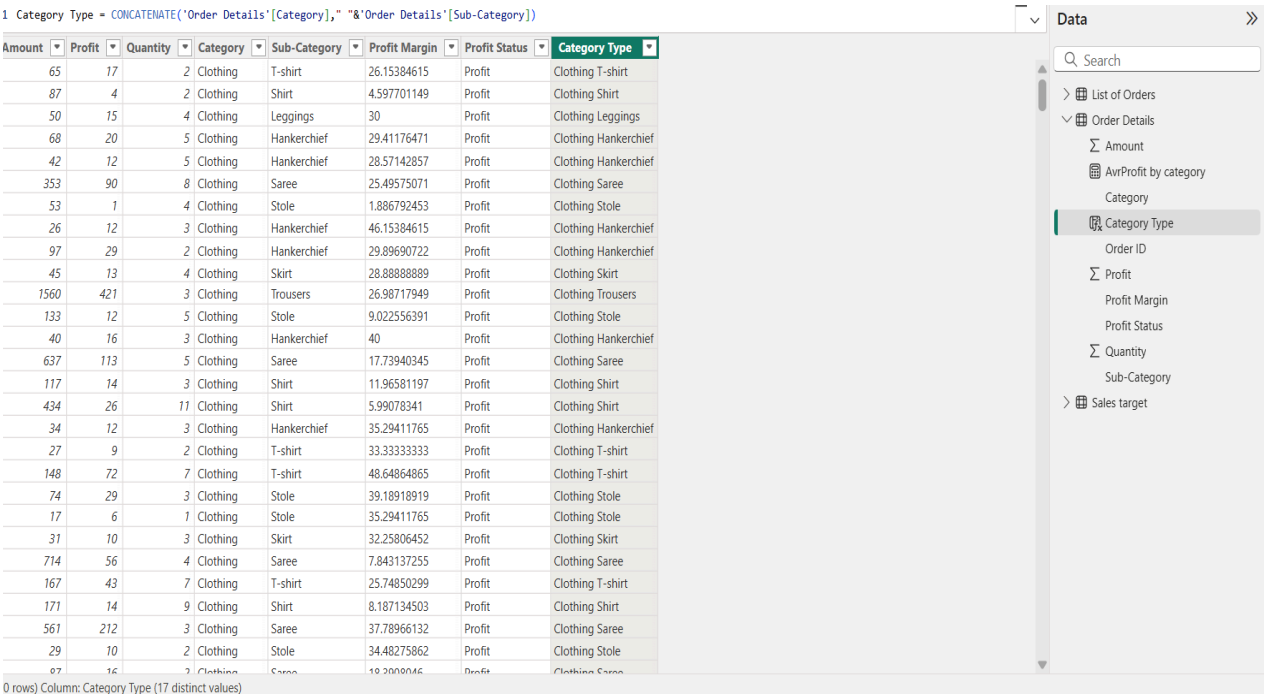
Power BI Assignment 2 - DAX, Data Visualization

Calculated Columns:

1.Created a Calculated Column for 'Category Type'

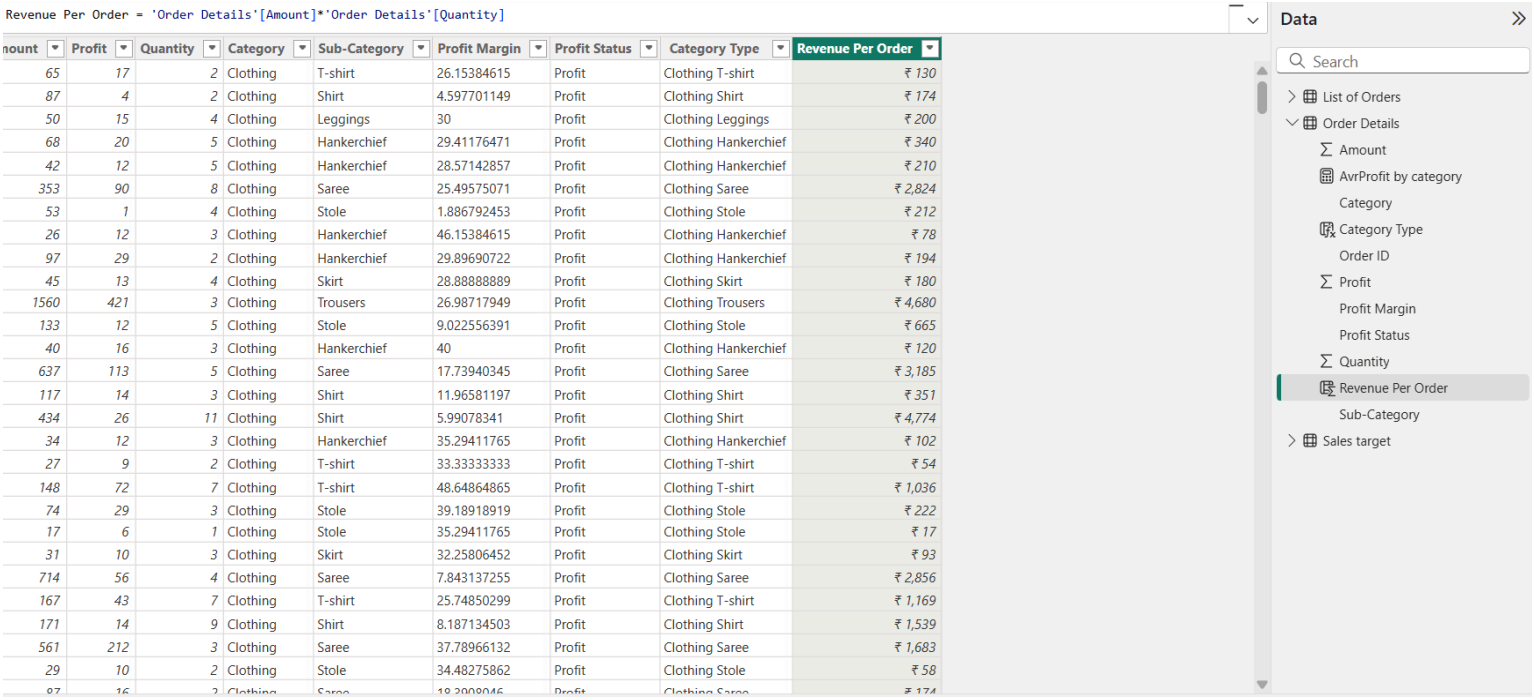
```
Category Type = CONCATENATE('Order Details'[sales]," "&'Order
Details'[Sub-Category])
```



This above image shows creation of a new column “Category Type” by using a concatenate formula for “Category” and “Sub-Category” columns.

2.Calculated Revenue per Order in Order Details Table

```
Revenue Per Order = 'Order Details'[Amount]*'Order Details'[Quantity]
```



Revenue Per Order = 'Order Details'[Amount]*'Order Details'[Quantity]

nount	Profit	Quantity	Category	Sub-Category	Profit Margin	Profit Status	Category Type	Revenue Per Order
65	17	2	Clothing	T-shirt	26.15384615	Profit	Clothing T-shirt	₹ 130
87	4	2	Clothing	Shirt	4.597701149	Profit	Clothing Shirt	₹ 174
50	15	4	Clothing	Leggings	30	Profit	Clothing Leggings	₹ 200
68	20	5	Clothing	Hankerchief	29.41176471	Profit	Clothing Hankerchief	₹ 340
42	12	5	Clothing	Hankerchief	28.57142857	Profit	Clothing Hankerchief	₹ 210
353	90	8	Clothing	Saree	25.49575071	Profit	Clothing Saree	₹ 2,824
53	1	4	Clothing	Stole	1.886792453	Profit	Clothing Stole	₹ 212
26	12	3	Clothing	Hankerchief	46.15384615	Profit	Clothing Hankerchief	₹ 78
97	29	2	Clothing	Hankerchief	29.89690722	Profit	Clothing Hankerchief	₹ 194
45	13	4	Clothing	Skirt	28.88888889	Profit	Clothing Skirt	₹ 180
1560	421	3	Clothing	Trousers	26.98717949	Profit	Clothing Trousers	₹ 4,680
133	12	5	Clothing	Stole	9.022556391	Profit	Clothing Stole	₹ 665
40	16	3	Clothing	Hankerchief	40	Profit	Clothing Hankerchief	₹ 120
637	113	5	Clothing	Saree	17.73940345	Profit	Clothing Saree	₹ 3,185
117	14	3	Clothing	Shirt	11.96581197	Profit	Clothing Shirt	₹ 351
434	26	11	Clothing	Shirt	5.99078341	Profit	Clothing Shirt	₹ 4,774
34	12	3	Clothing	Hankerchief	35.29411765	Profit	Clothing Hankerchief	₹ 102
27	9	2	Clothing	T-shirt	33.33333333	Profit	Clothing T-shirt	₹ 54
148	72	7	Clothing	T-shirt	48.64864865	Profit	Clothing T-shirt	₹ 1,036
74	29	3	Clothing	Stole	39.18918919	Profit	Clothing Stole	₹ 222
17	6	1	Clothing	Stole	35.29411765	Profit	Clothing Stole	₹ 17
31	10	3	Clothing	Skirt	32.25806452	Profit	Clothing Skirt	₹ 93
714	56	4	Clothing	Saree	7.843137255	Profit	Clothing Saree	₹ 2,856
167	43	7	Clothing	T-shirt	25.74850299	Profit	Clothing T-shirt	₹ 1,169
171	14	9	Clothing	Shirt	8.187134503	Profit	Clothing Shirt	₹ 1,539
561	212	3	Clothing	Saree	37.78966132	Profit	Clothing Saree	₹ 1,683
29	10	2	Clothing	Stole	34.48275862	Profit	Clothing Stole	₹ 58

Data

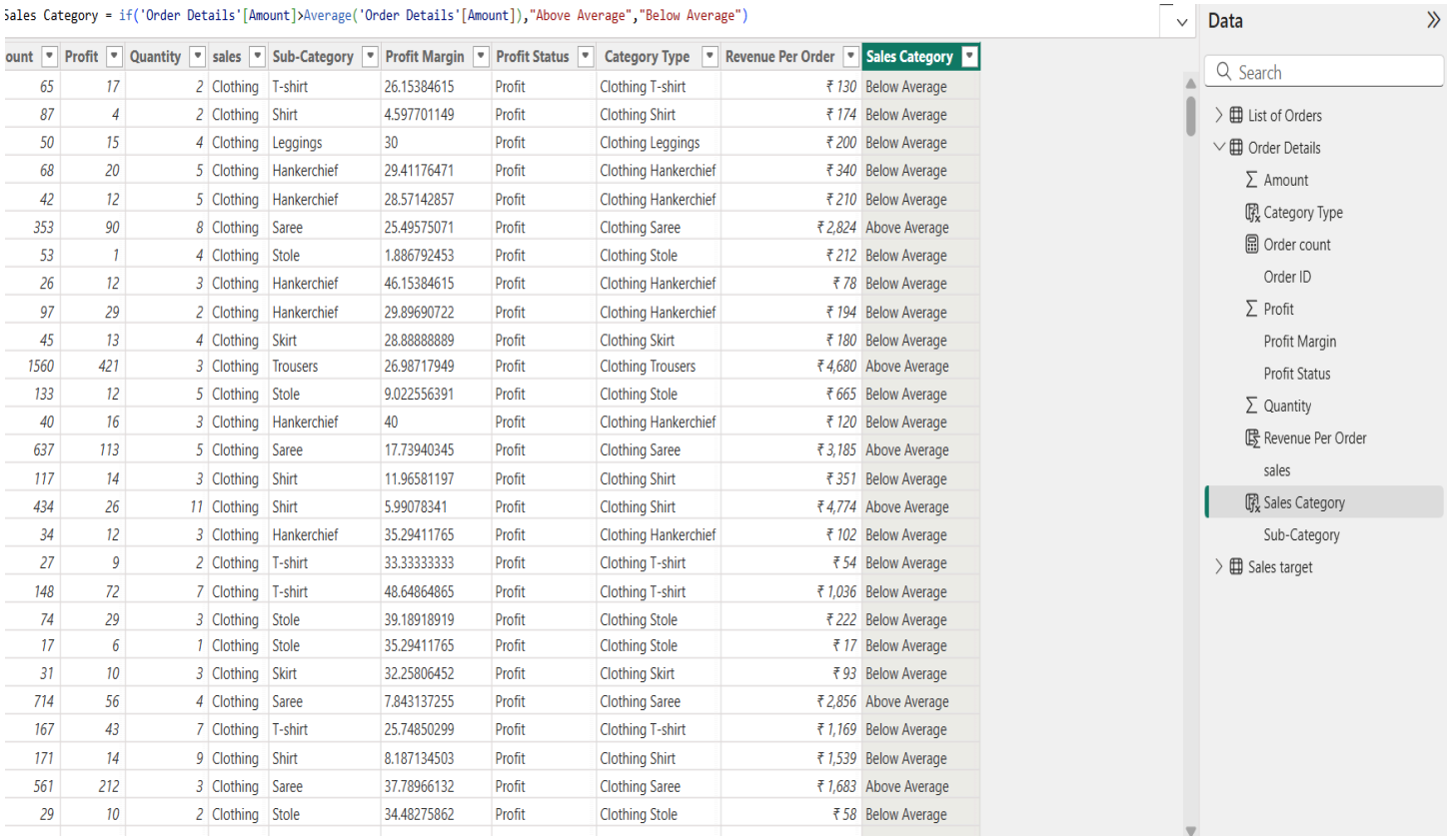
Search

- List of Orders
- Order Details
  - Amount
  - AvrProfit by category
  - Category
  - Category Type
  - Order ID
  - Profit
  - Profit Margin
  - Profit Status
  - Quantity
  - Revenue Per Order
  - Sub-Category
- Sales target

This above image shows, created a new column as “Revenue Per Order”, by using formula Revenue = Amount * Quantity.

3.Created a Calculated Column to Categorize Sales

```
Sales Category = if('Order Details'[Amount]>Average('Order Details'[Amount]),"Above Average","Below Average")
```



Sales Category = if('Order Details'[Amount]>Average('Order Details'[Amount]),"Above Average","Below Average")

ount	Profit	Quantity	sales	Sub-Category	Profit Margin	Profit Status	Category Type	Revenue Per Order	Sales Category
65	17	2	Clothing	T-shirt	26.15384615	Profit	Clothing T-shirt	₹ 130	Below Average
87	4	2	Clothing	Shirt	4.597701149	Profit	Clothing Shirt	₹ 174	Below Average
50	15	4	Clothing	Leggings	30	Profit	Clothing Leggings	₹ 200	Below Average
68	20	5	Clothing	Hankerchief	29.41176471	Profit	Clothing Hankerchief	₹ 340	Below Average
42	12	5	Clothing	Hankerchief	28.57142857	Profit	Clothing Hankerchief	₹ 210	Below Average
353	90	8	Clothing	Saree	25.49575071	Profit	Clothing Saree	₹ 2,824	Above Average
53	1	4	Clothing	Stole	1.886792453	Profit	Clothing Stole	₹ 212	Below Average
26	12	3	Clothing	Hankerchief	46.15384615	Profit	Clothing Hankerchief	₹ 78	Below Average
97	29	2	Clothing	Hankerchief	29.89690722	Profit	Clothing Hankerchief	₹ 194	Below Average
45	13	4	Clothing	Skirt	28.88888889	Profit	Clothing Skirt	₹ 180	Below Average
1560	421	3	Clothing	Trousers	26.98717949	Profit	Clothing Trousers	₹ 4,680	Above Average
133	12	5	Clothing	Stole	9.022556391	Profit	Clothing Stole	₹ 665	Below Average
40	16	3	Clothing	Hankerchief	40	Profit	Clothing Hankerchief	₹ 120	Below Average
637	113	5	Clothing	Saree	17.73940345	Profit	Clothing Saree	₹ 3,185	Above Average
117	14	3	Clothing	Shirt	11.96581197	Profit	Clothing Shirt	₹ 351	Below Average
434	26	11	Clothing	Shirt	5.99078341	Profit	Clothing Shirt	₹ 4,774	Above Average
34	12	3	Clothing	Hankerchief	35.29411765	Profit	Clothing Hankerchief	₹ 102	Below Average
27	9	2	Clothing	T-shirt	33.33333333	Profit	Clothing T-shirt	₹ 54	Below Average
148	72	7	Clothing	T-shirt	48.64864865	Profit	Clothing T-shirt	₹ 1,036	Below Average
74	29	3	Clothing	Stole	39.18918919	Profit	Clothing Stole	₹ 222	Below Average
17	6	1	Clothing	Stole	35.29411765	Profit	Clothing Stole	₹ 17	Below Average
31	10	3	Clothing	Skirt	32.25806452	Profit	Clothing Skirt	₹ 93	Below Average
714	56	4	Clothing	Saree	7.843137255	Profit	Clothing Saree	₹ 2,856	Above Average
167	43	7	Clothing	T-shirt	25.74850299	Profit	Clothing T-shirt	₹ 1,169	Below Average
171	14	9	Clothing	Shirt	8.187134503	Profit	Clothing Shirt	₹ 1,539	Below Average
561	212	3	Clothing	Saree	37.78966132	Profit	Clothing Saree	₹ 1,683	Above Average
29	10	2	Clothing	Stole	34.48275862	Profit	Clothing Stole	₹ 58	Below Average

Data

Search

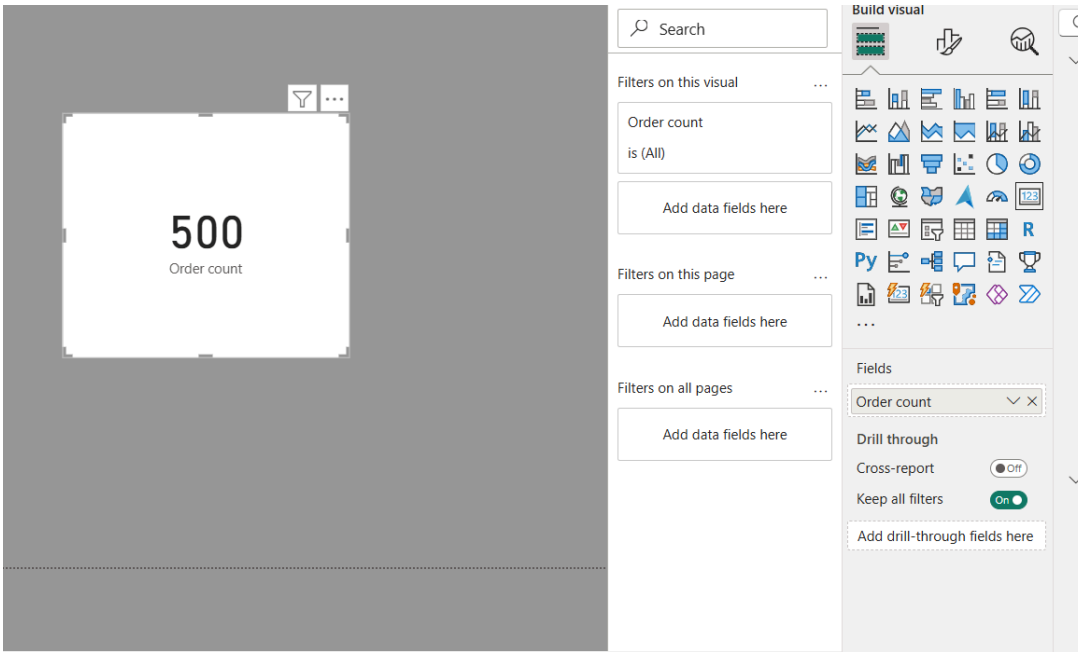
- List of Orders
- Order Details
  - Amount
  - Category Type
  - Order count
  - Order ID
  - Profit
  - Profit Margin
  - Profit Status
  - Quantity
  - Revenue Per Order
  - sales
  - Sales Category
  - Sub-Category
- Sales target

This above image shows a new column “Sales Category” created by using the “If” formula.

Calculated Measures:

Calculated Order Count

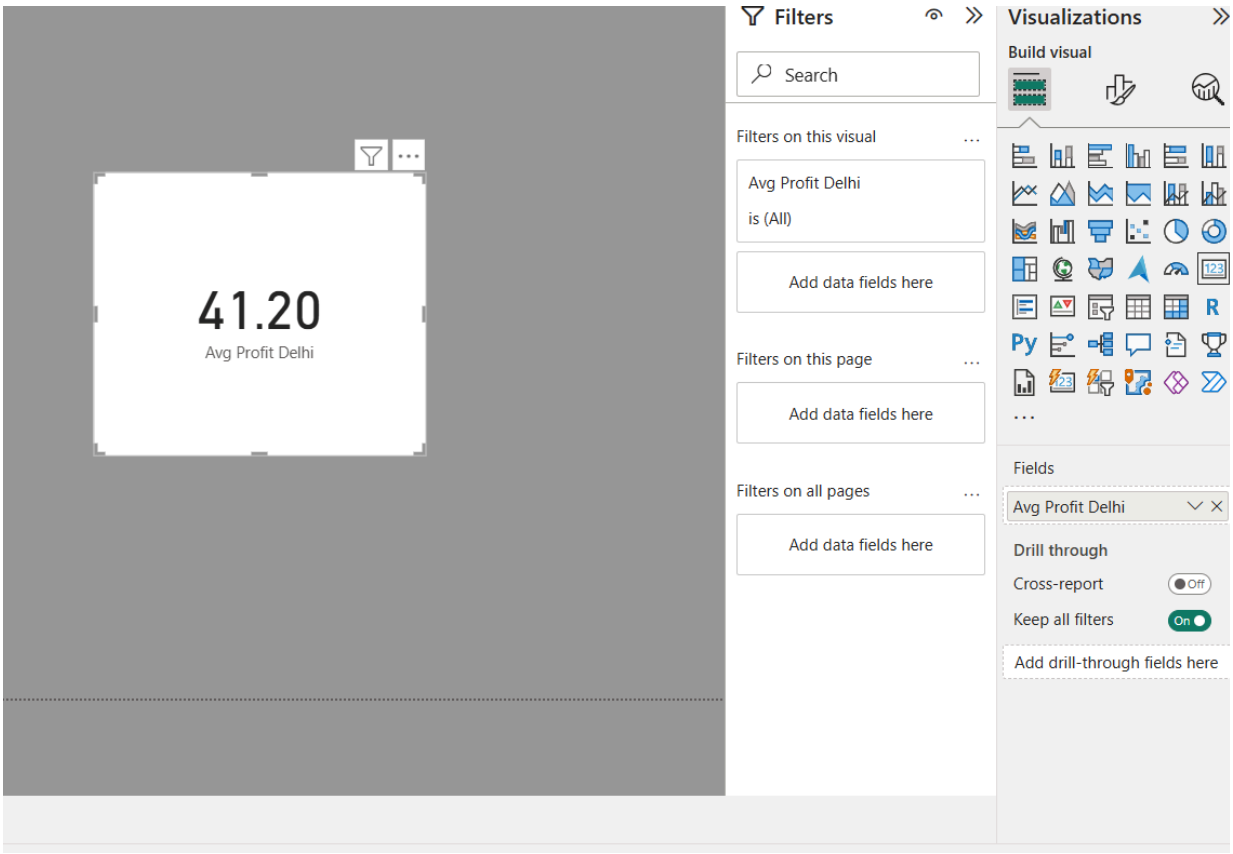
```
Order count = count('Order Details'[Order ID])
```



Here created a new measure to find the “Order count” of values in “Order Details”.

Calculated Average Profit in Delhi

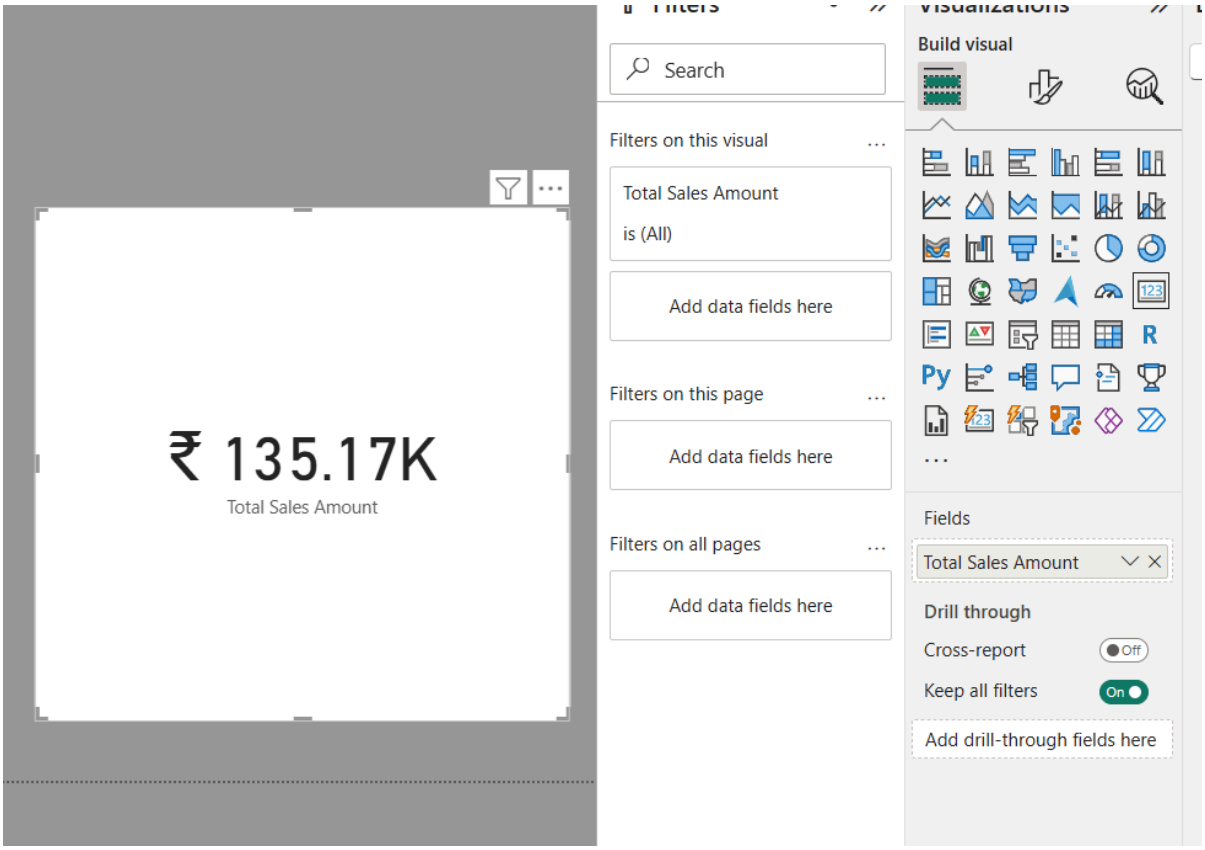
```
Avg Profit Delhi = CALCULATE(AVERAGE('Order Details'[Profit]),'List of Orders'[City]="Delhi")
```



Here created a new measure to find the Average Profit for order placed in “Delhi”.

Calculated Year-to-Date (YTD) Sales

```
Total Sales Amount(YTD) = CALCULATE(sum('Order Details'[Amount]),DATESYTD('Sales target'[Month of Order Date]))
```

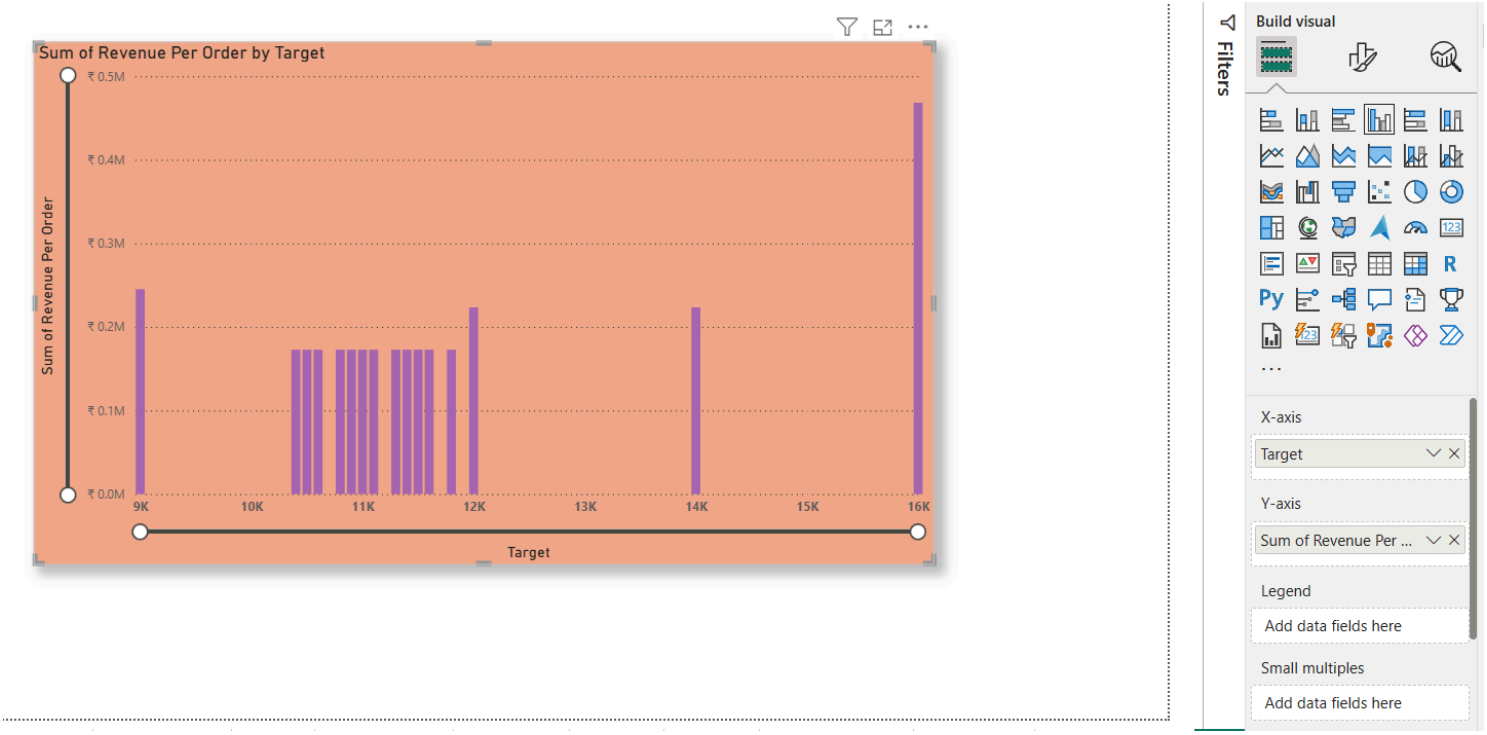


Here created a new measure to find the total sales from earliest order upto each order(YTD).

Data Visualization:

Sales Target Achievement by Category

Clustered Column Chart



Here, X-axis Target(sale),
Y-axis Revenue per sale.

The above clustered column chart explains clearly about the actual sale with sale target by category.

Max Profit Margin by Sub-Category

Donut Chart

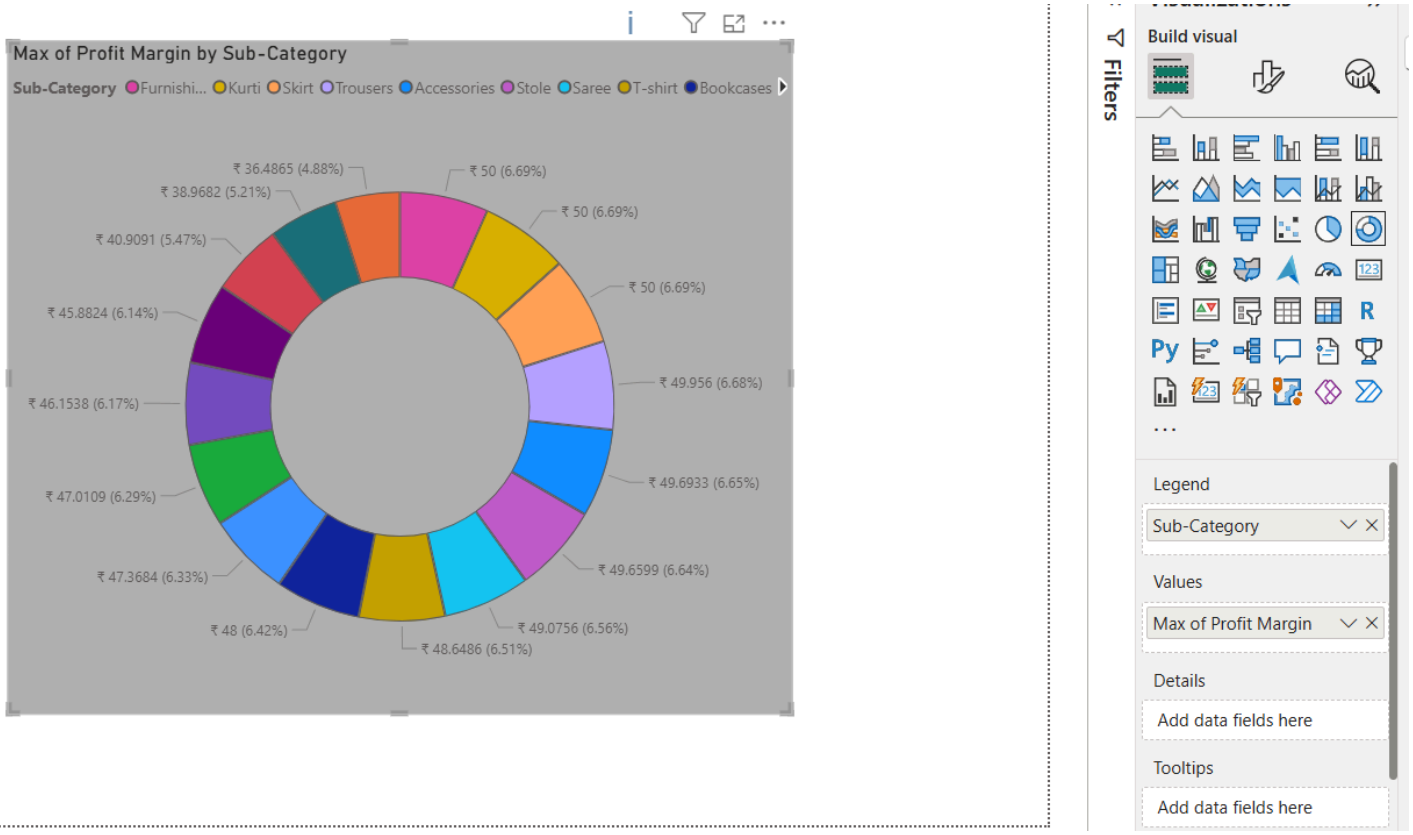
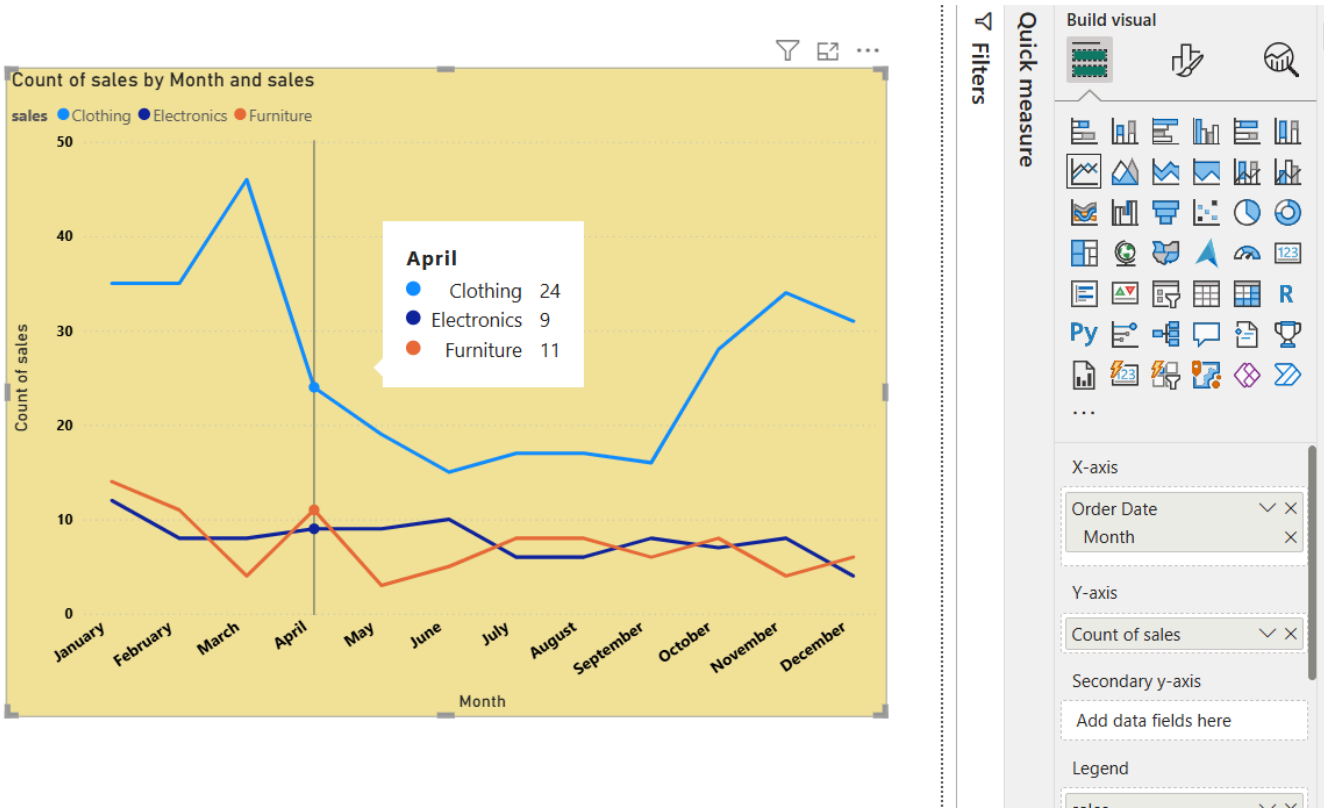


Image explains, about Maximum profit margin for each sub-category of products.

Monthly Sales Trend

Line Chart



Here,

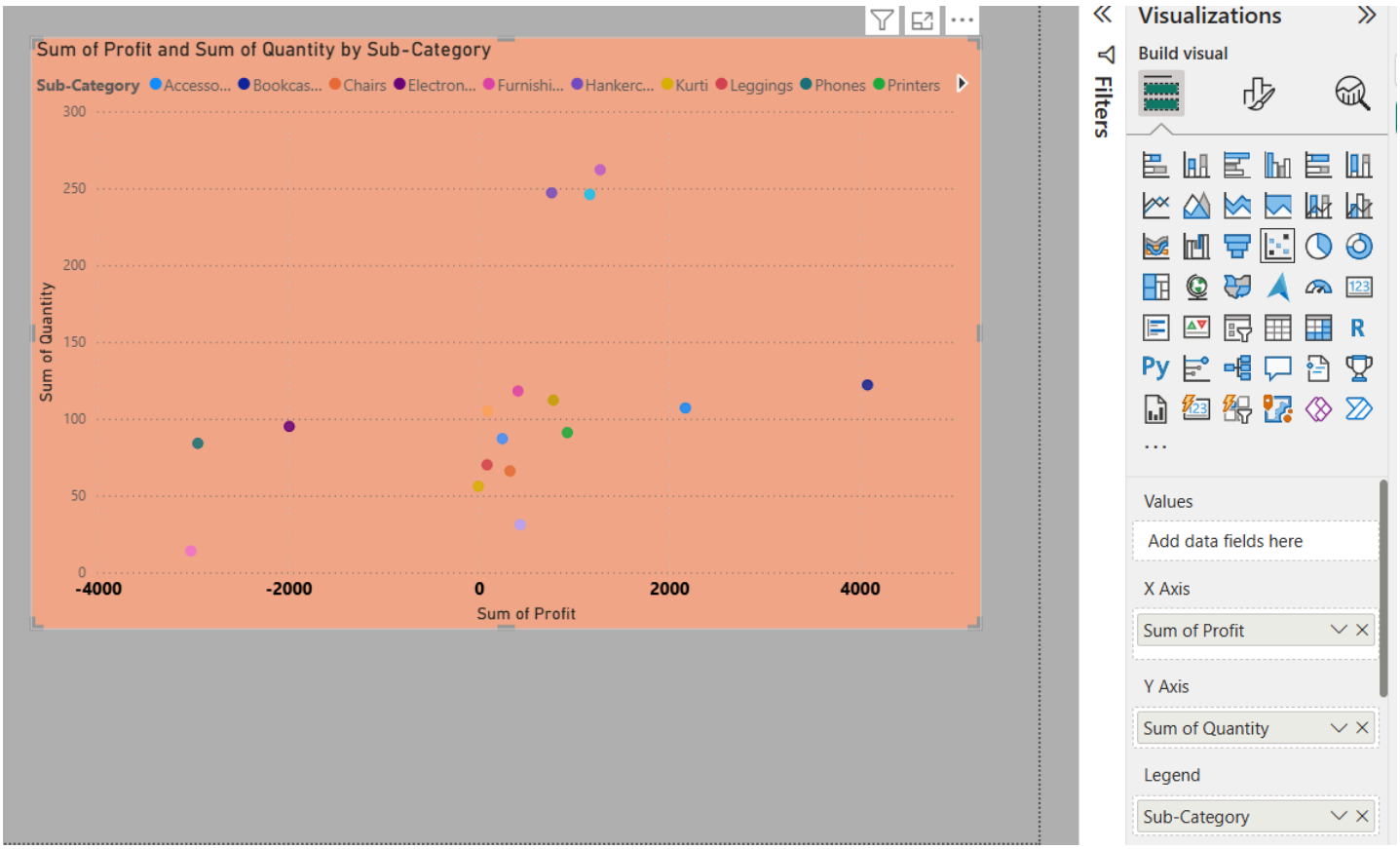
X-axis order date “monthly”

Y-axis Sales

The line chart tells the trends of monthly sales over time.

Comparison of Profit and Quantity by Sub-Category

Scatter Chart



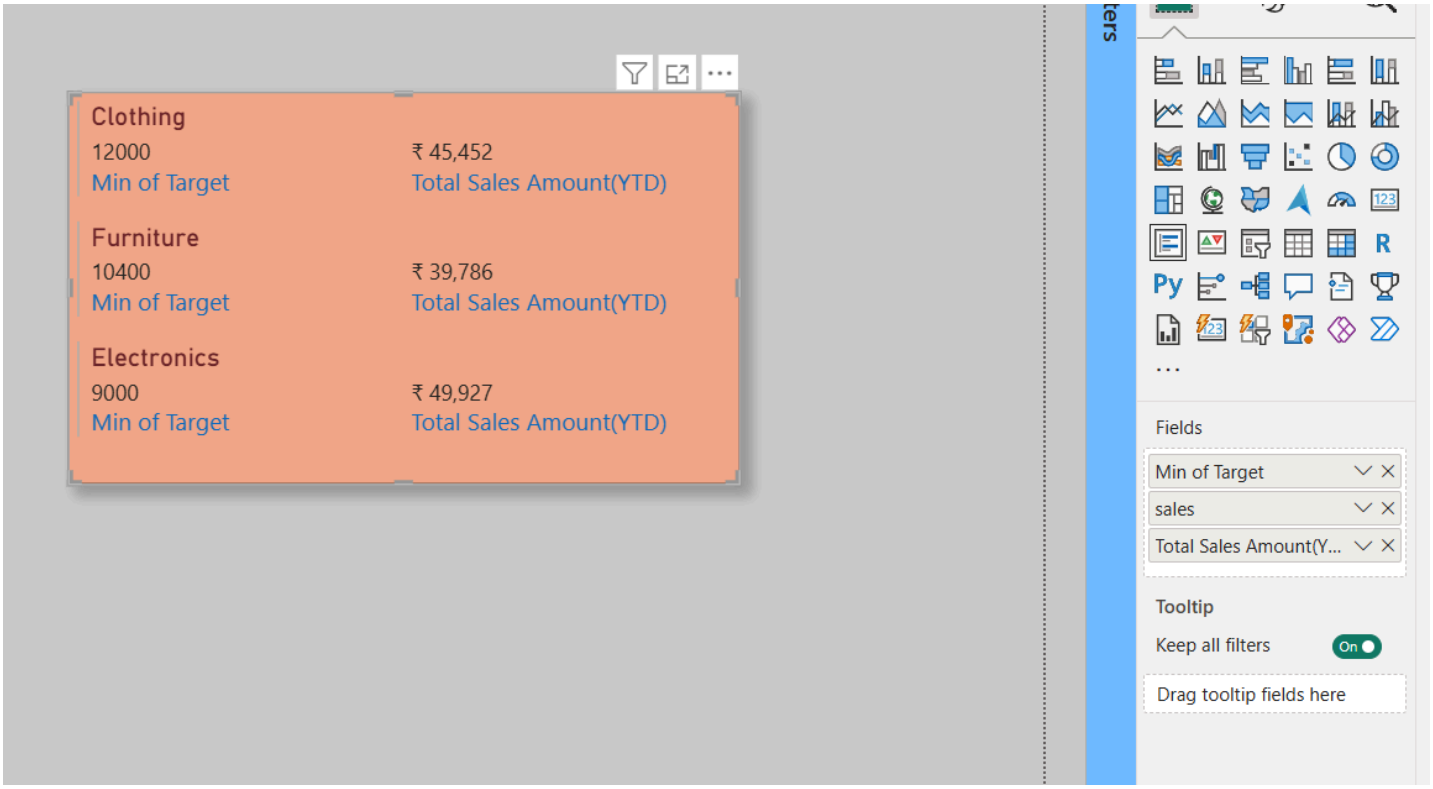
Here X-axis Profit

Y-axis quantity

Shows relationship between profit and quantity sold for different sub-categories.

Comparison of Total Sales Amount and Target

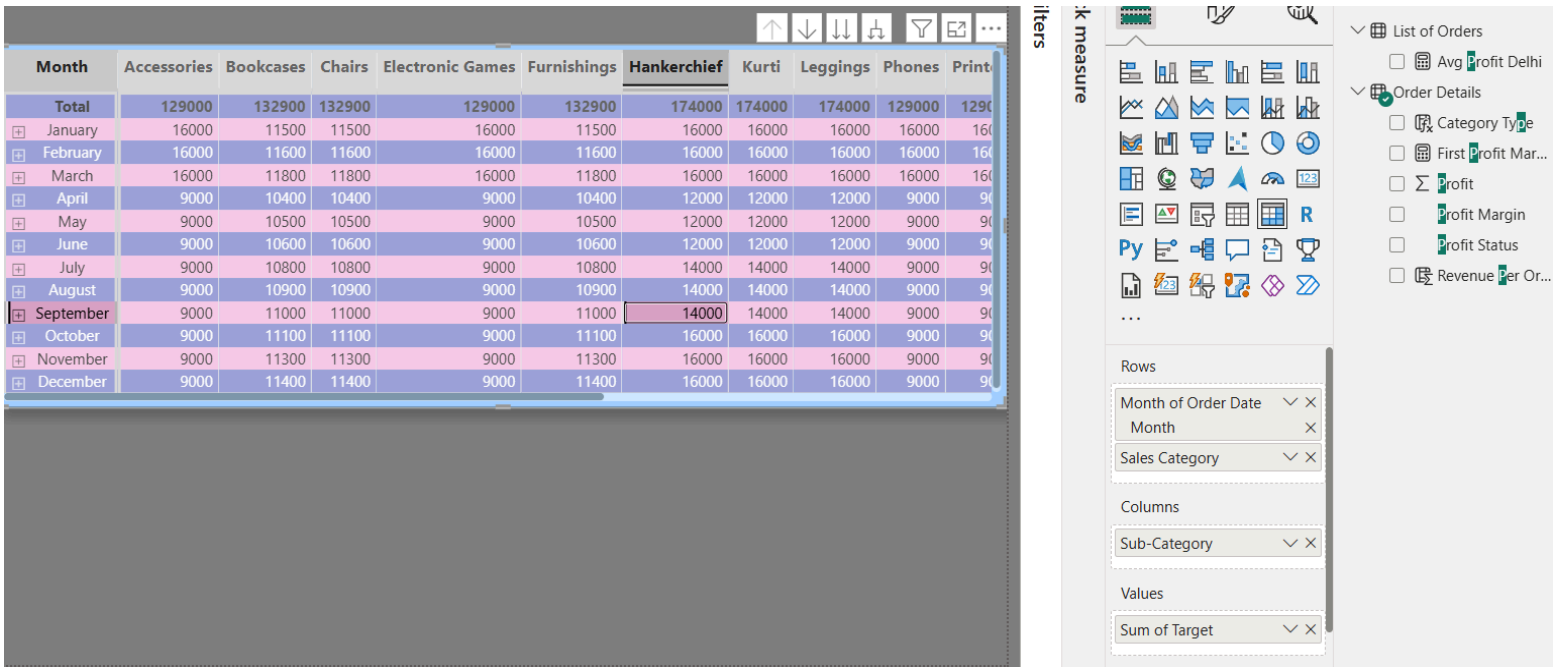
Multi Row Card



The above card explains about the total sales amount alongside the sales target, also minimum target for each segment created by using the multi row card.

Sales Performance Matrix

Matrix View

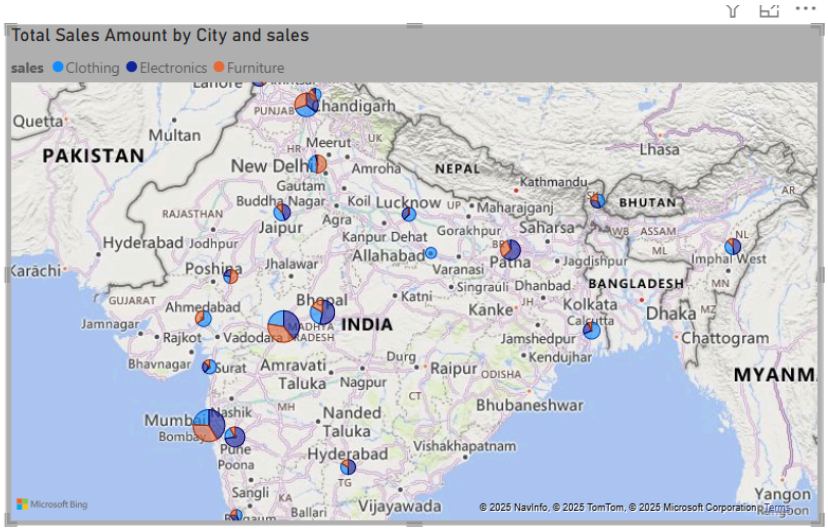


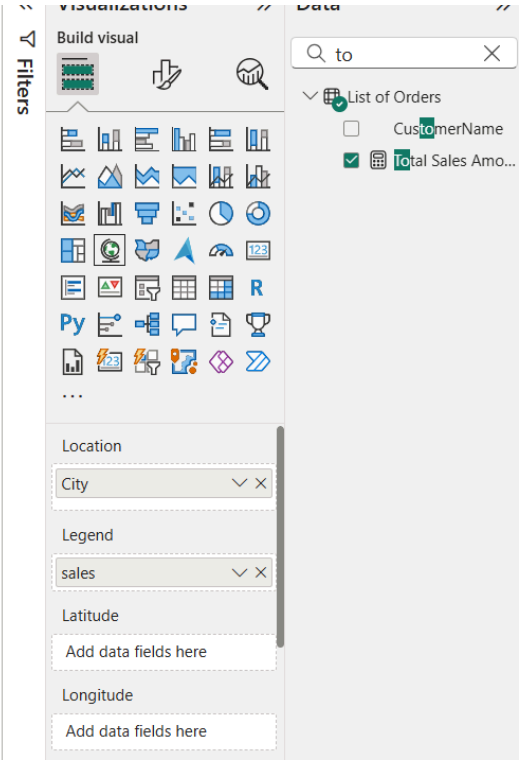
Month	Accessories	Bookcases	Chairs	Electronic Games	Furnishings	Hankerchief	Kurti	Leggings	Phones	Print
Total	129000	132900	132900	129000	132900	174000	174000	174000	129000	129(
January	16000	11500	11500	16000	11500	16000	16000	16000	16000	16(
February	16000	11600	11600	16000	11600	16000	16000	16000	16000	16(
March	16000	11800	11800	16000	11800	16000	16000	16000	16000	16(
April	9000	10400	10400	9000	10400	12000	12000	12000	9000	9(
May	9000	10500	10500	9000	10500	12000	12000	12000	9000	9(
June	9000	10600	10600	9000	10600	12000	12000	12000	9000	9(
July	9000	10800	10800	9000	10800	14000	14000	14000	9000	9(
August	9000	10900	10900	9000	10900	14000	14000	14000	9000	9(
September	9000	11000	11000	9000	11000	14000	14000	14000	9000	9(
October	9000	11100	11100	9000	11100	16000	16000	16000	9000	9(
November	9000	11300	11300	9000	11300	16000	16000	16000	9000	9(
December	9000	11400	11400	9000	11400	16000	16000	16000	9000	9(

The above figure tells that actual sales compare to sales targets across different categories and months by using matrix view.

Geographic Sales Analysis

Map

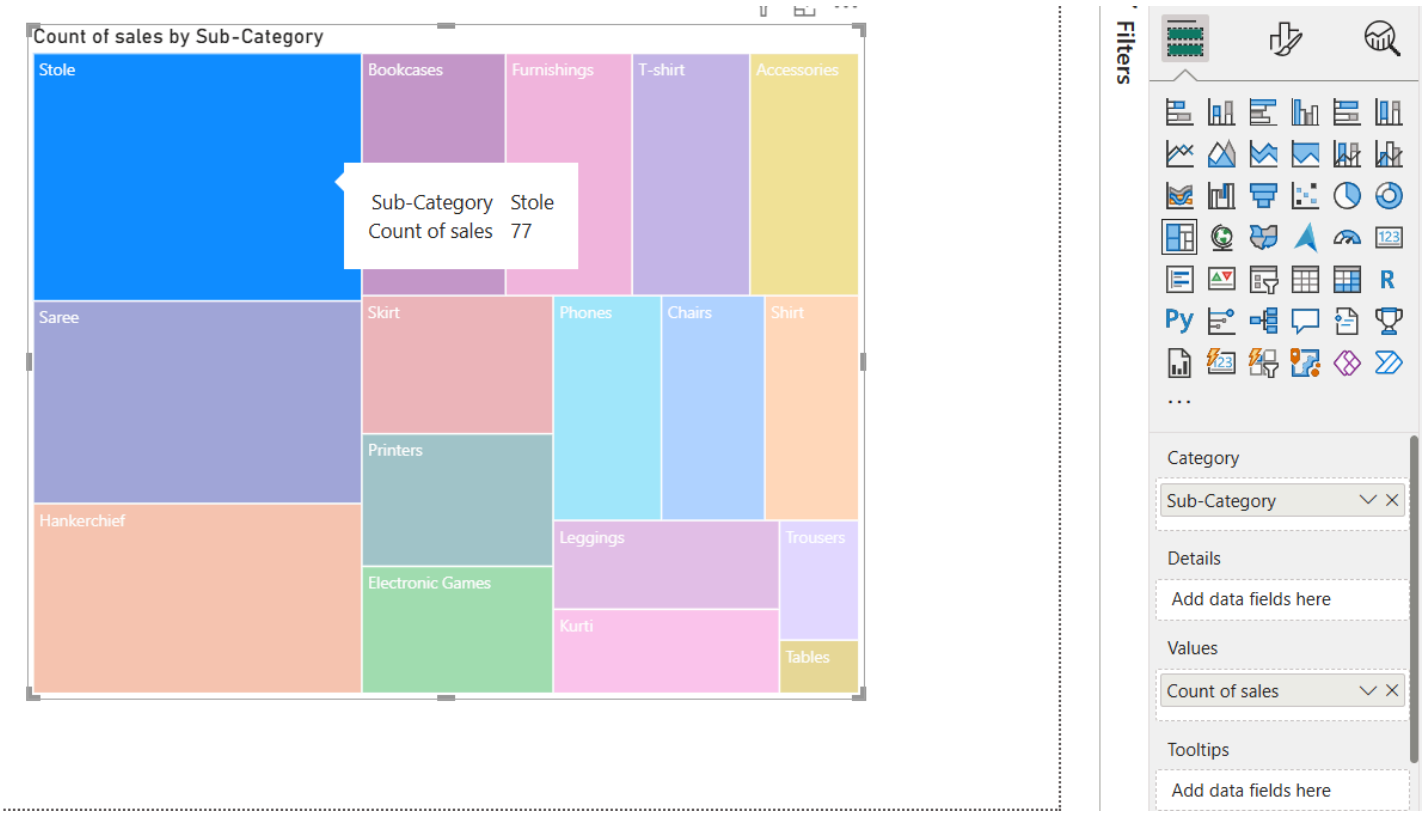




The above Map gives information about total sales across the city to identify regional sales patterns.

Sales Distribution by Sub-Category

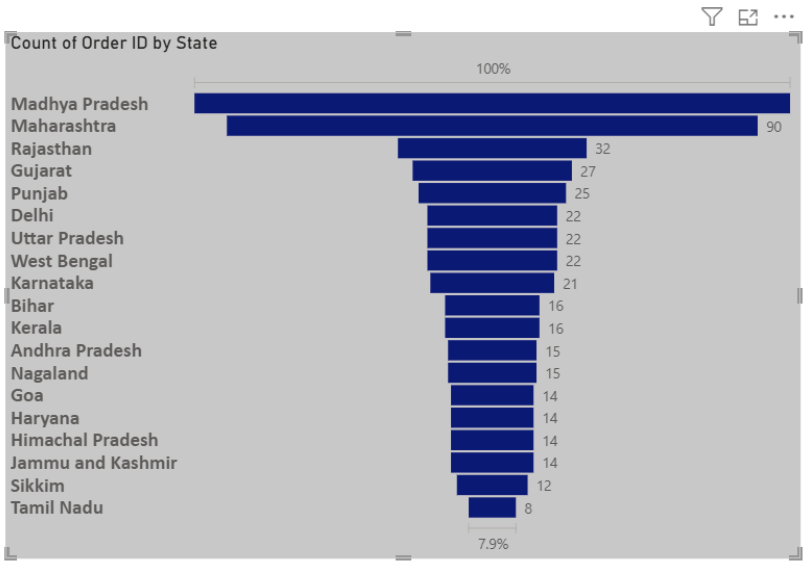
Treemap

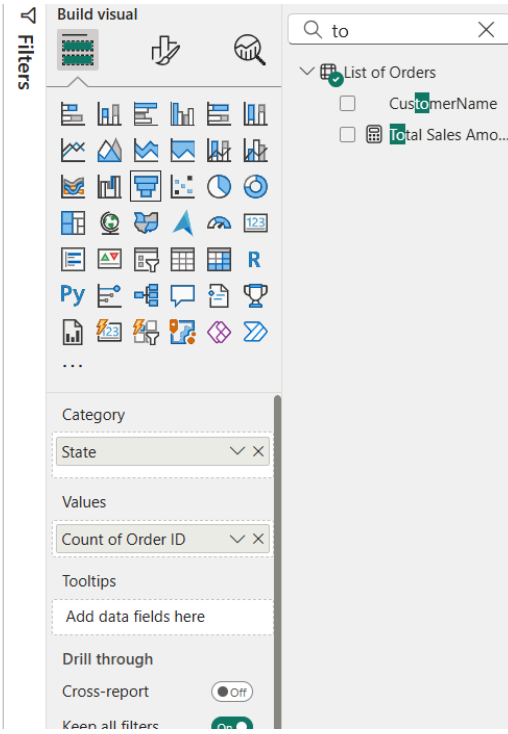


This figure treemap gives information about sales distribution across different sub-categories.

Order Count Analysis by State

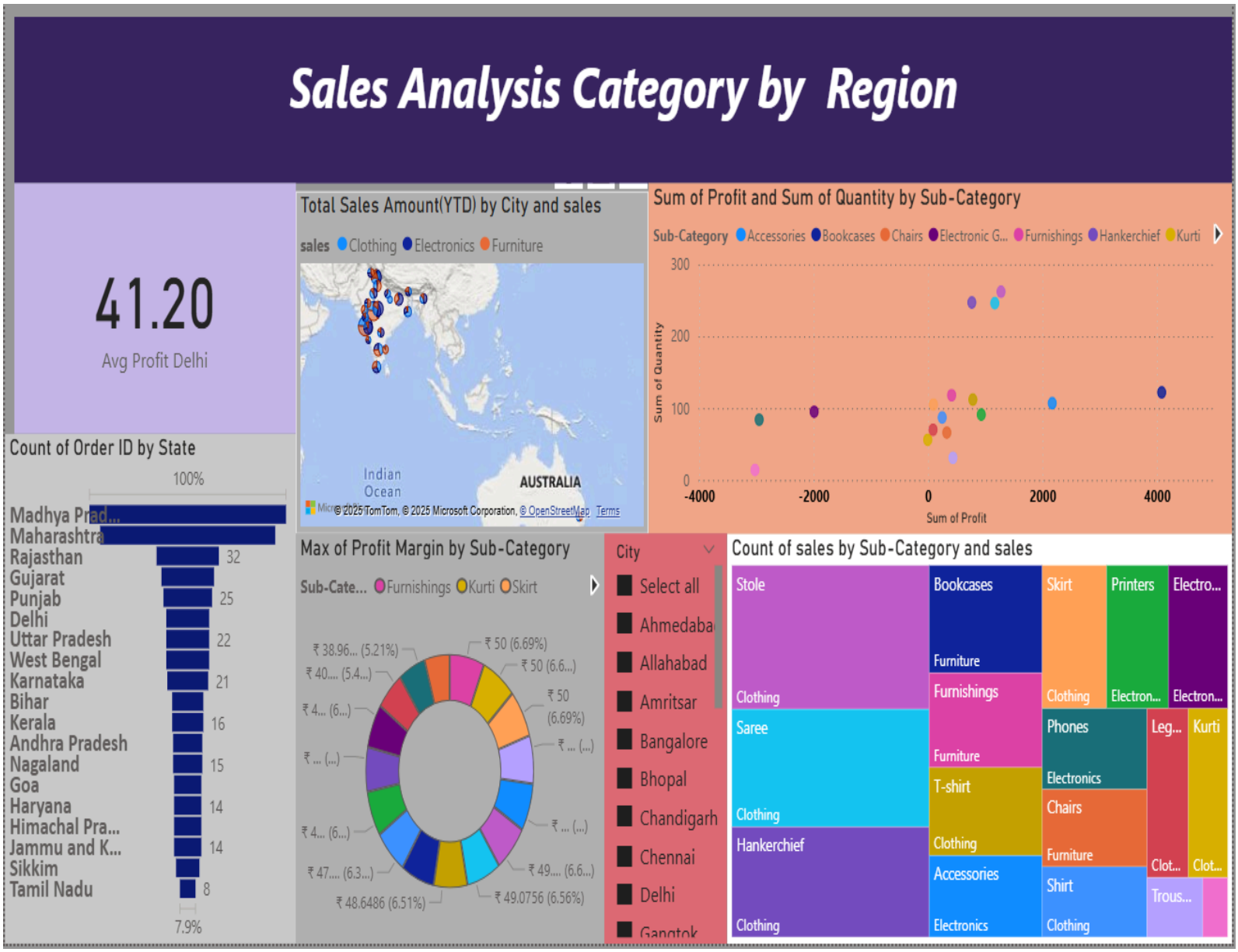
Funnel Chart





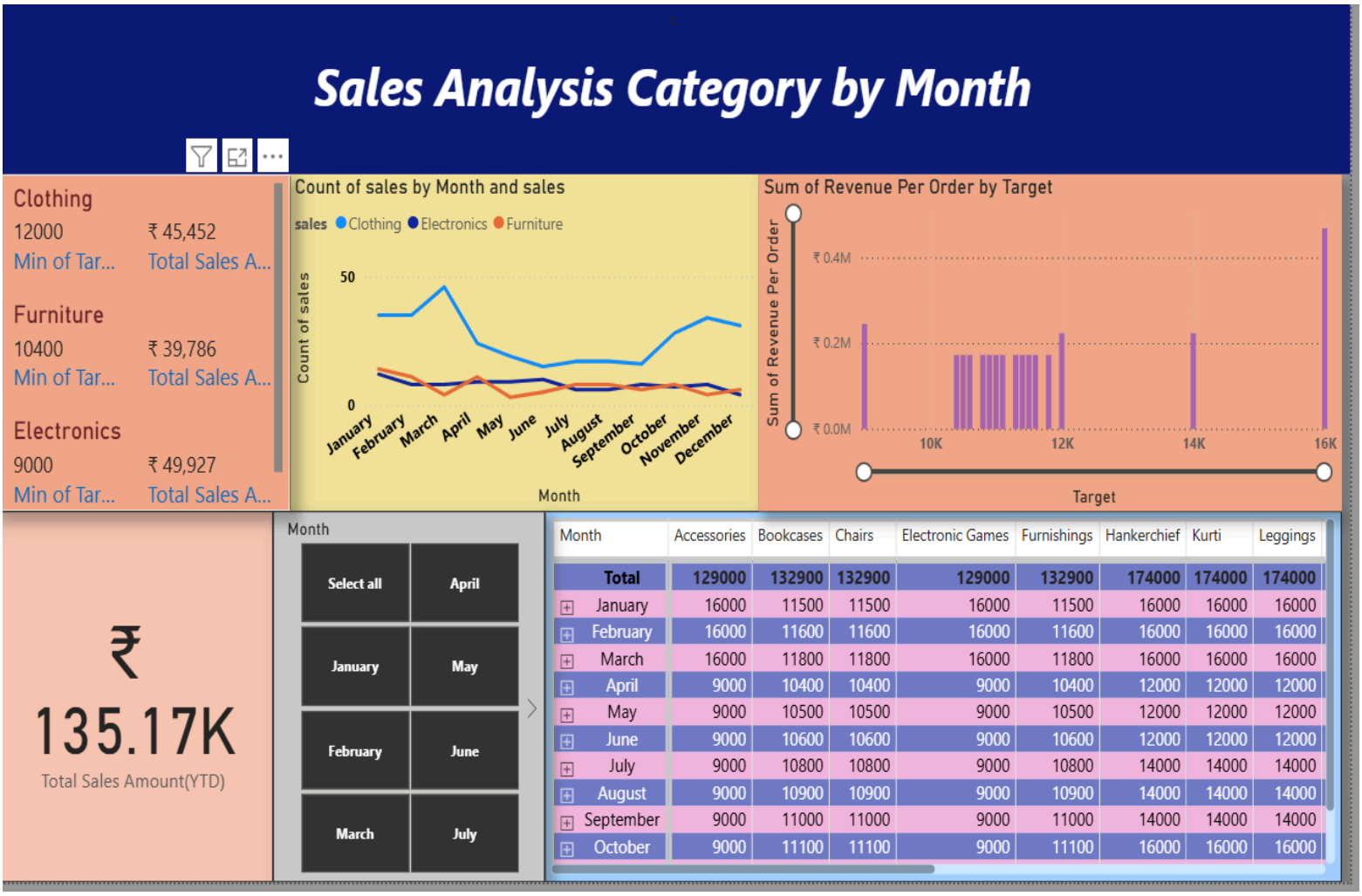
This Funnel chart tells the distribution of order counts across different states.

Dashboard 1



Dashboard gives information about five visualizing charts, one card and one silicers.
Here silicers connect state wise to all charts.
Card is created for Average Profit Delhi value.

Dashboard 2



This dashboard gives information about three visualising charts, one silicer, one card and one multi row card.
Silicer created for monthwise comparison.
Card created for Total sales amount (YTD).
Multi row card created for minimum target values and total sales value.

Thank you sir