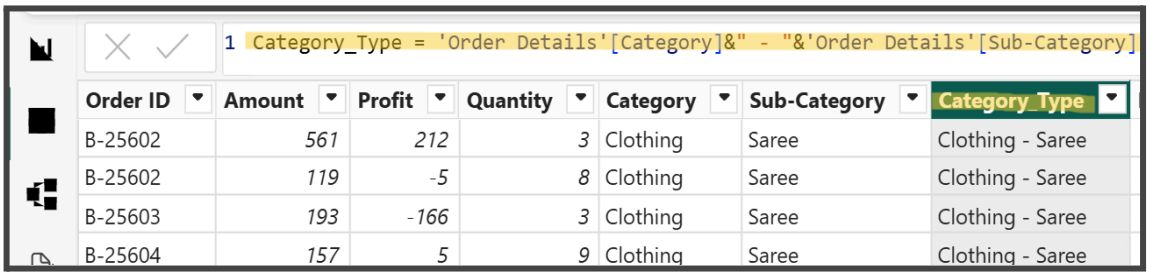
Power BI Assignment 2 – DAX & Data Visualization

Calculated Columns:

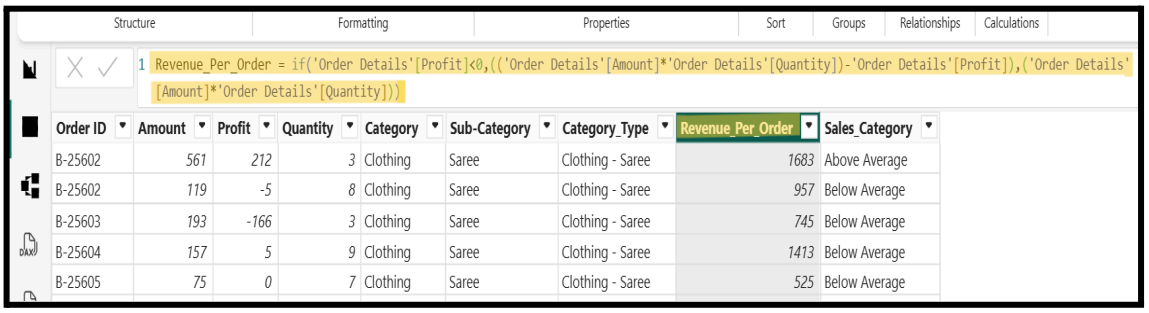
- **Create a Calculated Column for 'Category Type':** Add a calculated column in the Order Details table that combines the 'Category' and 'Sub-Category' columns into a single 'Category Type' column.



```
1 Category_Type = 'Order Details'[Category]&" - "&'Order Details'[Sub-Category]
```

Order ID	Amount	Profit	Quantity	Category	Sub-Category	Category_Type
B-25602	561	212	3	Clothing	Saree	Clothing - Saree
B-25602	119	-5	8	Clothing	Saree	Clothing - Saree
B-25603	193	-166	3	Clothing	Saree	Clothing - Saree
B-25604	157	5	9	Clothing	Saree	Clothing - Saree

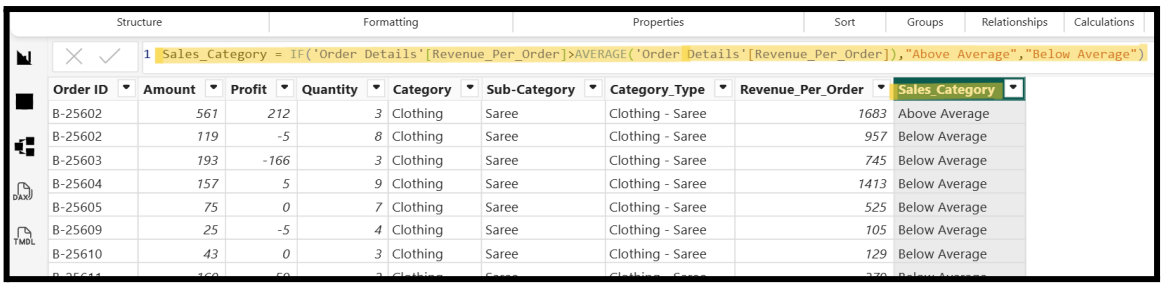
- **Calculate Revenue per Order in Order Details Table:** Create a calculated column in the Order Details table to compute the revenue (Amount * Quantity) per order.



```
1 Revenue_Per_Order = if('Order Details'[Profit]<0,(('Order Details'[Amount]*'Order Details'[Quantity])-'Order Details'[Profit]),('Order Details'[Amount]*'Order Details'[Quantity]))
```

Order ID	Amount	Profit	Quantity	Category	Sub-Category	Category_Type	Revenue_Per_Order	Sales_Category
B-25602	561	212	3	Clothing	Saree	Clothing - Saree	1683	Above Average
B-25602	119	-5	8	Clothing	Saree	Clothing - Saree	957	Below Average
B-25603	193	-166	3	Clothing	Saree	Clothing - Saree	745	Below Average
B-25604	157	5	9	Clothing	Saree	Clothing - Saree	1413	Below Average
B-25605	75	0	7	Clothing	Saree	Clothing - Saree	525	Below Average

- **Create a Calculated Column to Categorize Sales:** Add a calculated column named ‘Sales Category’ in the Order Details table that categorizes each order as 'Above Average' or 'Below Average' based on the Amount value.



```
1 Sales_Category = IF('Order Details'[Revenue_Per_Order]>AVERAGE('Order Details'[Revenue_Per_Order]),"Above Average","Below Average")
```

Order ID	Amount	Profit	Quantity	Category	Sub-Category	Category_Type	Revenue_Per_Order	Sales_Category
B-25602	561	212	3	Clothing	Saree	Clothing - Saree	1683	Above Average
B-25602	119	-5	8	Clothing	Saree	Clothing - Saree	957	Below Average
B-25603	193	-166	3	Clothing	Saree	Clothing - Saree	745	Below Average
B-25604	157	5	9	Clothing	Saree	Clothing - Saree	1413	Below Average
B-25605	75	0	7	Clothing	Saree	Clothing - Saree	525	Below Average
B-25609	25	-5	4	Clothing	Saree	Clothing - Saree	105	Below Average
B-25610	43	0	3	Clothing	Saree	Clothing - Saree	129	Below Average

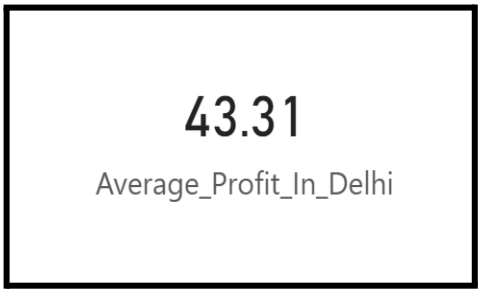
Calculated Measures:

- **Calculate Order Count:** Define a measure to count the total number of orders in the Order Details table.

```
1 Order_Count = DISTINCTCOUNT('Order Details'[Order ID])
```

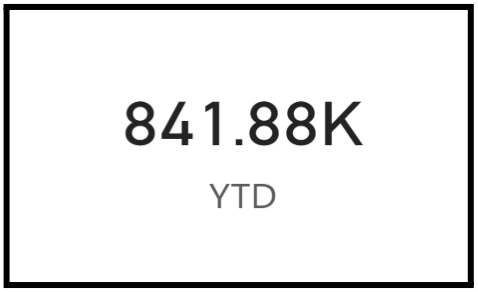
- **Calculate Average Profit in Delhi:** Create a measure to calculate the average profit for orders placed in Delhi.

```
1 Average_Profit_In_Delhi = CALCULATE(AVERAGE('Order Details'[Profit]),'List of Orders'[City]="Delhi")
```



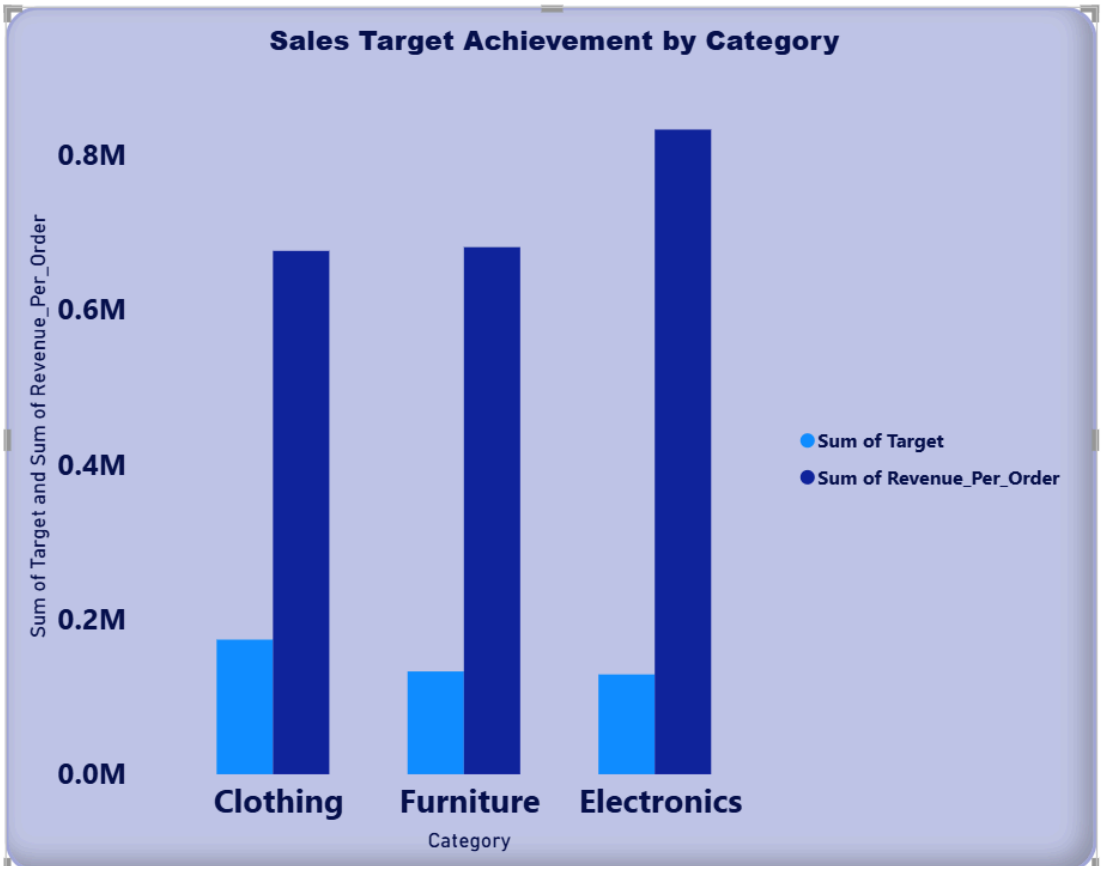
- **Calculate Year-to-Date (YTD) Sales:** Define a measure to calculate the total sales amount accumulated from the earliest order date up to each order date.

```
1 YTD = TOTALYTD(SUM('Order Details'[Revenue_Per_Order]),'List of Orders'[Order Date])
```

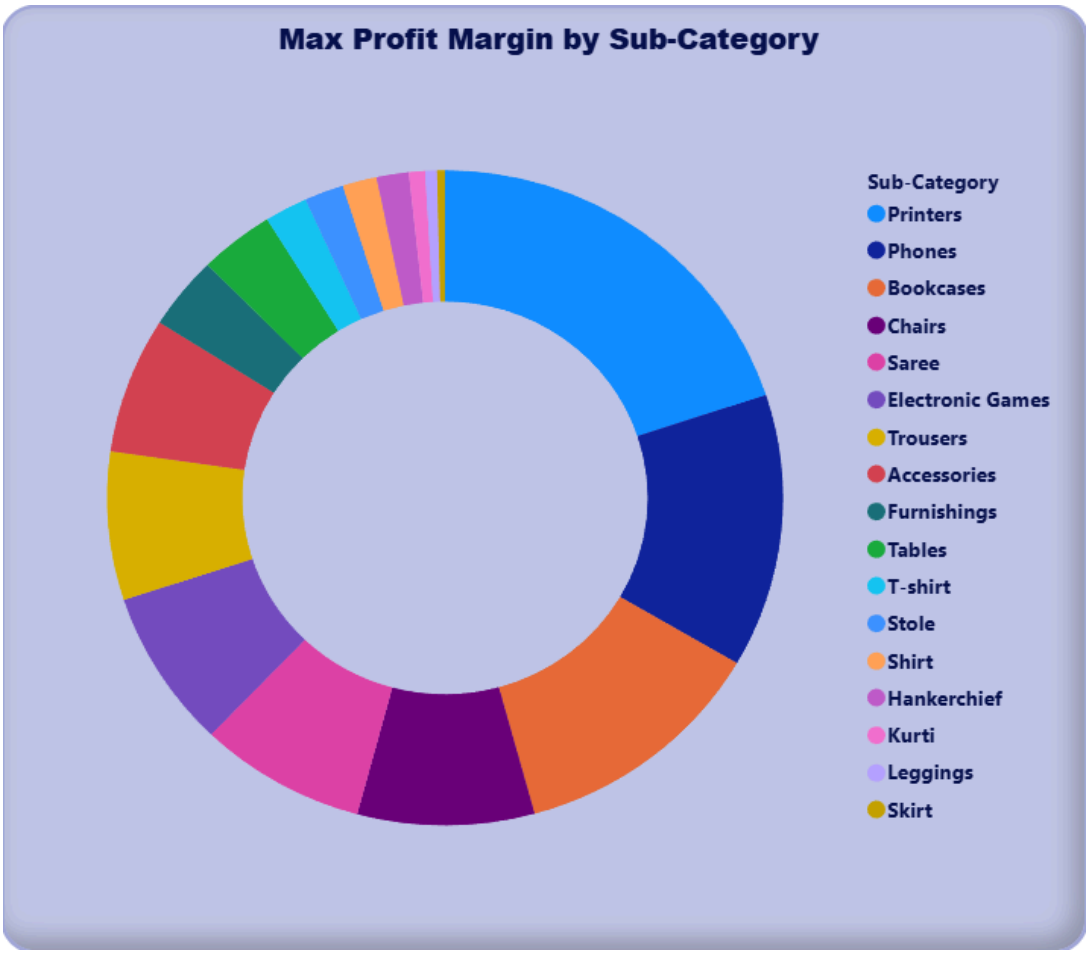


Data Visualization:

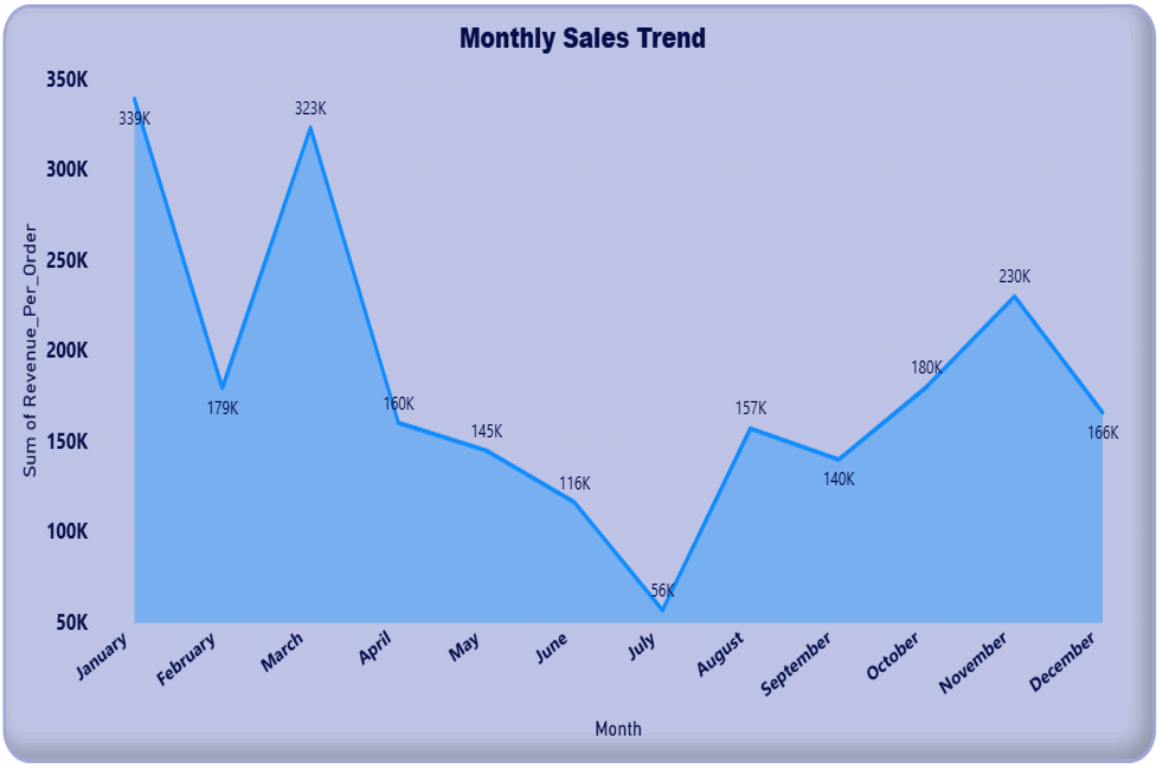
● **Sales Target Achievement by Category:** Compare actual sales with sales targets by category using a clustered column chart.



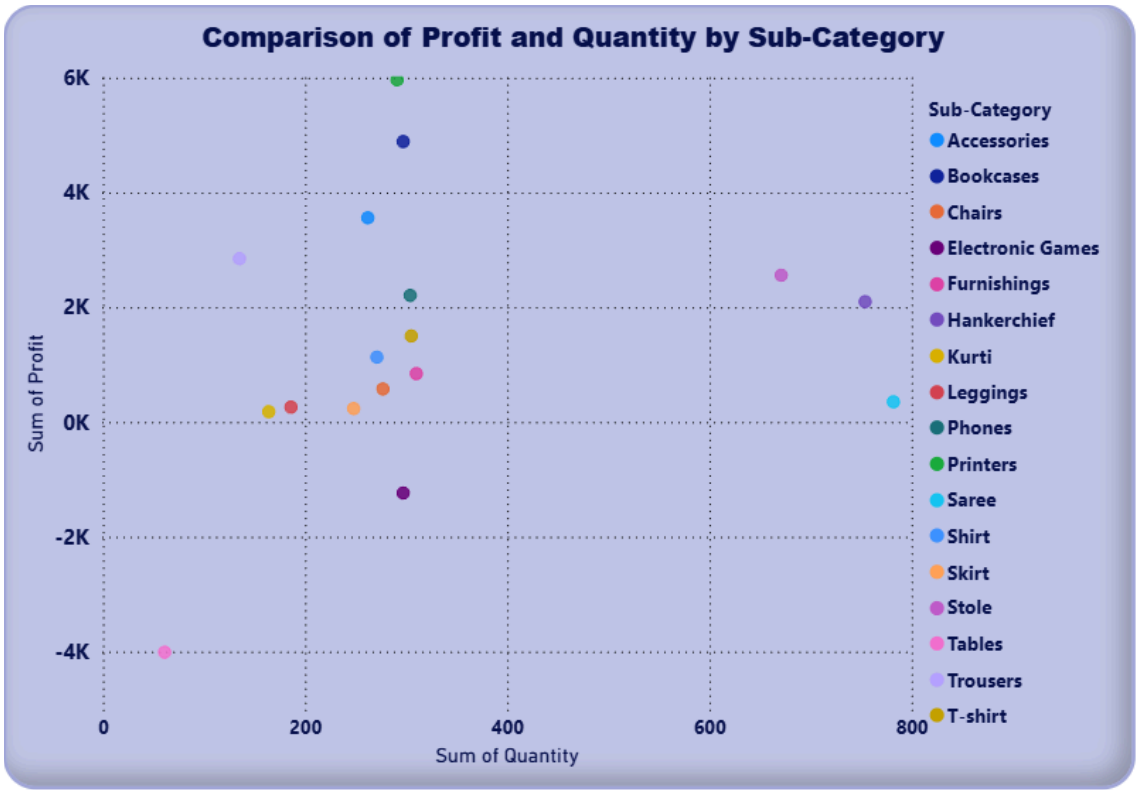
● **Max Profit Margin by Sub-Category:** Analyze the maximum profit margin for each sub-category of products using a donut chart.



● **Monthly Sales Trend:** Show the trend of monthly sales over time using a line chart.

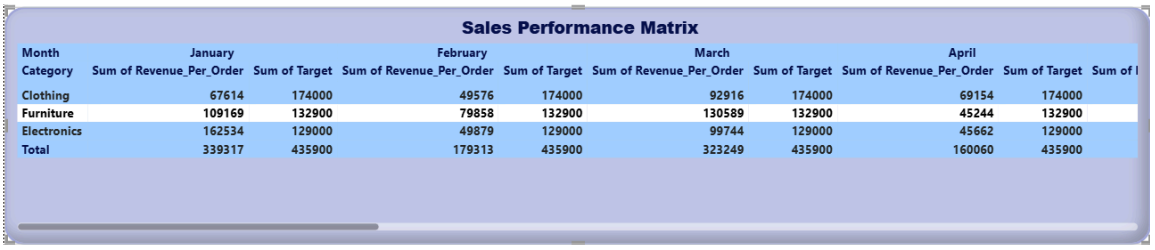


● **Comparison of Profit and Quantity by Sub-Category:** Compare the relationship between profit and quantity sold for different sub-categories using a scatter chart.



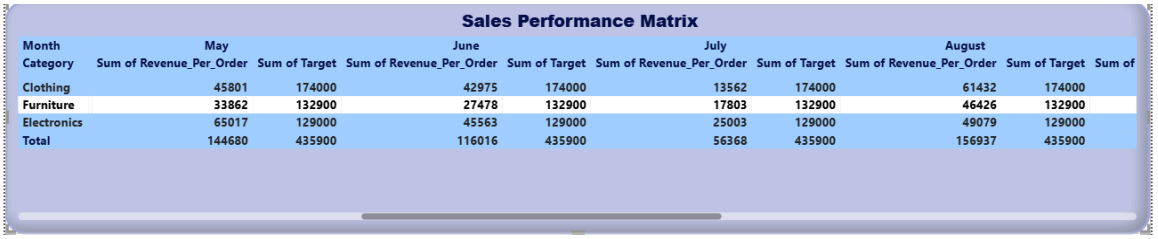
- **Comparison of Total Sales Amount and Target:** Create cards to succinctly display the total sales amount alongside the sales target for quick comparison and analysis. Also, create a multi-row card to display the minimum target for each segment.

- **Sales Performance Matrix:** Build a matrix view to analyze how actual sales compare to sales targets across different categories and months.



Sales Performance Matrix

Month	January		February		March		April		
Category	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of I
Clothing	67614	174000	49576	174000	92916	174000	69154	174000	
Furniture	109169	132900	79858	132900	130589	132900	45244	132900	
Electronics	162534	129000	49879	129000	99744	129000	45662	129000	
Total	339317	435900	179313	435900	323249	435900	160060	435900	



Sales Performance Matrix

Month	May		June		July		August		
Category	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of
Clothing	45801	174000	42975	174000	13562	174000	61432	174000	
Furniture	33862	132900	27478	132900	17803	132900	46426	132900	
Electronics	65017	129000	45563	129000	25003	129000	49079	129000	
Total	144680	435900	116016	435900	56368	435900	156937	435900	

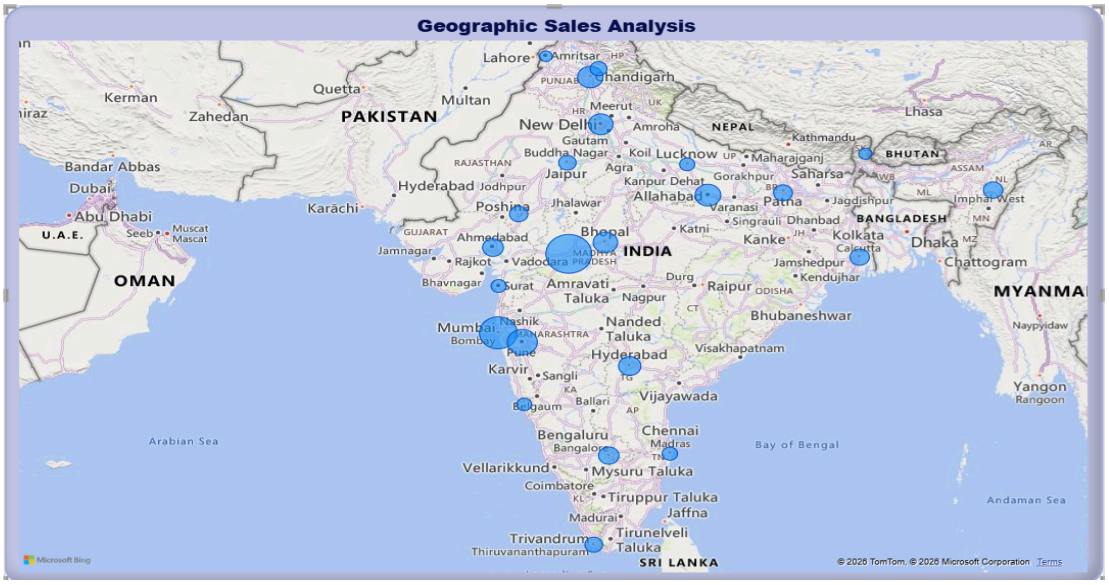
Sales Performance Matrix

Month	September		October		November		December		
Category	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of F
Clothing	61134	174000	56326	174000	72708	174000	43317	174000	
Furniture	43651	132900	53643	132900	64274	132900	29289	132900	
Electronics	34890	129000	69913	129000	92915	129000	93106	129000	
Total	139675	435900	179882	435900	229897	435900	165712	435900	

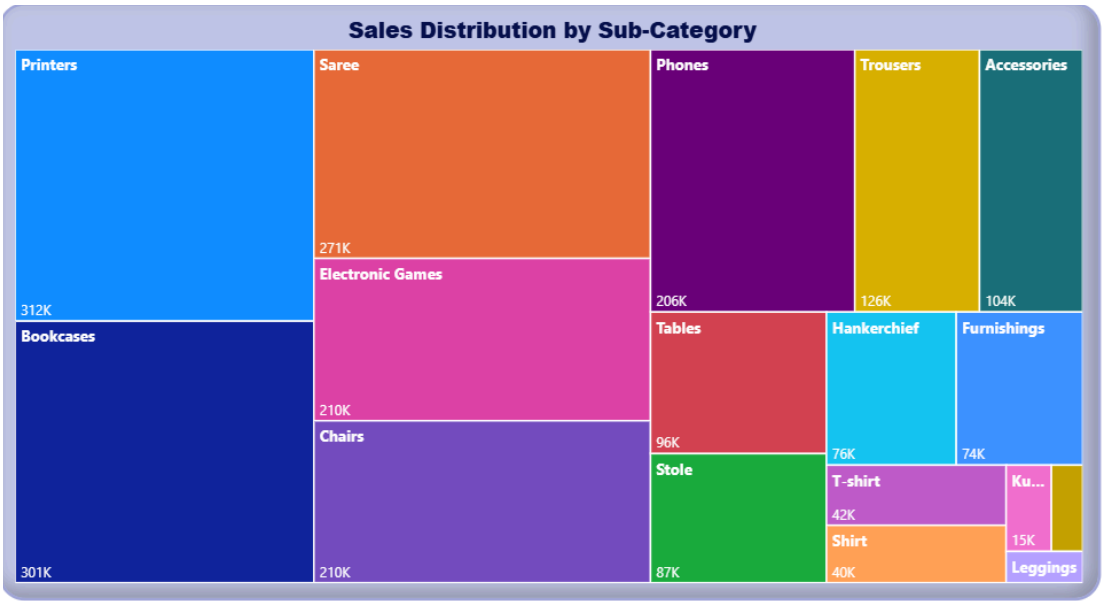
Sales Performance Matrix

Month	ember	October		November		December		Total	
Category	f Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target	Sum of Revenue_Per_Order	Sum of Target
Clothing	174000	56326	174000	72708	174000	43317	174000	676515	174000
Furniture	132900	53643	132900	64274	132900	29289	132900	681286	132900
Electronics	129000	69913	129000	92915	129000	93106	129000	833305	129000
Total	435900	179882	435900	229897	435900	165712	435900	2191106	435900

- **Geographic Sales Analysis:** Visualize total sales on a map by city to identify regional sales patterns.



- **Sales Distribution by Sub-Category:** Represent the sales distribution across different sub-categories using a treemap.



- **Order Count Analysis by State:** Create a funnel chart to visualize the distribution of order counts across different states.