IBM COGNOS ANALYTICS
ASSIGNMENT-03

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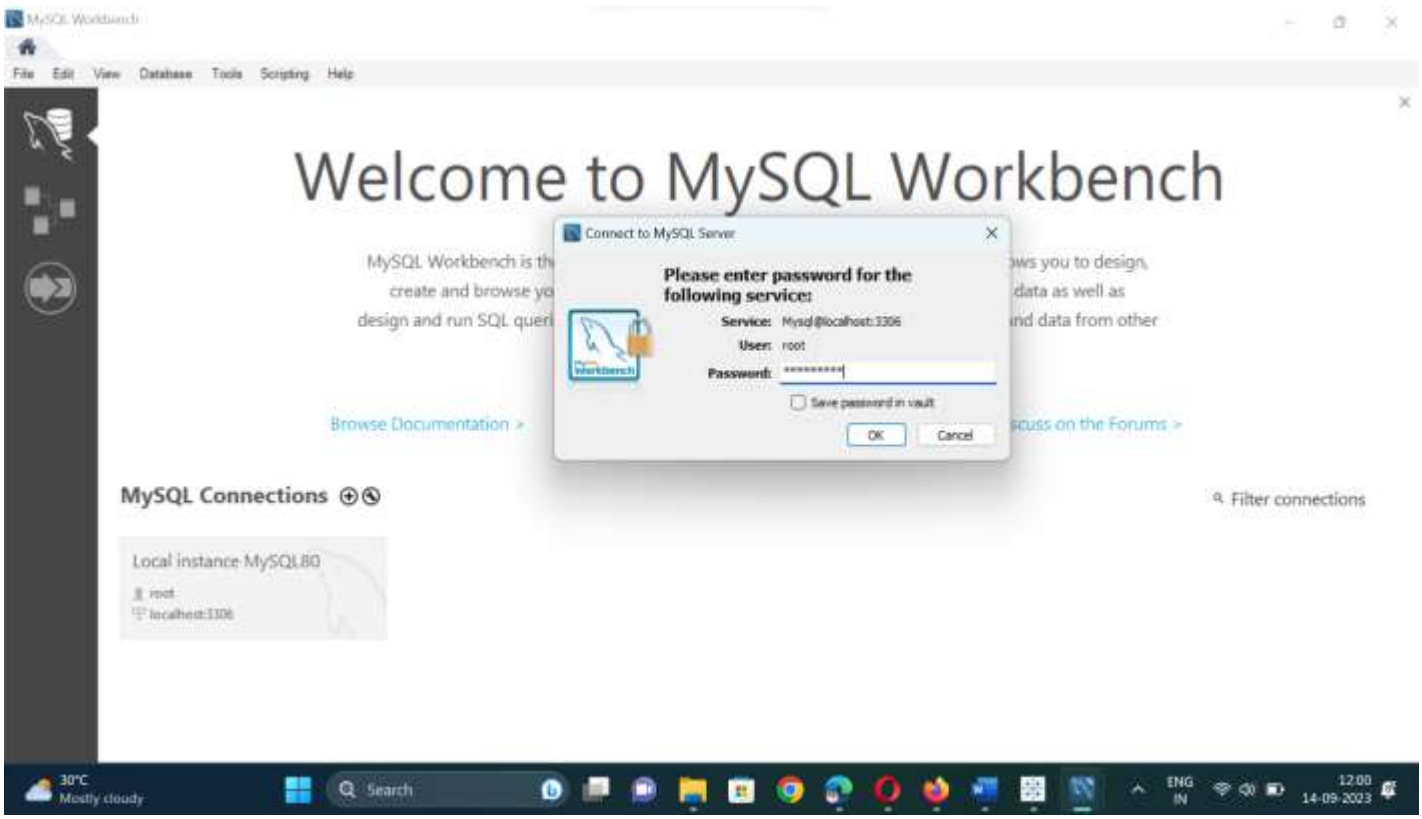
EMAIL: divya.21bce9644@vitapstudent.ac.in

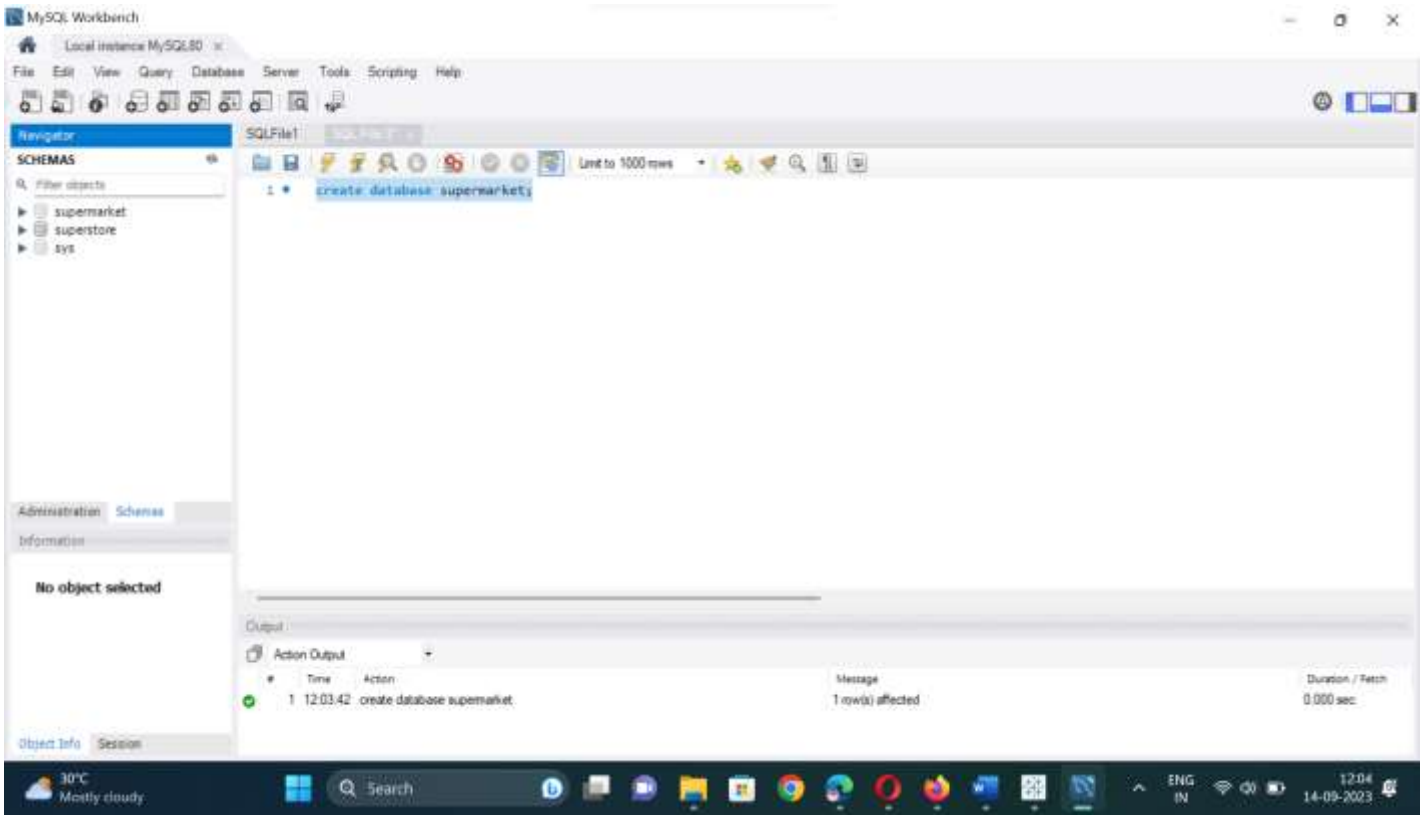
1. Upload the dataset to MySQL and integrate with Tableau, delete the unnecessary columns, explore and visualize the dataset using Tableau.

- **MySQL Integration:**

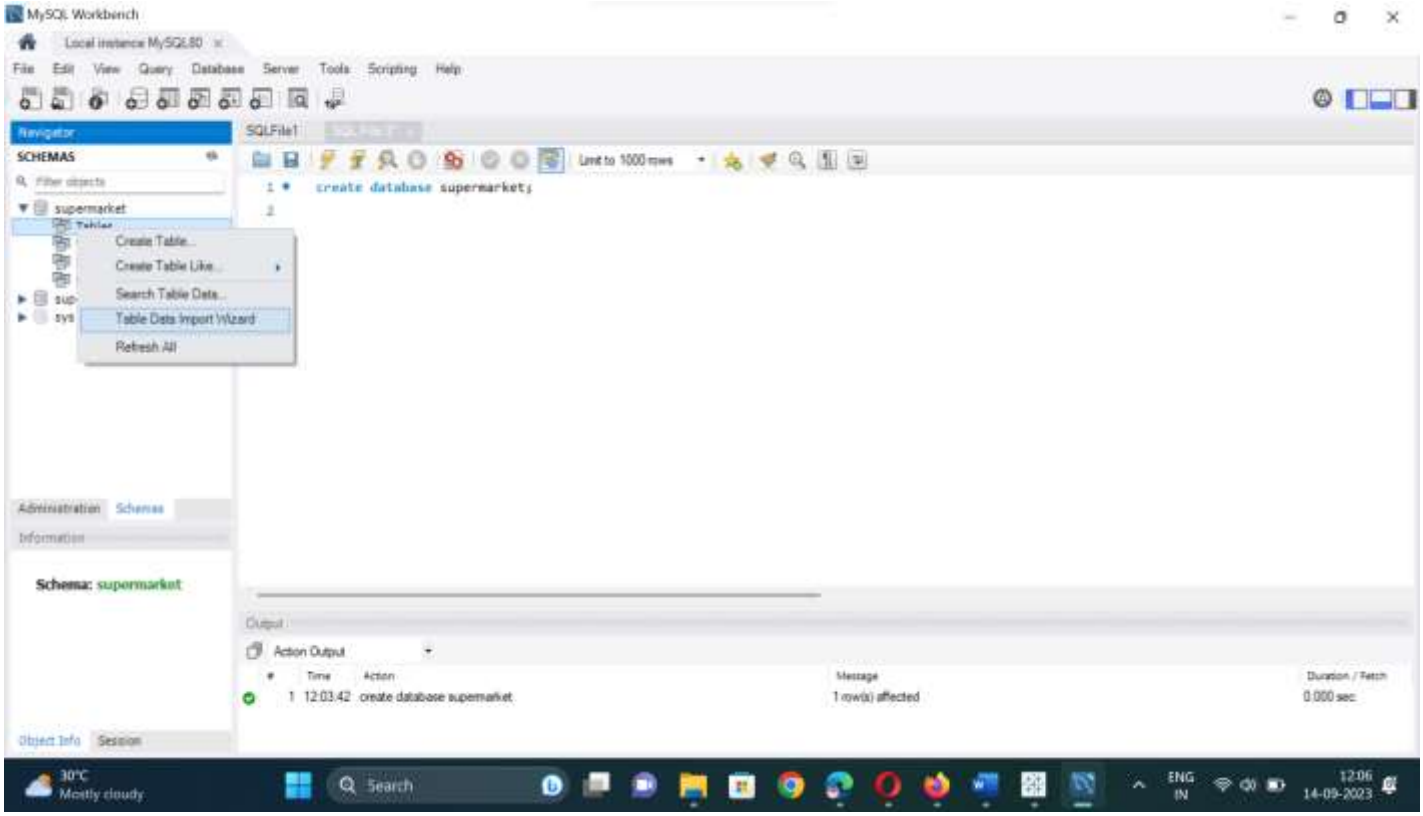
1.open MySQL Workbench:

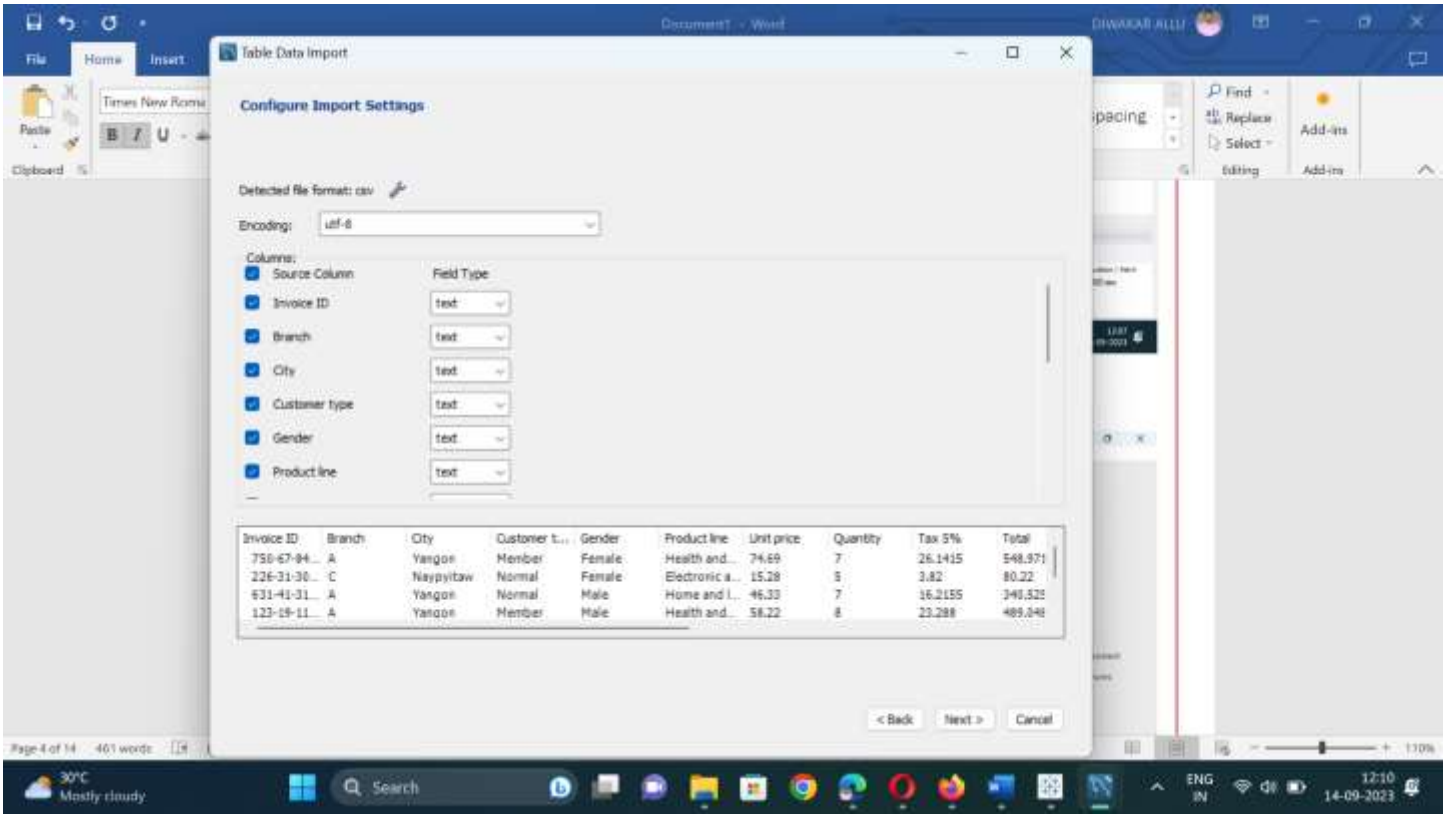


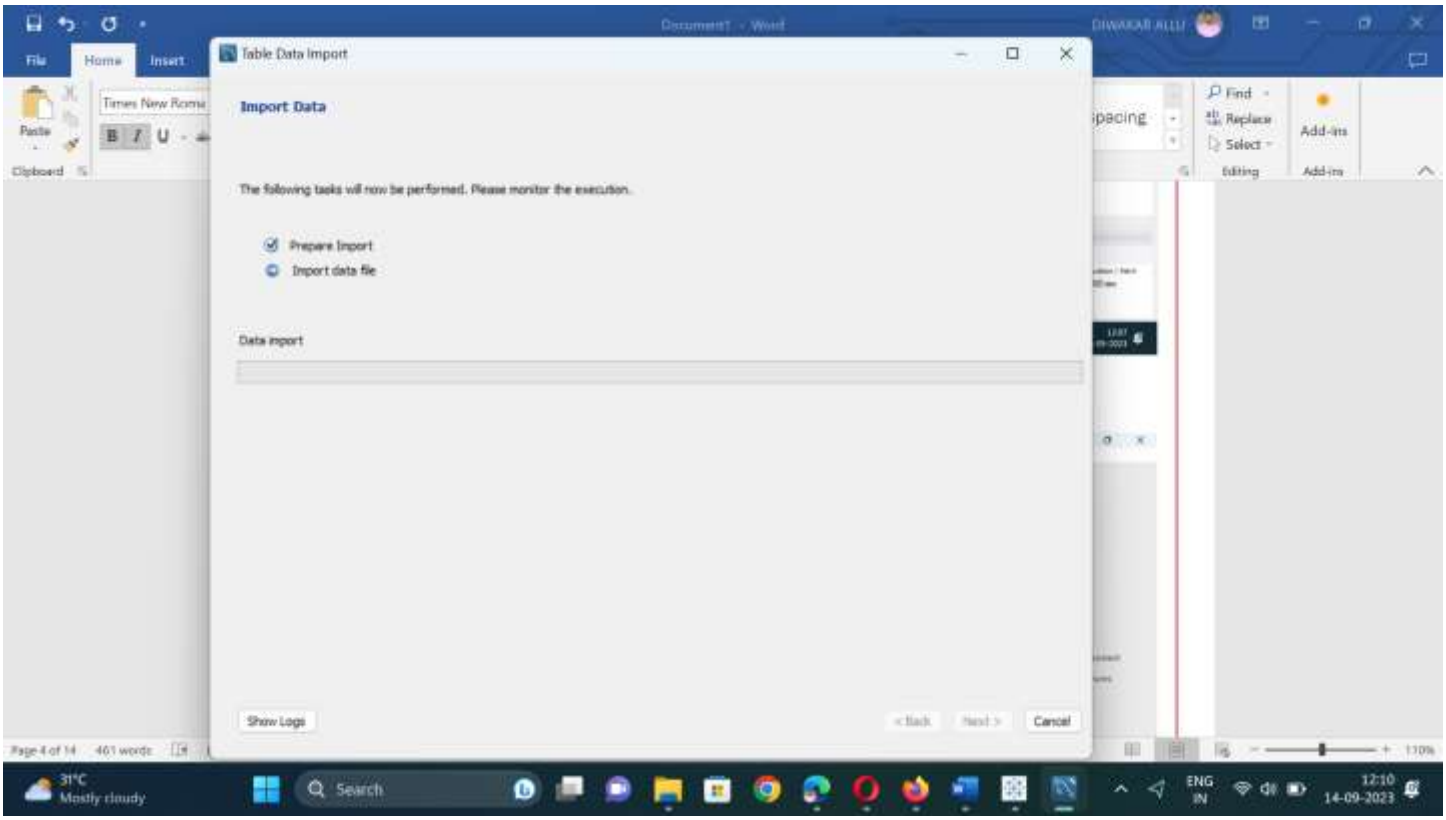
2.create a schema:



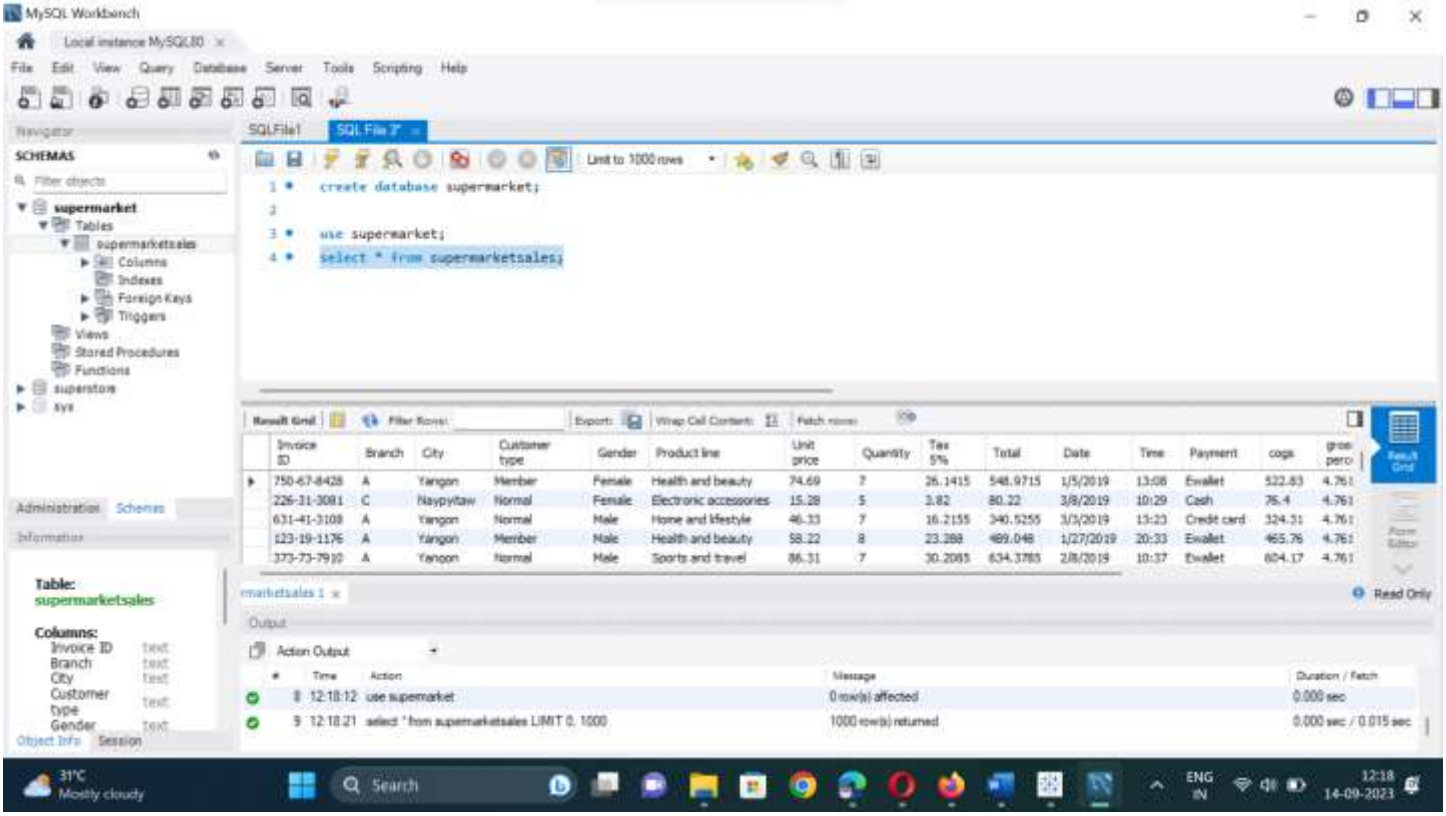
3. Import the data from local data set:

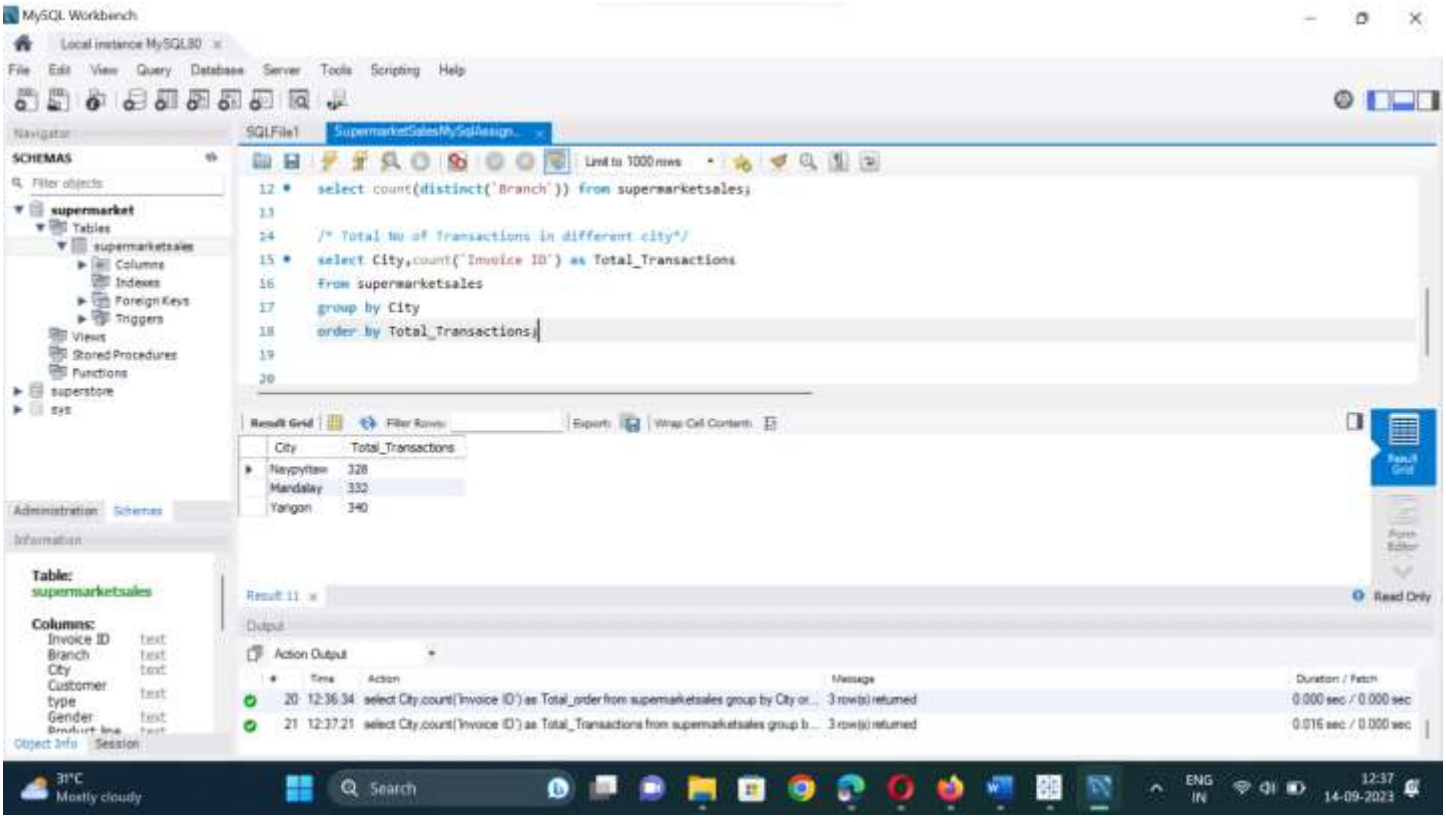






4. preprocess the data using SQL commands:


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
SCHEMAS
supermarket
Tables
supermarketsales
Columns
Indexes
Foreign Keys
Triggers
Views
Stored Procedures
Functions
superstore
sys
SQLFile1
SQL File 3*
Limit to 1000 rows
1 • create database supermarket;
2
3 • use supermarket;
4 • select * from supermarketsales;
Result Grid
Invoice ID | Branch | City | Customer type | Gender | Product line | Unit price | Quantity | Tax 5% | Total | Date | Time | Payment | cogs | gross
750-67-8428 | A | Yangon | Member | Female | Health and beauty | 74.69 | 7 | 26.1415 | 548.9715 | 1/5/2019 | 13:08 | Ewallet | 522.83 | 4.761
226-31-3081 | C | Naypyitaw | Normal | Female | Electronic accessories | 15.28 | 5 | 3.82 | 80.22 | 3/8/2019 | 10:29 | Cash | 76.4 | 4.761
631-41-3108 | A | Yangon | Normal | Male | Home and lifestyle | 46.33 | 7 | 16.2155 | 340.5255 | 3/3/2019 | 13:23 | Credit card | 324.31 | 4.761
123-19-1176 | A | Yangon | Member | Male | Health and beauty | 58.22 | 8 | 23.288 | 489.048 | 1/27/2019 | 20:33 | Ewallet | 465.76 | 4.761
373-73-7910 | A | Yangon | Normal | Male | Sports and travel | 86.31 | 7 | 30.2085 | 634.3785 | 2/8/2019 | 10:37 | Ewallet | 604.17 | 4.761
Read Only
Output
Action Output
| Time | Action | Message | Duration / Fetch
8 12:18:12 use supermarket 0 row(s) affected 0.000 sec
9 12:18:21 select * from supermarketsales LIMIT 0, 1000 1000 row(s) returned 0.000 sec / 0.015 sec
Table: supermarketsales
Columns:
Invoice ID text
Branch text
City text
Customer type text
Gender text
Object Info Session
31°C Mostly cloudy
Search
ENG IN
12:18 14-09-2023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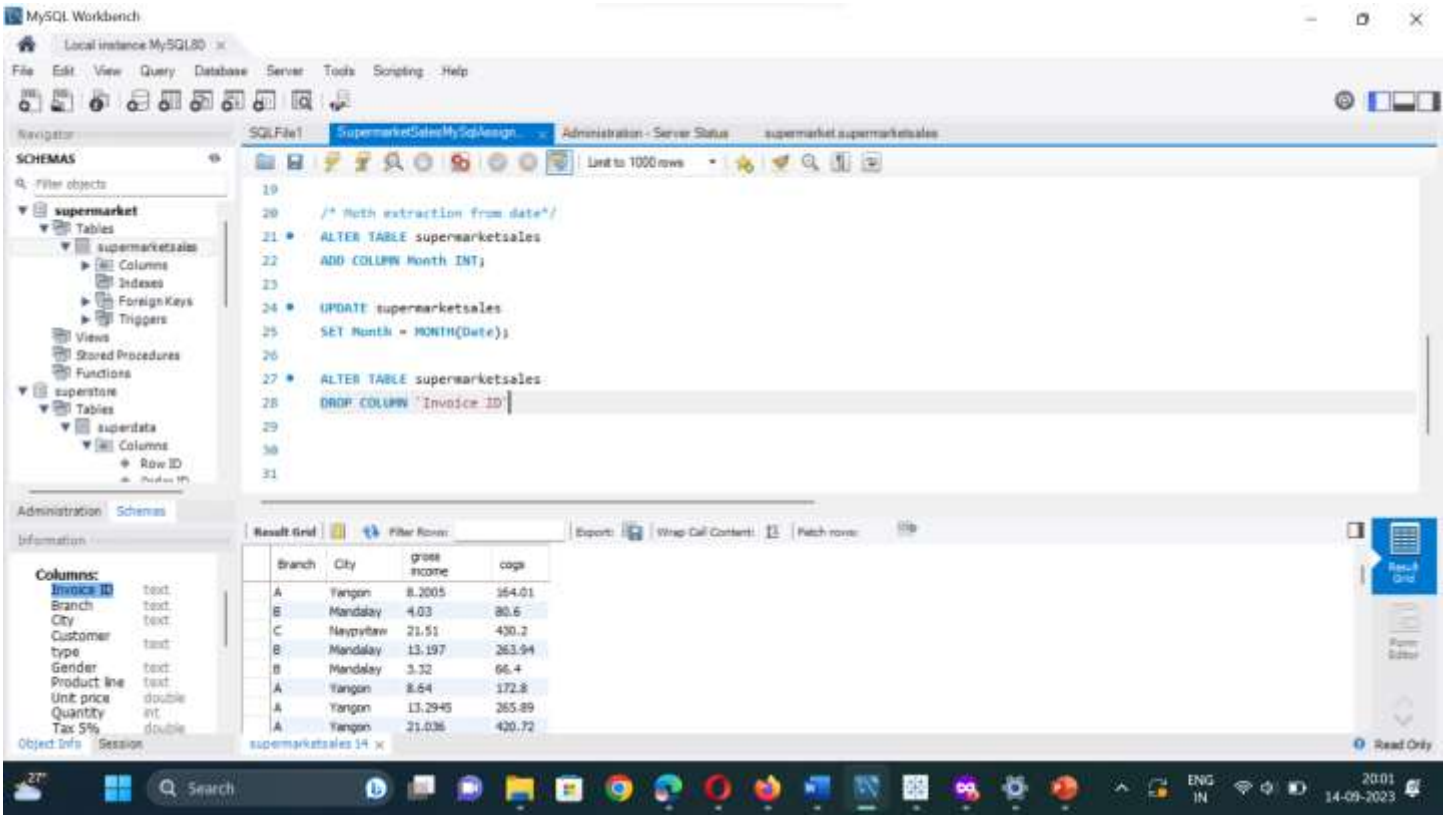
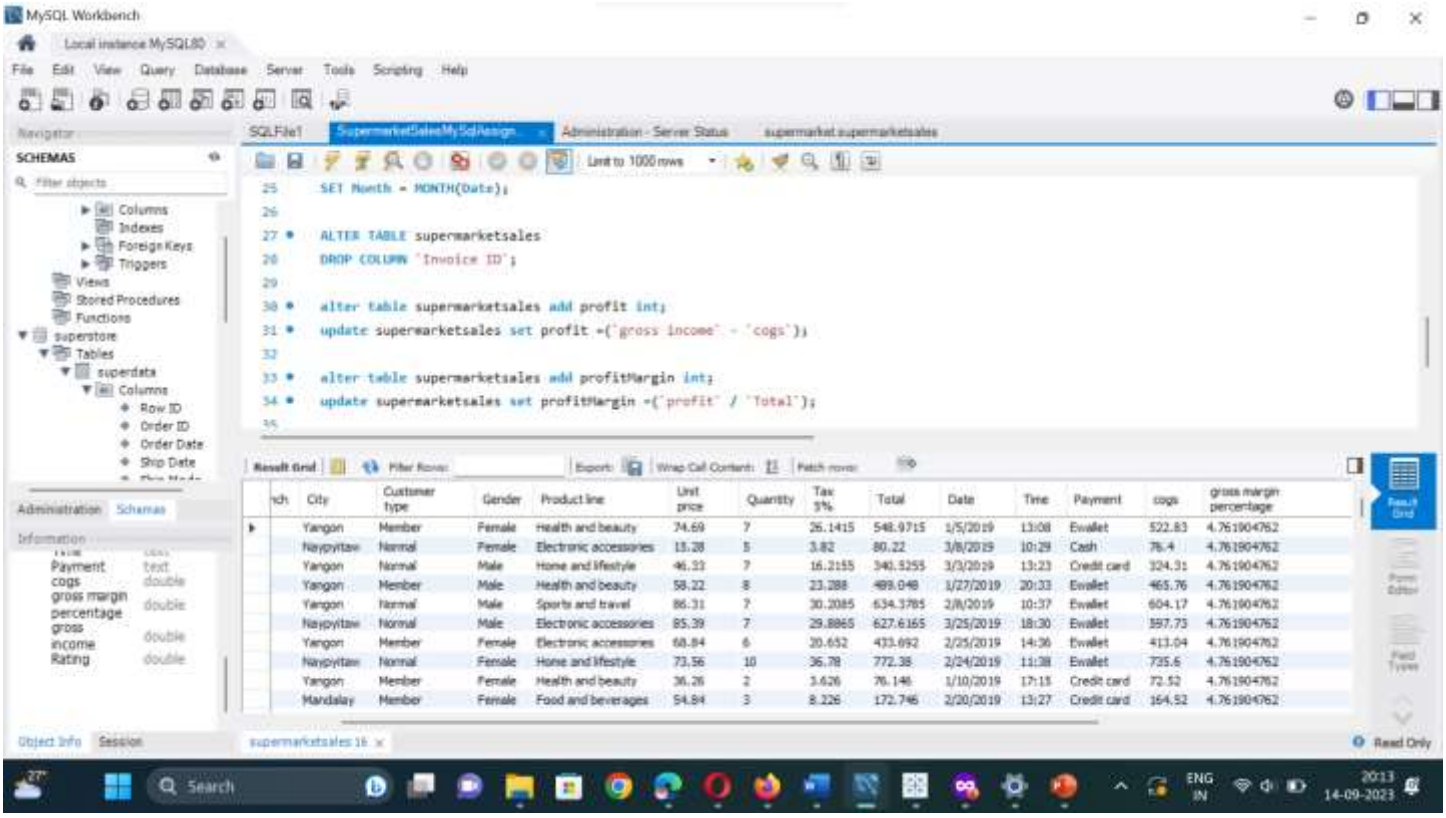
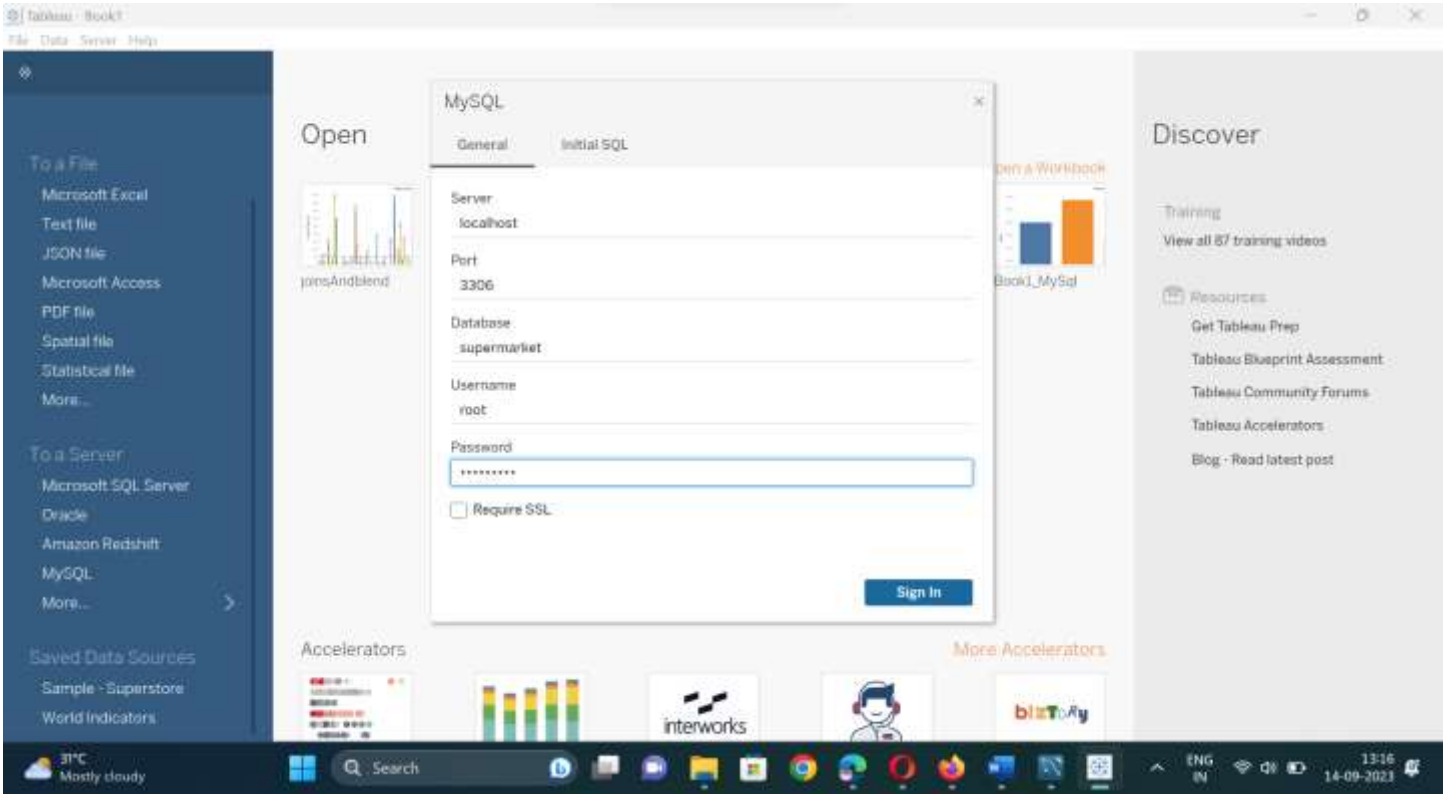
SCHEMAS
supermarket
Tables
supermarketsales
Columns
Indexes
Foreign Keys
Triggers
Views
Stored Procedures
Functions
superstore
sys
SQLFile1
SupermarketSalesMySqlAssign...
Limit to 1000 rows
12 • select count(distinct(`Branch`)) from supermarketsales;
13
14 /* Total No of Transactions in different city*/
15 • select City,count(`Invoice ID`) as Total_Transactions
16 from supermarketsales
17 group by City
18 order by Total_Transactions;
19
20
Result Grid
City | Total_Transactions
Naypyitaw 328
Mandalay 332
Yangon 340
Read Only
Output
Action Output
| Time | Action | Message | Duration / Fetch
20 12:36:34 select City,count(`Invoice ID`) as Total_order from supermarketsales group by City or... 3 row(s) returned 0.000 sec / 0.000 sec
21 12:37:21 select City,count(`Invoice ID`) as Total_Transactions from supermarketsales group b... 3 row(s) returned 0.016 sec / 0.000 sec
Table: supermarketsales
Columns:
Invoice ID text
Branch text
City text
Customer type text
Gender text
Object Info Session
31°C Mostly cloudy
Search
ENG IN
12:37 14-09-2023

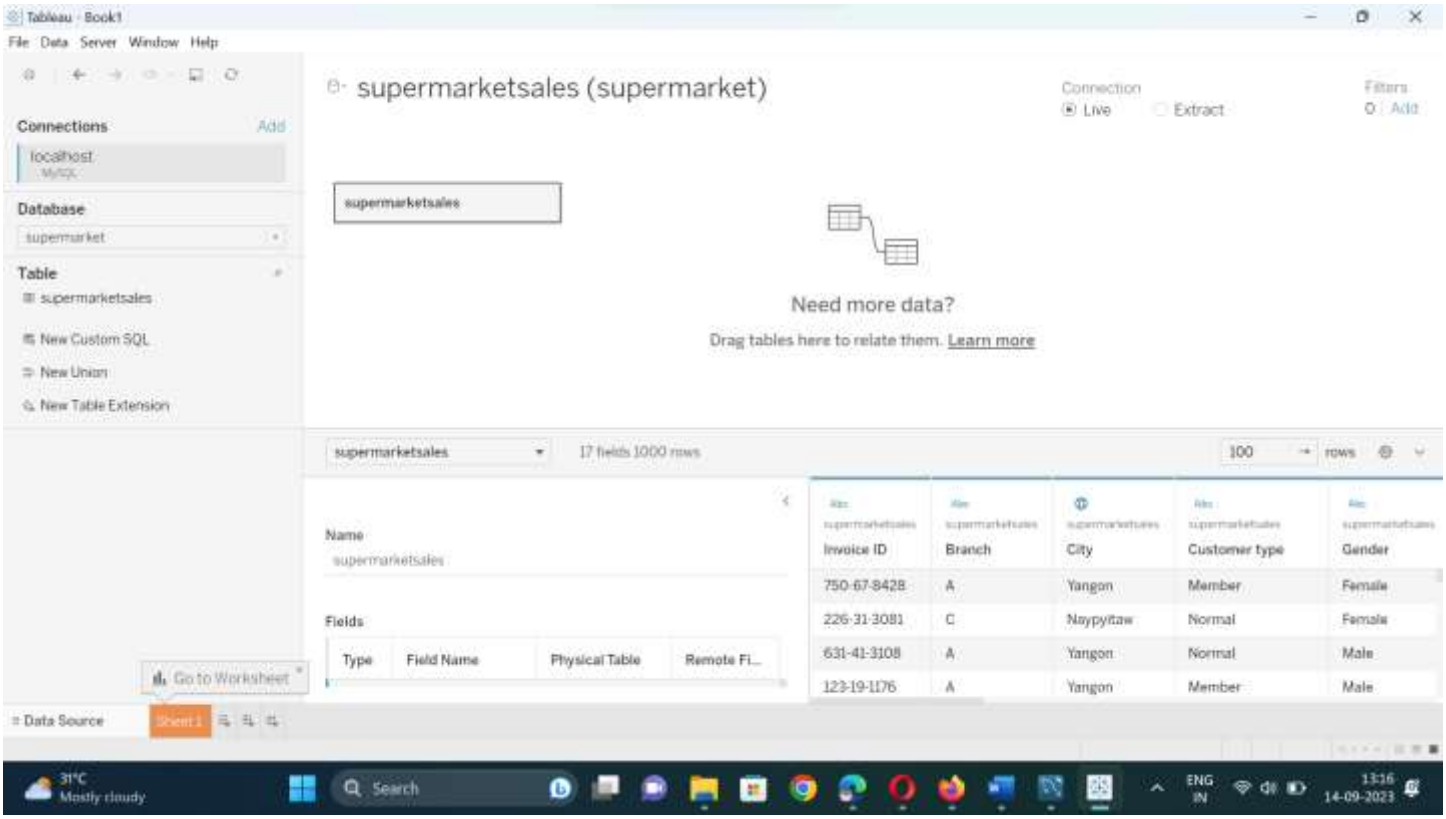




➢ Tableau Integration:

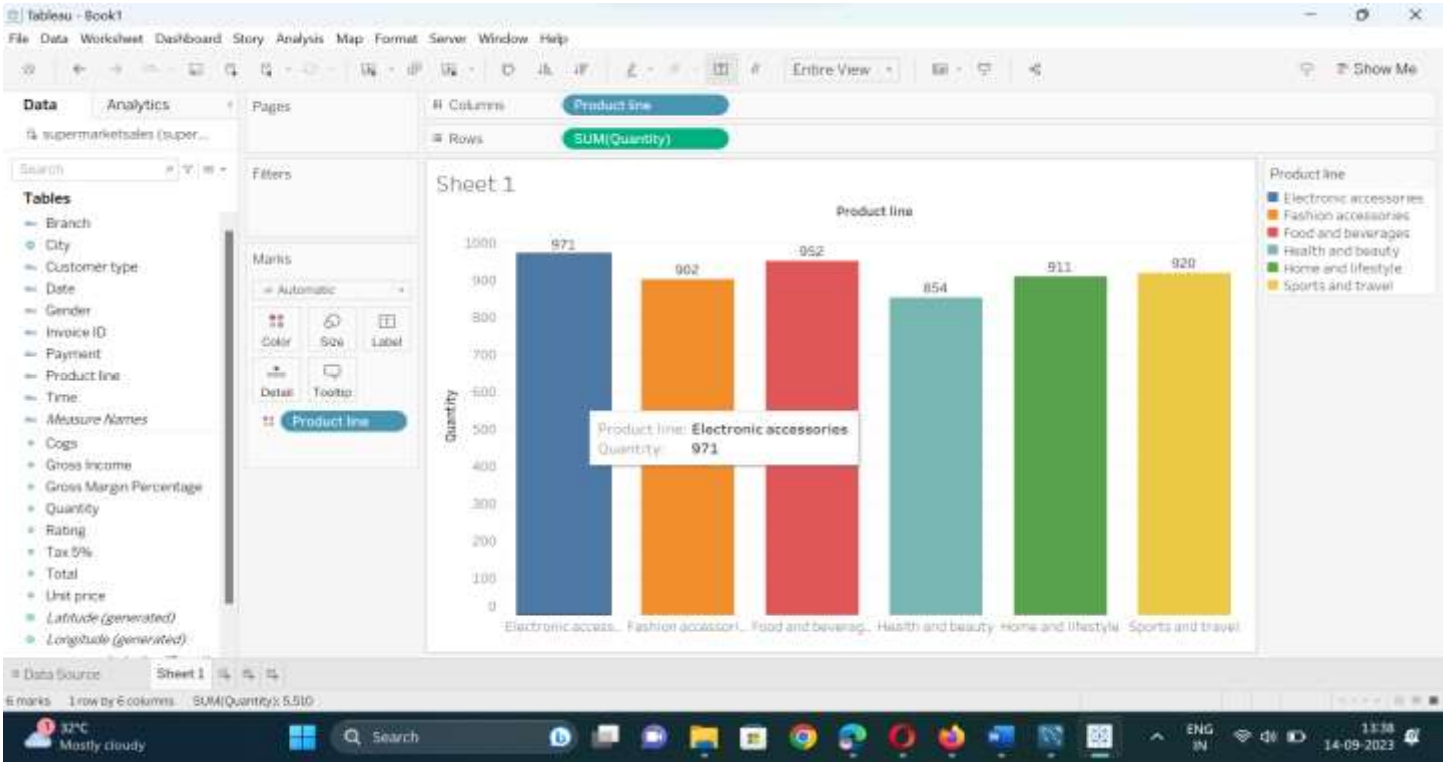
select MySQL in Connect to a Server option



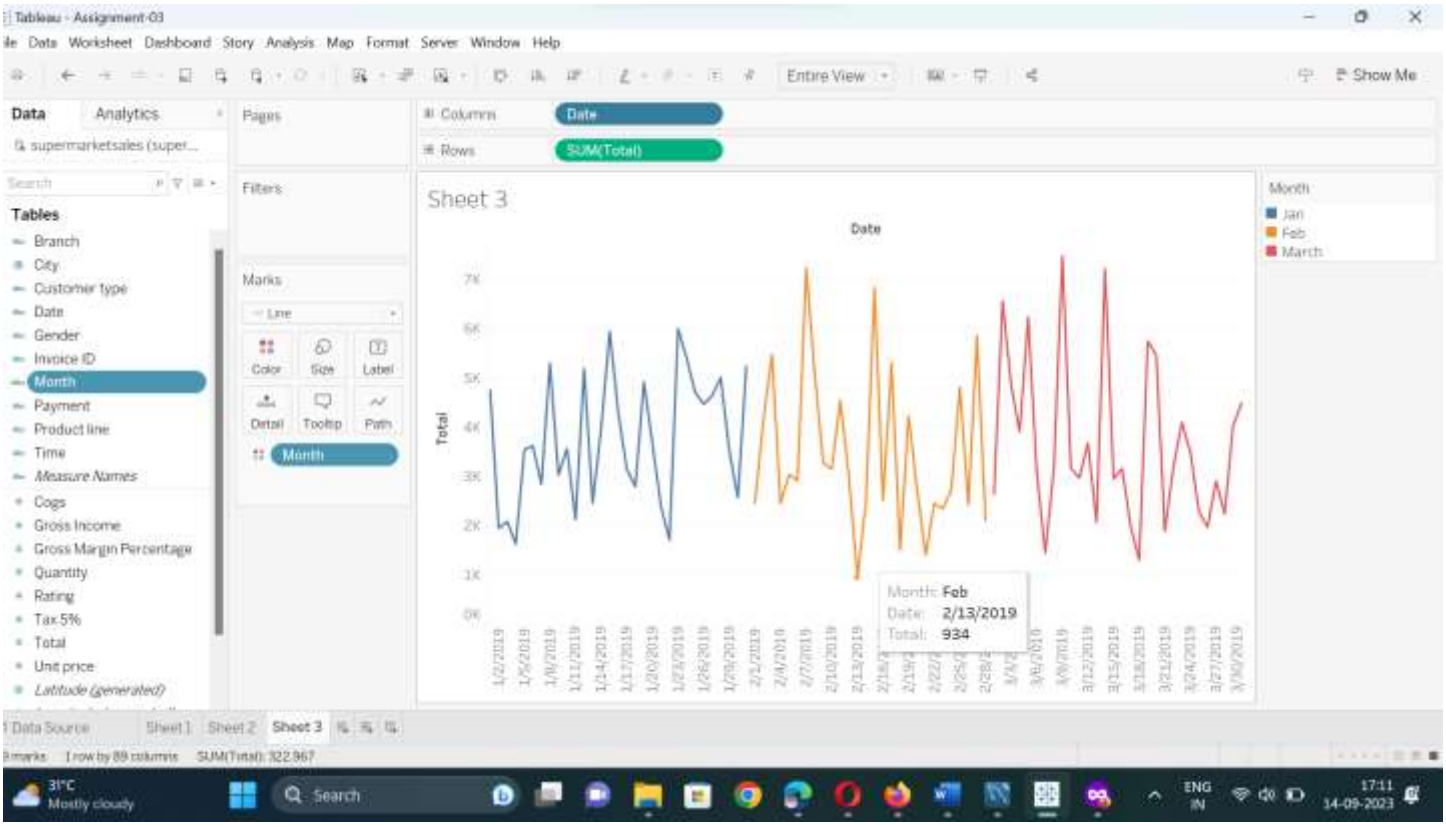


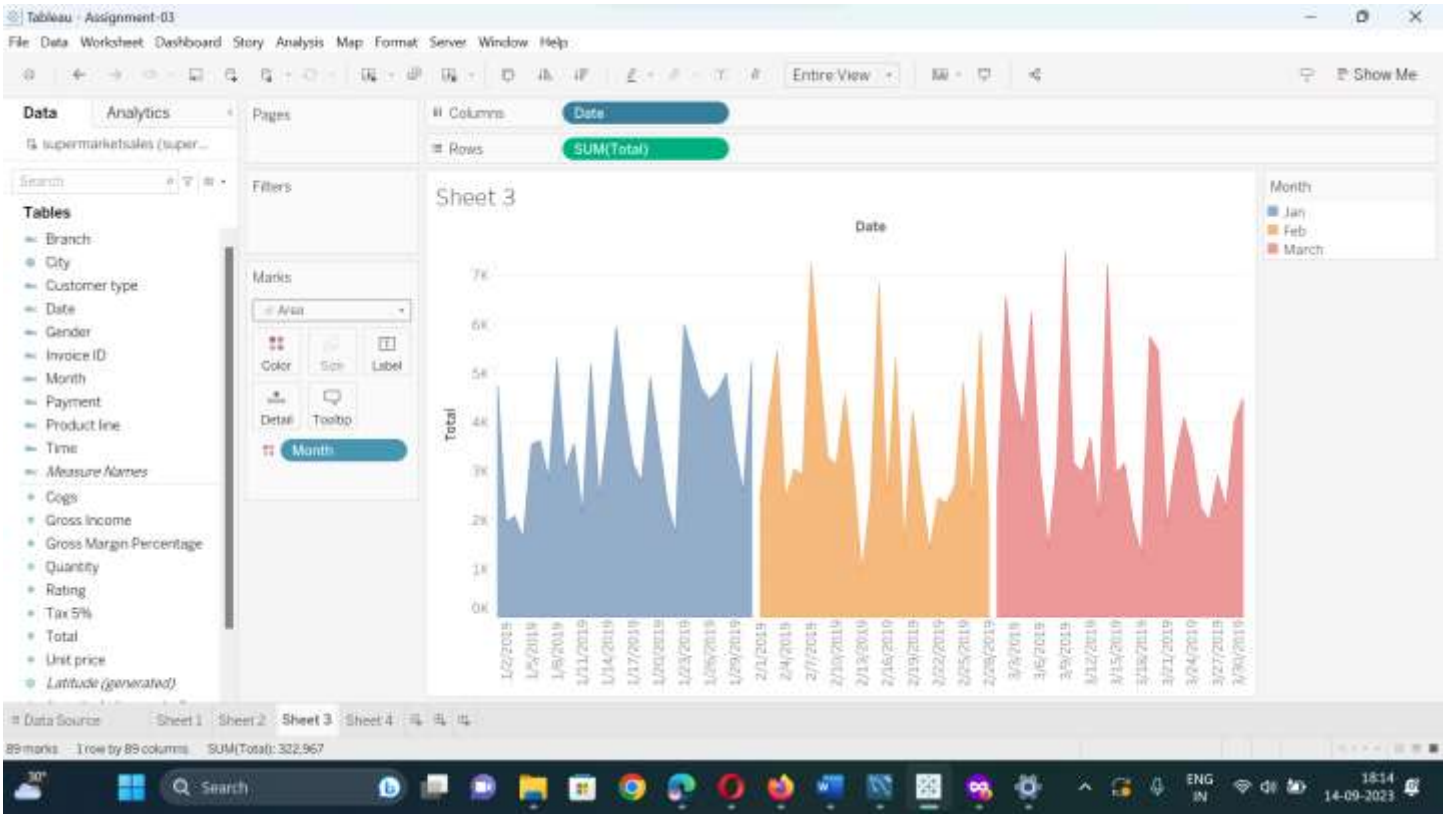
➢ Data Exploration and Visualization:

1. Which product categories are the most popular among customers and Which product categories generate the highest revenue?

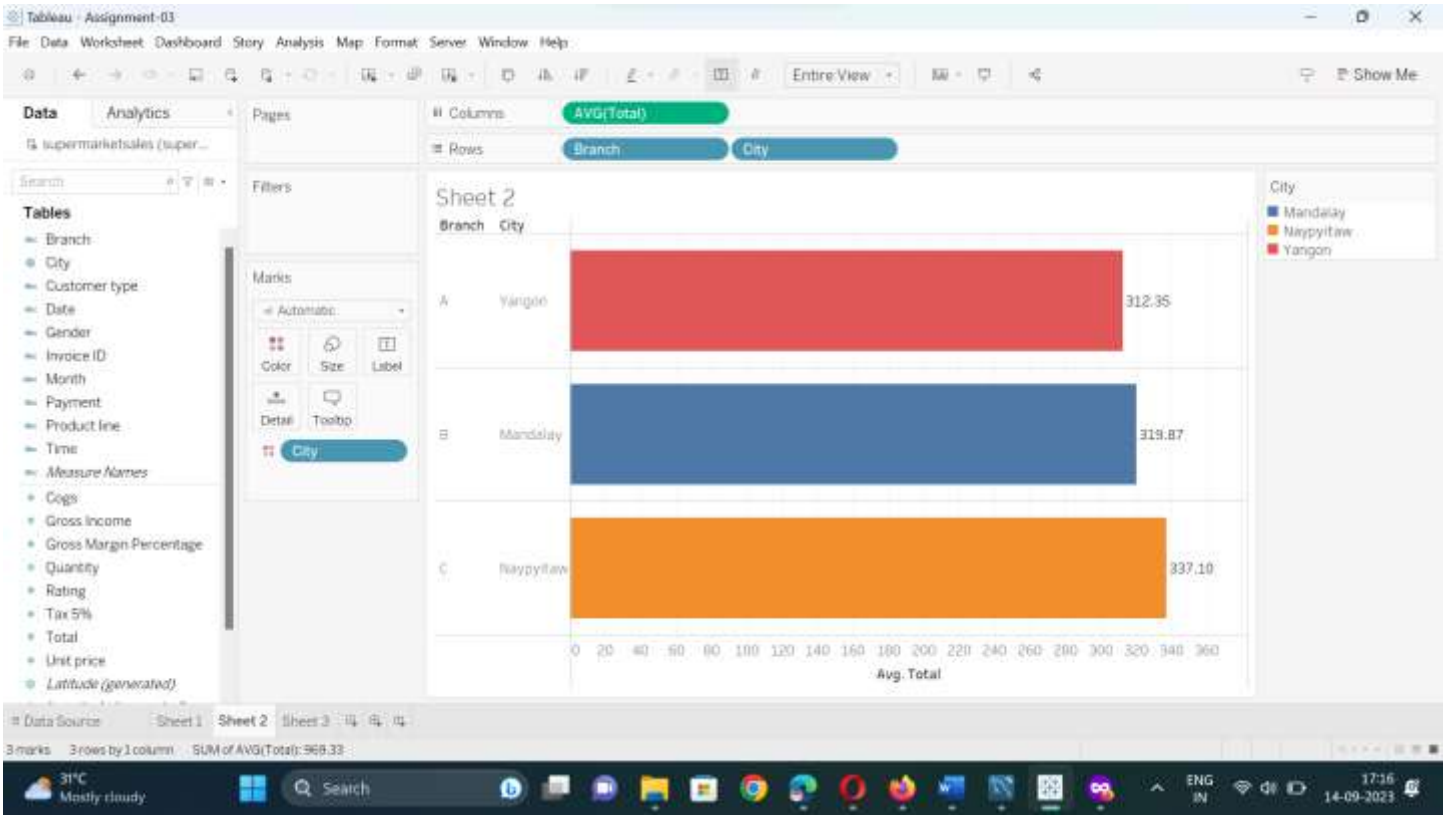


2. What are the sales trends over time, and are there any notable patterns or spikes?

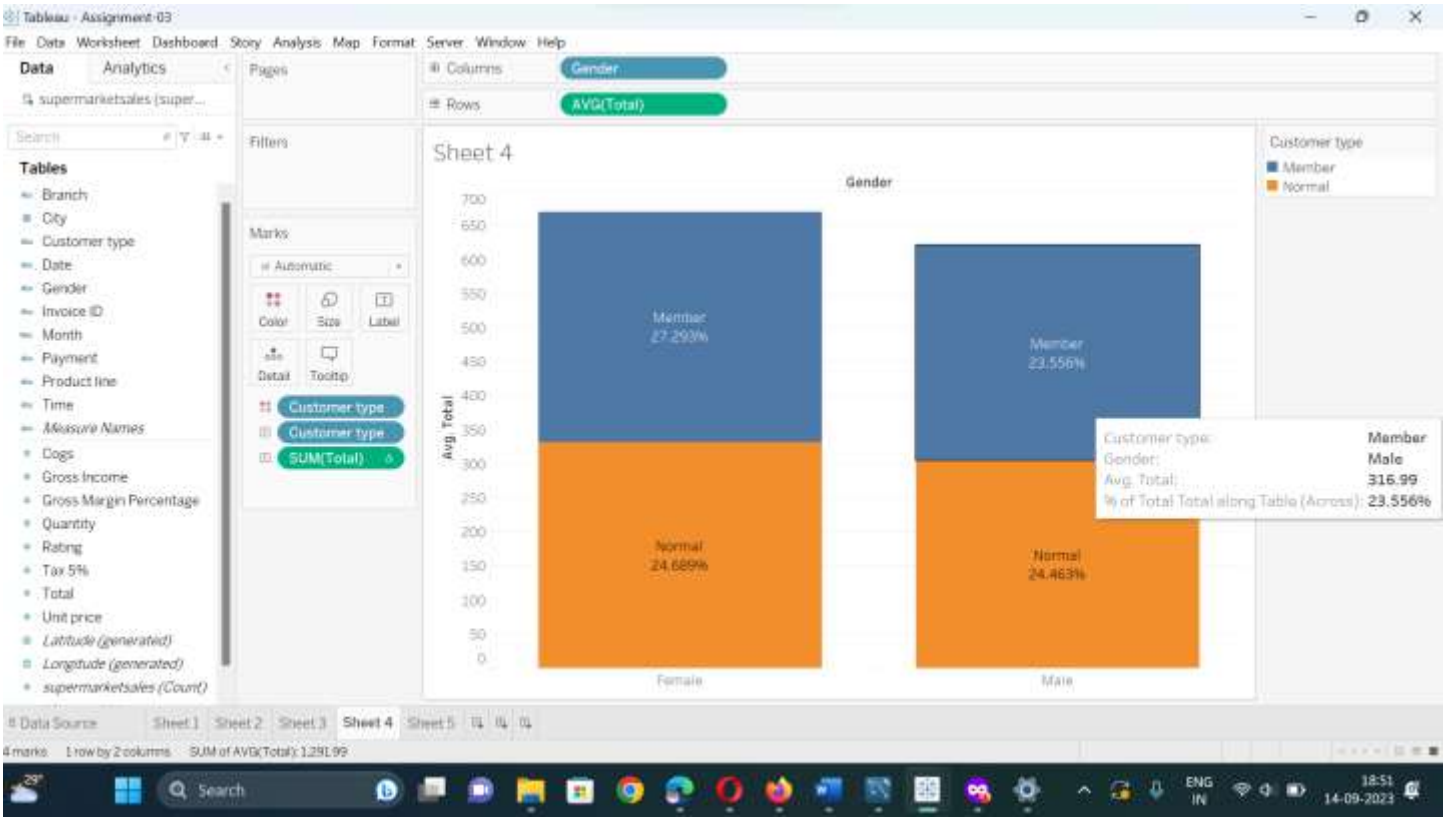




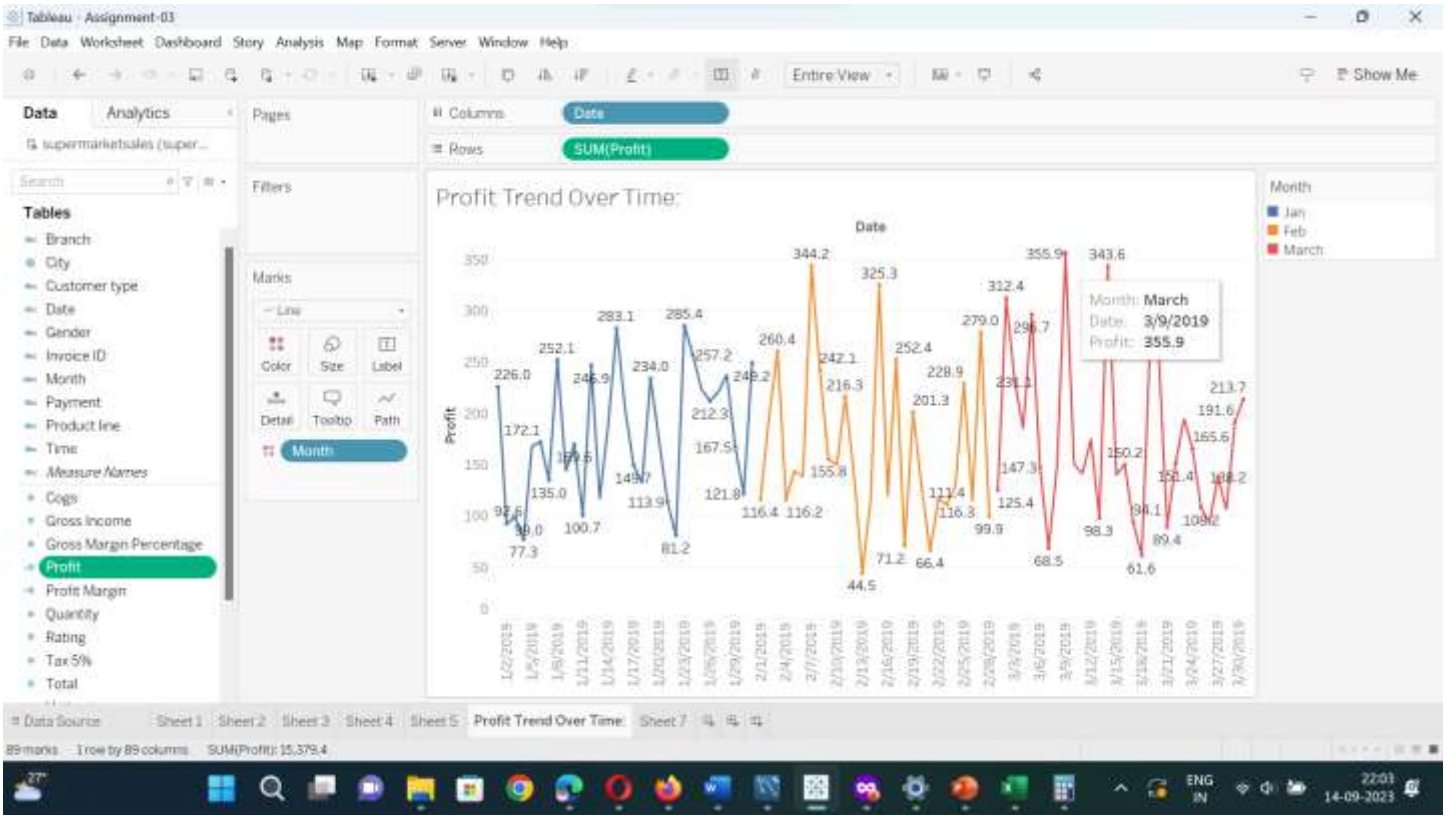
3. How do sales vary by city and branch?



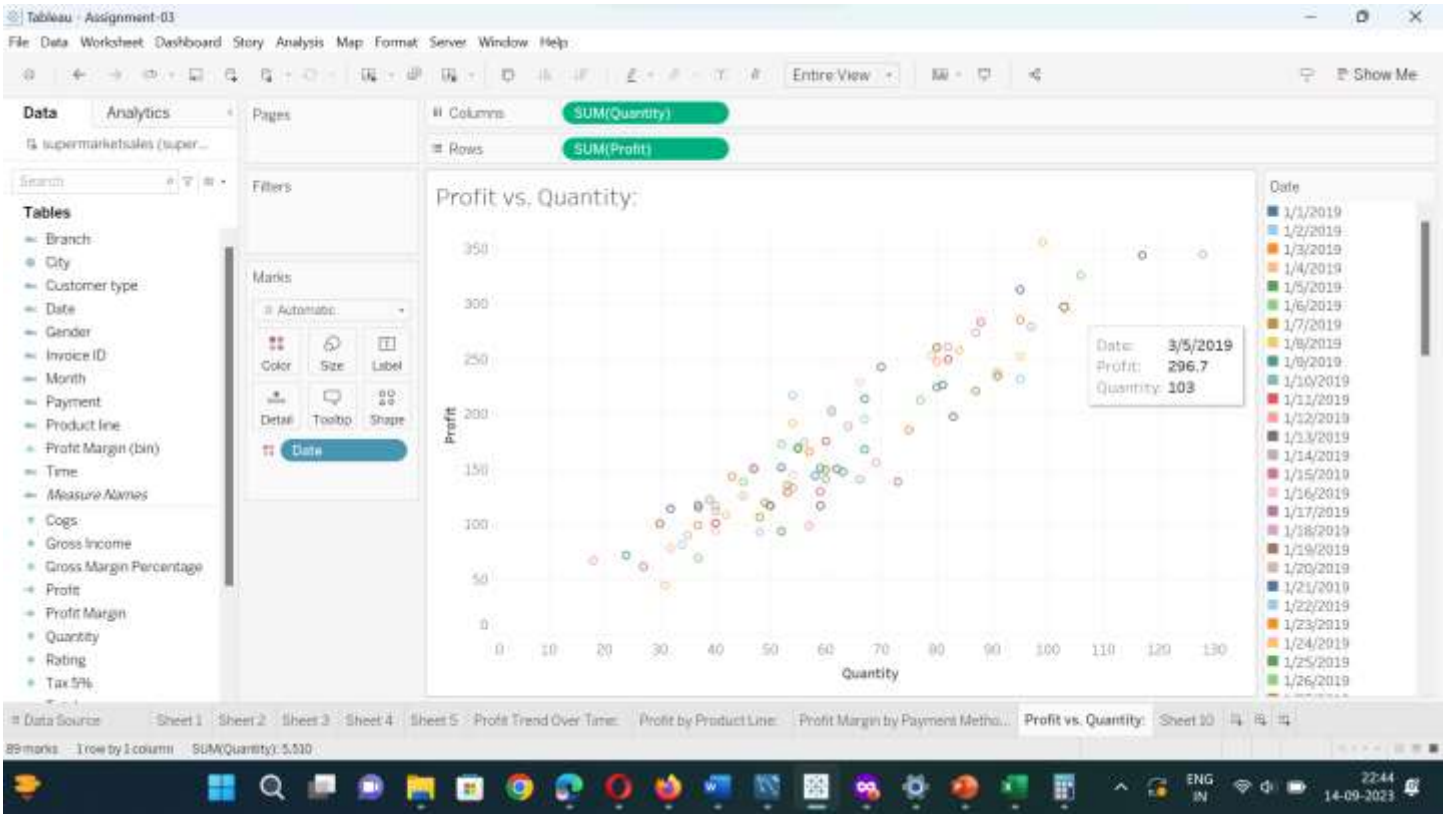
4. Compare how member and non-member customers contribute to total sales, broken down by gender.



5. Profit Tend Over Time: To Analyze how profit varies over time and identify trends.



Profit vs. Quantity: To Explore the relationship between the quantity of products sold and profit.



- **Results.**

  The project results in a streamlined dataset optimized for analysis. Through Tableau visualizations, we gain insights into sales trends across branches, customer segmentation, popular product categories, and more. These insights can inform strategic decisions, marketing efforts, and inventory management to enhance the supermarket's competitive edge in the market.

- **References:**

https://help.tableau.com/current/pro/desktop/en-us/buildexamples_scatter.html