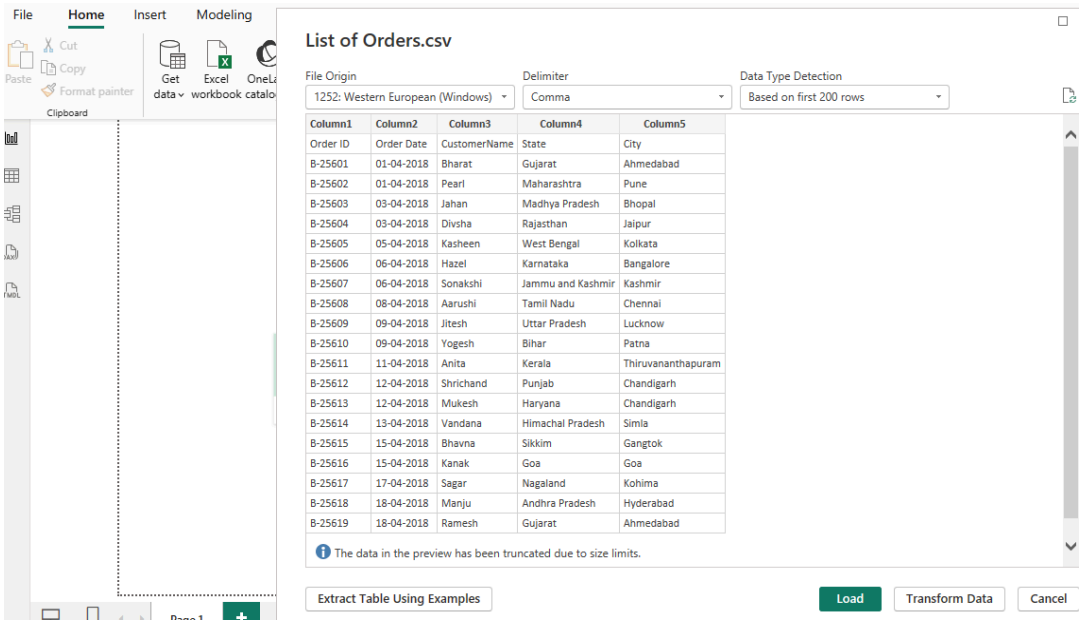
Assignment Power BI-1

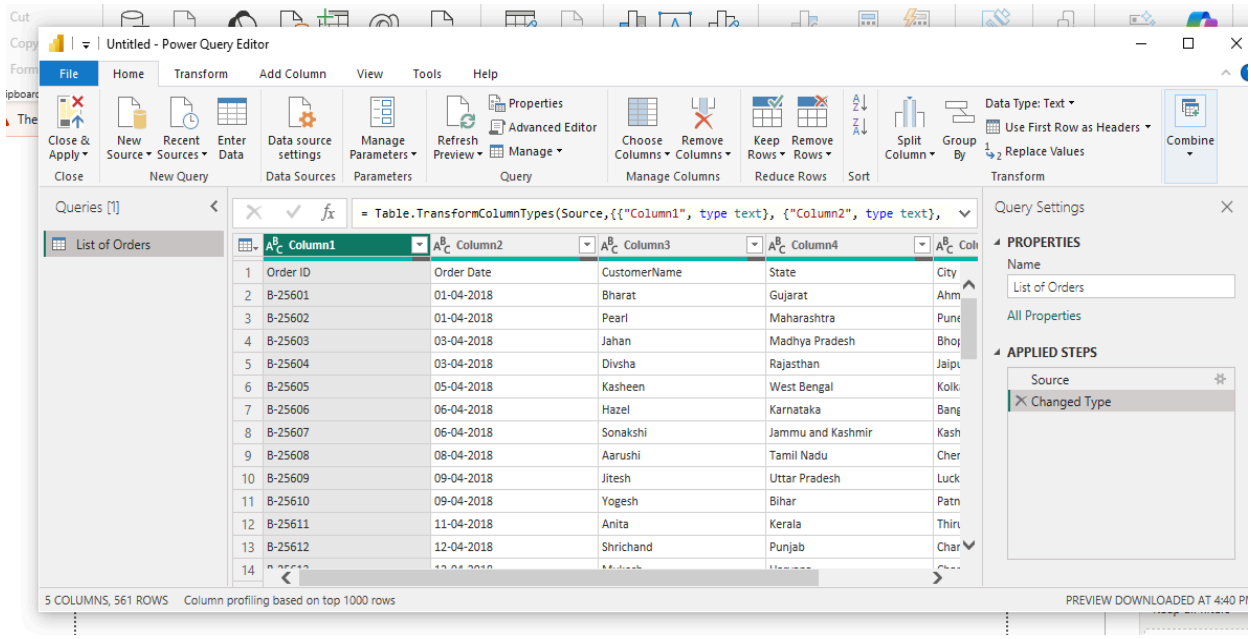
I.

Import Data:

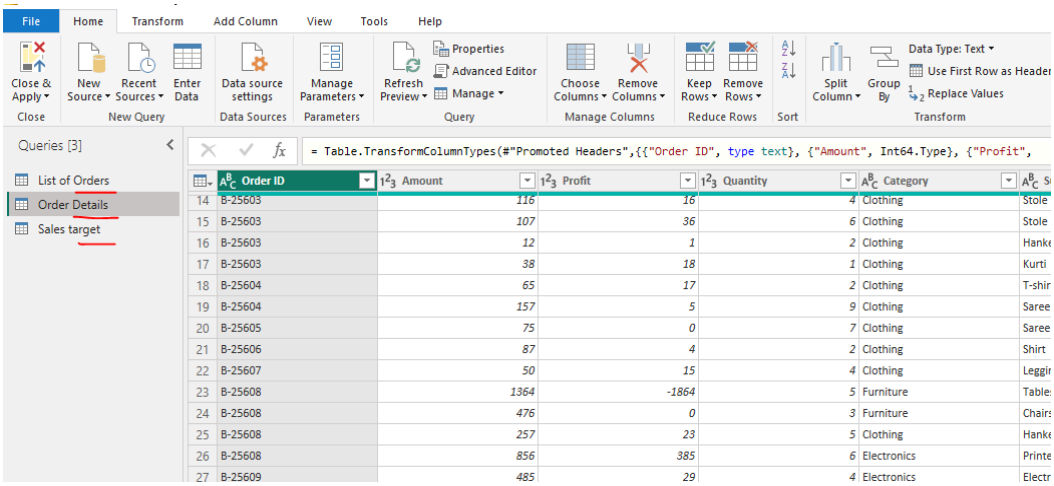
1.Import “List of Orders.csv” into Power BI.



2.Open “List of Orders” in Power Query Editor by clicking on ‘Transform’.



3.Import “Order Details.csv” and “Sales target.csv” into Power Query Editor.



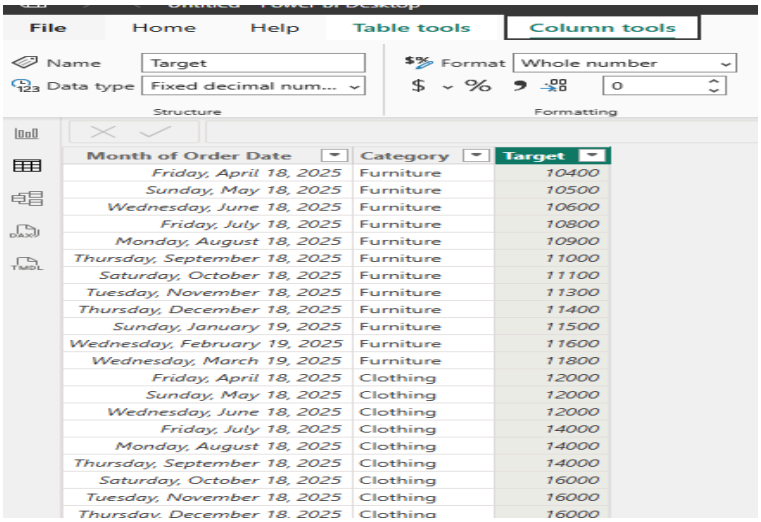
II.

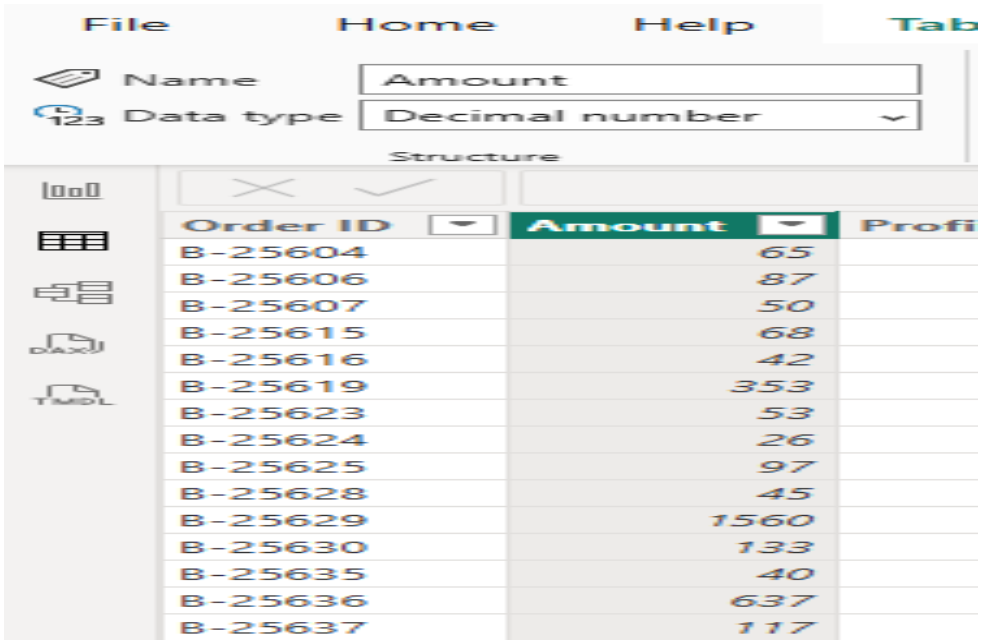
Data Transformation:

● Restrict the "List of Orders" table to only the first 500 rows.

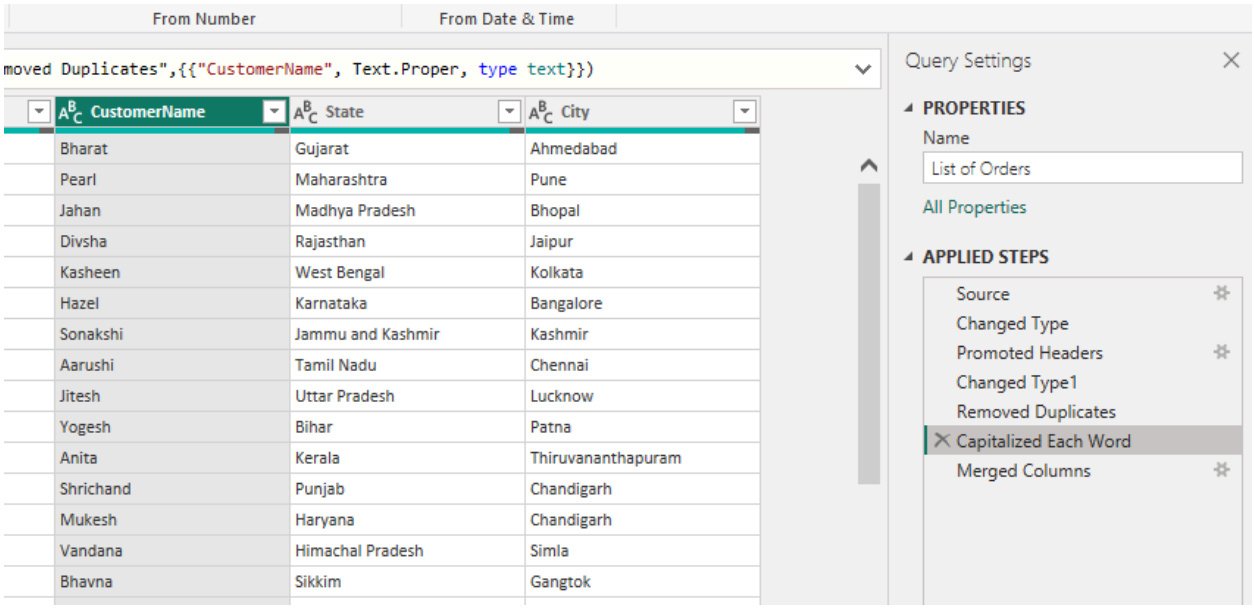
● Ensure the “Order Date” column in the “List of Orders” table is set to data type 'Date'.

● Change the data type of “Amount” and “Target” columns to ‘Fixed Decimal Number’.





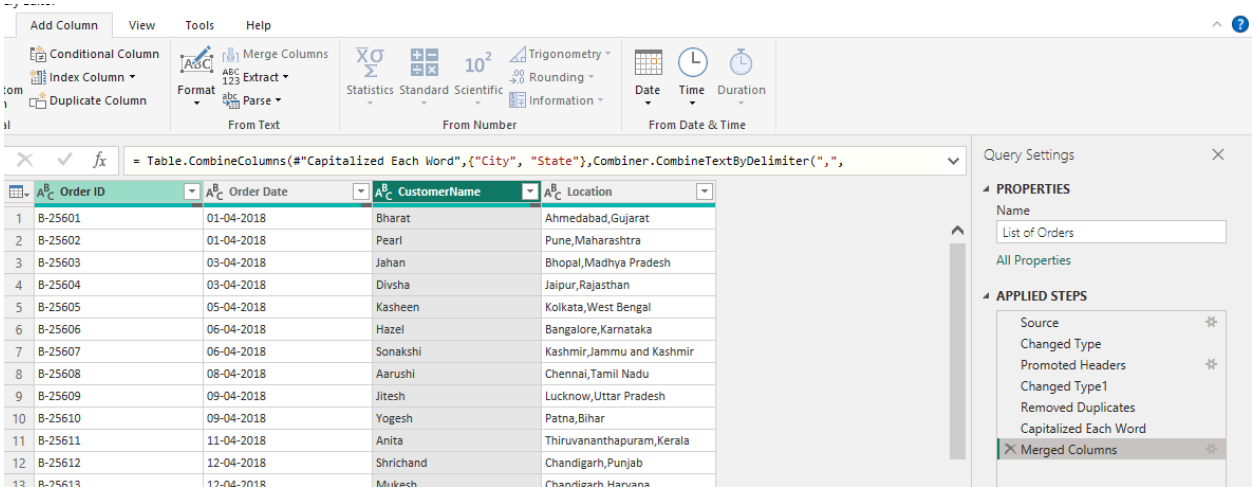
● Format the "CustomerName" column into proper case, ensuring consistent capitalization for each word.



● Merge the "State" and "City" columns to create a new column named "Location" in the format 'City, State'.

Steps:

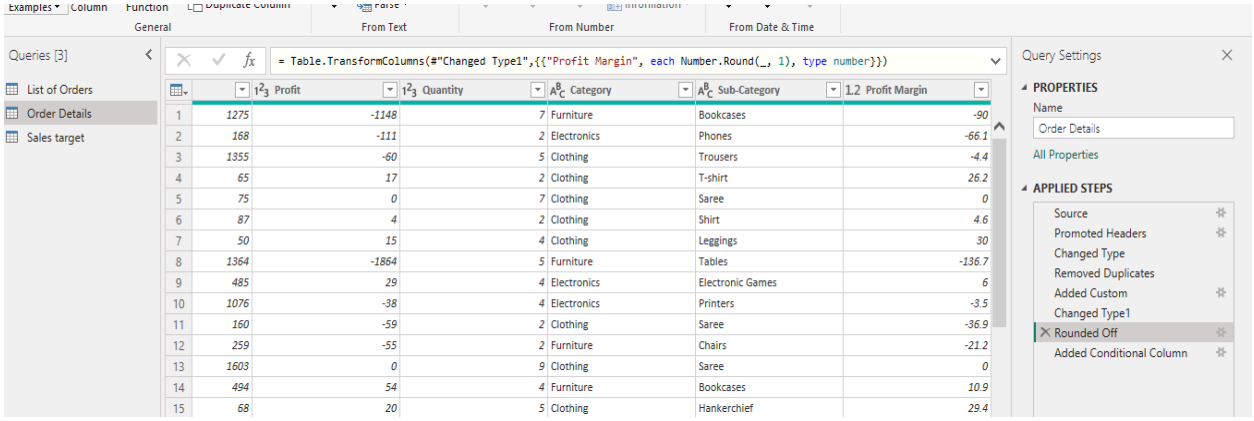
Go to power query - transform tab then select the two columns. click merge column to combine the city and state separated by ,



● Create a new custom column named "Profit Margin" as the percentage of "Profit" divided by "Amount".

Steps:

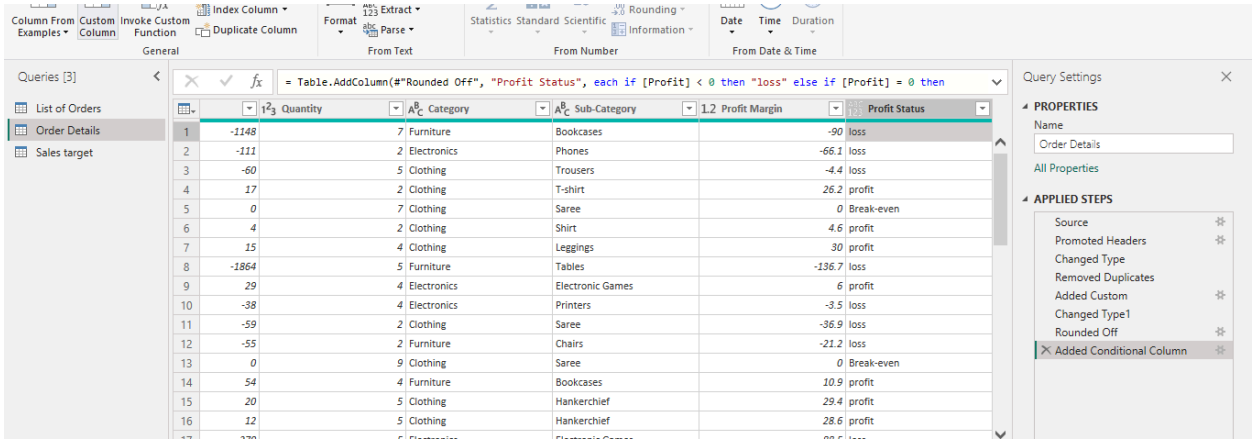
Go to power query then select the specified column in the table "order details" Create the custom column and apply the formula for amount and profit get profit Margin



Add a new conditional column named "Profit Status" based on the values in the "Profit" column. The conditions are as follows: if the profit is less than 0, the label should be "Loss"; if the profit equals 0, the label should be "Break-Even"; and if the profit is greater than 0, the label should be "Profit".

Steps:

Create the "profile status" column add the conditional column in the power query Then apply the conditions if and if else



	Quantity	Category	Sub-Category	Profit Margin	Profit Status
1	-1148	7 Furniture	Bookcases	-90	loss
2	-111	2 Electronics	Phones	-66.1	loss
3	-60	5 Clothing	Trousers	-4.4	loss
4	17	2 Clothing	T-shirt	26.2	profit
5	0	7 Clothing	Saree	0	Break-even
6	4	2 Clothing	Shirt	4.6	profit
7	15	4 Clothing	Leggings	30	profit
8	-1864	5 Furniture	Tables	-136.7	loss
9	29	4 Electronics	Electronic Games	6	profit
10	-38	4 Electronics	Printers	-3.5	loss
11	-59	2 Clothing	Saree	-36.9	loss
12	-55	2 Furniture	Chairs	-21.2	loss
13	0	9 Clothing	Saree	0	Break-even
14	54	4 Furniture	Bookcases	10.9	profit
15	20	5 Clothing	Hankerchief	29.4	profit
16	12	5 Clothing	Hankerchief	28.6	profit

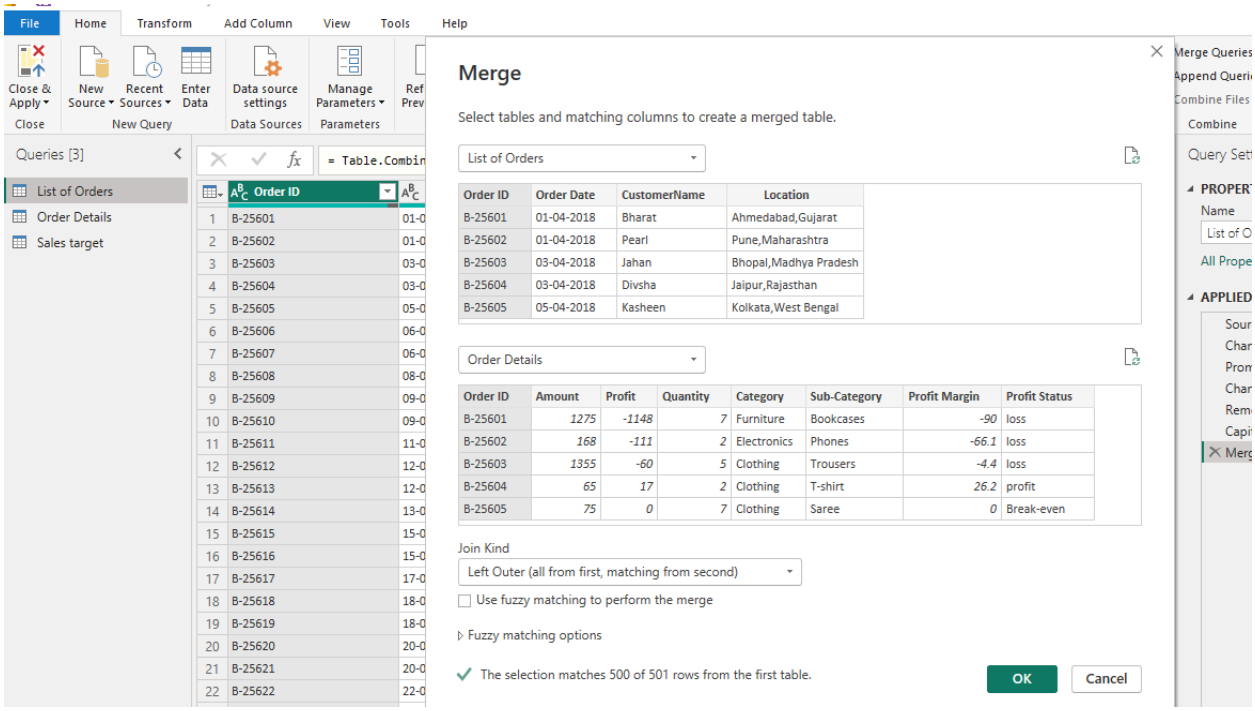
III.1
Merging Data (Joins):

● Merge the "List of Orders" and "Order Details" tables into a new single table named "Orders Data" based on the "Order ID" relationship.

Steps:

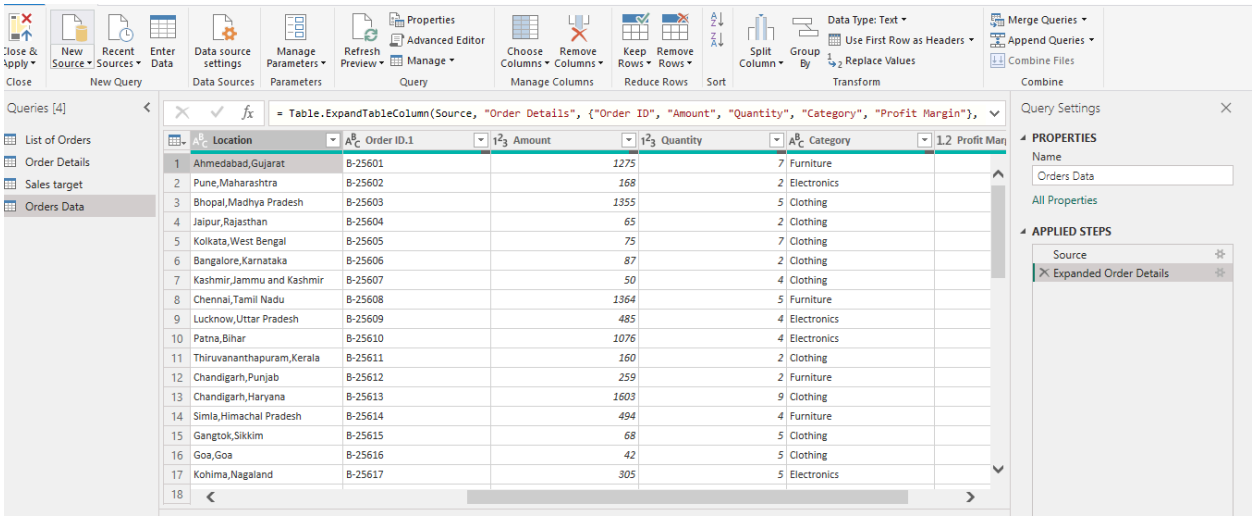
Go to the Home tab just Click Merge Queries in power query Choose Merge Queries as a New then perform the merge operation .

Choose the tables "List of orders" and "Orders Details" and select the fields Order ID merge done then expand the table.



Order ID	Order Date	CustomerName	Location
B-25601	01-04-2018	Bharat	Ahmedabad,Gujarat
B-25602	01-04-2018	Pearl	Pune,Maharashtra
B-25603	03-04-2018	Jahan	Bhopal,Madhya Pradesh
B-25604	03-04-2018	Divsha	Jaipur,Rajasthan
B-25605	05-04-2018	Kasheen	Kolkata,West Bengal

Order ID	Amount	Profit	Quantity	Category	Sub-Category	Profit Margin	Profit Status
B-25601	1275	-1148	7	Furniture	Bookcases	-90	loss
B-25602	168	-111	2	Electronics	Phones	-66.1	loss
B-25603	1355	-60	5	Clothing	Trousers	-4.4	loss
B-25604	65	17	2	Clothing	T-shirt	26.2	profit
B-25605	75	0	7	Clothing	Saree	0	Break-even



III.2

Sorting and Filtering Data:

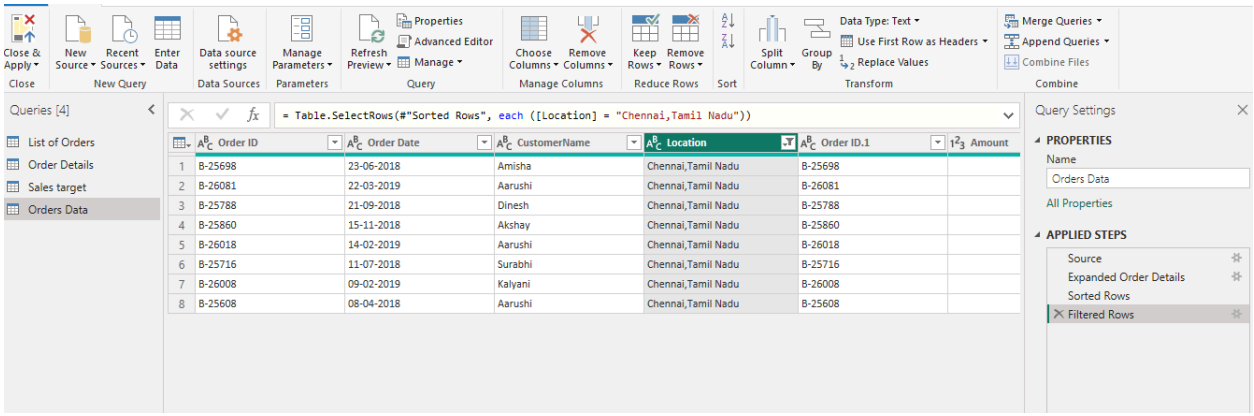
● In the 'Orders Data' table, utilize sorting and filtering techniques on columns like Order Date, State or Category to analyze data based on specific criteria:

◆ Sort the orders by Order Date in descending order to analyze recent trends.

◆ Filter the orders to focus only on a specific state (e.g., Tamil Nadu) for regional analysis.

Steps:

In "orders data" table Got to select the Orders Date in the table perform the filters operation based on the states.



III.3

Grouping and Aggregating Data:

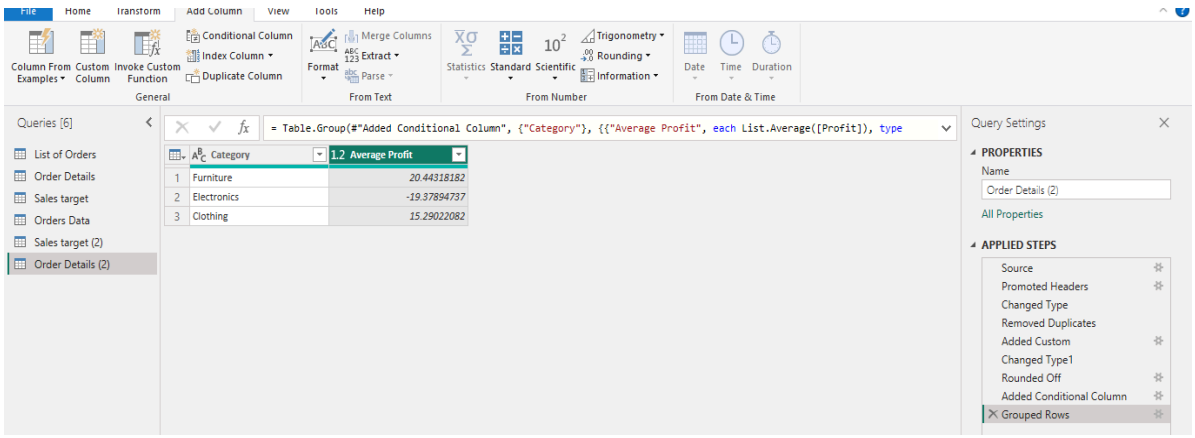
● Duplicate the "Order Details" table and calculate the count of each Order ID, average profit by Category or total amount by Sub-Category.

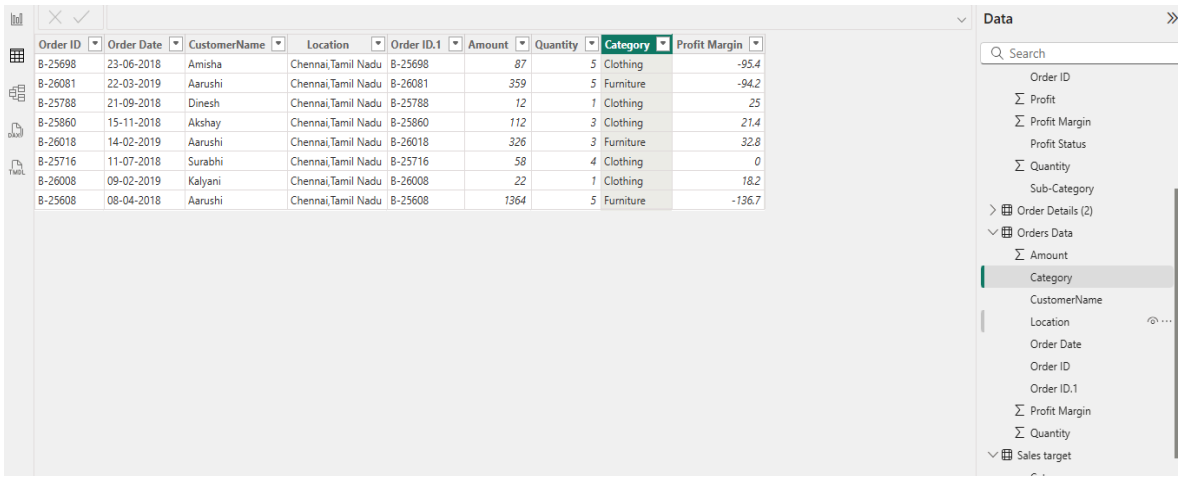
steps:

Duplicate “Orders Details” Table. once created

then

Select Category Column - Using groupby aggregate function to calculate the Average to generate the Average profit of category



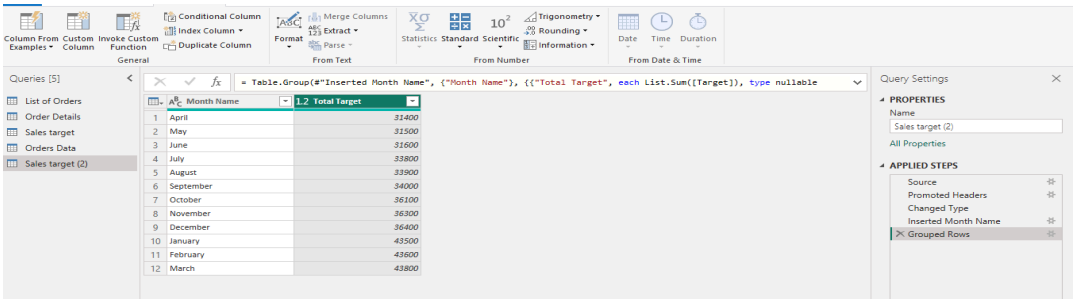


● Duplicate the “Sales Target” table and aggregate the total target amount by Month of Order Date.

Steps:

I have to create the new month column in the Sale Target Table. once created then

Select MONTH Column - Using groupby aggregate function to calculate the SUM in the Month wise Total Target

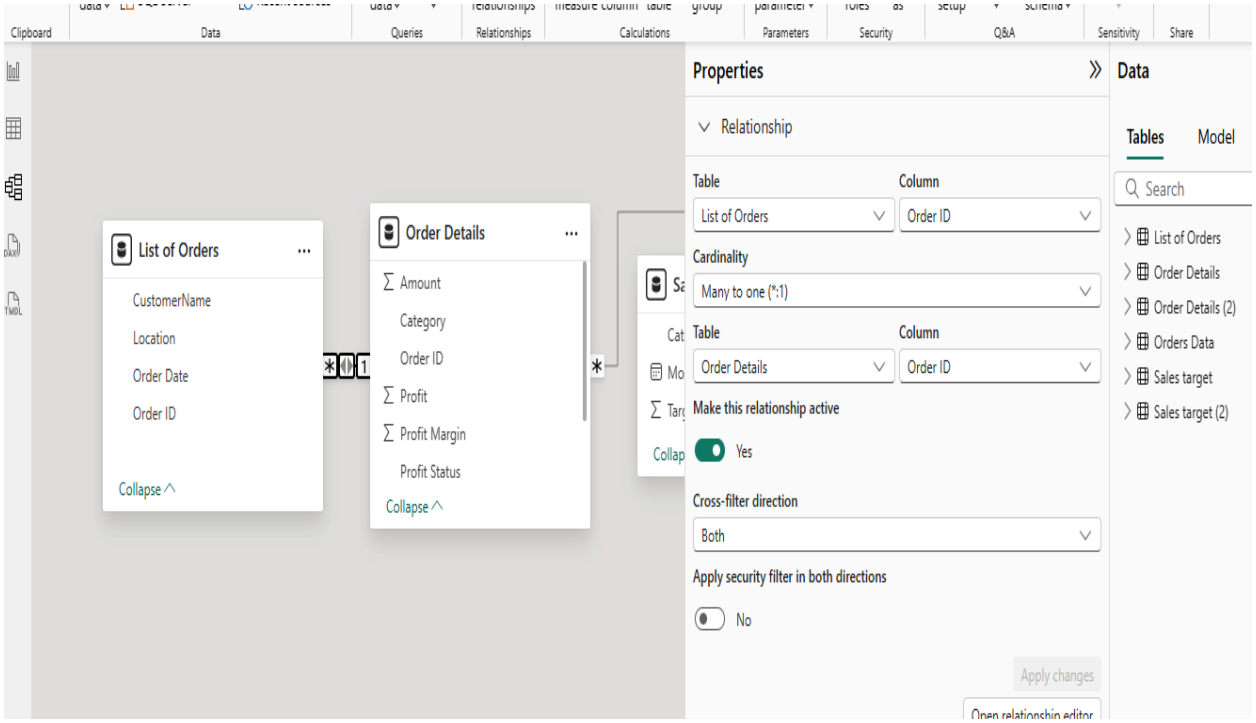


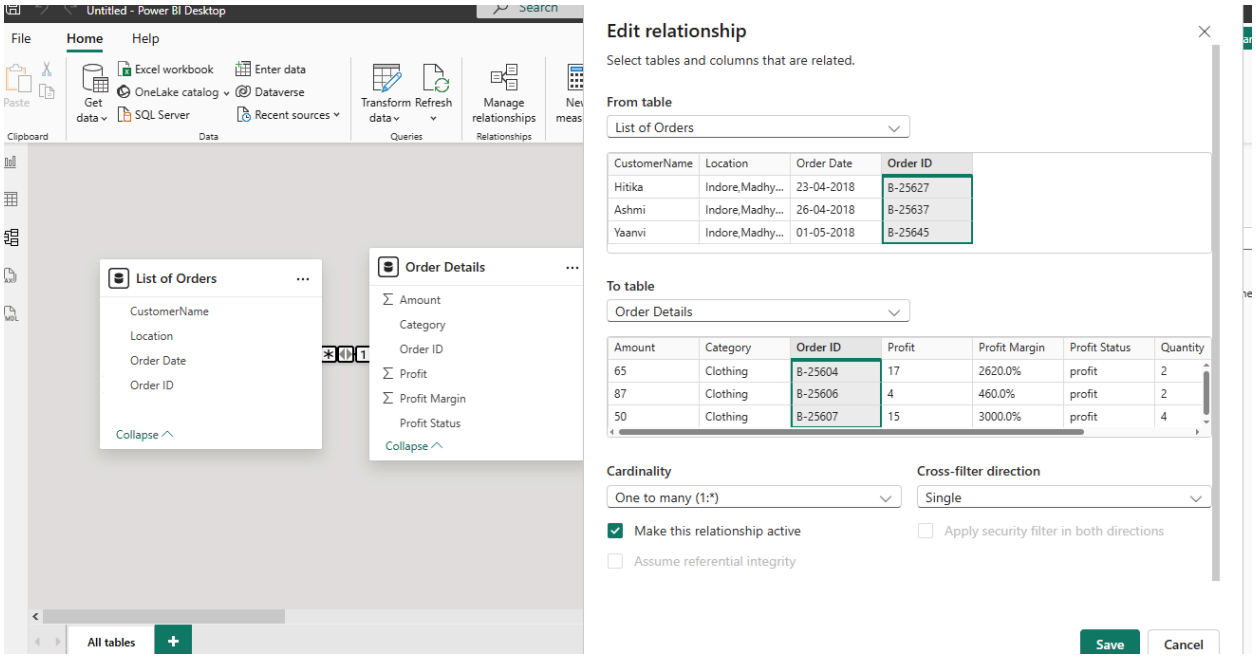
IV.
Data Modeling:

● Establish a relationship between the “List of Orders” and “Order Details” tables using the ‘Order ID’ column.

steps:

Go to powerbi click on Model icon then Create the relation between Oder ID to order ID between two Tables

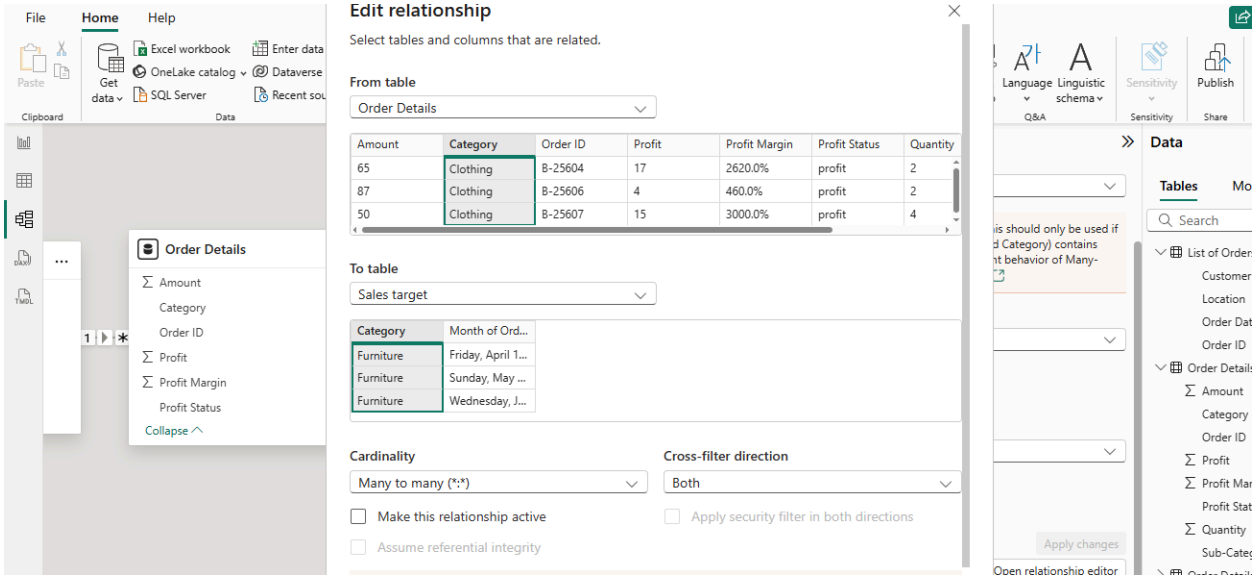




● Build a relationship between the “Order Details” and “Sales Target” tables based on the ‘Category’ column. Click "Manage relationships" and ensure this relationship is active.

Steps:

Go to Power bi click the Model icon then create the relationship between the two table just drag and drop the specified column and choose the relationship Save and apply .



Verification:

Go and check with manage relationship in the powerbi