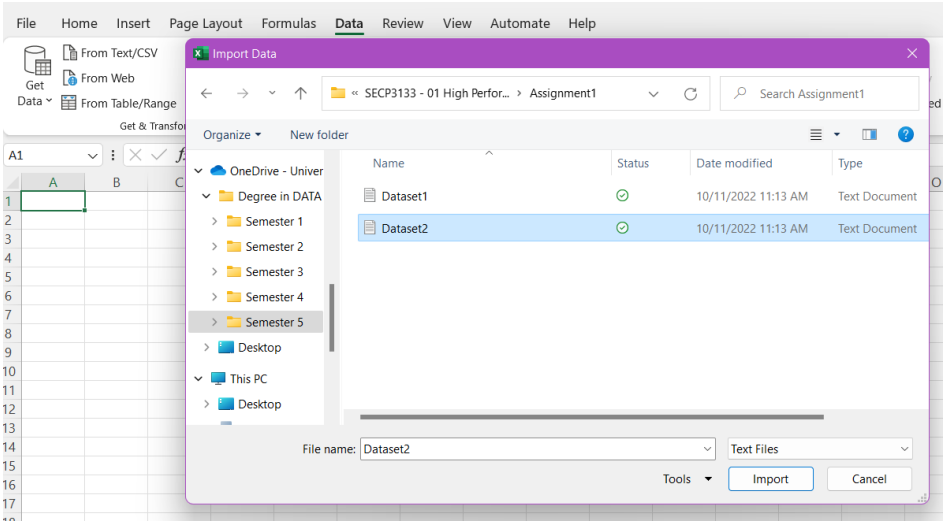


Figure 1: Import Dataset2

Under the Data tab, in the Get & Transform Data group, click From Text/CSV. Then, click import in the dialog box to import the text file Dataset2 into the excel worksheet.

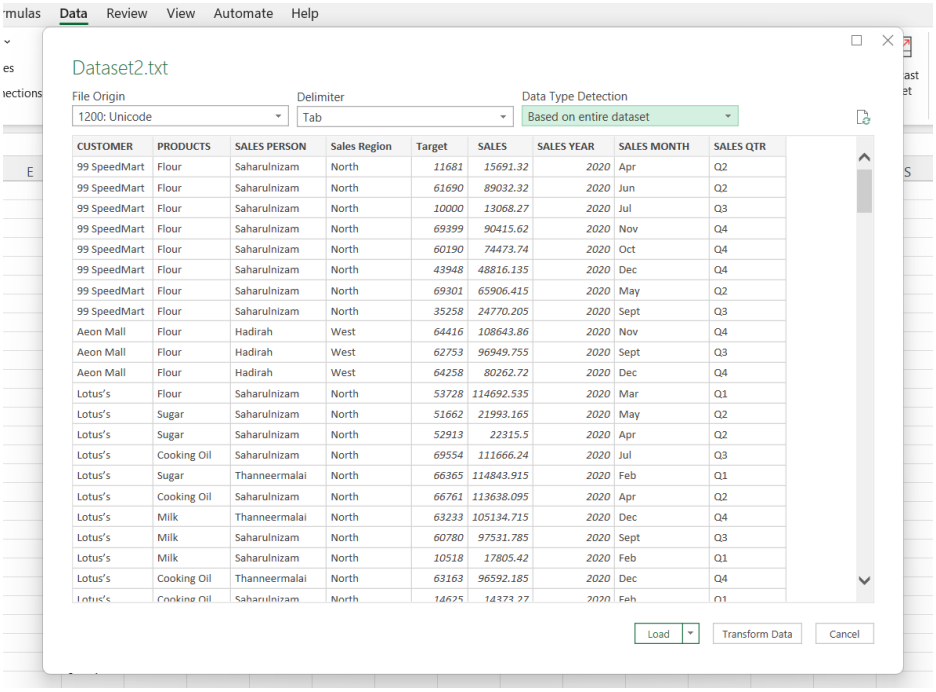


Figure 2: Load Dataset2

In the preview dialog box, change Data Type Detection to Based on the entire dataset. Select Load to load the data directly to a new worksheet.

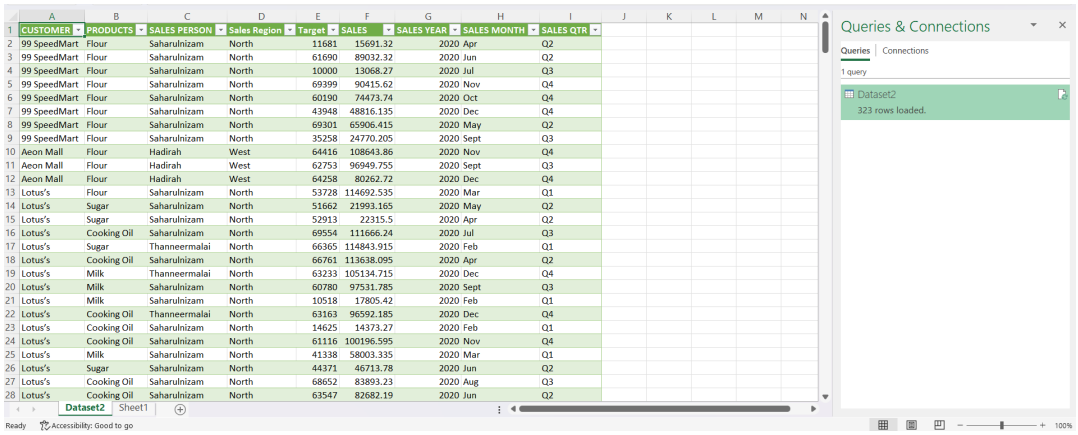


Figure 3: Output of importing Dataset2

Once the data is successfully loaded, it will be displayed in the worksheet as shown in Figure 3. There are 323 rows loaded.

2. Create pivot table

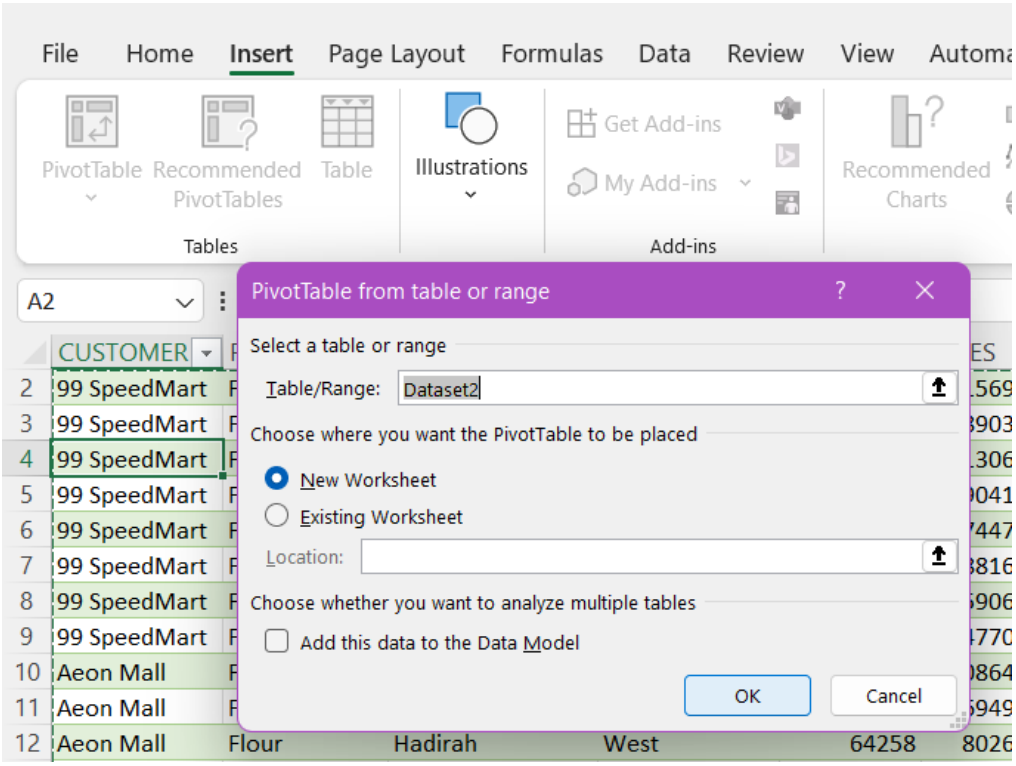


Figure 4: Create pivot table

Under the Insert tab, click Pivot Table. In the dialog box, choose options as Figure 4 and click OK. An empty pivot table and its field will be displayed in the new worksheet as follows.

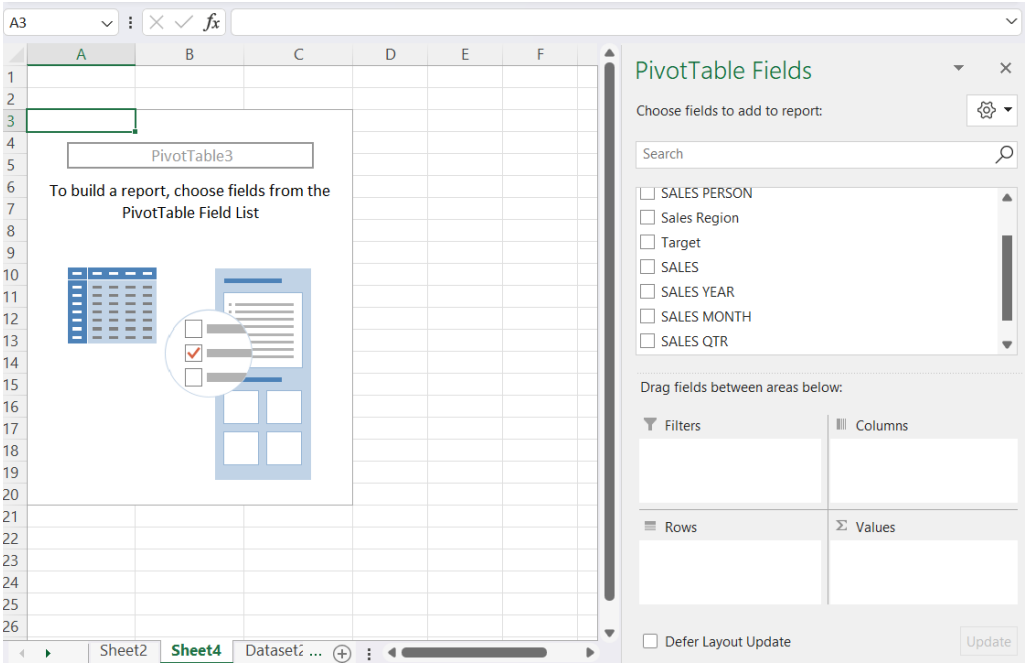


Figure 5: Blank PivotTable and PivotTable Fields

3. Create charts

a. Monthly Sales chart

Drag and drop fields into the areas. SALES and Target into Values and SALES MONTH into Rows. The pivot table will be created as shown in Figure 7.

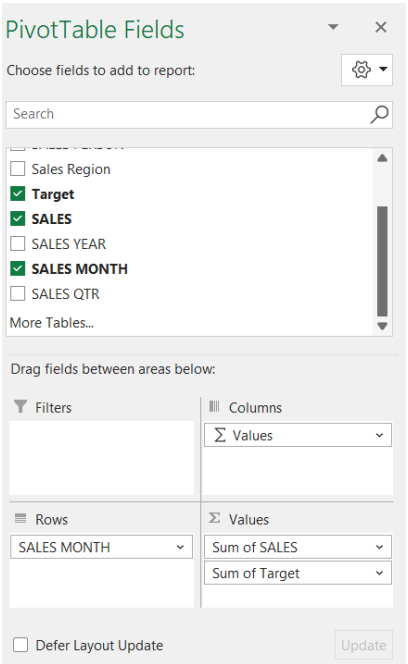


Figure 6: PivotTable Fields

Row Labels	Sum of SALES	Sum of Target
Jan	1800734.035	1398098
Feb	1750189.005	1427376
Mar	1984328.19	1463389
Apr	1636026.3	1262984
May	1833803.09	1522884
Jun	1678793.76	1430182
Jul	1819189.505	1541226
Aug	1258810.83	1074728
Oct	1955825.675	1439388
Nov	1932883.52	1531384
Dec	2152472.06	1684693
Sept	2016947.97	1593556
Grand Total	**21820003.94**	**17369888**

Figure 7: PivotTable

In the PivotTable Analyze tab, choose PivotChart, choose Area and click OK to create a Stacked Area chart.

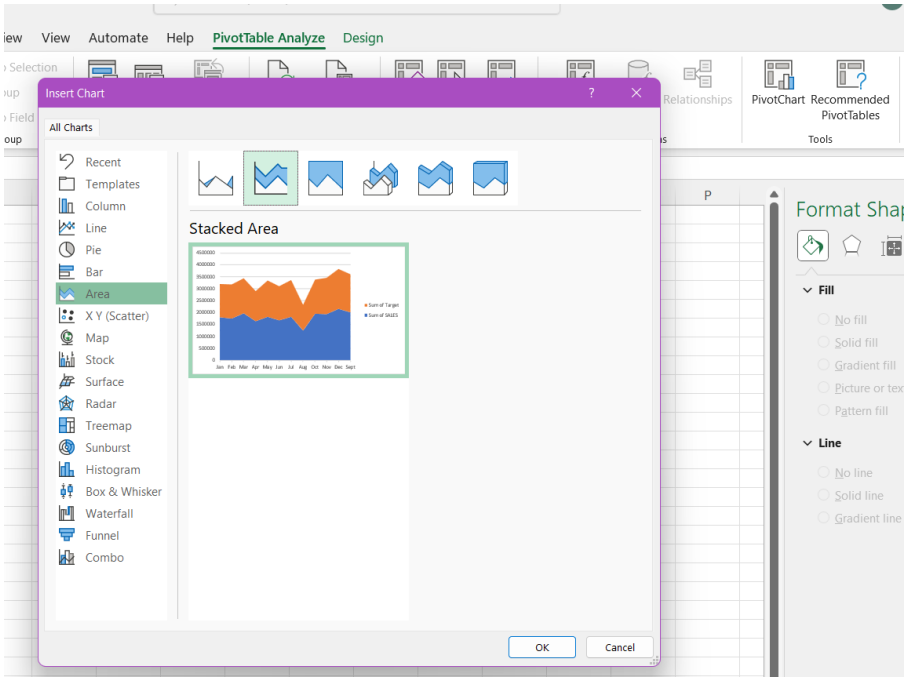


Figure 8: Create Stacked Area chart

Double click the chart and Format Data Series and a task pane will appear. From here, we change the fill color of Sum of SALES and Sum of Target of the chart as desired.

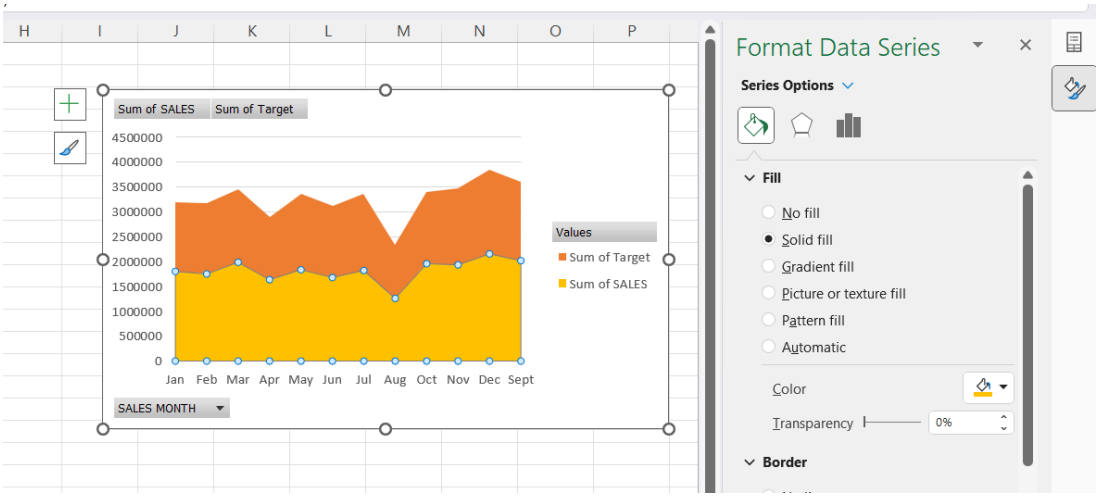


Figure 9: Format Stacked Area chart Fill Color

Right click on the grey button, click Hide All Field Buttons on Chart.

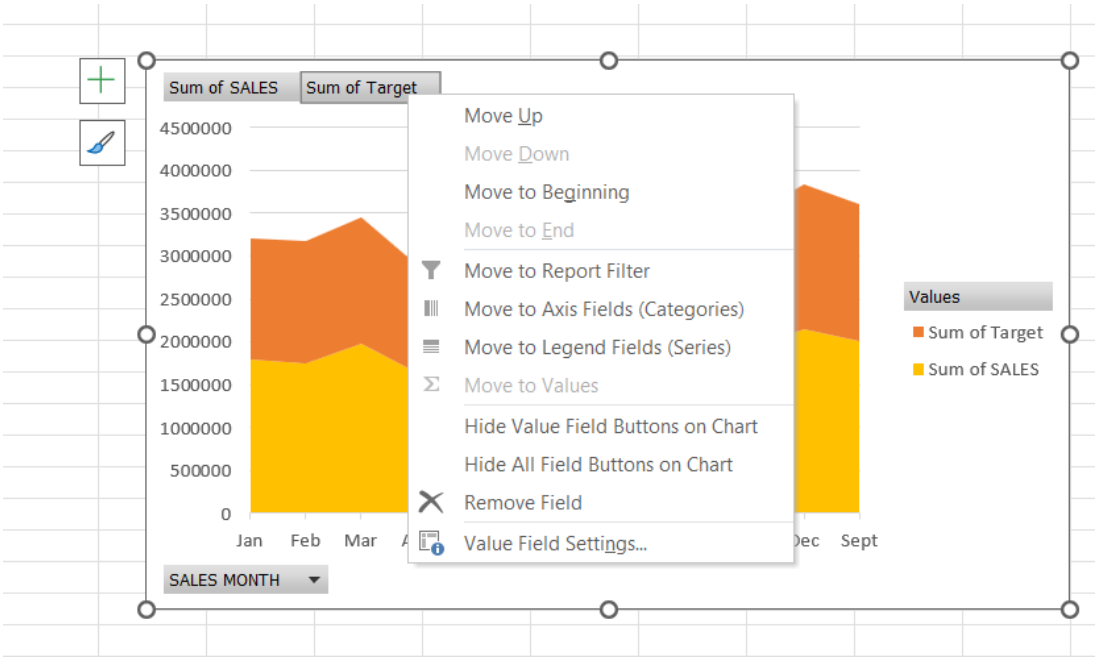


Figure 10: Hide All Field Buttons on Chart

Click + button and check the Axes, Chart Titles and Legend of the Chart Elements. Position the legend and title on top of the chart as in figure 11. Change the total as 'Monthly Sales'.

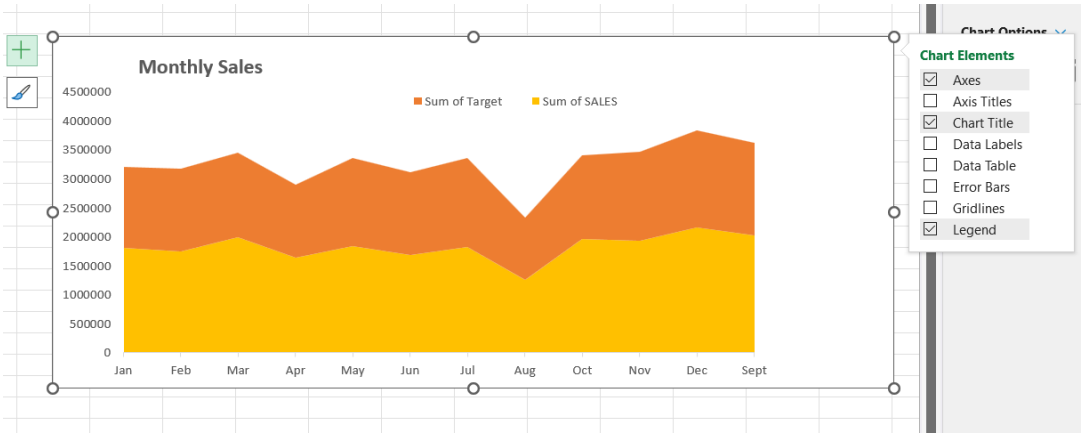


Figure 11: Format Chart Elements

b. Region chart

Drag and drop fields into areas below it. Sales Region into Rows and SALES into Values. A pivot table will be created like in Figure 13.

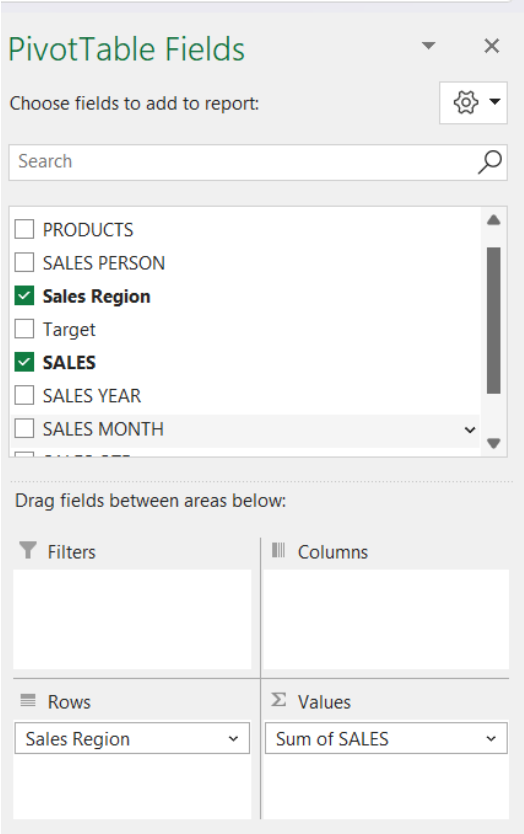


Figure 12: PivotTable Fields

Row Labels	Sum of SALES
East	5272561.52
North	5782605.735
South	5068258.515
West	5696578.17
Grand Total	**21820003.94**

Figure 13: Pivot Table

In the PivotTable Analyze tab, choose PivotChart, choose Pie and click OK to create a Pie chart.

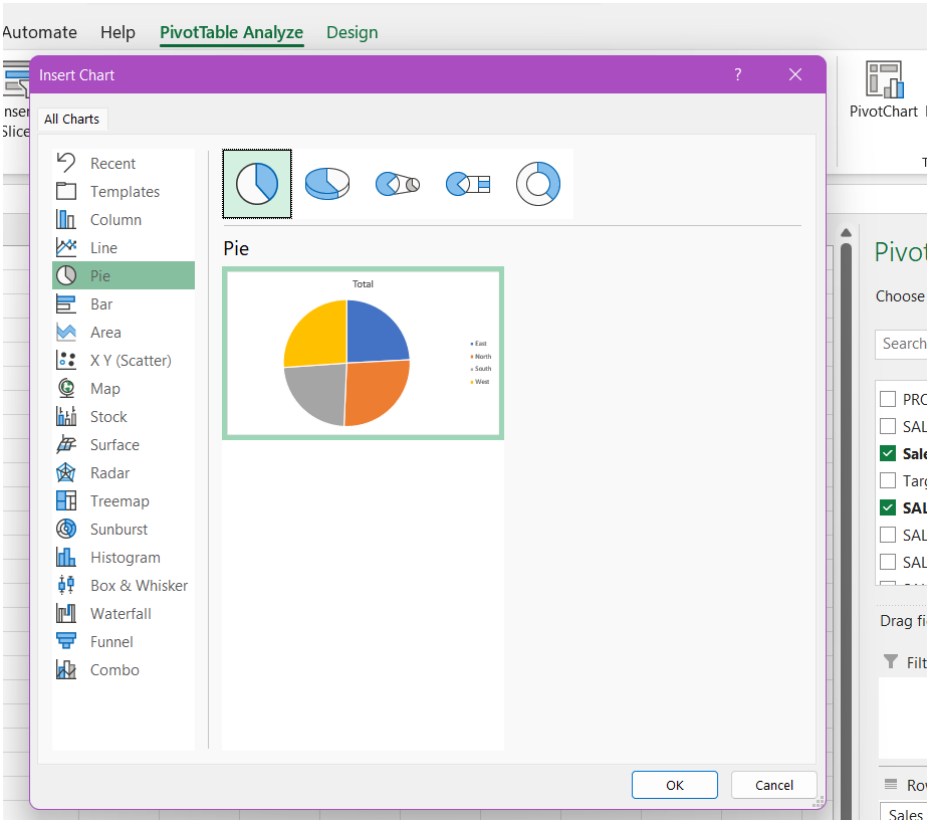


Figure 14: Create Pie Chart

Click the pie chart series and format the Color and Pie Explosion in the Format Data Series. A pie chart as in Figure 15 will be created.

Figure 15: Region's Pie Chart

c. Customer chart

Firstly, drag and drop each of the following fields CUSTOMER and SALES into the area section below. The pivot table should look like Figure 16.

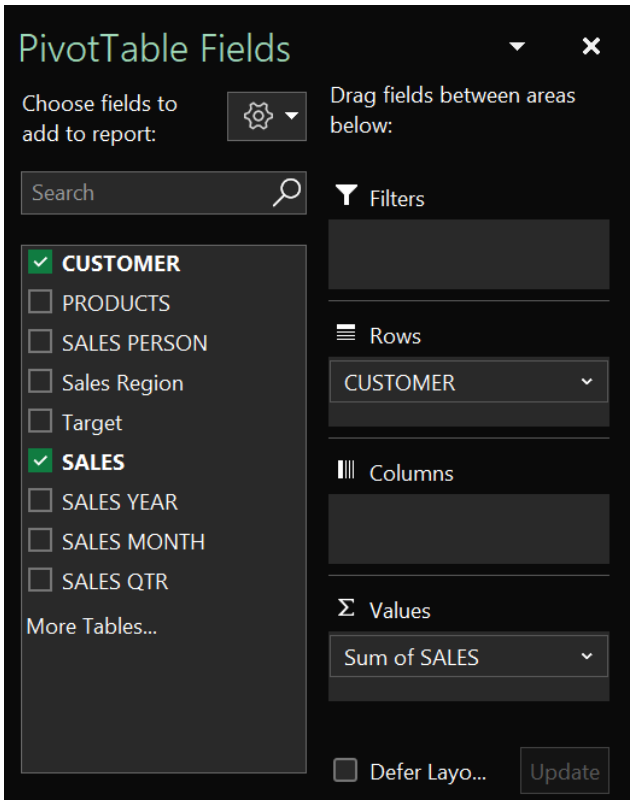


Figure 16: PivotTable Fields

Row Labels	Sum of SALES
99 SpeedMart	1956282.435
Aeon Mall	2919380.265
Food Republic	3430043.385
Jaya Grocer	2777197.905
Lotus's	3826323.3
Mydin	5068258.515
Shoppee Mall	1842518.135
Grand Total	**21820003.94**

Figure 17: Pivot Table

In the PivotTable Analyze tab select the PivotChart. Select the Pie section then choose Bar of Pie then click OK to create the pie chart.

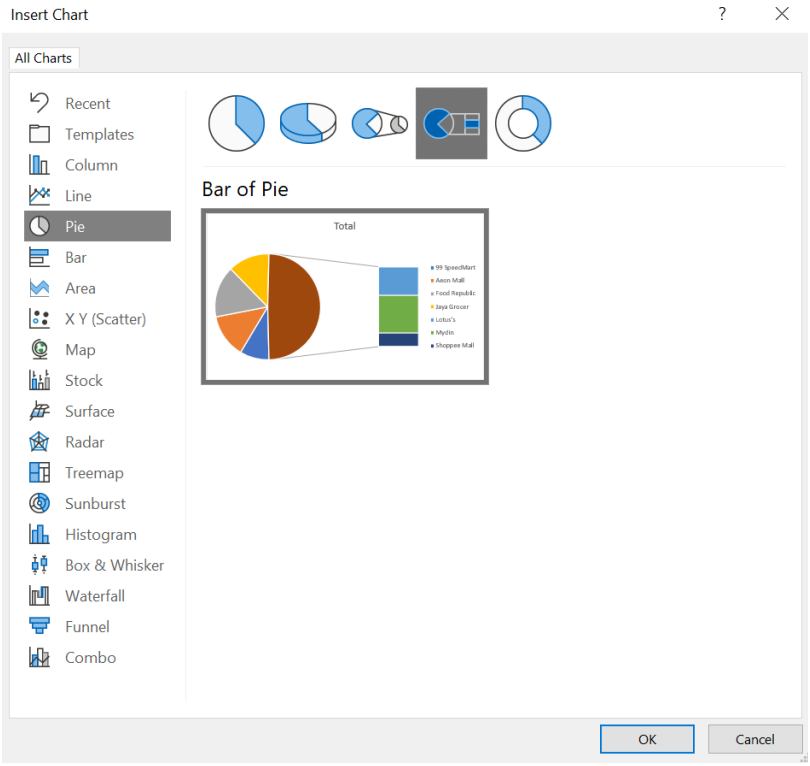


Figure 18: Create Bar of Pie Chart

Next change the title to Customer chart and hide all the field buttons on the chart. Inside the Format Data Labels select the percentage to have a better view on the sales percentage of each customers.

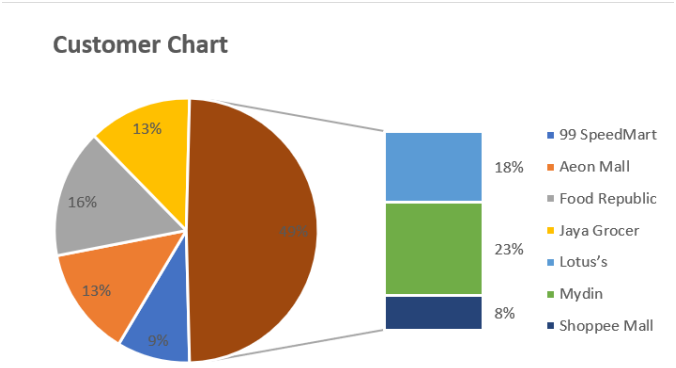


Figure 19: Customer's Bar of Pie Chart

d. Salesperson chart

Drag and drop PRODUCTS, SALESPERSON and SALES fields as follows. A pivot table will be created as in Figure 20. A pivot table will be created as in Figure 21.

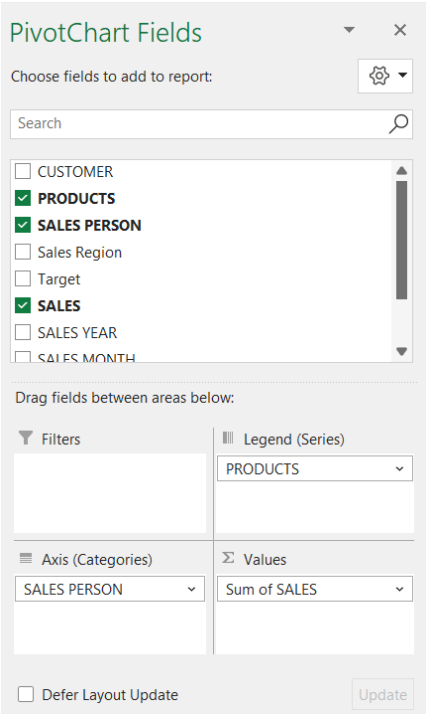


Figure 20: PivotChart Fields

Sum of SALES	Column Labels				
Row Labels	Cooking Oil	Flour	Milk	Sugar	Grand Total
Armirani	318982.455	420286.995	168425.91	634899.465	1542594.825
Fatima		313810.74		217972.845	531783.585
Hadirah	1003417.11	1193477.31	712535.22	1225137.915	4134567.555
Loh Yew Chong	1236867.465	1176358.32	1306892.305	1020659.845	4740777.935
Nalini	1138519.845	474678.09	1005811.785	906653.97	3525663.69
Saharulnizam	1268227.7	1040760.99	839137.185	615445.195	3763571.07
Tee Hui You	300533.67	469151.415	514363.14	277962.39	1562010.615
Thanneermalai	351274.68	327641.13	496517.265	843601.59	2019034.665
Grand Total	**5617822.925**	**5416164.99**	**5043682.81**	**5742333.215**	**21820003.94**

Figure 21: PivotTable

In the PivotTable Analyze tab, choose PivotChart, choose Stacked Column in Column and click OK.

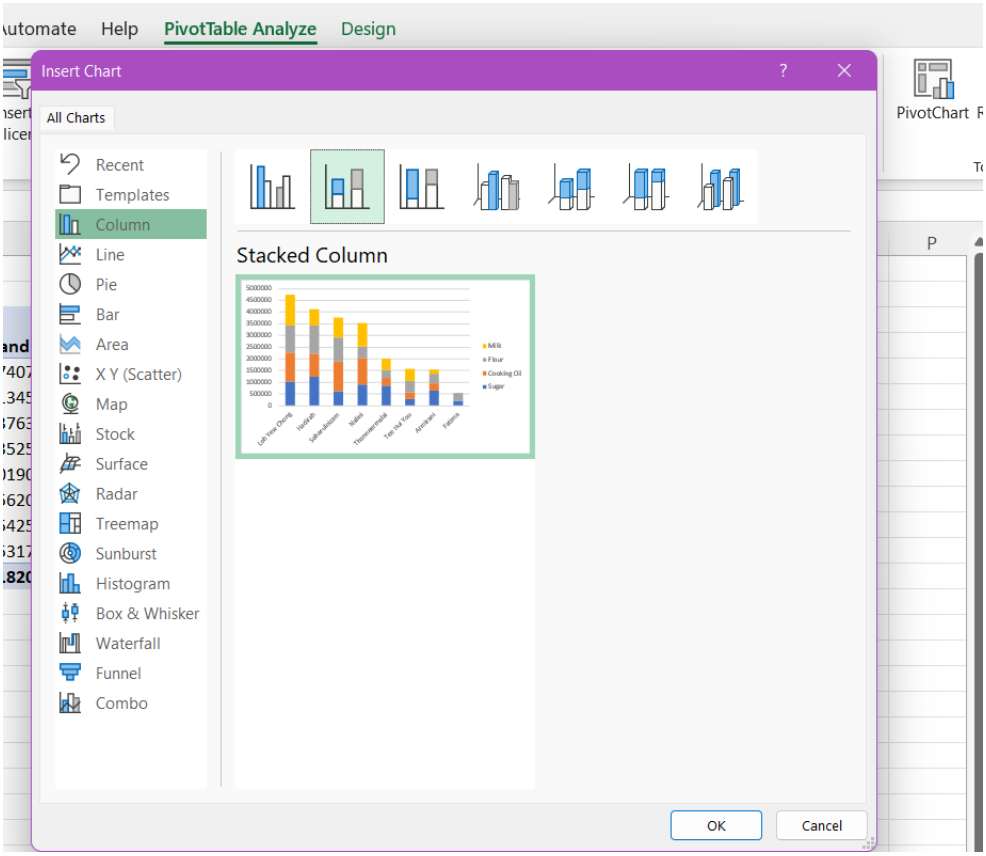


Figure 22: Create Stacked Column chart

Click on the pivot table and sort it under the Data tab. Choose Largest to Smallest in Sort Options.

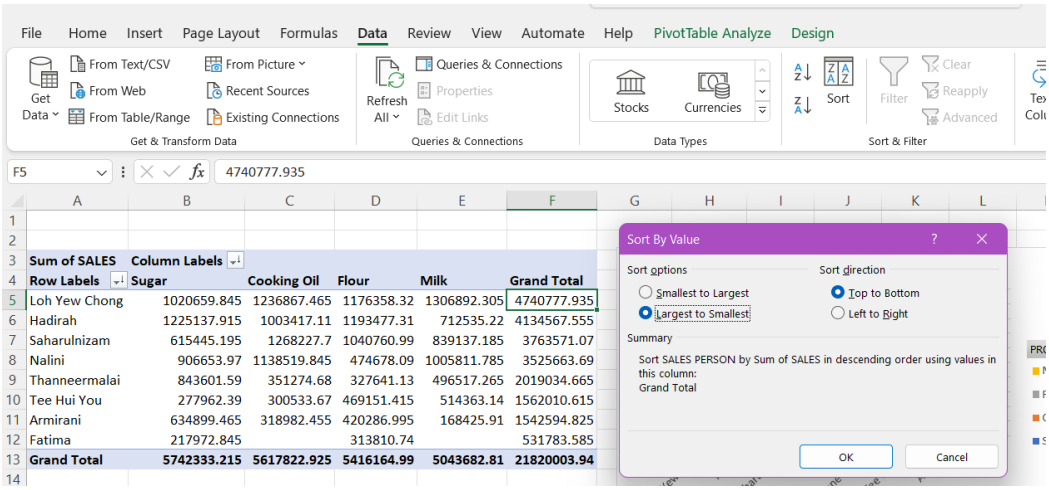


Figure 23: Sort Data

Under Format Axis, choose Axis Options and change Display units to Millions. Next under Number, change Category to Number and Decimal places to 0.

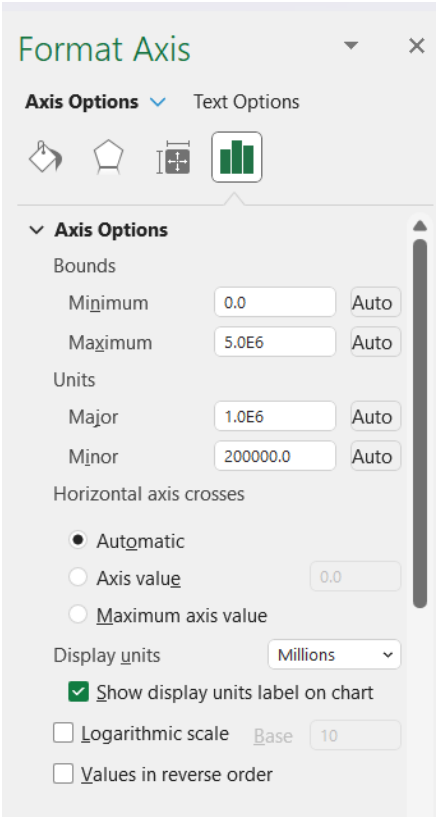


Figure 24: Format Axis Options

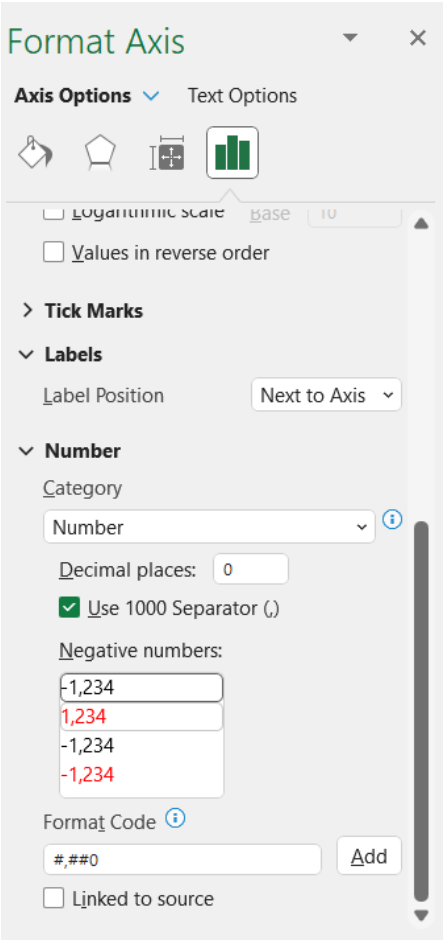


Figure 25: Format Axis Number

Right click on the grey button, click Hide All Field Buttons on Chart. Click + button and check the Axes, Chart Titles and Legend of the Chart Elements.

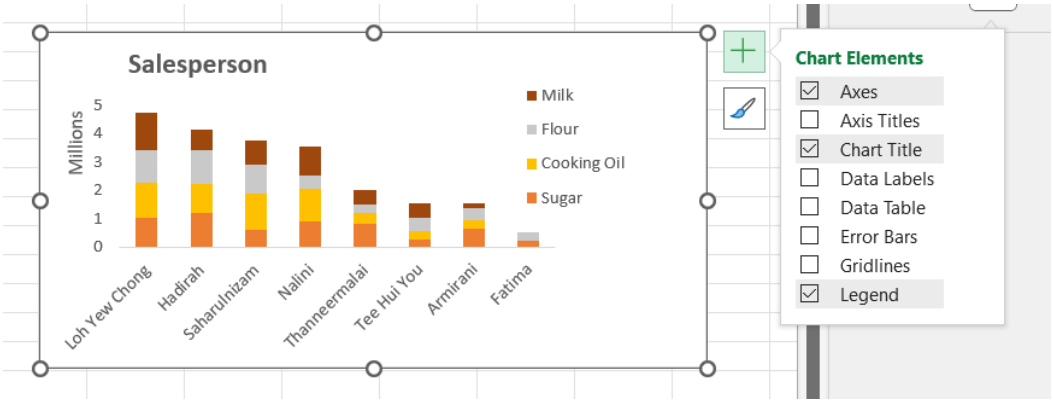


Figure 26: Format Chart Elements

e. Sales Trend chart

Drag and drop SALES YEAR, SALES MONTH and SALES fields as follows. A pivot table will be created as in Figure 26. A pivot table will be created as in Figure 27.

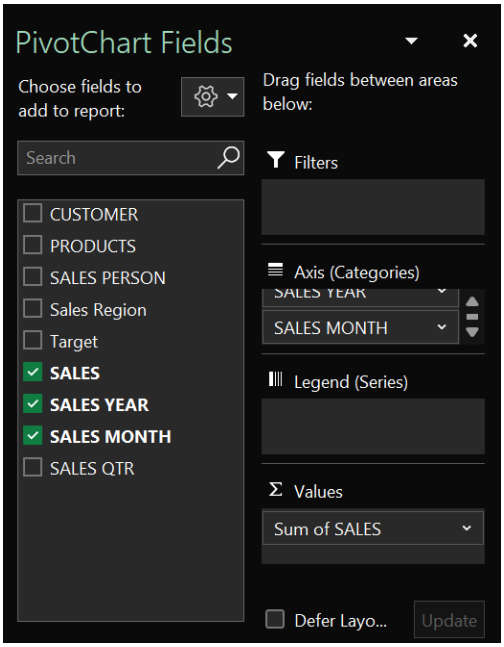


Figure 27: PivotChart Fields

Row Labels	Sum of SALES
2020	**12089948.36**
Jan	895121.455
Feb	952593.885
Mar	1097572.86
Apr	898809.615
May	987750.585
Jun	918419.85
Jul	996588.045
Aug	844524.225
Sep	1062939.465
Oct	1087126.325
Nov	1250867.85
Dec	1097634.195
2021	**9730055.585**
Jan	905612.58
Feb	797595.12
Mar	886755.33
Apr	737216.685
May	846052.505
Jun	760373.91
Jul	822601.46
Aug	414286.605
Sep	954008.505
Oct	868699.35
Nov	682015.67
Dec	1054837.865
Grand Total	**21820003.94**

Figure 28: Pivot Table

In the PivotTable Analyze tab, choose PivotChart, choose Line graph in the Line section and click OK.

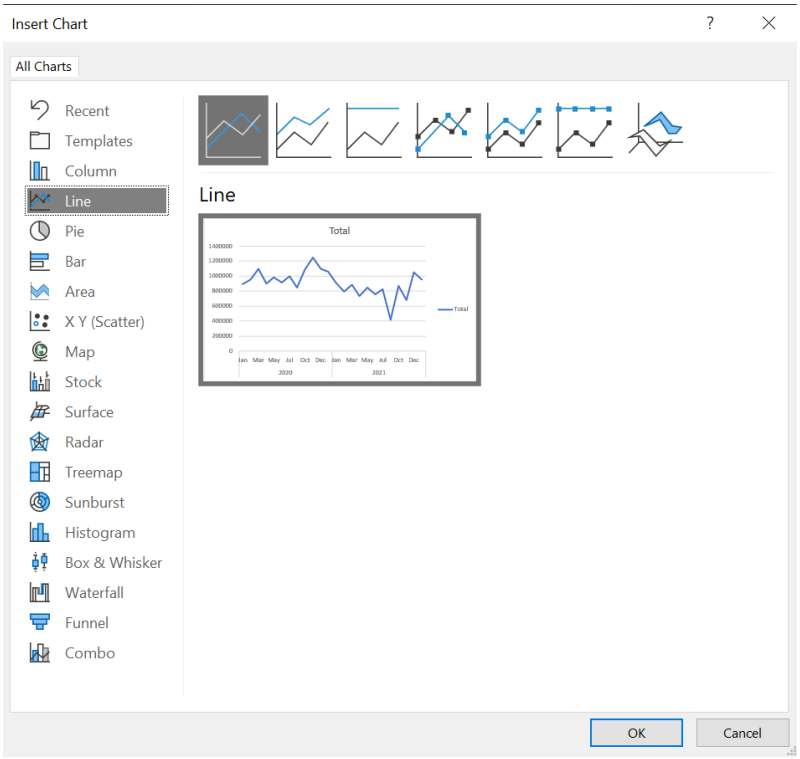
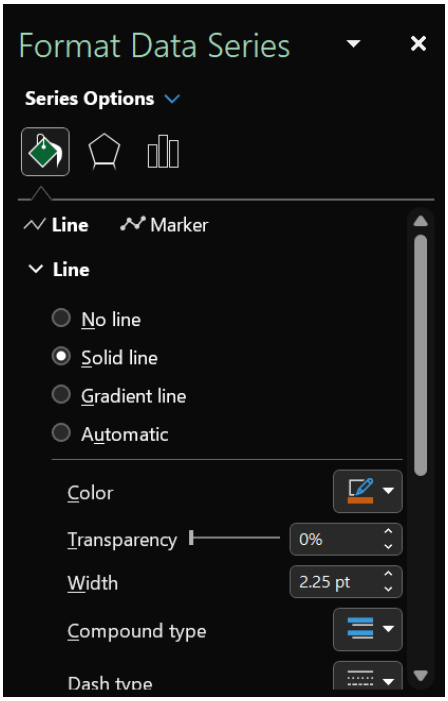


Figure 29: Create Line graph

Under the Format Data Series, change the Color to yellow and the Compound Type to Thick Thin. Next select the Smoothed Line as shown in Figure 23..



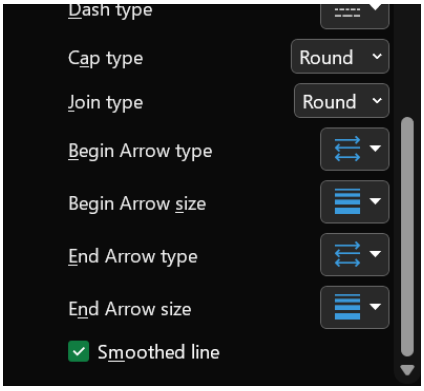


Figure 30: Format Data Series (Line)

Then select the Marker section at the same format series, choose the Solid Fill and change the color as shown in Figure 24.

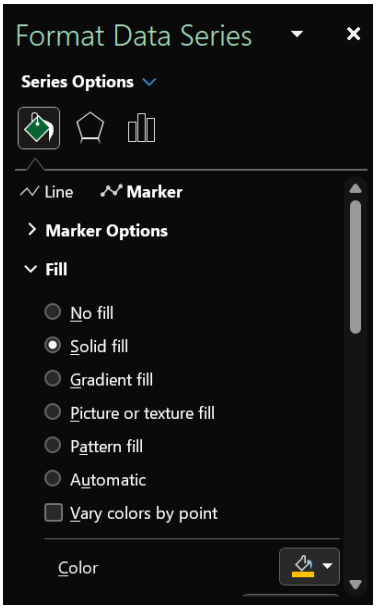


Figure 31: Format Data Series (Marker)

Right click on the grey button, click Hide All Field Buttons on Chart. Click + button to unselect Legend and select Data Labels. Lastly, rename the graph to Sales Trend just like Figure 25.

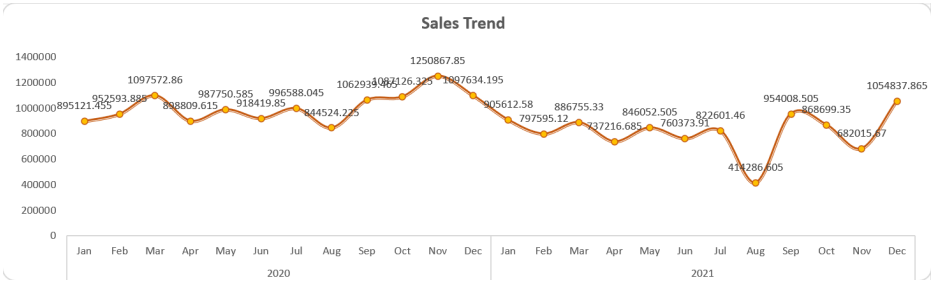


Figure 32: Sales Trend Line Graph

f. Create Dashboard

Firstly, create a new sheet and copy paste all the charts that we created previously into that sheet and arrange it nicely in order just like Figure 26.

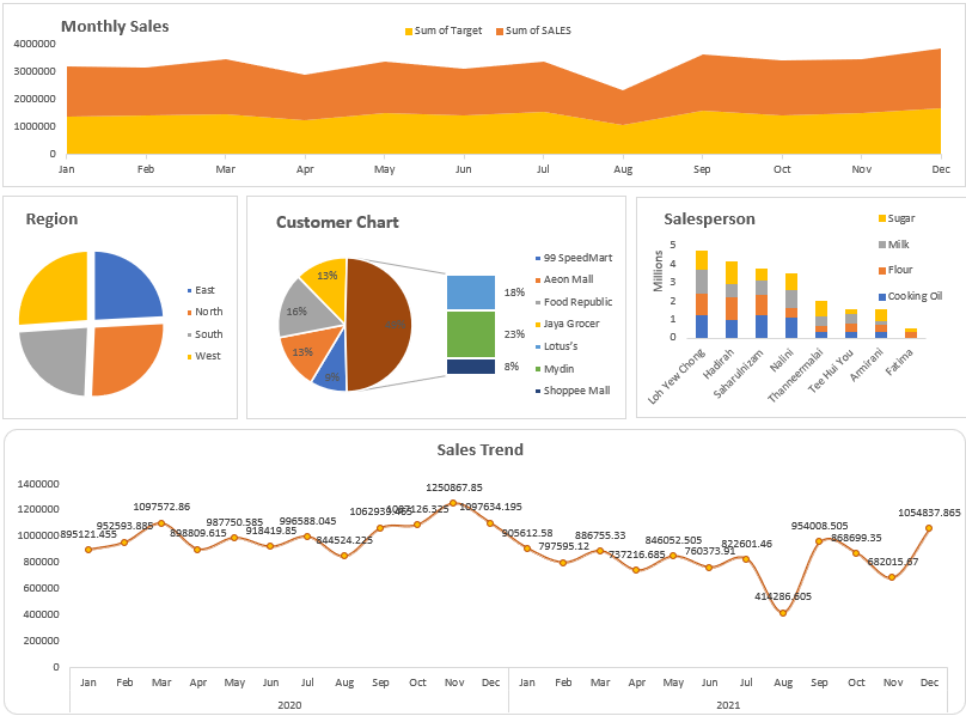


Figure 33: Sheet contain all charts

Clicking one of the charts and going under the PivotChart Analyze tab select Insert Slicer. Then select the slicer that we wanted such as SALES YEAR, SALES REGION, PRODUCTS, CUSTOMER and SALES PERSON then click OK. Figure 27 shows the Slicer selection.

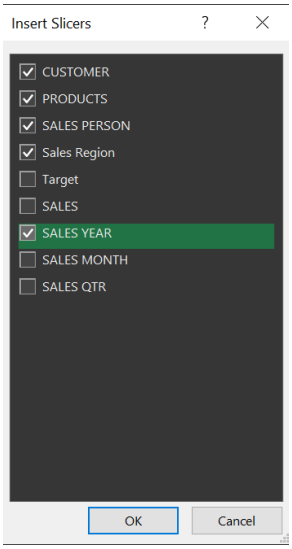


Figure 34: Slicer Selection

Next click the Multi Select button on each slicer so can select more than one selection on each slicer as shown in Figure 28.

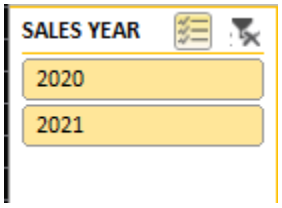


Figure 35: Multi Select on Slicer

Arrange all the slicer to the side of the dashboard and change the color according to the theme.

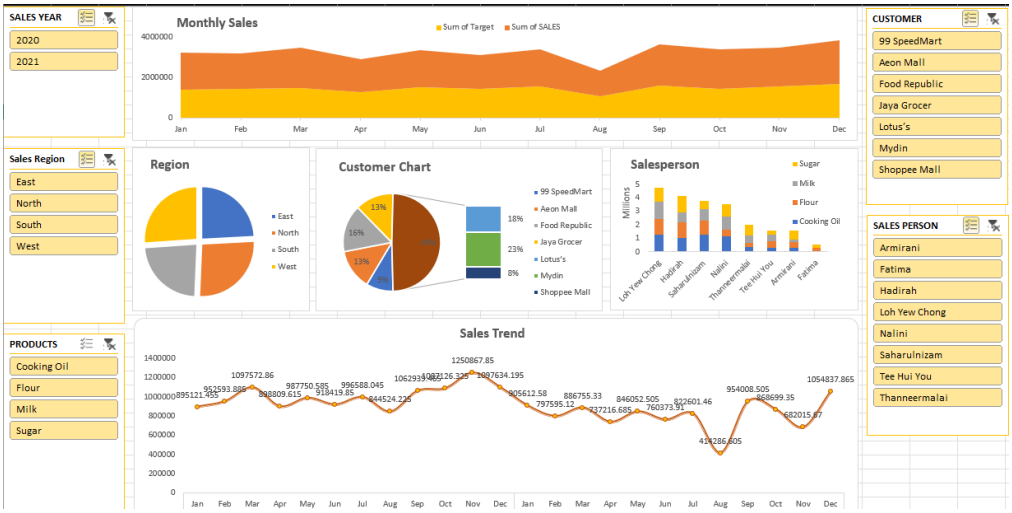


Figure 36: Sheet contain all charts and slicers

Click each Slicer and under the Slicer tab select Report Connection. Then tick all the Pivot Table to ensure the Slicer can link to other charts in the dashboard as shown in Figure 30.

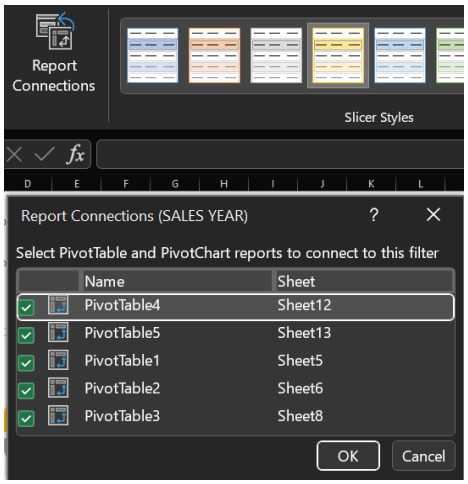


Figure 37: Slicer Report Connections

Lastly, select all the cells and Fill Color to create a background with selected color. Then add the report header to finalist the dashboard. The complete dashboard is shown in Figure 31.

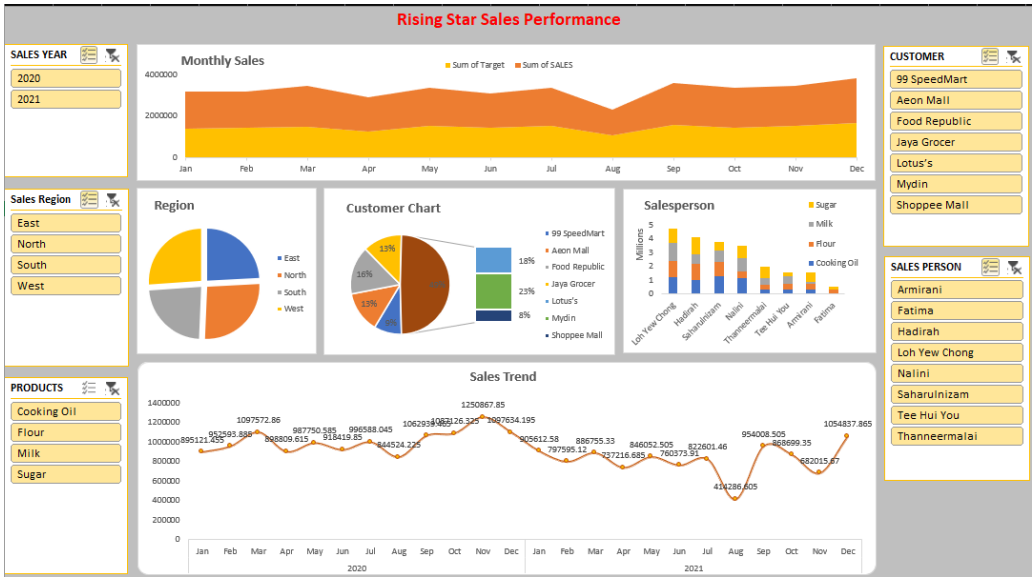


Figure 38: Complete Dashboard

g. Dashboard Testing

Now we can test our dashboard with random input data. If we select only the sales person "Loh Yew Chong", then the dashboard will show all the information about the person in all charts as shown in Figure 32.

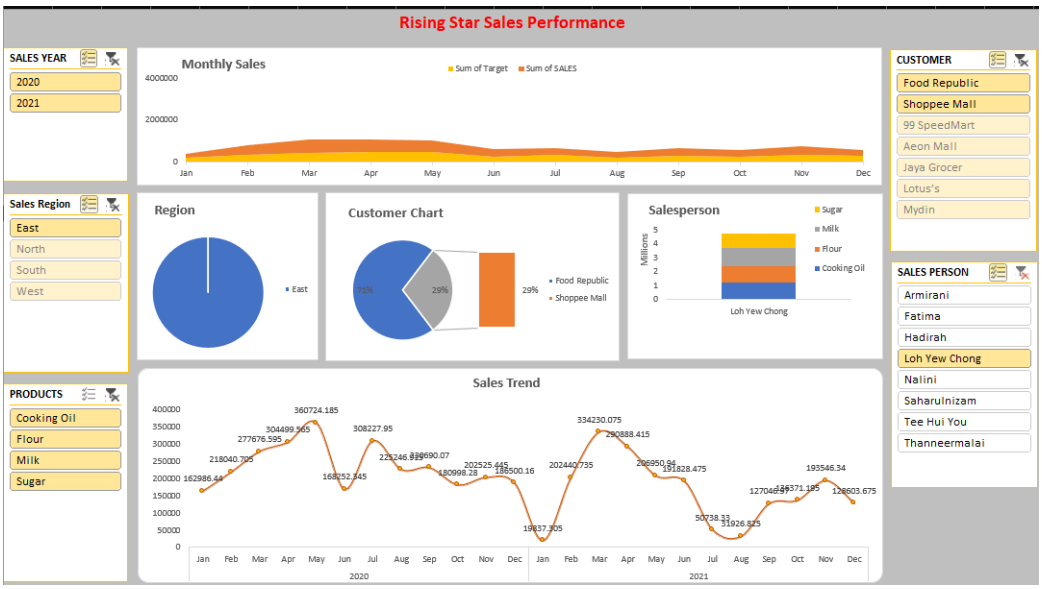


Figure 39: Loh Yew Chong Sales Performance

Next we try to select multiple slicers to observe the dashboard changes. In this case we select Cooking Oil and Sales Year 2021 to see the information in the dashboard.

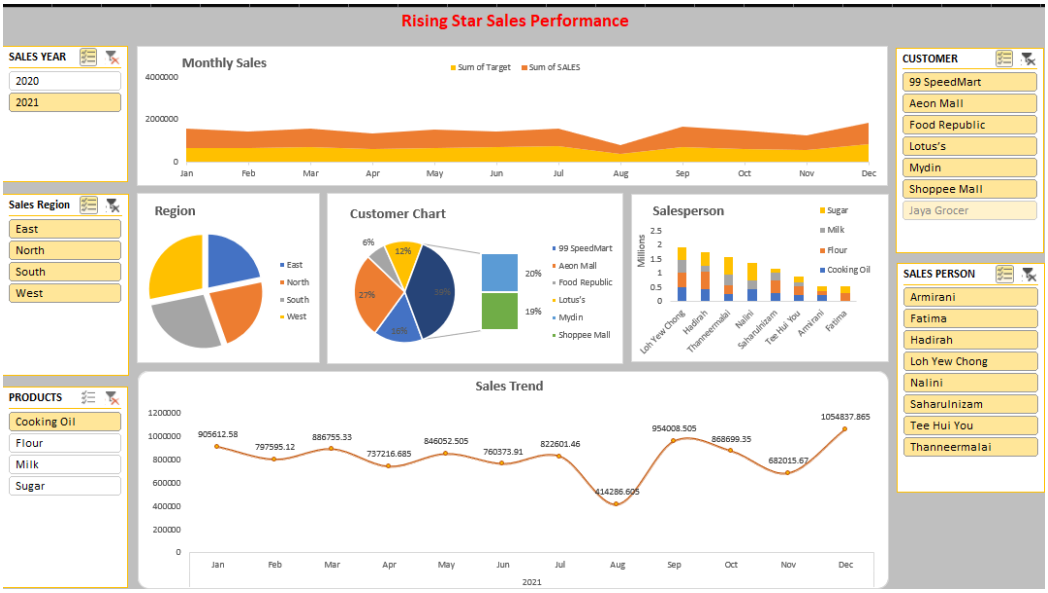


Figure 40: Cooking Oil Sales in 2021