

ASSIGNMENT-3

Data Analytics with IBM Cognos

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21BCB7104

Challenge:

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

1) Upload the dataset to MYSQL.

The screenshot shows the MySQL Workbench interface. The 'Query 1' window displays a SQL query: `select * from supermarket;`. The 'Result Grid' shows a table with columns: Invoice ID, Branch, City, Customer type, Gender, Product line, Unit price, Quantity, Tax %, Total, Date, Time, Payment, cogs, gross margin percentage, gross income, and Rating. The table contains 41 rows of data. The 'Object Explorer' on the left shows the 'supermarket' database selected. The 'Output' window at the bottom shows the execution details: '41 14:31:15 select * from supermarket LIMIT 0, 1000'.

2) Integrating with Tableau.

The screenshot shows the Tableau Desktop interface. The 'Connect' dialog box is open, showing the 'MySQL' connection type selected. The 'Initial SQL' window is also open, showing the 'MySQL' connection details: Server: localhost, Port: 3306, Database: supermarket, Username: root, Password: root. The 'Sign In' button is highlighted. The 'Discover' panel on the right shows various Tableau resources and accelerators.

Tableau - Book1

File Data Server Window Help

Connections: localhost MySQL

Database: supermarket

Table: supermarket

supermarket (supermarket)

Need more data? Drag tables here to relate them. [Learn more](#)

15 fields 1000 rows

Name	Type	Field Name	Physical Table	Remote Field ...
Branch	Branch	Branch	supermarket	Branch
City	City	City	supermarket	City
Customer type	Customer type	Customer type	supermarket	Customer type
Gender	Gender	Gender	supermarket	Gender
Product line	Product line	Product line	supermarket	Product line
Unit price	Unit price	Unit price	supermarket	Unit price
Quantity	Quantity	Quantity	supermarket	Quantity
Tax 5%	Tax 5%	Tax 5%	supermarket	Tax 5%
Total	Total	Total	supermarket	Total
Date	Date	Date	supermarket	Date
Payment	Payment	Payment	supermarket	Payment
Cogs	Cogs	Cogs	supermarket	Cogs
Gross Margi...	Gross margin p...	Gross margin p...	supermarket	Gross margin p...
Gross Income	Gross income	Gross income	supermarket	Gross income
Rating	Rating	Rating	supermarket	Rating

Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax 5%	Total	Date	Payment	Cogs
A	Yangon	Member	Female	Health and beauty	74.6900	7	26.1415	548.972	1/5/2019	Ewallet	522.8
C	Naypyitaw	Normal	Female	Electronic accessories	15.2800	5	3.8200	80.220	3/8/2019	Cash	76.4
A	Yangon	Normal	Male	Home and lifestyle	46.3300	7	16.2155	340.526	3/3/2019	Credit card	324.3
A	Yangon	Member	Male	Health and beauty	58.2200	8	23.2880	489.048	1/27/2019	Ewallet	465.7
A	Yangon	Normal	Male	Sports and travel	86.3300	7	30.2085	634.379	2/8/2019	Ewallet	604.1
C	Naypyitaw	Normal	Male	Electronic accessories	85.3900	7	29.8865	627.617	3/25/2019	Ewallet	597.7
A	Yangon	Member	Female	Electronic accessories	68.8400	6	20.6520	433.692	2/25/2019	Ewallet	413.0
C	Naypyitaw	Normal	Female	Home and lifestyle	73.5600	10	36.7800	772.380	2/24/2019	Ewallet	735.6
A	Yangon	Member	Female	Health and beauty	36.2600	2	3.6260	76.146	1/10/2019	Credit card	72.5
B	Mandalay	Member	Female	Food and beverages	54.8400	3	8.2260	172.746	2/20/2019	Credit card	164.5
B	Mandalay	Member	Female	Fashion accessories	14.4800	4	2.8960	60.816	2/6/2019	Ewallet	57.5
B	Mandalay	Member	Male	Electronic accessories	25.5300	4	5.1020	107.342	3/9/2019	Cash	102.0
A	Yangon	Normal	Female	Electronic accessories	46.9500	5	11.7375	246.488	2/12/2019	Ewallet	234.7
A	Yangon	Normal	Male	Food and beverages	43.1900	10	21.5950	453.495	2/7/2019	Ewallet	431.9
A	Yangon	Normal	Female	Health and beauty	71.3800	10	35.6900	749.490	3/29/2019	Cash	713.8
B	Mandalay	Member	Female	Sports and travel	93.7200	6	28.1160	590.436	1/15/2019	Cash	562.3
A	Yangon	Member	Female	Health and beauty	68.9300	7	24.1255	506.636	3/11/2019	Credit card	482.1
A	Yangon	Normal	Male	Sports and travel	72.6300	6	21.7830	457.443	1/1/2019	Credit card	435.6
A	Yangon	Normal	Male	Food and beverages	54.6700	3	8.2005	172.211	1/21/2019	Credit card	164.1
B	Mandalay	Normal	Female	Home and lifestyle	40.3000	2	4.0300	84.630	3/11/2019	Ewallet	80.6
C	Naypyitaw	Member	Male	Electronic accessories	86.0400	5	21.5100	451.710	2/25/2019	Ewallet	430.2

Go to Worksheet

Data Source Sheet 1

3) Deleting unnecessary columns.

In the above table the unnecessary columns are **Time** and **Invoice_ID**, so we can remove them while exploring

Tableau - Book1

File Data Server Window Help

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supermarket (supermarket)

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Date	Date	supermarket	Date
Payment	Payment	supermarket	Payment
Cogs	Cogs	supermarket	Cogs
Gross Margi...	Gross margin p...	supermarket	Gross margin p...
Gross Income	Gross income	supermarket	Gross income
Rating	Rating	supermarket	Rating

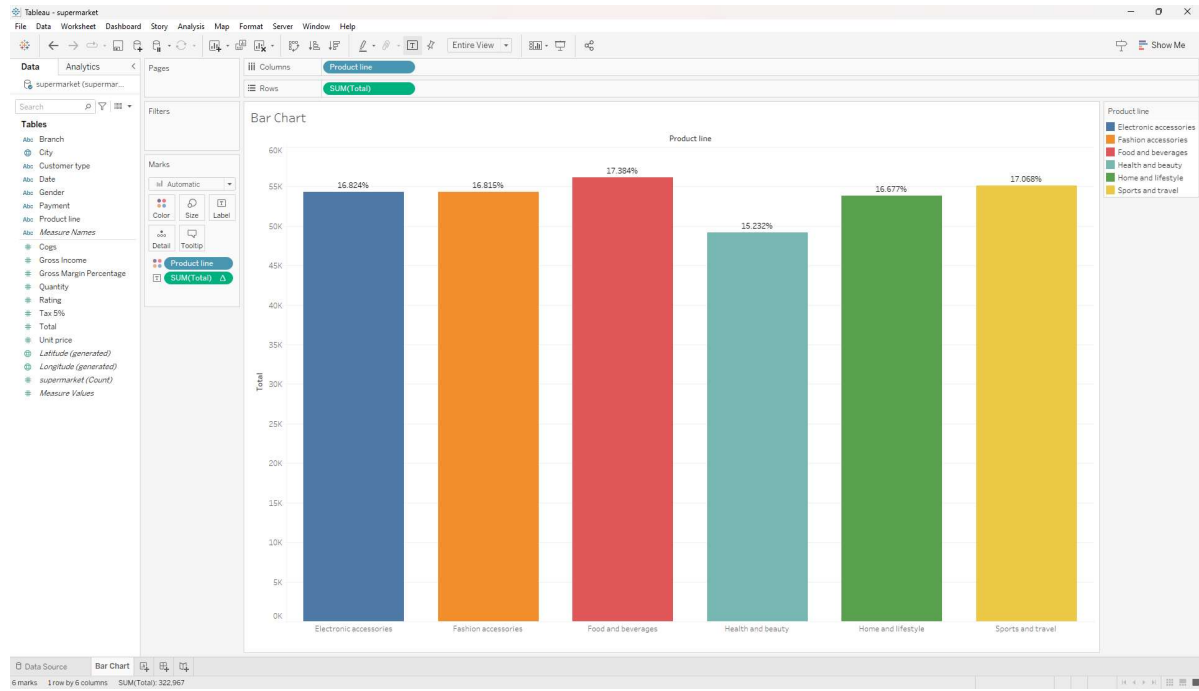
Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax 5%	Total	Date	Payment	Cogs
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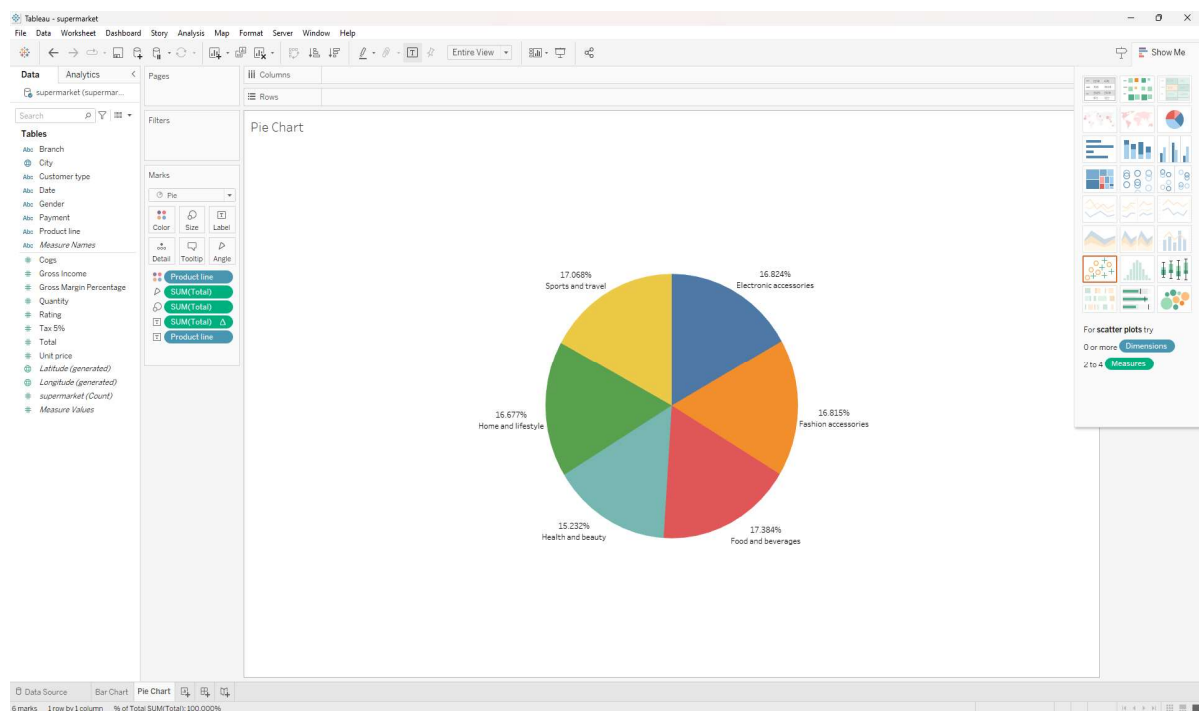
Data Source Sheet 1

4) Exploring and visualizing the dataset using Tableau.

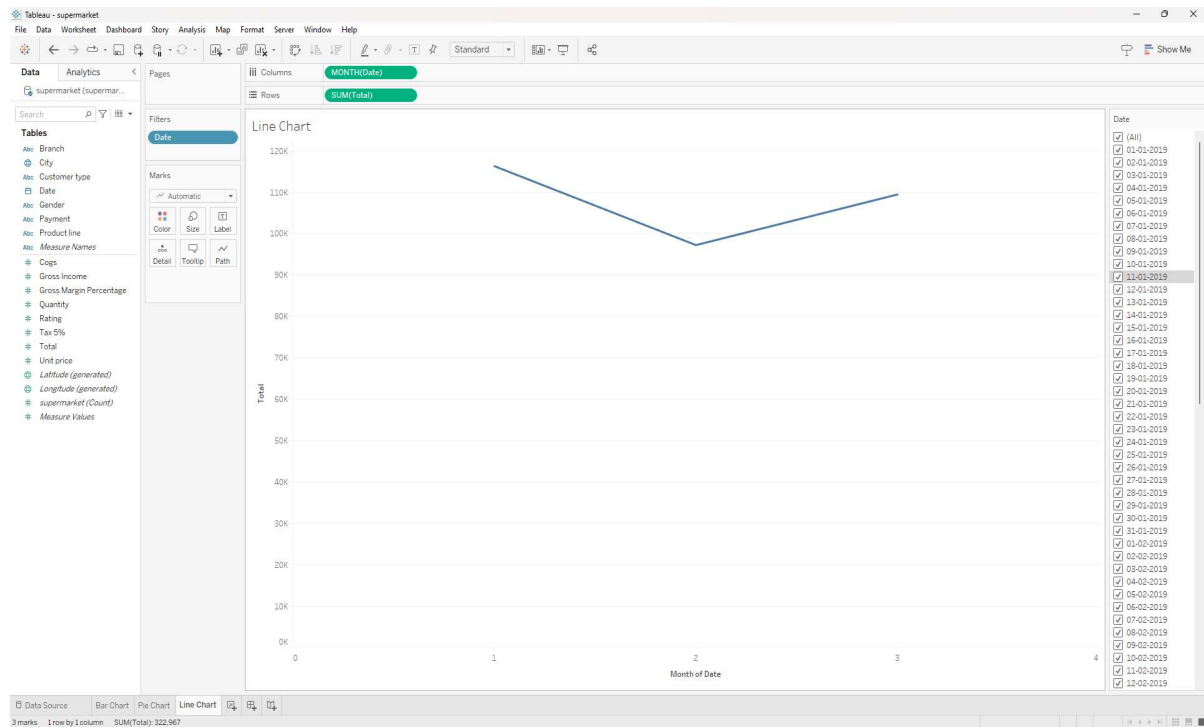
1) Bar Chart



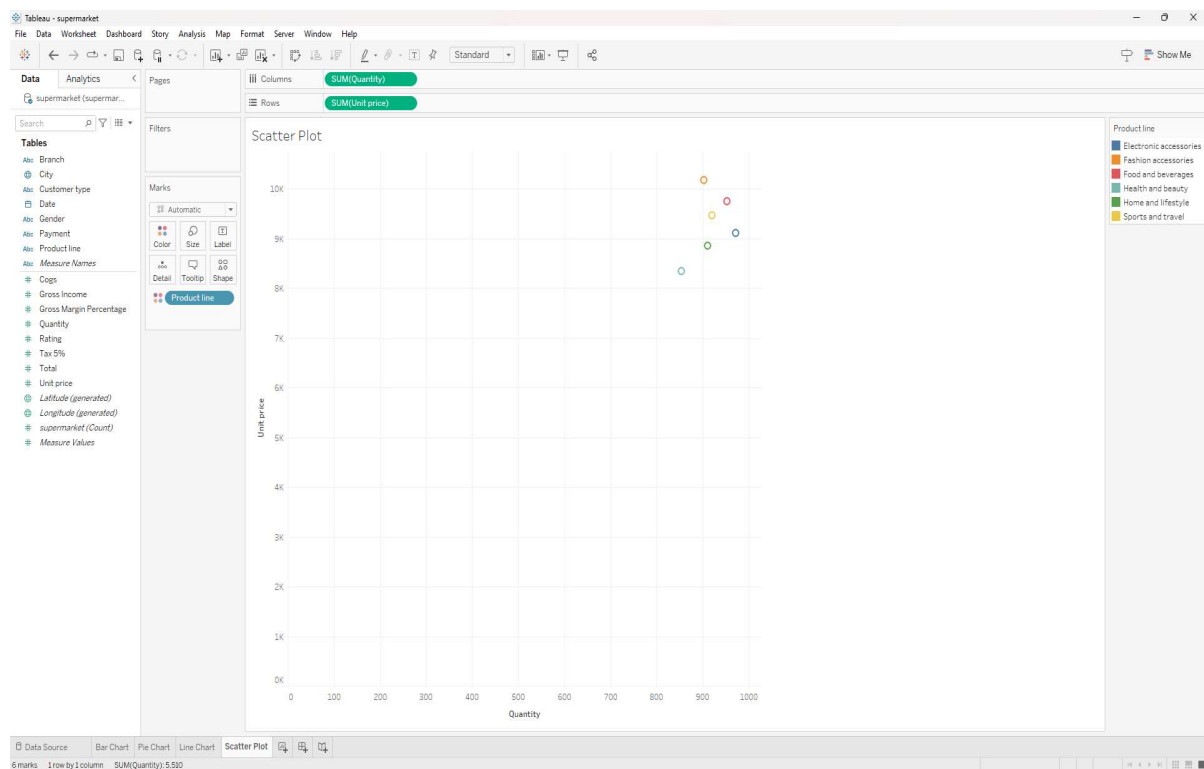
2 Pie Chart



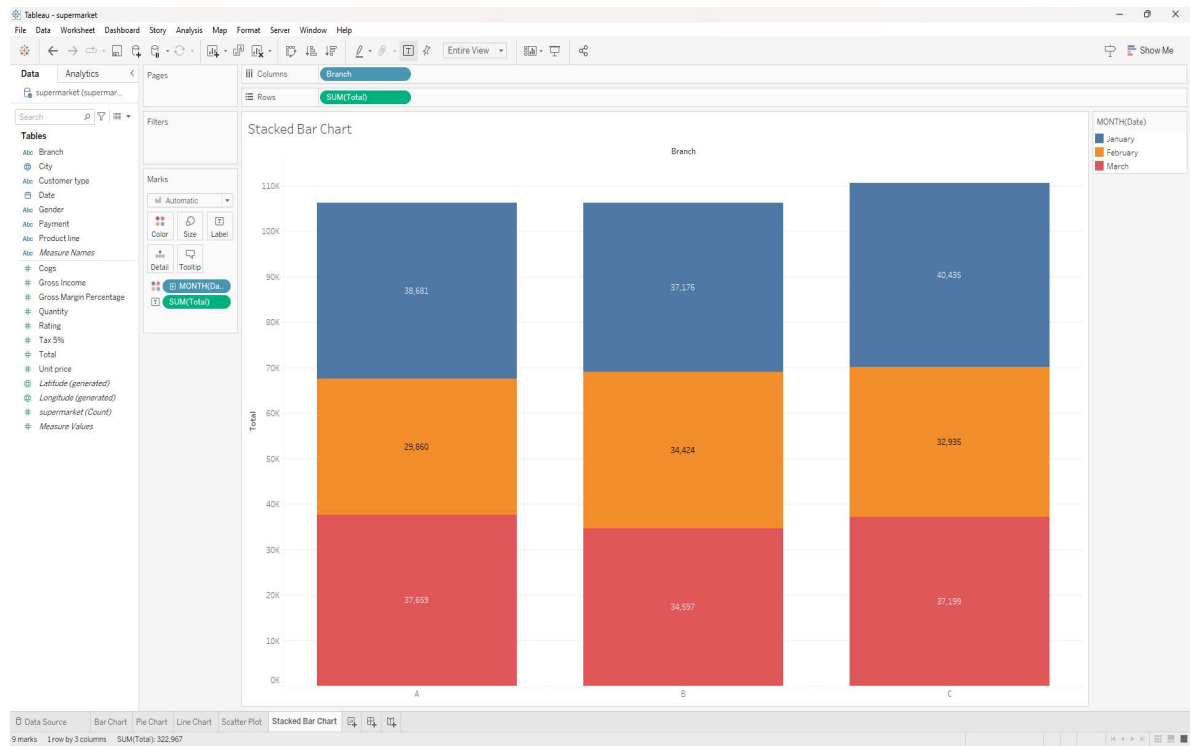
3) Line Chart



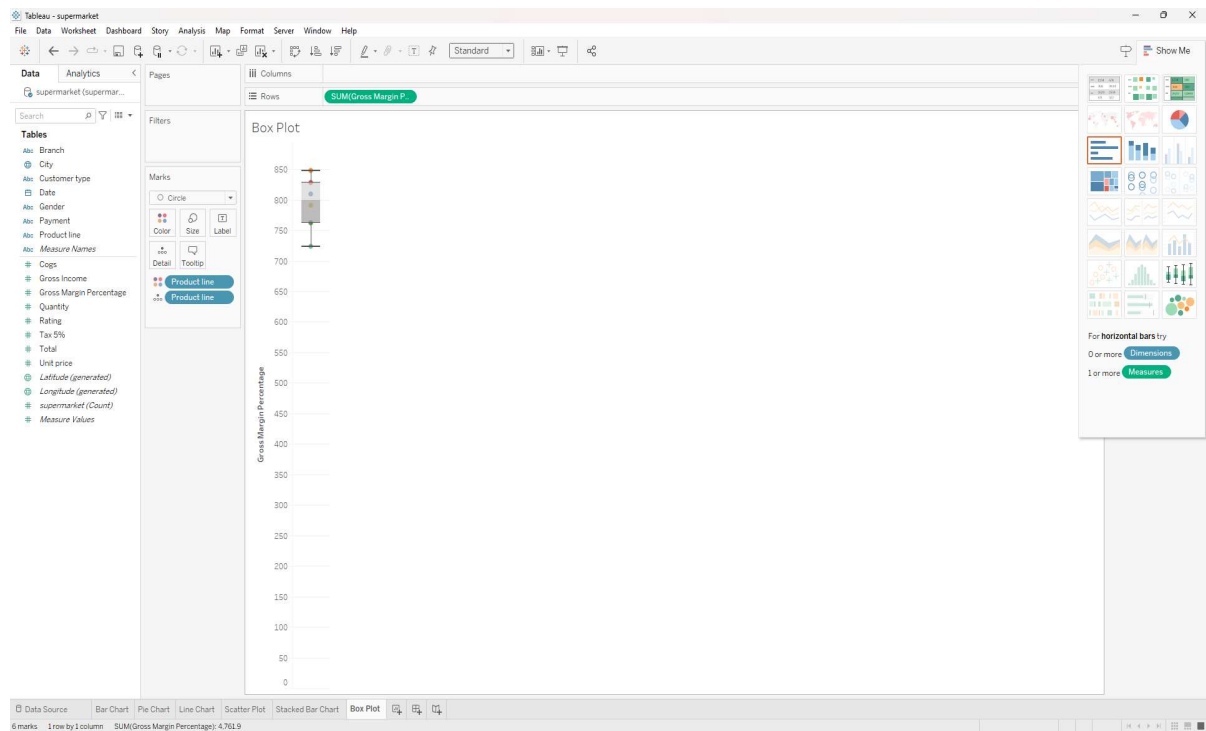
4) Scatter Plot



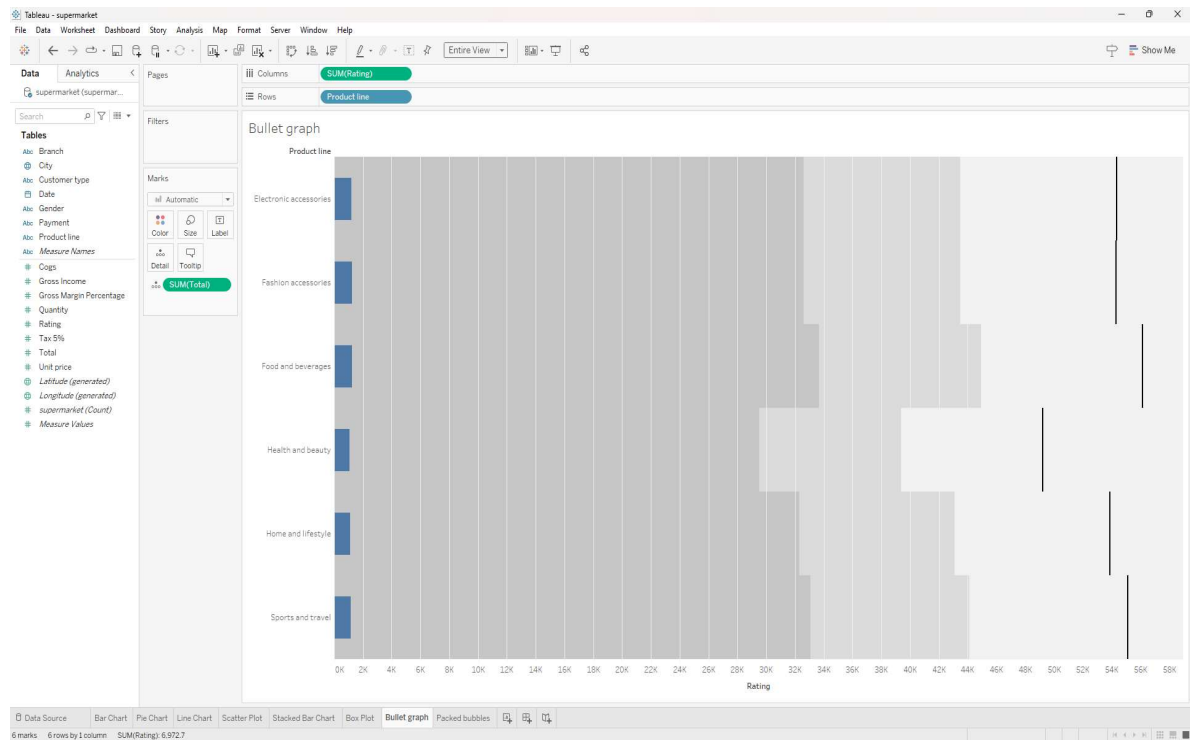
5) Stacked Bar Chart



6) Box Plot



7) Bullet graph



8) Packed bubbles

