POWER BI DASHBOARD

TOOLS USED:

- Power BI and Power Query.

KPI - Total sales, Total profit, Profit percentage.

CHART ANALYSIS:

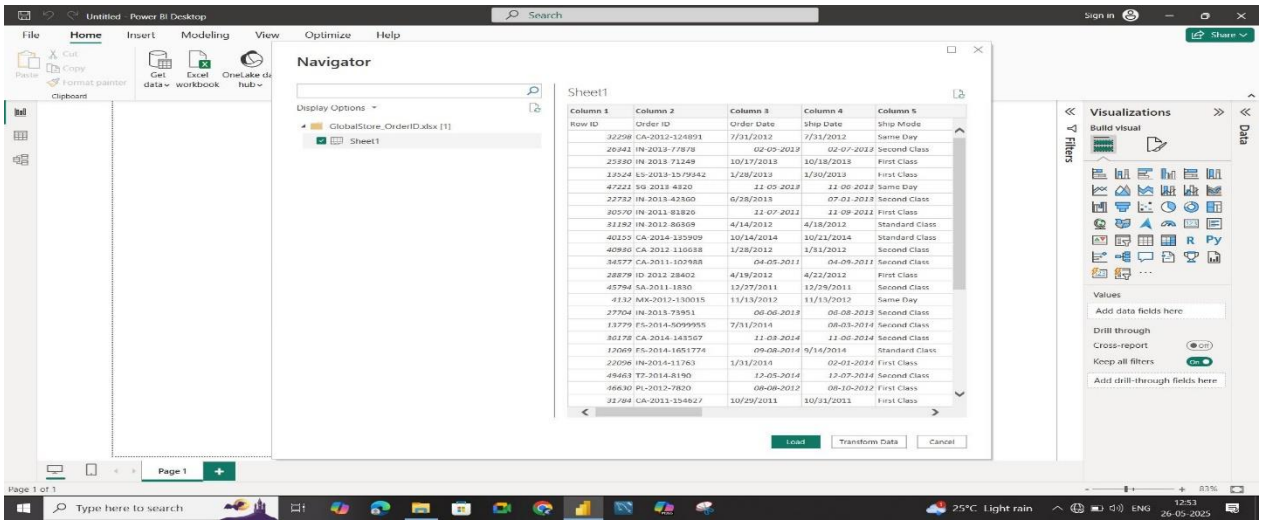
1. Total sales & Profit by Region. (TOP 8)
2. Total sales by Category.
3. Total sales by Days.
4. Total sales by Sub-Category. (TOP 10)
5. Total sales by Ship Mode.
6. Total Sales by Segment.

COLOUMNS CREATED:

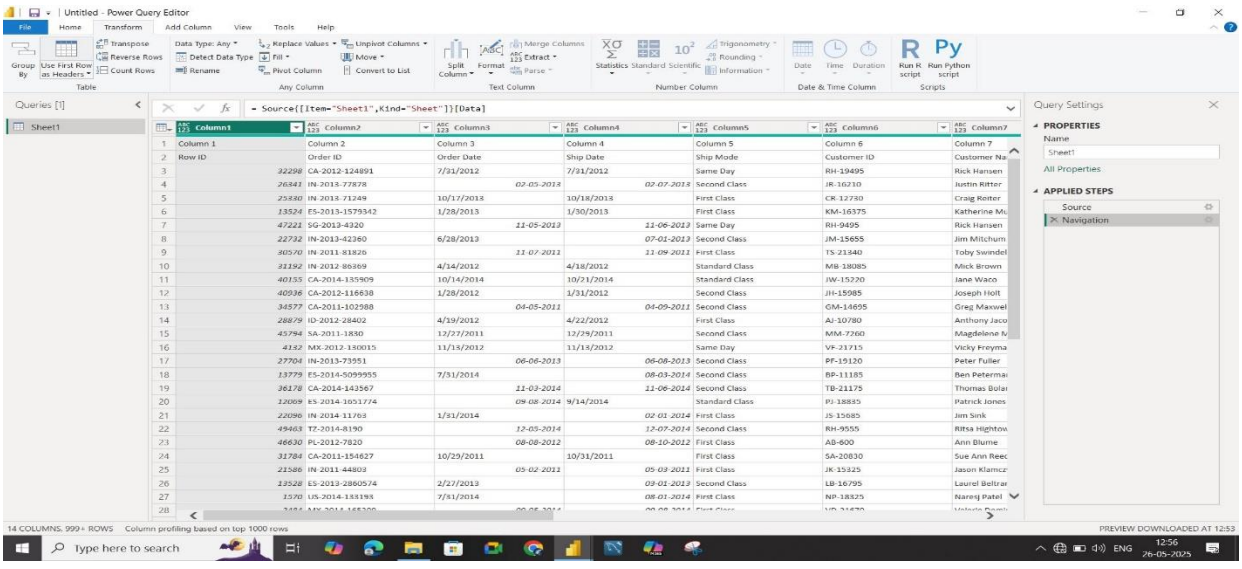
1. Date Format.
2. DAY.
3. Month.
4. Year.
5. Related Sales.

DAX USED:

1. SUM
2. TOP N
3. DIVIDE

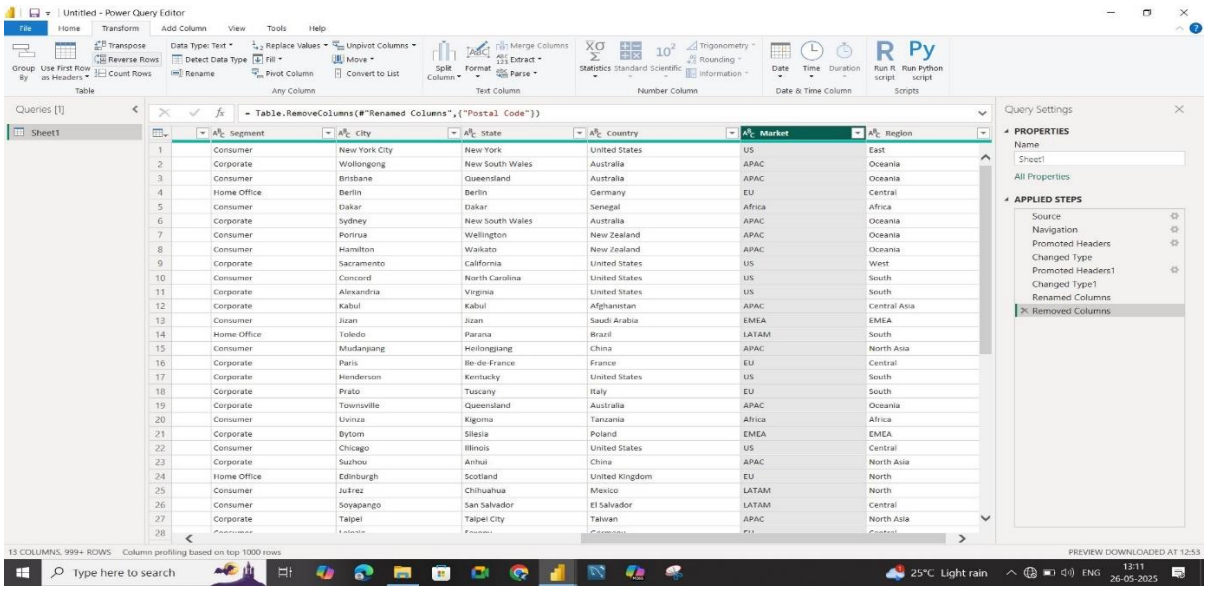


- This is the dataset I uploaded into Power BI
- I Have two Data of Order_Id(Sheet1) and Product_ID(Sheet1_2) .
- Now We Transform our Order Data into Power Query To make Corrections.

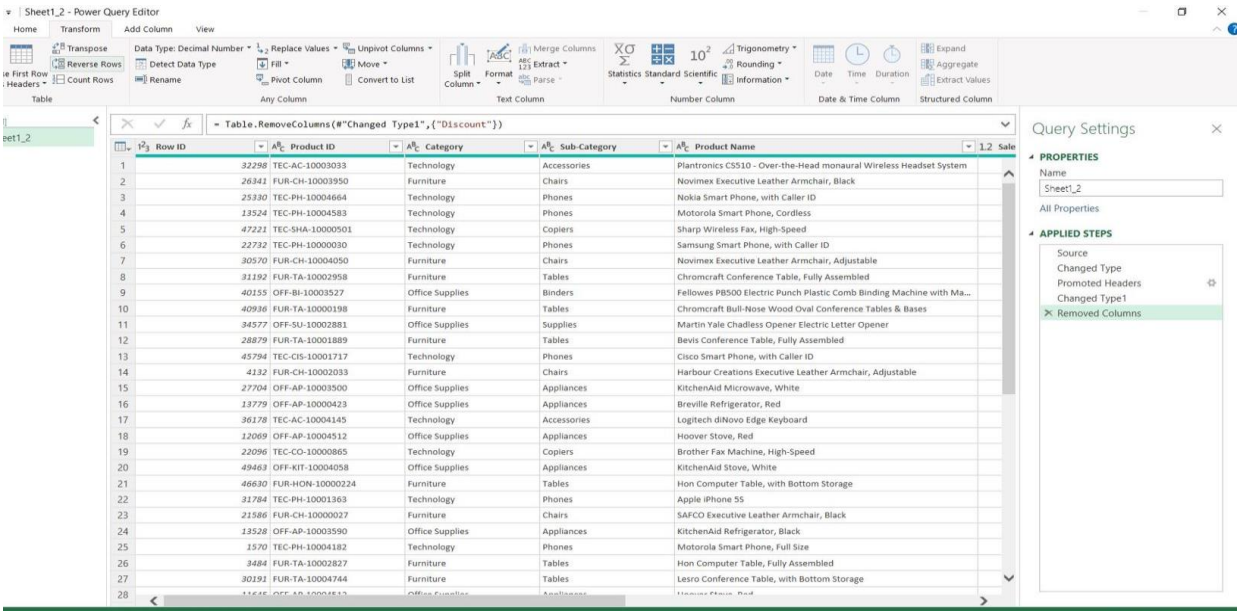


- Now we should make the first column as Header and

  do some suitable Change using Power Query.

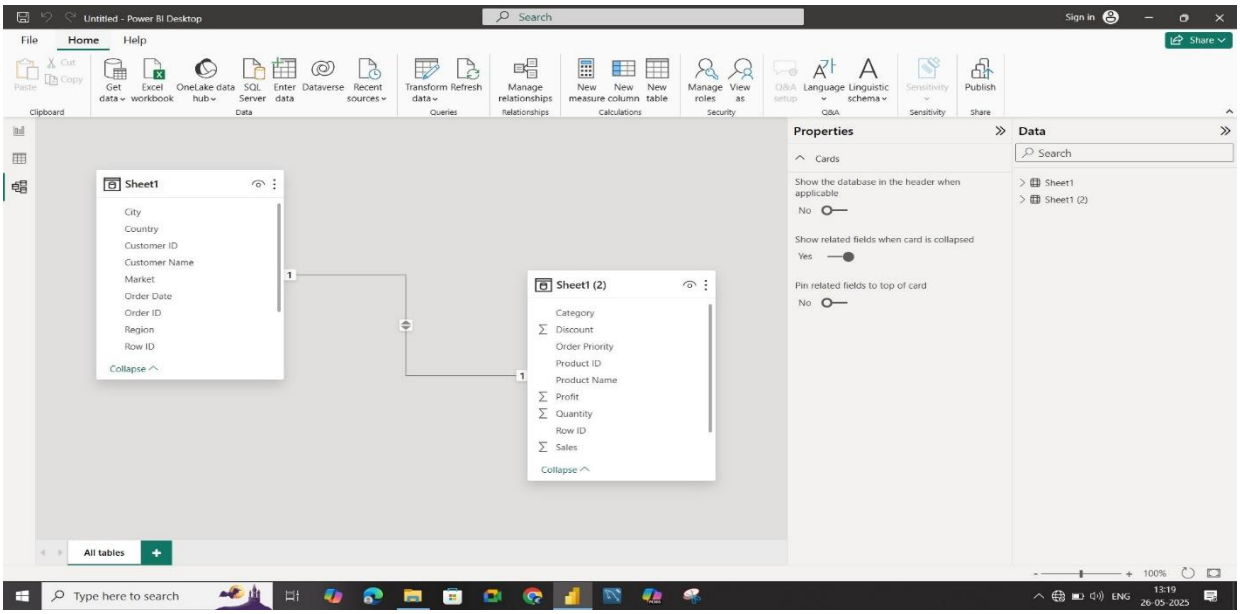


- After making some corrections in Power Query, now we upload another table which is Product_id Dataset.
- Here also we transform our Product_id Table into power Query to make Corrections.

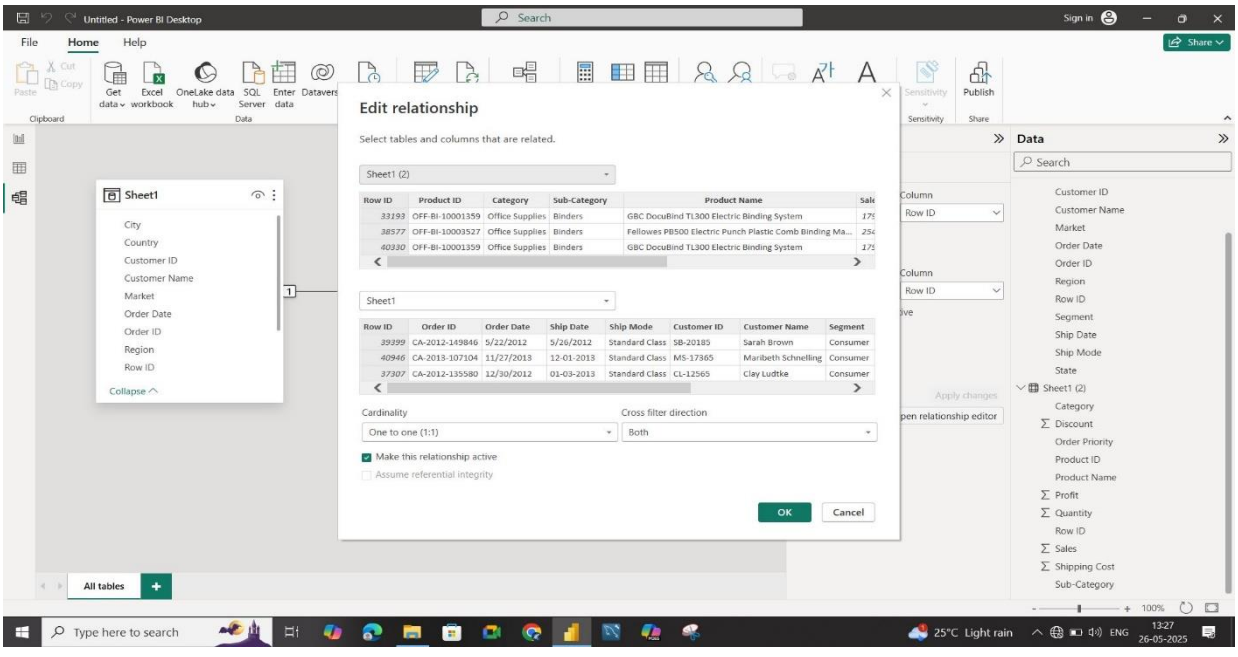


- After Promoting Header and Deleting unwanted columns and Making Correction In Product_ID now,

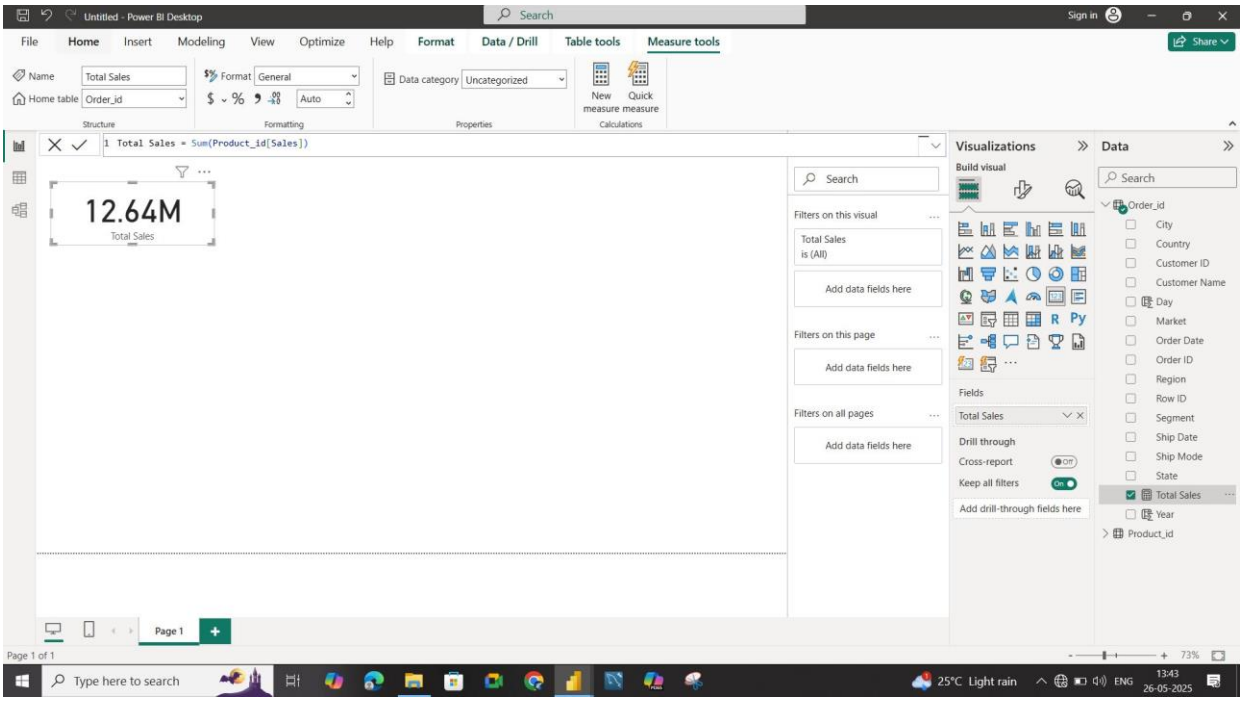
,



- Now we make a connection between two tables, before that there should be a common column in two tables.
- Here the ‘ROW_ID’ column in Order table and ‘ROW_ID’ column in Product table has connection.



Created Few KPI'S using Dax.



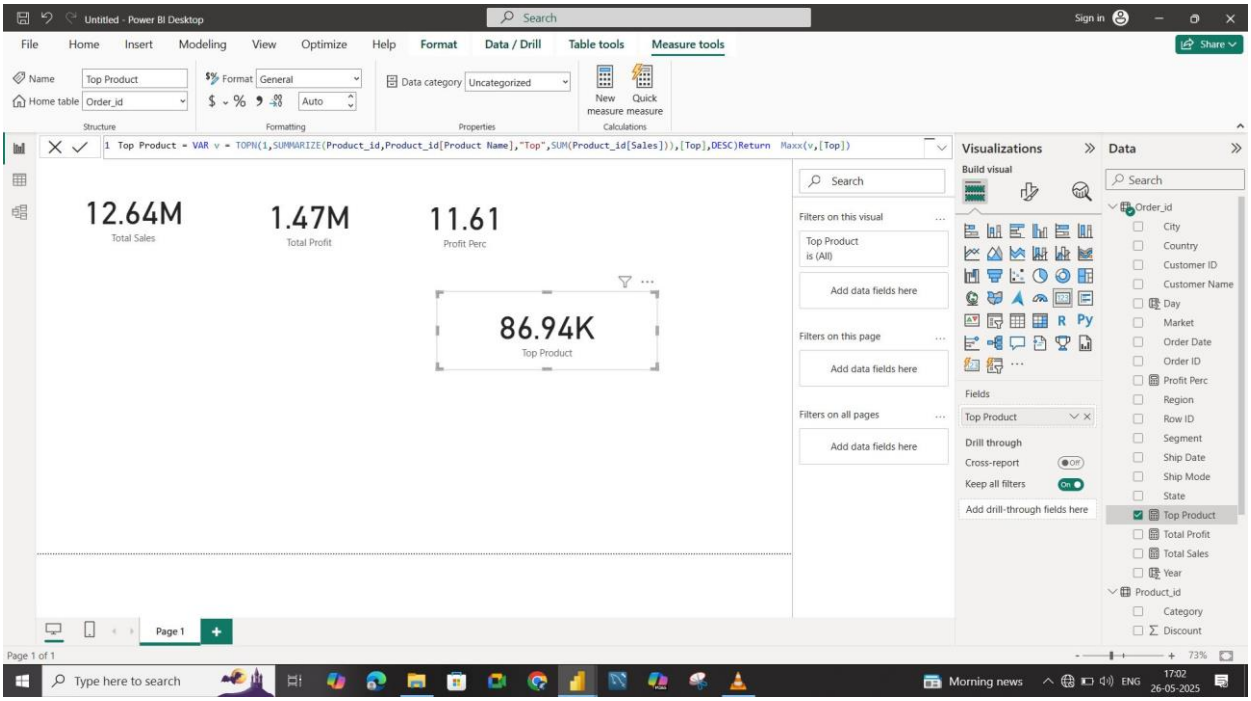
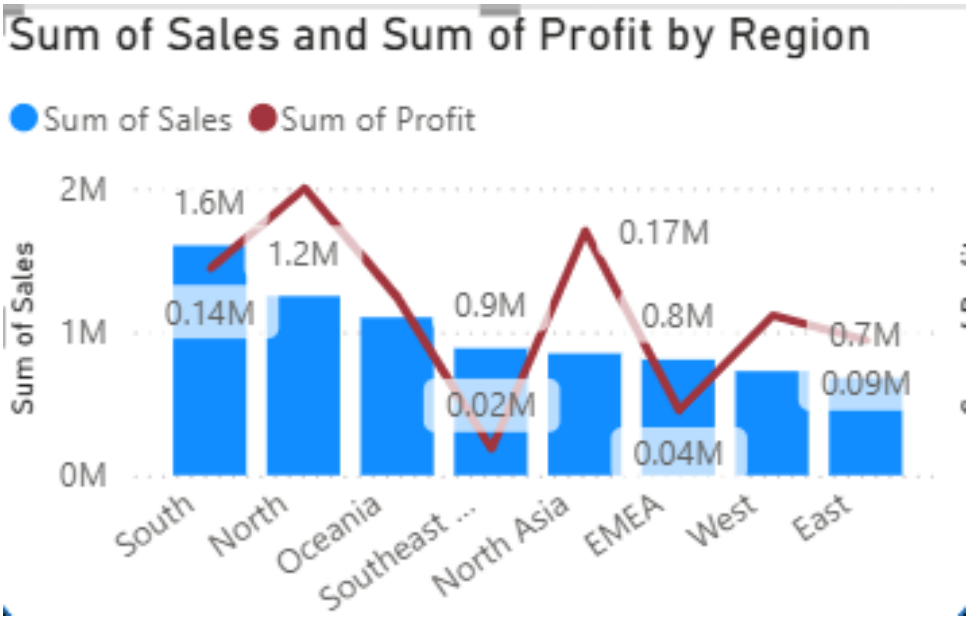


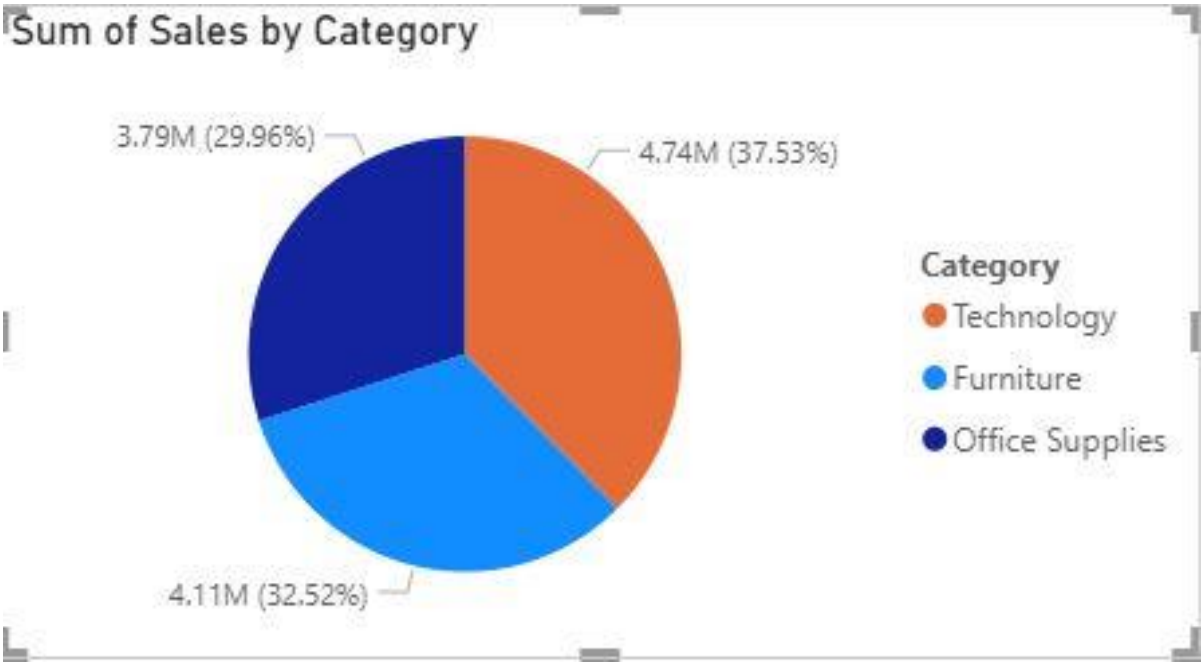
CHART ANALYSIS:

1. Total sales by Region (TOP 8)



- Here we used Line And Clustered Column Chart to find Total sales and Profit in (top 8) Region.
- Drag Region into x-axis and Total sales into y-axis.
- Now drag the Total profit into line y-axis
- Make sure turn to on Data-Labels.
- Now We can conclude that “South” region has done more number of sales of $16M.
- And “North” region has more profit $19M than other region.

2. Total sales by Category

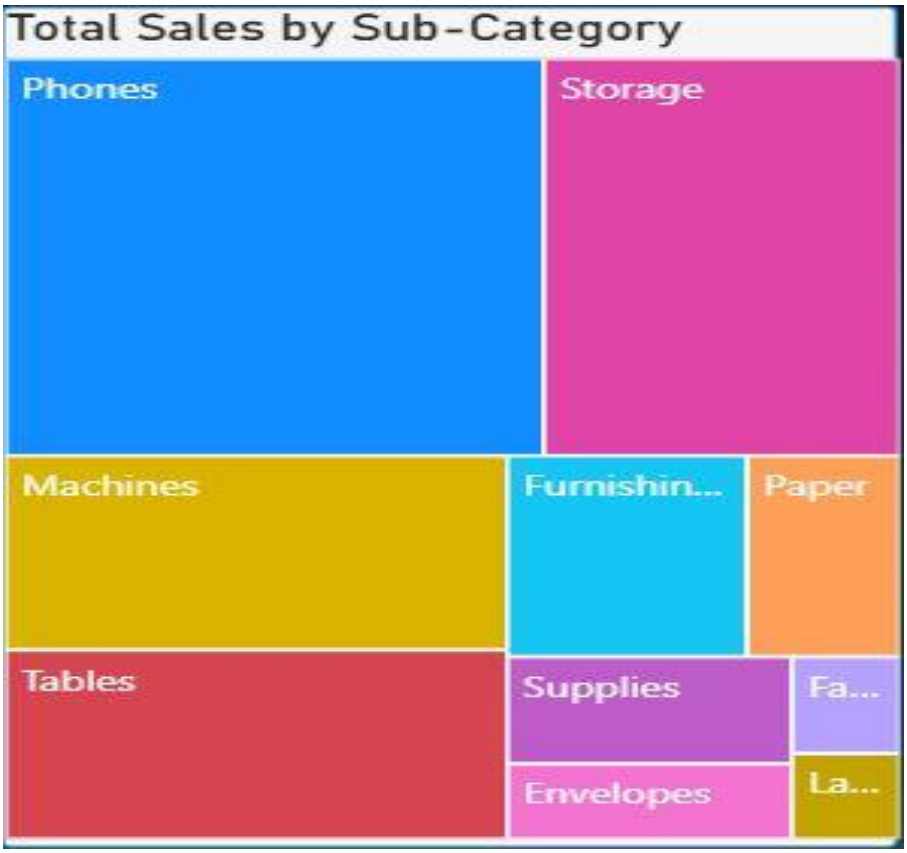


- Here we use Pie chart to find the Total Sales by Category.
- Here I used Pie-Chart for “Category” because it gives Simple and Easy Visual Representation for less relative Proportions through Slices.
- Here we add Category in X-axis and Sales in Y-axis
- Now from the Above Visuals we can easily Conclude, Sales of “Technology” Category is higher than other Categories.

3. Total sales by Day.

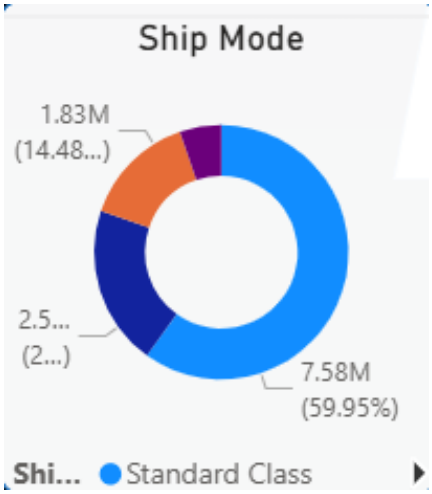
- Here I use Area Chart for to find sales through Days.
- Here I used Area Chart because it shows trend of Sales over days and Emphasizes the magnitude of Sales by filling the Area with color which helps to understand continuous series of sales over time easily.
- Make sure turn on data labels for the above visual.
- Now we can conclude that most sale is done in “18nth “Day.

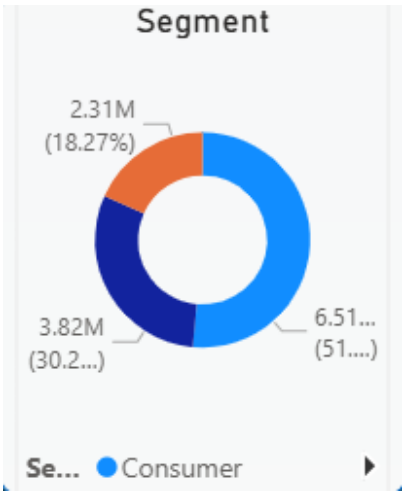
4. Total sales by Sub-Category. (Top 10)



- Here I have used Tree Map chart to find Sales according to Sub-category.(Top 10)
- Here I use Treemap Chart because it can Display large amount of hierarchal data compactly in limited space through Rectangular boxes, which helps us to easily understand which particular part is high and low in sales.
- Here we can conclude that Sales of Phones is more than other Sub-categories.

5.Total Sales by Ship Mode & Segment





- Here we used Donut Chart to find Sales of Ship Mode and Segment
- Here I used Donut Chart and it is similar to Pie Chart but hole in center, here each Arc represents a share of Particular mode, and it is efficient for 2-5 Mode.
- Then I have turned on Detail labels for clear understanding.
- From above visual we can conclude that, “Standard Class” from Ship Mode and “Consumer” from Segment did more Sales.

COLOUMNS CREATED:-

- First I have created the column naming “Day”. For that I have used the formula as,

  Day = Day(Order_id[Order Date]).

- Then the second column created is “Year’

  Year = Year(Order_id[Order Date]).

- Then I created “Date Format” Column using

  Date Format = FORMAT(Order_id[Order Date],"MMM")

  Because there was a mistake in my Date Column, I was not getting Month directly from Date Column ,So Decided to Extract the Month from it because I need Month column for my Dashboard

- Then I have extracted the month from the “Date Format” column by using.

  Month = FORMAT(Order_id[Date Format].[Date],"MMM")

- Then I created “Related Sales” Column in Order_id Table using

  Related Sales = RELATED(Product_id[Sales])

DAX MEASURES:-

- DAX means Data Analysis Expression.
- It is a formula language used to create calculations and queries for data in tabular data models.

DAX MEASURES USED:

1. SUM
2. TOP N
3. DIVIDE

- For Total Profit and Sales i have used 'Sum' formula ,

```
SUM(Product_id[Profit])
```

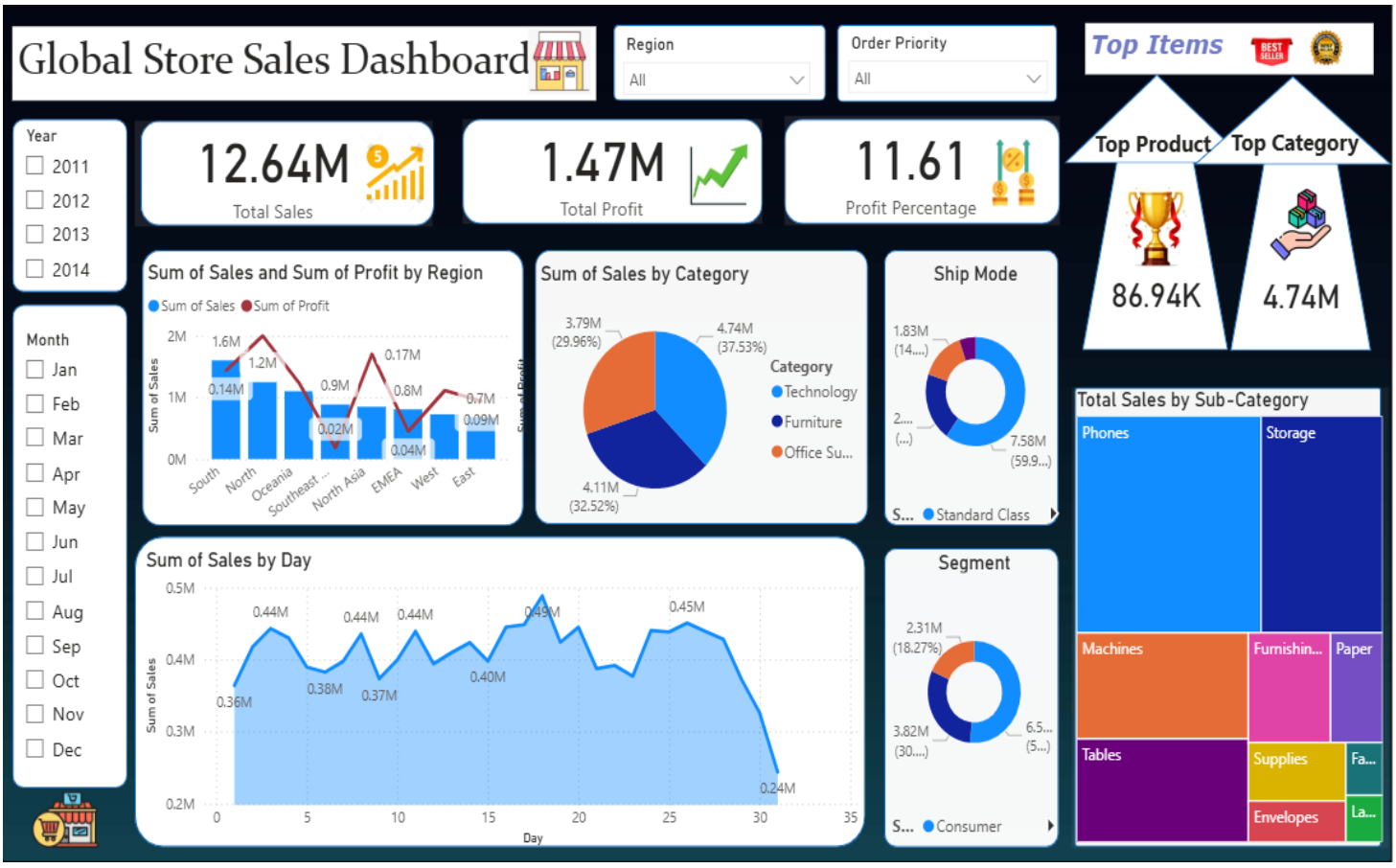
- For Top Product and Top Category I used 'Top N' formula,

```
Top Category = var c =
TOPN(1,SUMMARIZE(Product_id,Product_id[Categ
ory],"Top c",sum(Product_id[Sales])),[Top c],desc)
return MAXX(c,[Top c])
```

- To Find Profit Percentage I used the formula,

```
Profit Percentage = DIVIDE([Total
Profit],[Total Sales])*100
```

This is my Final Dashboard:-



Key Insights:-

- Developed a comprehensive Power BI dashboard integrating data from CSV files to analyze Revenue, Total sales and Profit trends.
- Identified key insights such as the Total sales of South region is more than other regions, So we should do more advertisement in other regions to increase sales there too.

- Also Technology category products only gives us profit in all 4 years (i.e) the profit achieved through technology category is $47M., Technology Sector is booming so we should stick on Technology Category and do more production on it.
- Here in Sub-category the Sales of “Phones” is more than other sub-categories is clearly visible.
- Here we can see that Standard class mode gives more revenue so we should maintain that standard on “Standard class” shipping for good customer satisfication.
- Implemented data visualization technique to provide actionable insights for strategic decision making.
- Demonstrated proficiency in data analysis , dashboard creation and business intelligence tools.

PARAMETERS:-

Parameters are generally used to make reports dynamic, flexible and User driven. Parameters are user-generated values that define how a system can operate. There are two types of parameters in power BI. They are;

1. Numeric parameters
2. Field parameters.

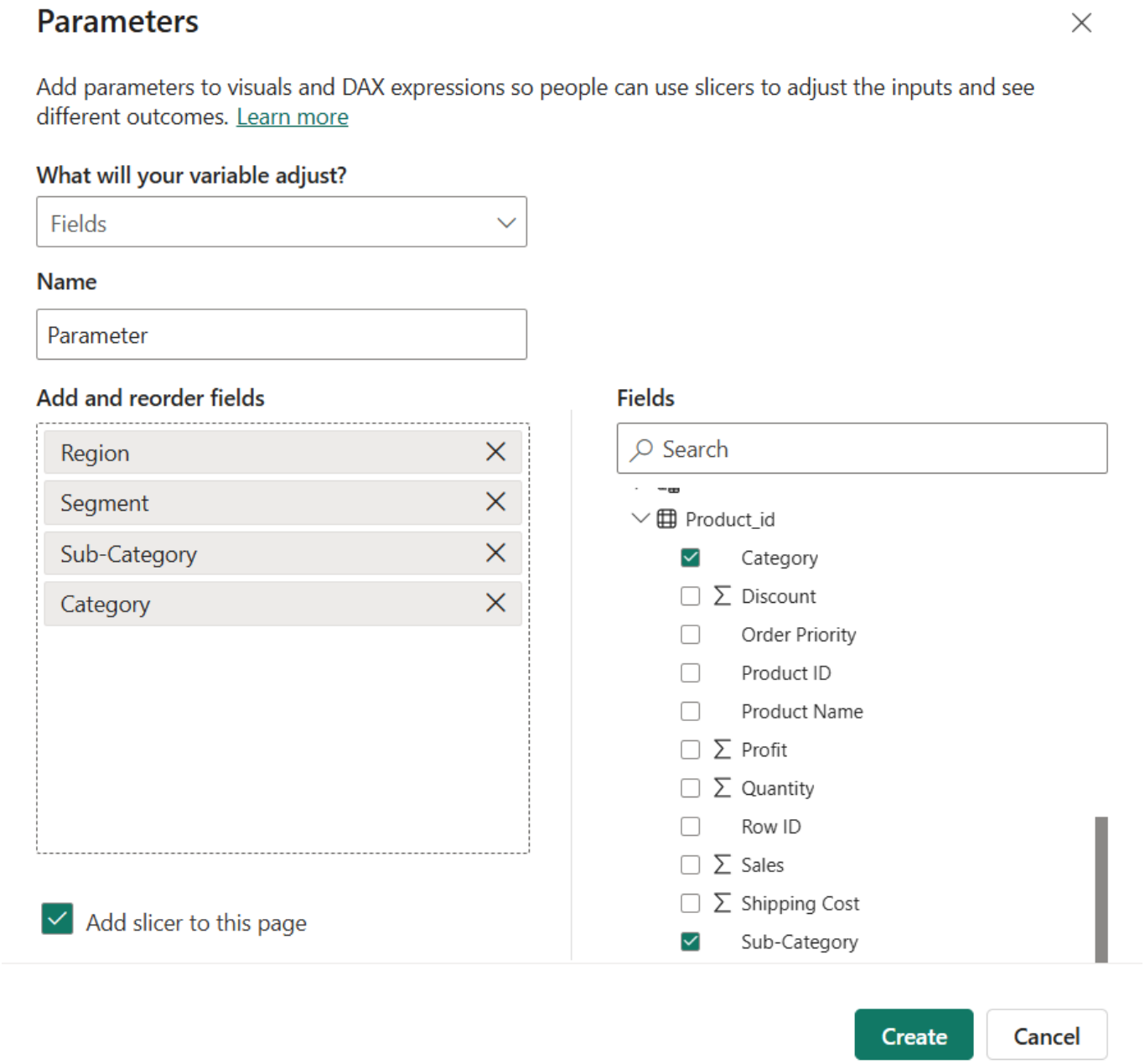
In this project I have used only Field parameter

I have used “Two” field parameters for analytical purpose. They are ;

1. SALES PARAMETER
2. PROFIT PARAMETER.

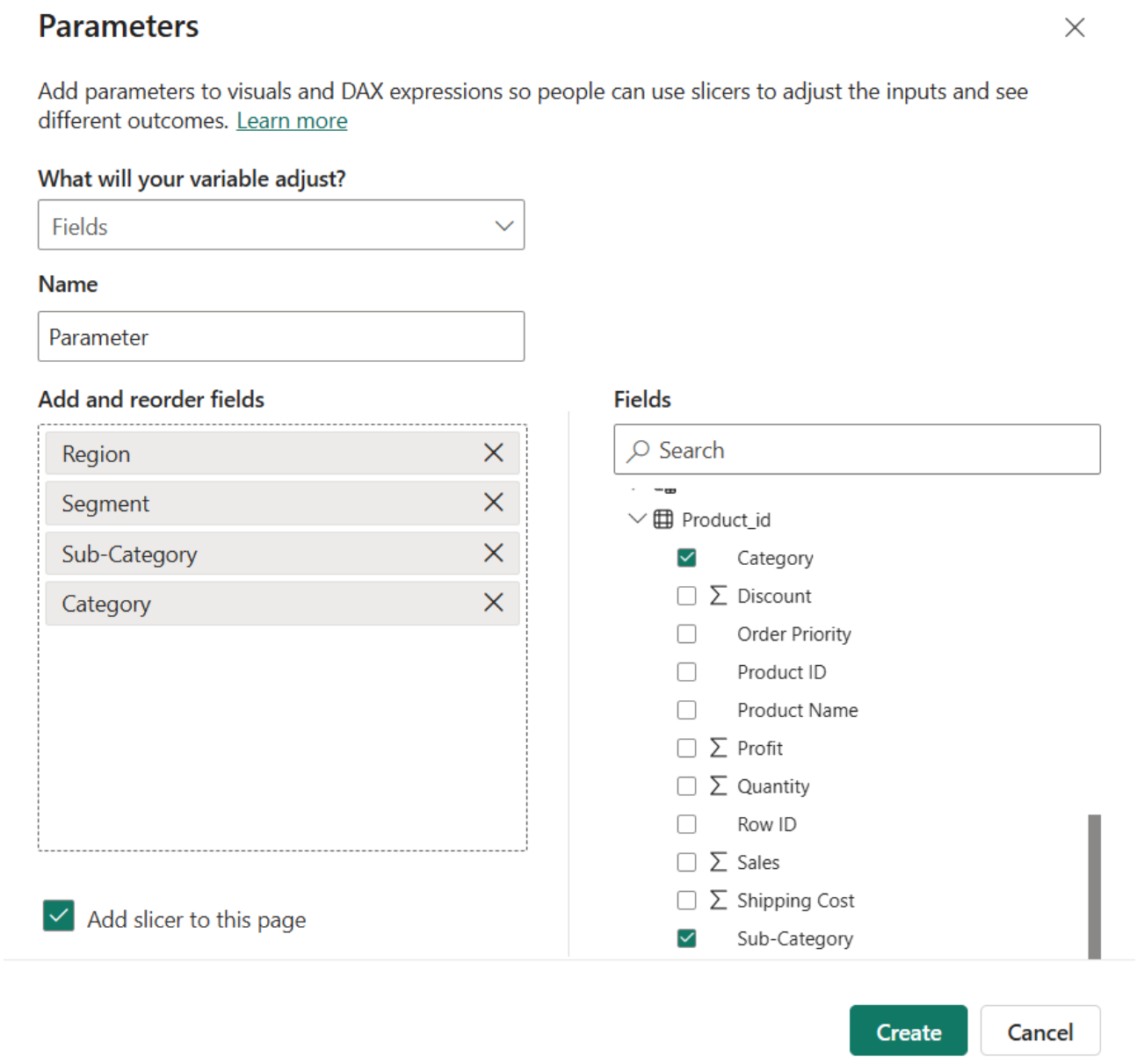
First,

Go to Modeling tab->New parameter->Fields.

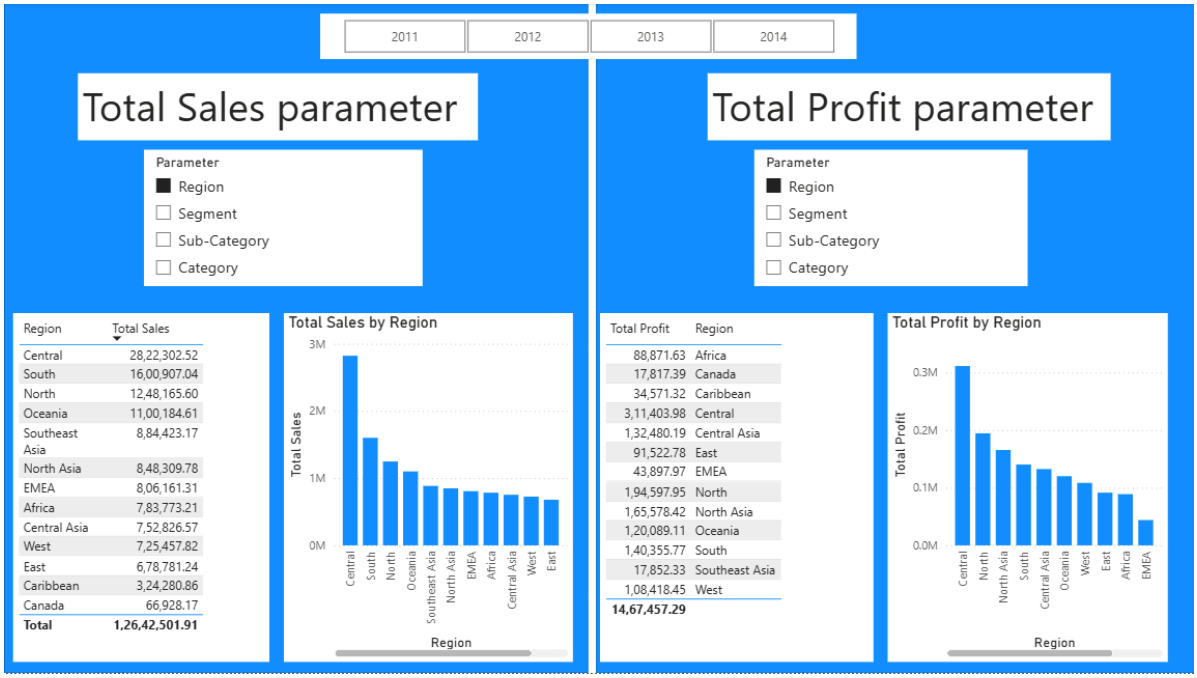


- For Sales parameter , I have dragged and put ‘Region’, ‘Segment’, ‘Category’ and ‘Sub-category’ mode in ADD FIELDS.

- Then clicked on create parameters.



For Profit parameters also , I have dragged ‘Region’, ’Segment’, ’Category’ and ‘Sub-category’ in ADD FIELDS.



- I Just show the use of Parameter because to show that, We can use these type of dynamic Charts through Parameters for more flexible and interactive.