Assignment:

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.

Steps:

Go to power bi select the Order details table choose the new column in table tools

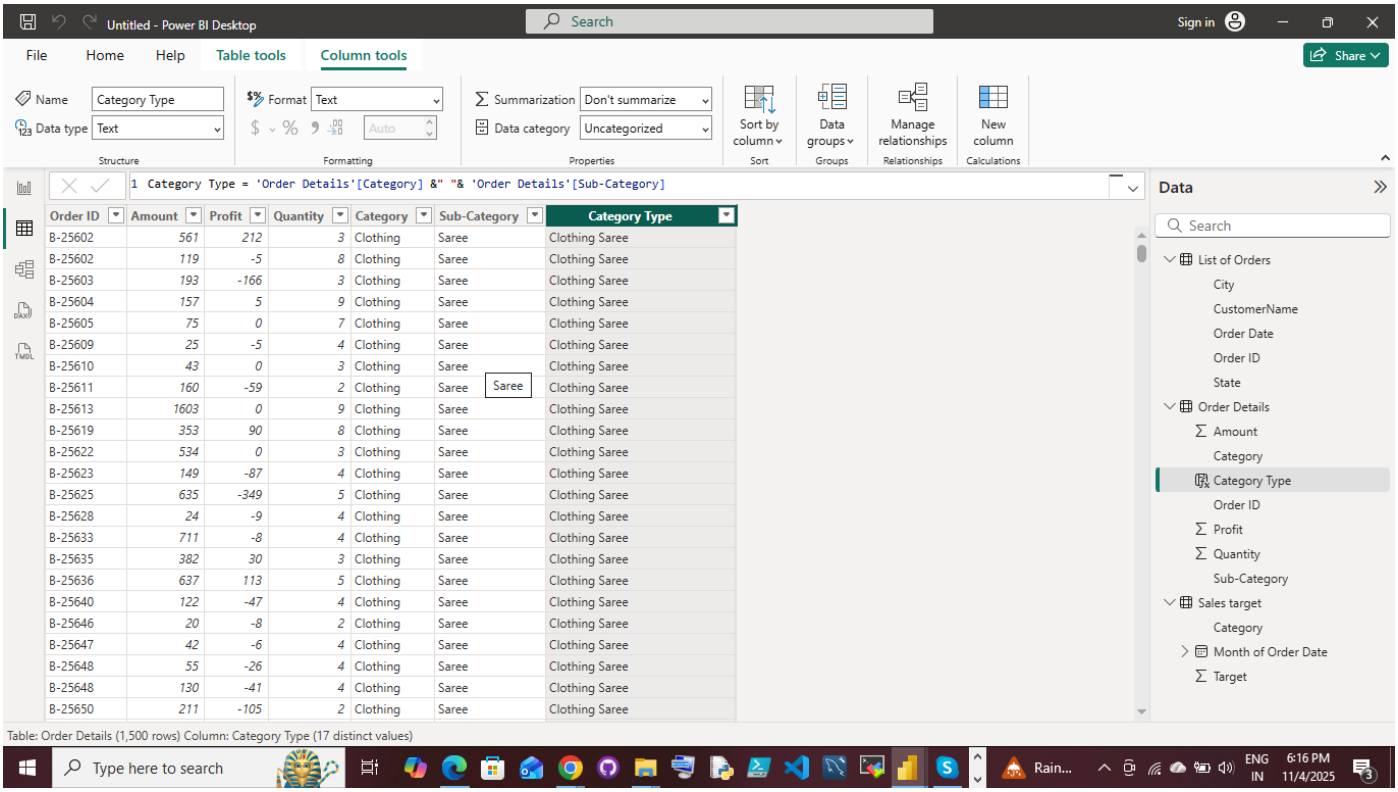
Apply the formula between ‘Category’ &'Sub-Category'

then enter we have to create new column

Use & operator to concatenates and “ ” use this separator

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

Screen short:



- **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.

Steps:

Go to power bi select the Order details table choose the c in table tools

Apply the formula between the amount and quantity

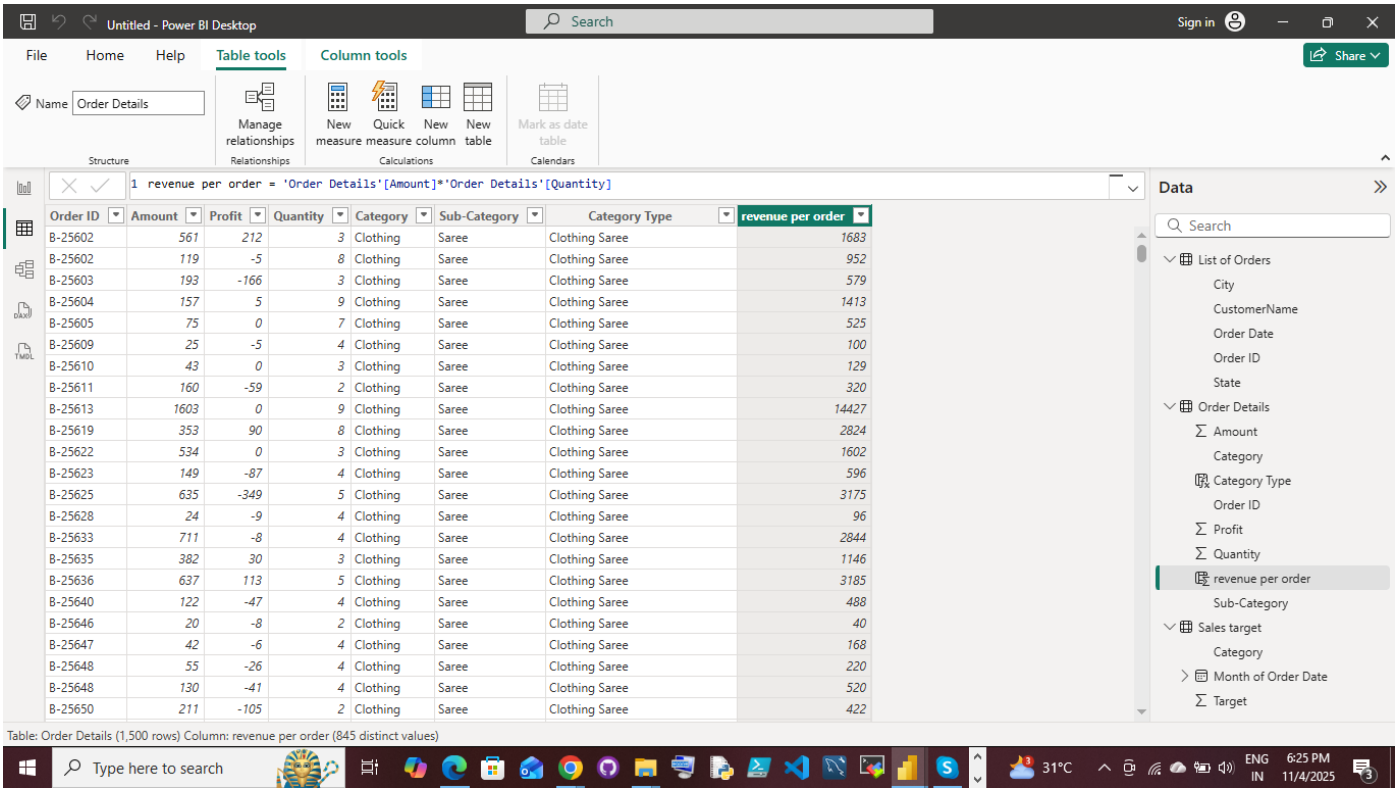
then enter

we have to create new column revenue per order

Use * operator to find the revenue per oders

```
revenue per order = 'Order Details'[Amount]*'Order Details'[Quantity]
```

Screenshot:



● **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.

Steps:

Go to power bi select the Order details table choose the new column in table tools

Apply the formula

then enter

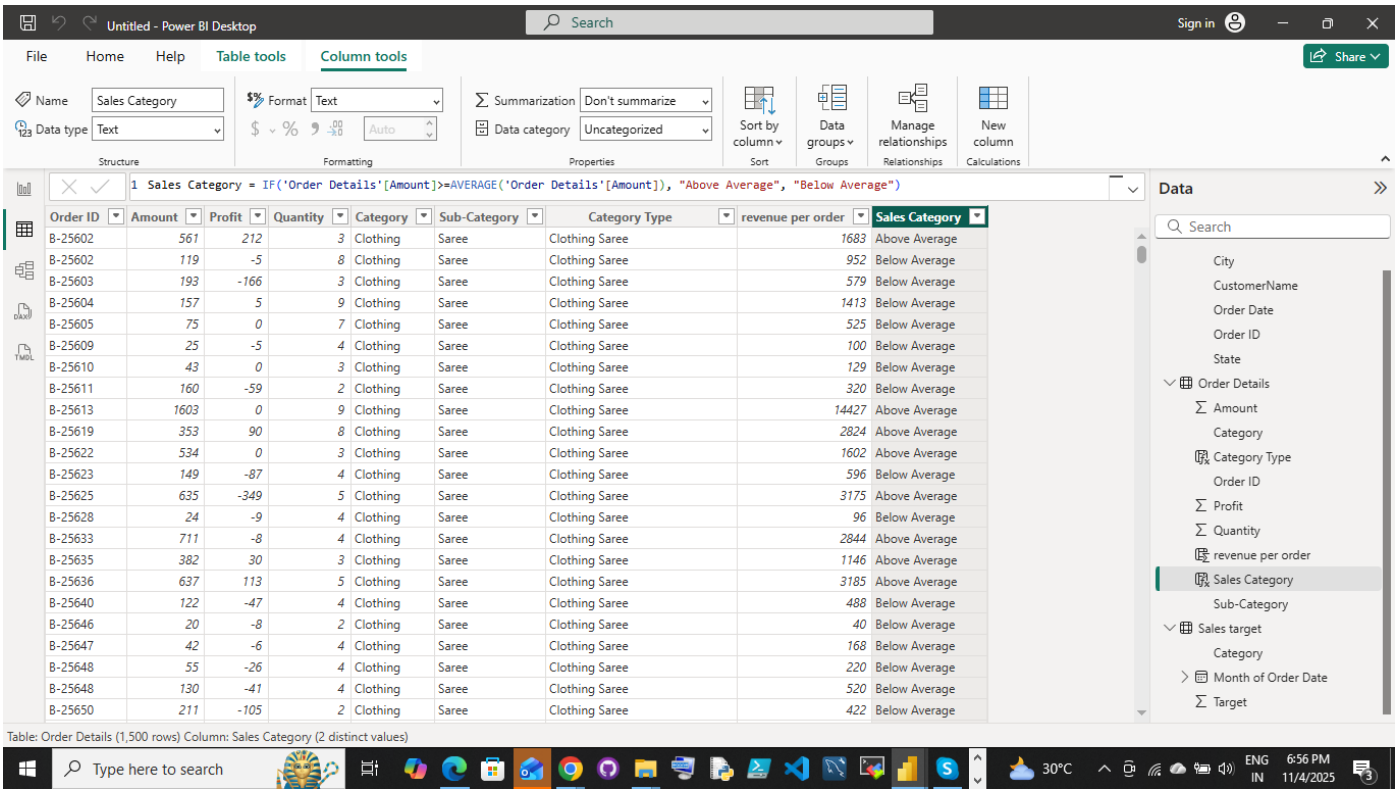
we have to create new column Sales Category

find the Average in Amount and use IF conditions to get 'Above Average' or 'Below Average

categorizes each order

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

Screen short:



Calculated Measures:

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

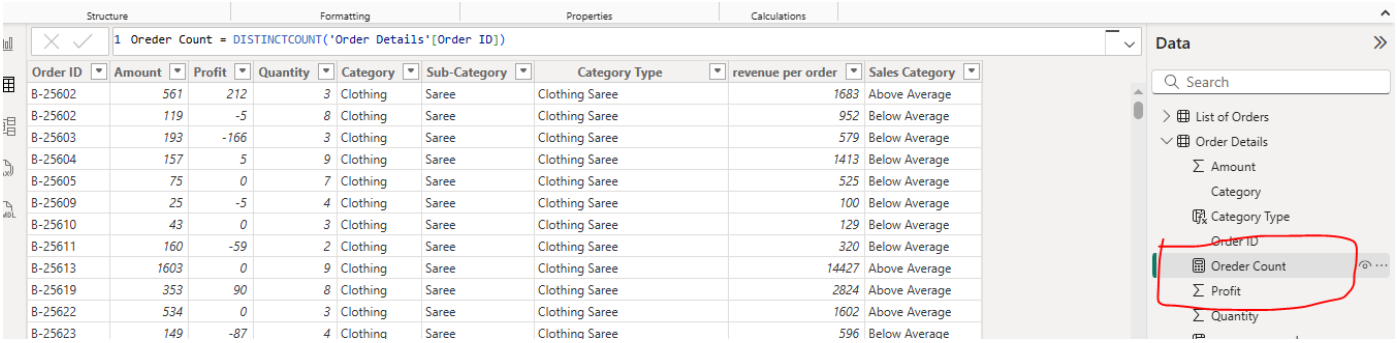
  Steps:

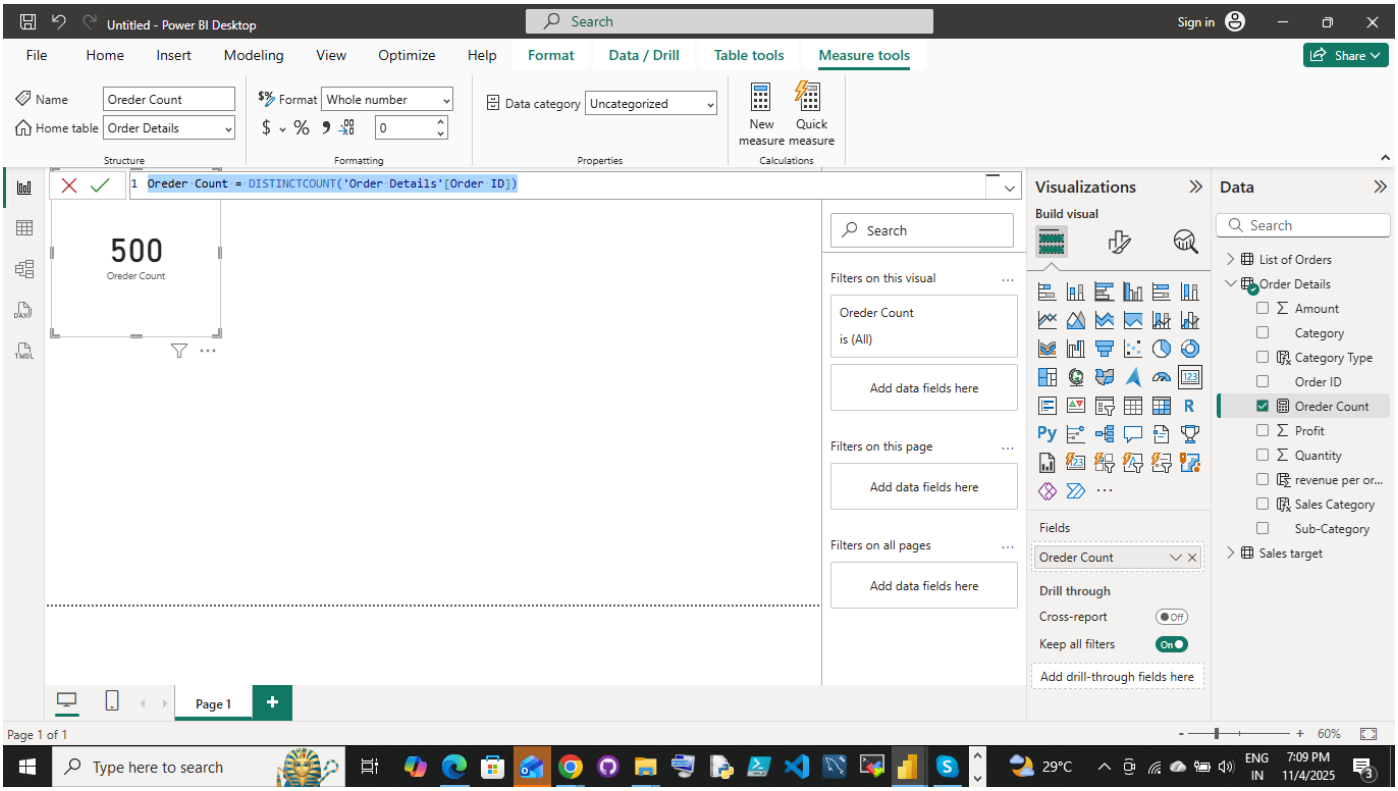
  Go to power bi select the Order details table choose the new measure in table tools

  Apply the formula

```
Order Count = DISTINCTCOUNT('Order Details'[Order ID])

Use distinct count for uniq orderedID in the order

After we have to move report view just drag and drop the order count into

Build visual tool to get the count
```

Screenshort:





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

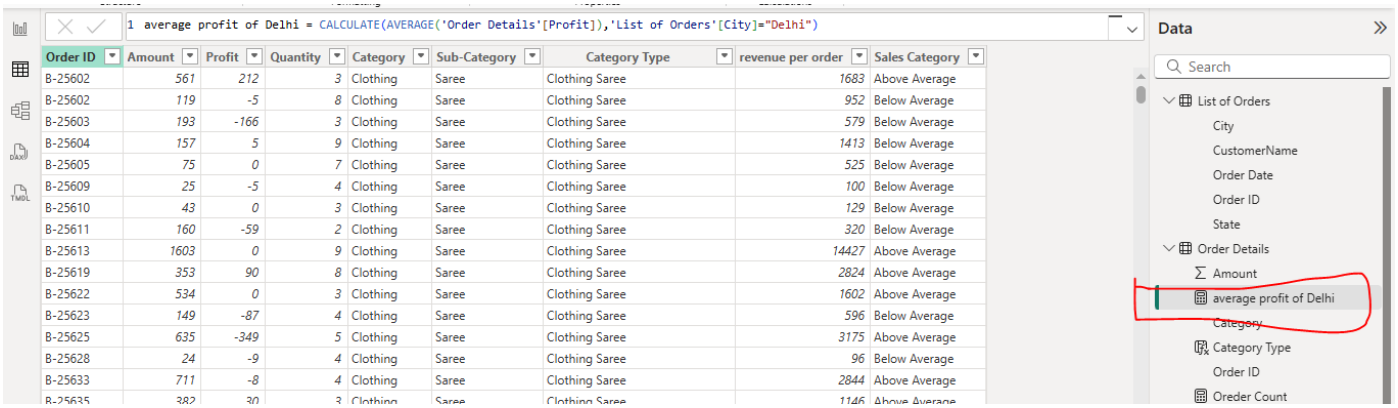
Step: Steps:

Go to power bi select the Order details table choose the new measure in table tools

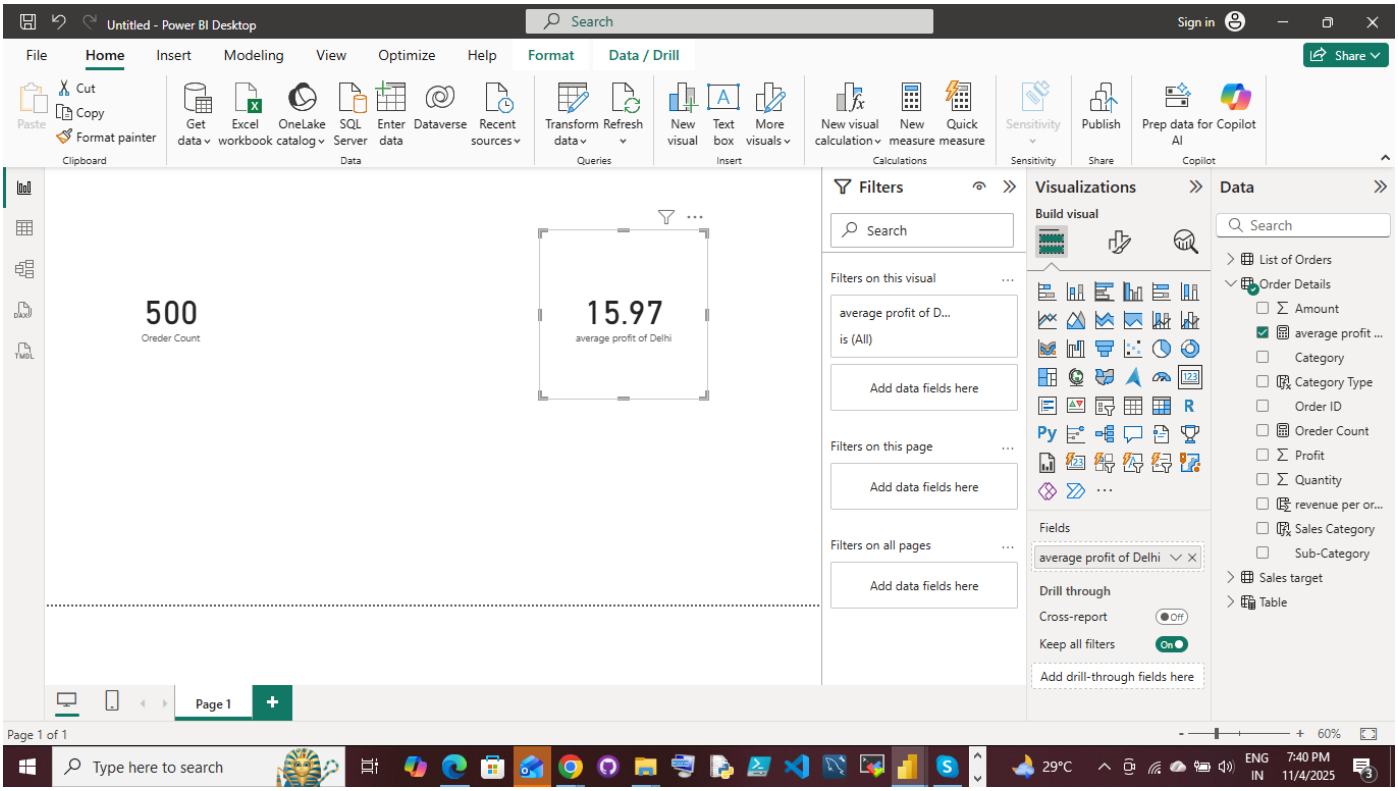
Apply the formula

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

using two table Order details and list of orders
```

Screenshort:



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	952	Below Average
B-25603	193	-166	3	Clothing	Saree	Clothing Saree	579	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	100	Below Average
B-25610	43	0	3	Clothing	Saree	Clothing Saree	129	Below Average
B-25611	160	-59	2	Clothing	Saree	Clothing Saree	320	Below Average
B-25613	1603	0	9	Clothing	Saree	Clothing Saree	14427	Above Average
B-25619	353	90	8	Clothing	Saree	Clothing Saree	2824	Above Average
B-25622	534	0	3	Clothing	Saree	Clothing Saree	1602	Above Average
B-25623	149	-87	4	Clothing	Saree	Clothing Saree	596	Below Average
B-25625	635	-349	5	Clothing	Saree	Clothing Saree	3175	Above Average
B-25628	24	-9	4	Clothing	Saree	Clothing Saree	96	Below Average
B-25633	711	-8	4	Clothing	Saree	Clothing Saree	2844	Above Average
B-25635	382	30	3	Clothing	Saree	Clothing Saree	1146	Above Average



- **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.

Steps:

Step: Steps:

Go to power bi select the Order details table choose the new measure in table tools

Apply the formula

```
Year-to-Date (YTD) Sales = CALCULATE(SUM('Order Details'[Amount]),FILTER(ALL('List of Orders'[Order Date]),YEAR('List of Orders'[Order Date]) = YEAR(MAX('List of Orders'[Order Date])) &&'List of Orders'[Order Date] <= MAX('List of Orders'[Order Date])))
```

Using two table order details and list of orders

Screenshort:

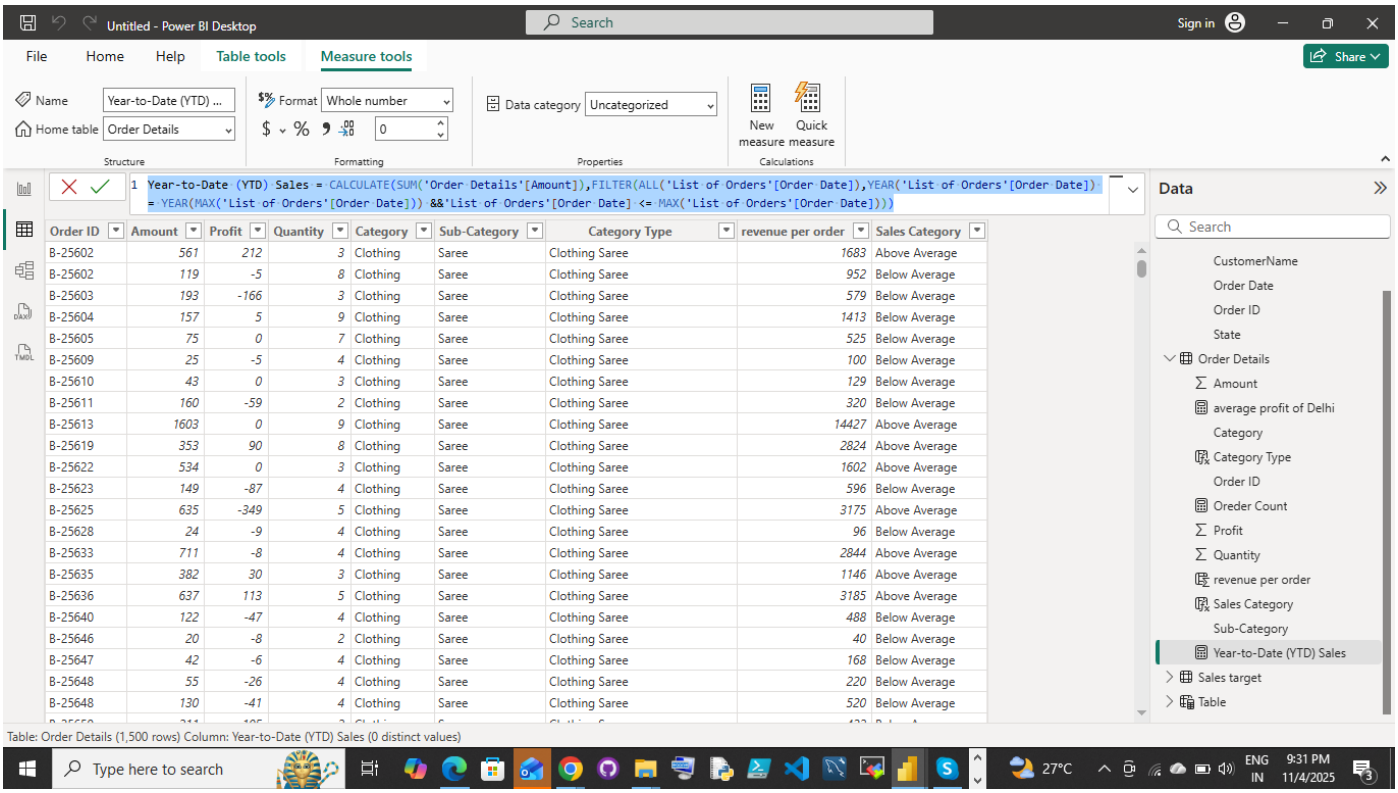

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Table tools
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Order Details
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Formatting
Data category
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Properties
New measure
Quick measure
Calculations
1 Year-to-Date (YTD) Sales = CALCULATE(SUM('Order Details'[Amount]),FILTER(ALL('List of Orders'[Order Date]),YEAR('List of Orders'[Order Date])
= YEAR(MAX('List of Orders'[Order Date])) &&'List of Orders'[Order Date] <= MAX('List of Orders'[Order Date])))
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 | 952 | Below Average
B-25603 | 193 | -166 | 3 | Clothing | Saree | Clothing Saree | 579 | 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 | 100 | Below Average
B-25610 | 43 | 0 | 3 | Clothing | Saree | Clothing Saree | 129 | Below Average
B-25611 | 160 | -59 | 2 | Clothing | Saree | Clothing Saree | 320 | Below Average
B-25613 | 1603 | 0 | 9 | Clothing | Saree | Clothing Saree | 14427 | Above Average
B-25619 | 353 | 90 | 8 | Clothing | Saree | Clothing Saree | 2824 | Above Average
B-25622 | 534 | 0 | 3 | Clothing | Saree | Clothing Saree | 1602 | Above Average
B-25623 | 149 | -87 | 4 | Clothing | Saree | Clothing Saree | 596 | Below Average
B-25625 | 635 | -349 | 5 | Clothing | Saree | Clothing Saree | 3175 | Above Average
B-25628 | 24 | -9 | 4 | Clothing | Saree | Clothing Saree | 96 | Below Average
B-25633 | 711 | -8 | 4 | Clothing | Saree | Clothing Saree | 2844 | Above Average
B-25635 | 382 | 30 | 3 | Clothing | Saree | Clothing Saree | 1146 | Above Average
B-25636 | 637 | 113 | 5 | Clothing | Saree | Clothing Saree | 3185 | Above Average
B-25640 | 122 | -47 | 4 | Clothing | Saree | Clothing Saree | 488 | Below Average
B-25646 | 20 | -8 | 2 | Clothing | Saree | Clothing Saree | 40 | Below Average
B-25647 | 42 | -6 | 4 | Clothing | Saree | Clothing Saree | 168 | Below Average
B-25648 | 55 | -26 | 4 | Clothing | Saree | Clothing Saree | 220 | Below Average
B-25648 | 130 | -41 | 4 | Clothing | Saree | Clothing Saree | 520 | Below Average
Data
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Order ID
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Profit
Quantity
revenue per order
Sales Category
Sub-Category
Year-to-Date (YTD) Sales
Sales target
Table
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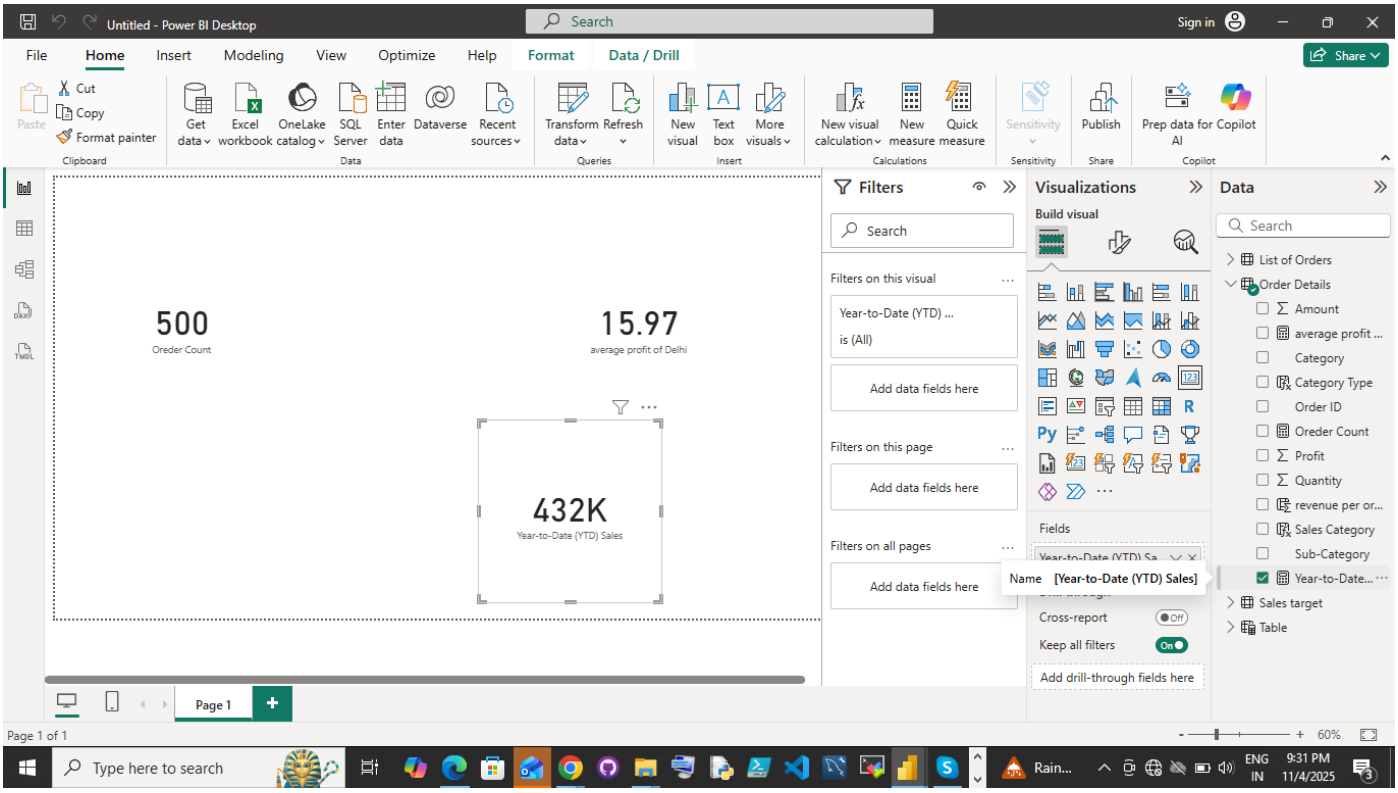
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Category
Category Type
Order ID
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Quantity
revenue per or...
Sales Category
Sub-Category
Year-to-Date...
Sales target
Table
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Page 1 of 1
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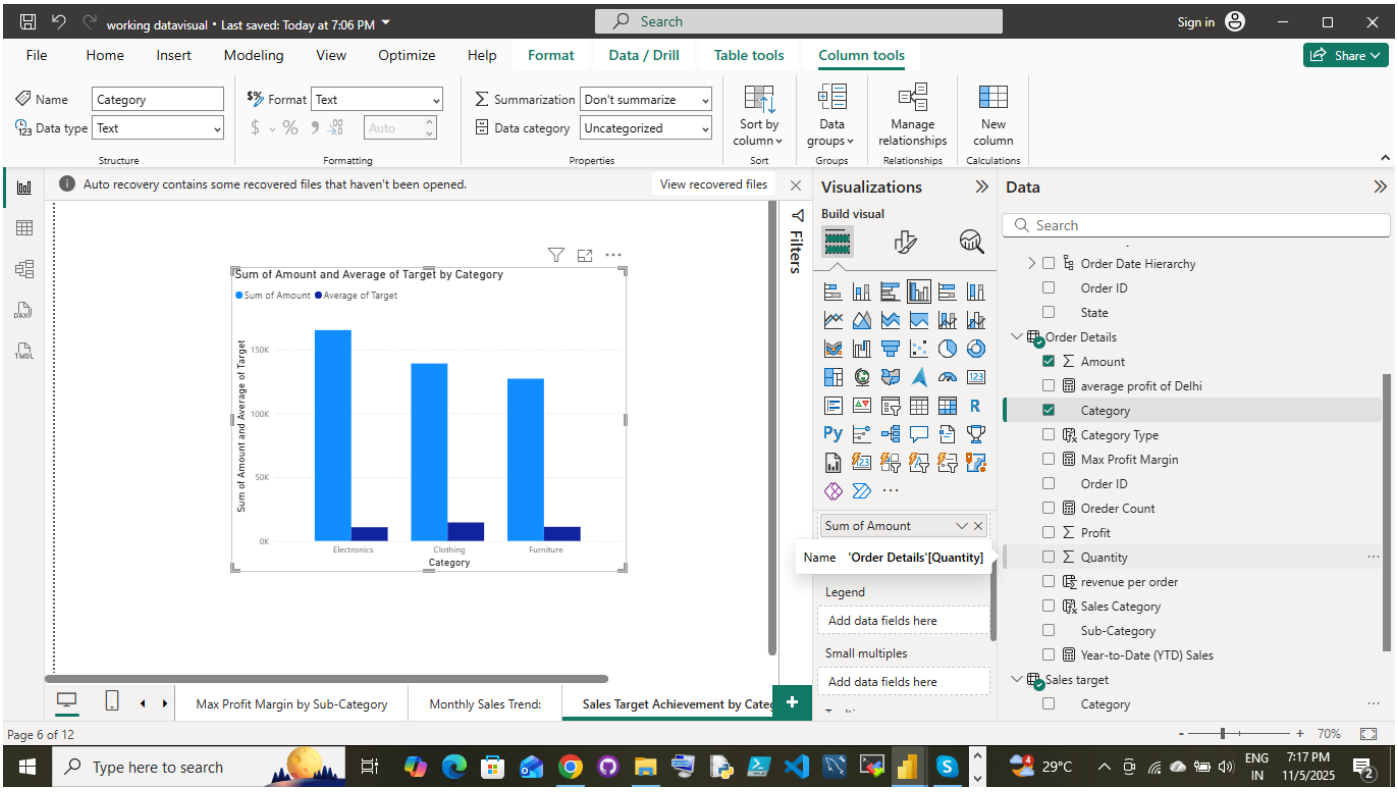
Data Visualization:

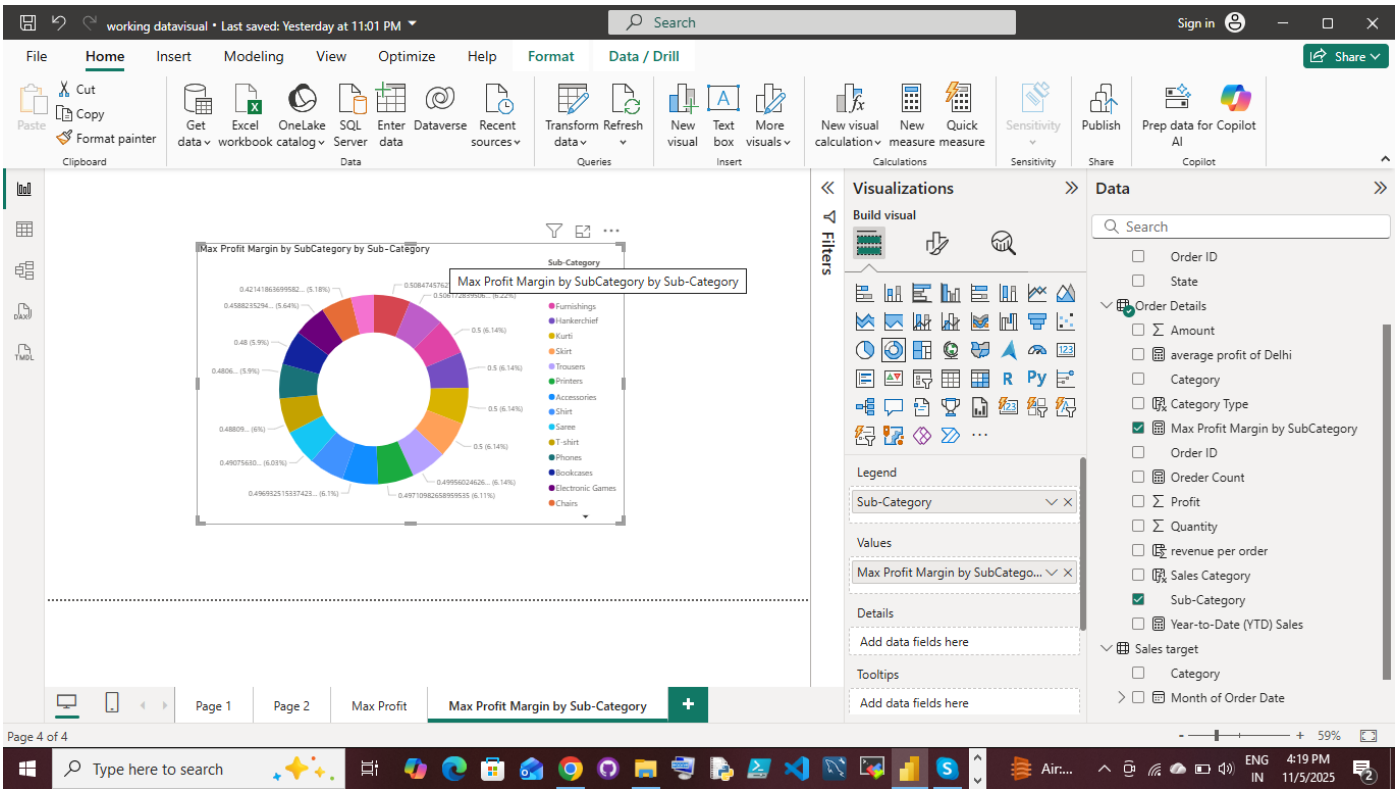
Sales Target Achievement by Category: Compare actual sales with sales targets by category using a clustered column chart.

Screenshort:

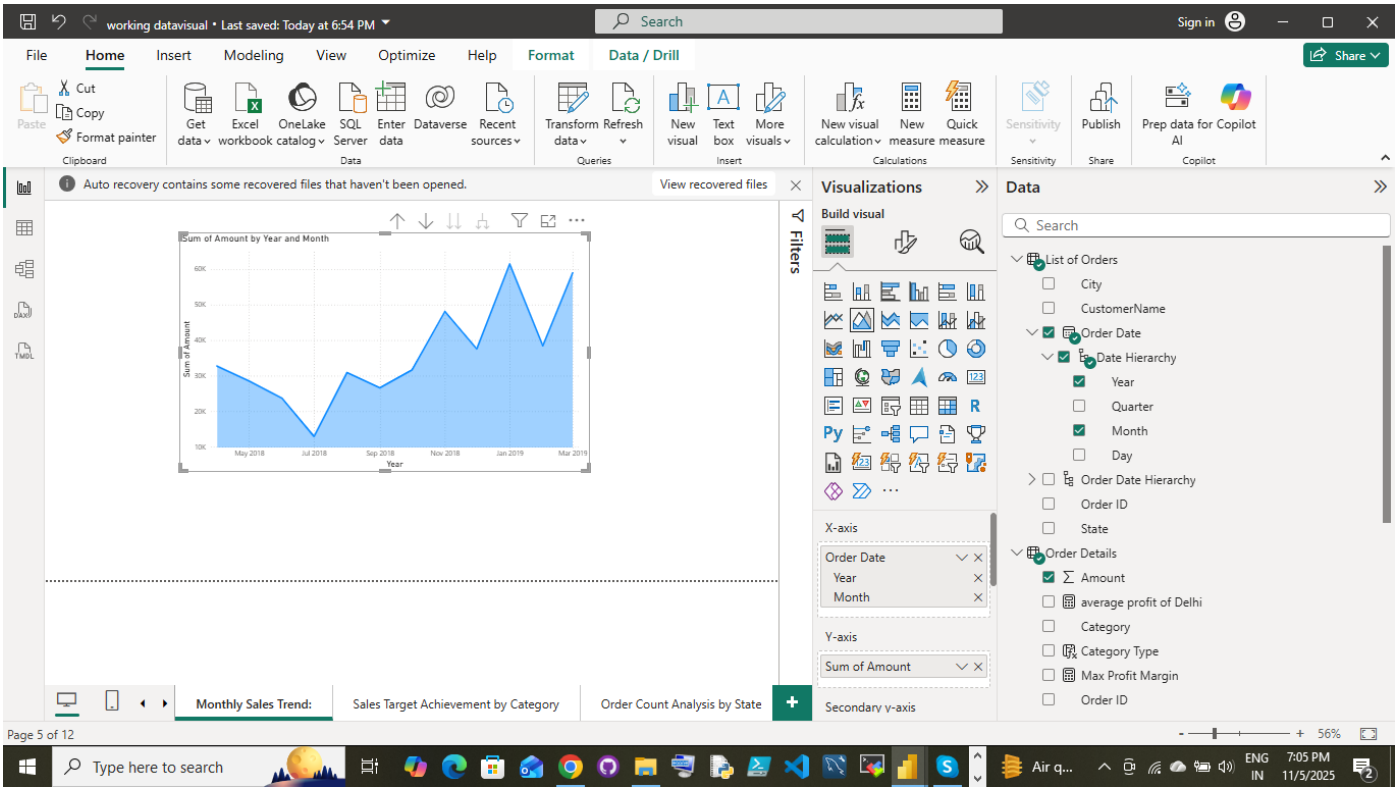


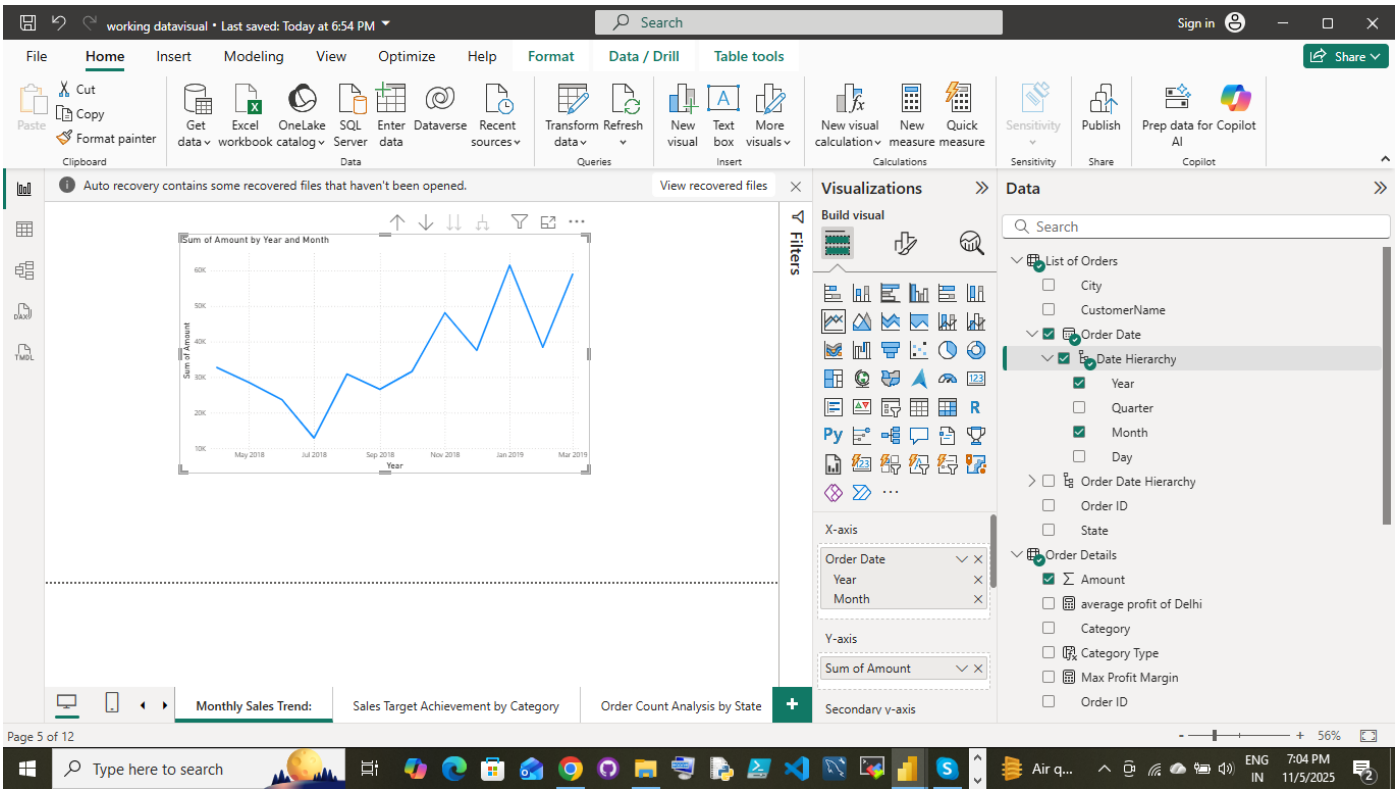
Max Profit Margin by Sub-Category: Analyze the maximum profit margin for each sub-category of products using a donut chart.

Screen short:

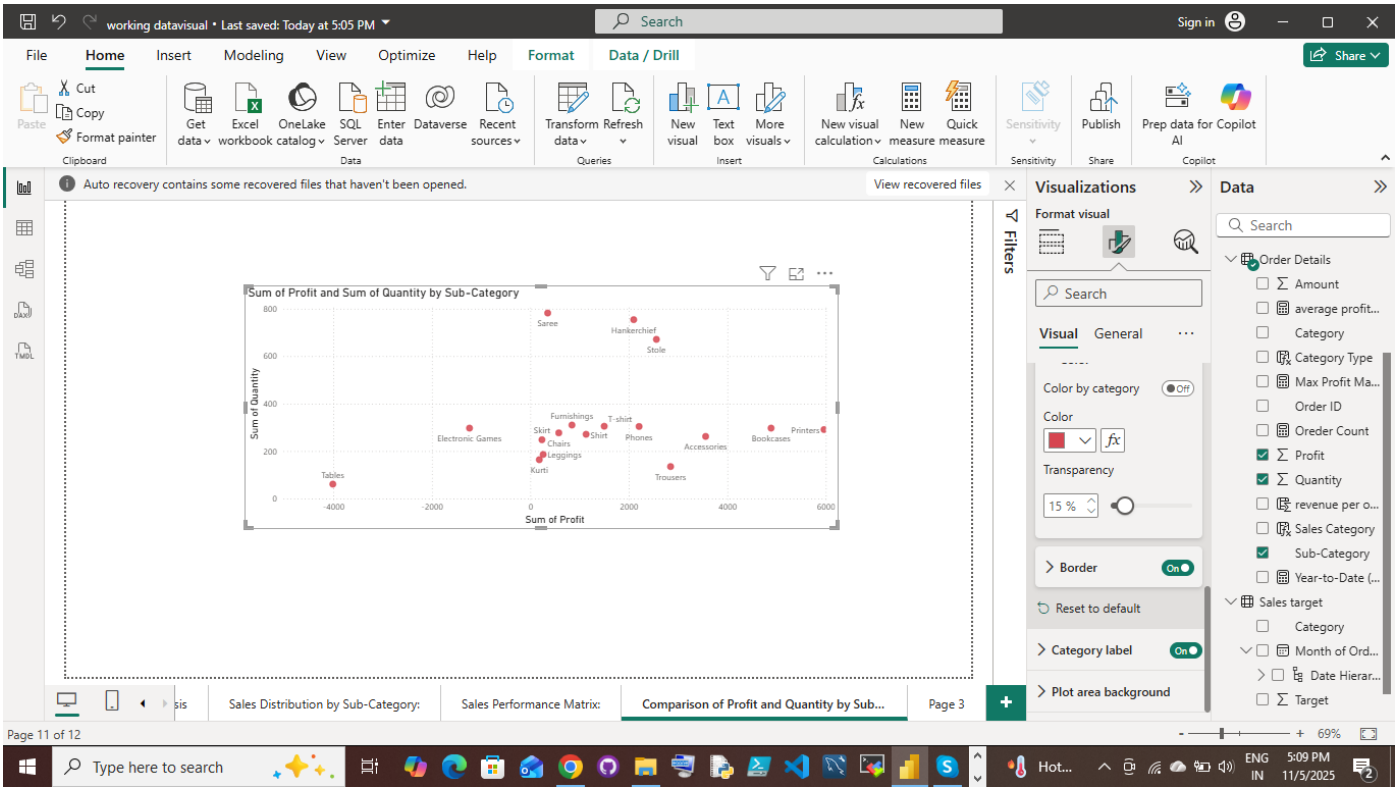


Monthly Sales Trend: Show the trend of monthly sales over time using a line chart.

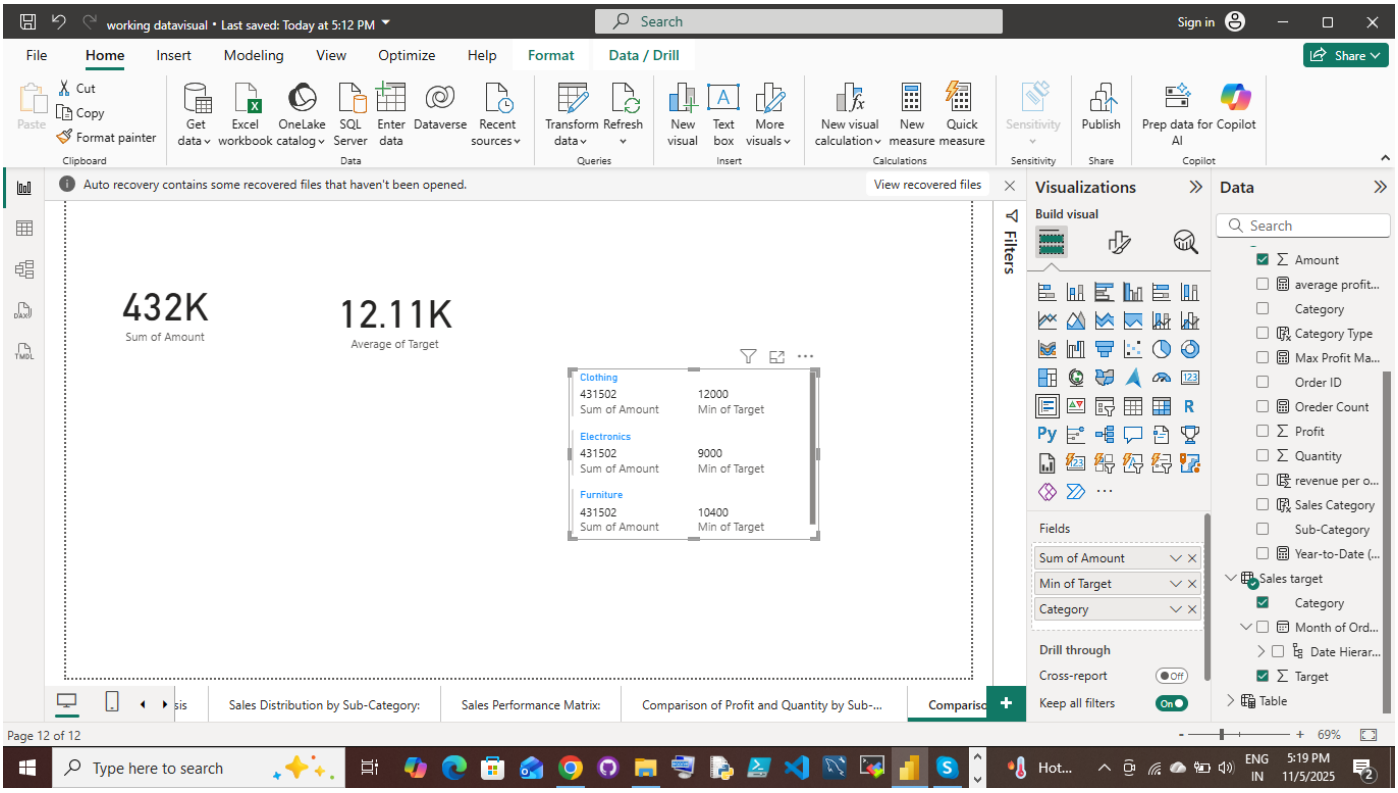




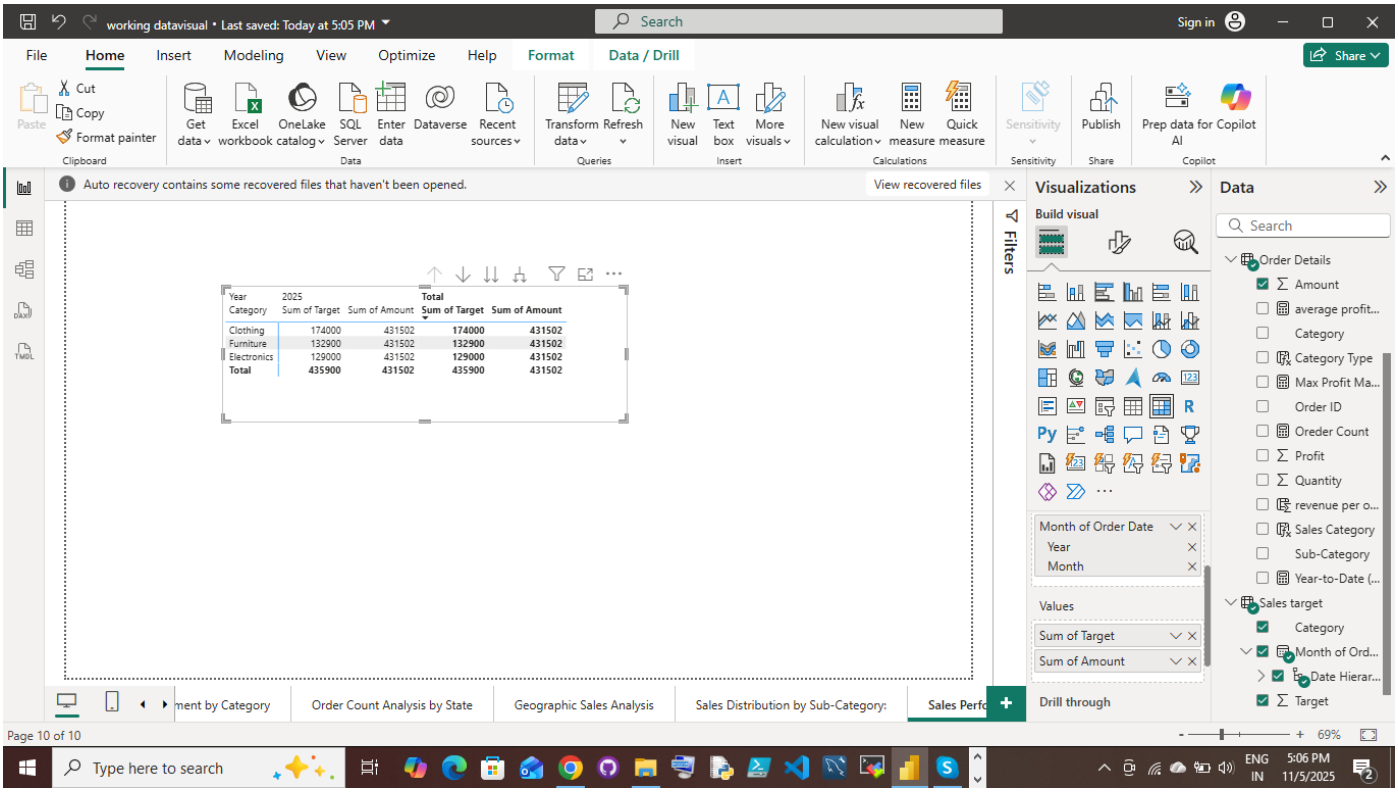
Comparison of Profit and Quantity by Sub-Category: Compare the relationship between profit and quantity sold for different sub-categories using a scatter chart.



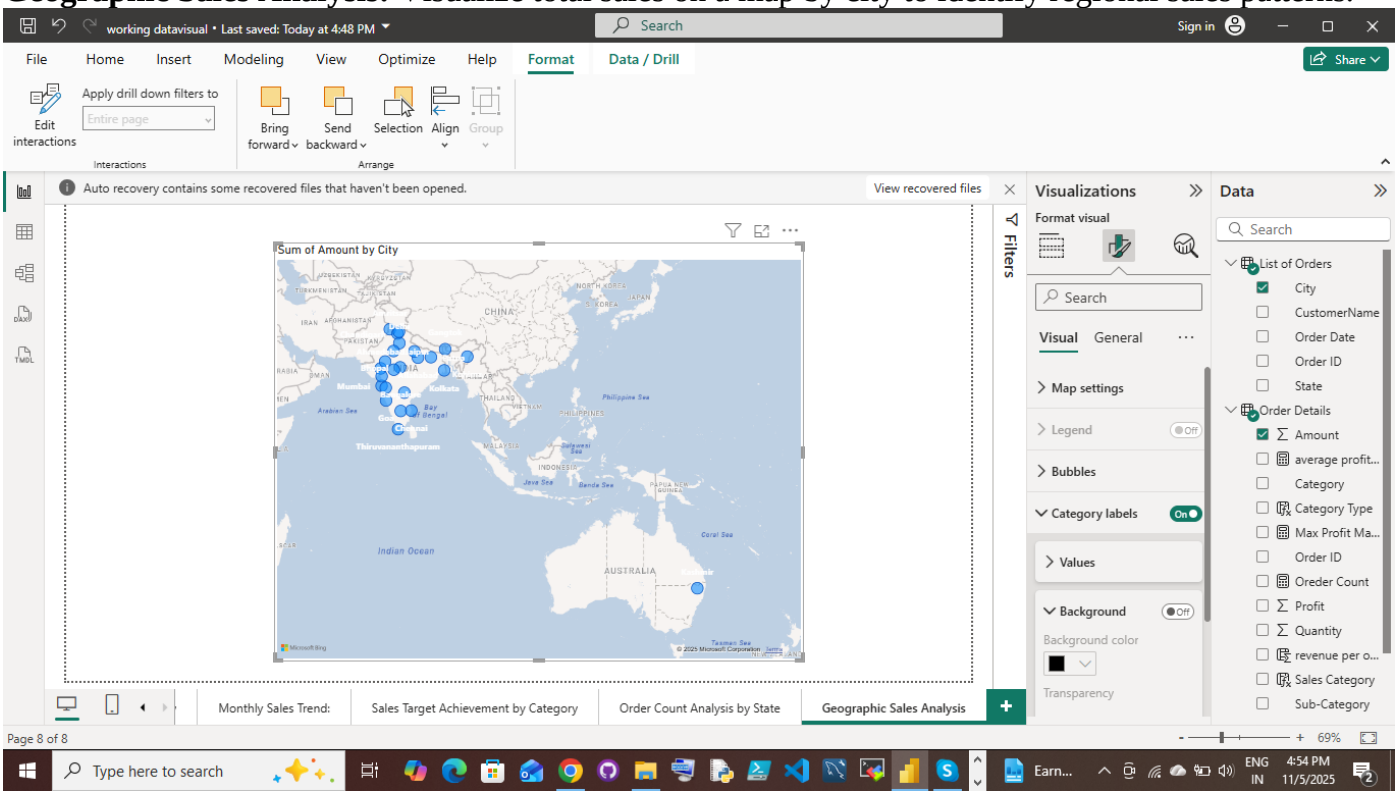
Comparison of Total Sales Amount and Target: Create cards to succinctly display the total sales amount alongside the sales target for quick comparison and analysis. Also, create a multi-row card to display the minimum target for each segment.



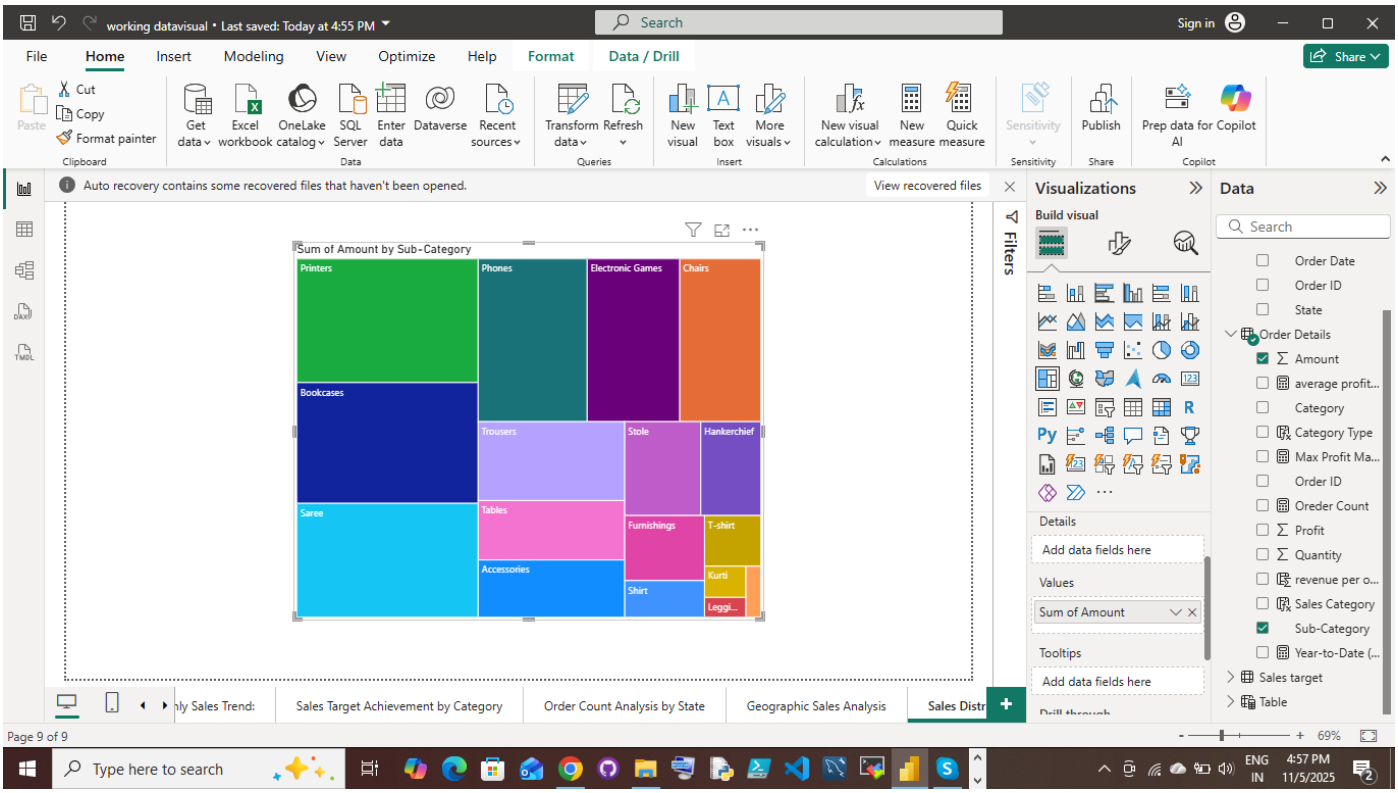
Sales Performance Matrix: Build a matrix view to analyze how actual sales compare to sales targets across different categories and months.



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.

Screenshort: