

DATA ANALYTICS ASSIGNMENT - 2

Assignment Title: Supermarket Sales Advanced Visualization using Tableau

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ASSIGNMENT OVERVIEW:

This assignment builds upon the foundational analysis from Assignment 1 and aims to explore advanced data visualization techniques using Tableau. By analyzing supermarket transaction data, this task focuses on enhancing interpretability through visually engaging charts such as donut, funnel, waterfall, and others.

DATASET DETAILS :

- Dataset Title: Supermarket Sales Data
- Duration Covered: January 2019 – March 2019
- Number of Branches: 3 (A, B, C)
- Cities Covered: 3 Urban Locations
- Record Count: 1,000 transactions
- Data Format: CSV
- Source: Provided by the Internship Organizer

ATTRIBUTE INFORMATION:

- Invoice : Computer-generated unique invoice identification number
- Branch: Identifier for branch (A, B, or C)
- City: Location of the branch
- Customer Type: Member or Normal based on membership
- Gender: Gender of the customer
- Product Line: Category of products (e.g., Food and Beverages, Fashion Accessories, etc.)
- Unit Price: Price of one unit of the product
- Quantity: Number of units purchased
- Tax: 5% tax fee
- Total: Total bill amount including tax
- Date: Date of purchase
- Time: Time of Purchase(10 am to 9 pm)
- Payment: Mode of payment (Cash, Credit card, Ewallet)
- COGS: Cost of goods sold
- Gross Margin Percentage: Percentage of gross margin
- Gross Income: Profit earned after cost and tax
- Rating: Customer satisfaction rating (scale 1–10)

TASK OBJECTIVES :

Upload and analyze the dataset in Tableau by performing the following:

Step 1 : Data Preparation

- Remove unnecessary or unused columns
- Validate and transform data as needed
- Ensure data consistency and formatting

Step 2 : Create the following Visualizations in Tableau

1. Donut Chart → Sales by Product Line
2. Area Chart → Sales trends over time (days or weeks)
3. Text Table → Detailed summary of sales by branch or category
4. Highlighted Table → Compare ratings or gross income across product lines
5. Word Cloud → Display frequently purchased product categories
6. Funnel Chart → Sales progression or conversion across steps
7. Waterfall Chart → Impact of unit price and tax on final

total [Step 3 : Screenshot & Report](#)

- Capture all visualizations as images
- Paste into a clean report with captions
- Export the final report as a

PDF [SUBMISSION FORMAT:](#)

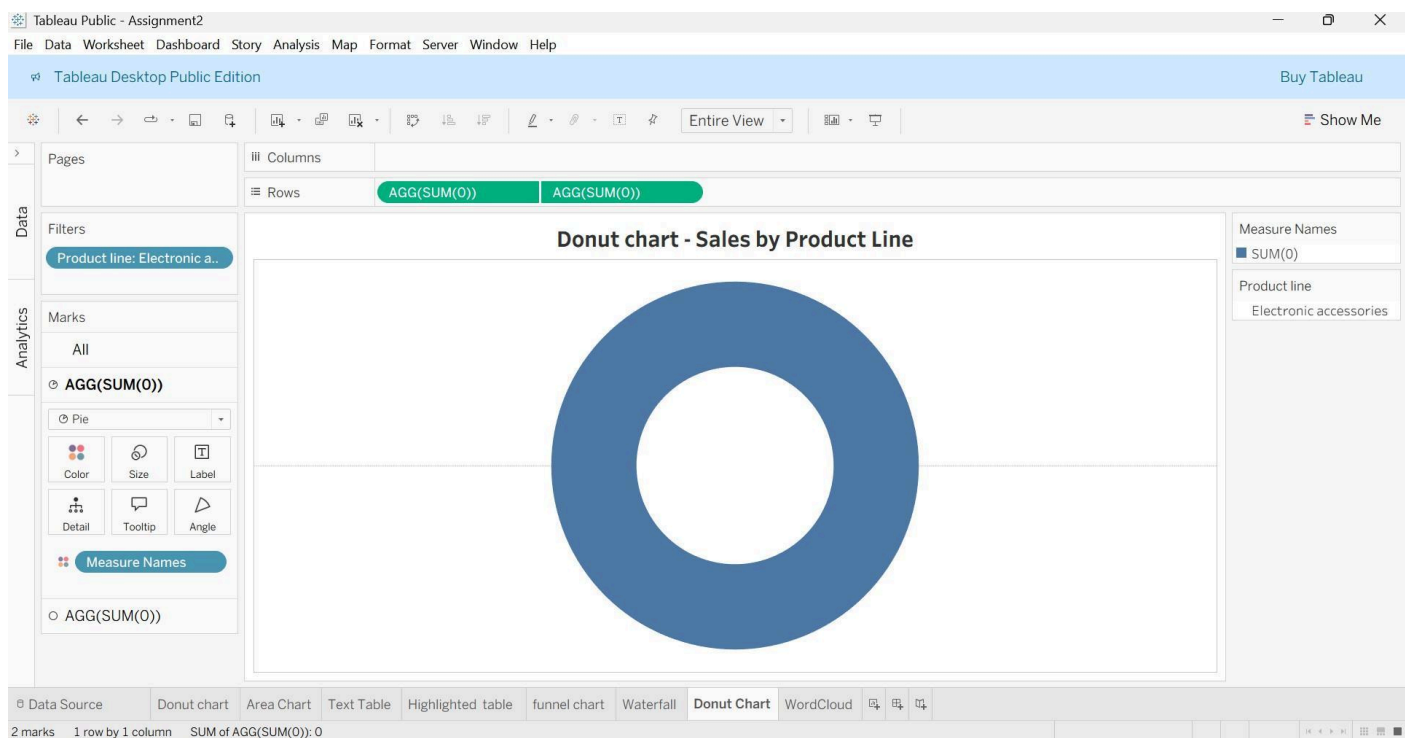
Your submitted folder should include:

- Assignment_2_Report.pdf
- All Tableau Visualizations Screenshots
- Cleaned DataSet (optional)

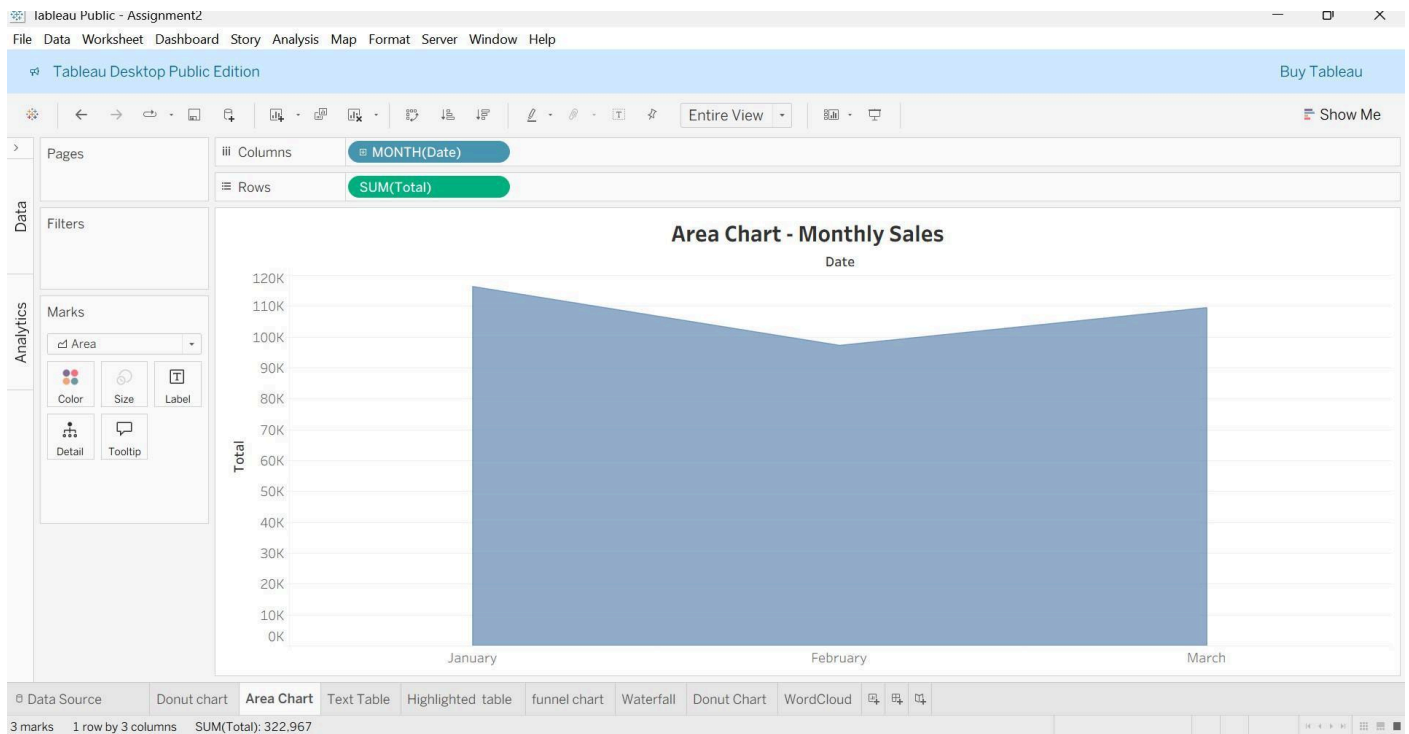
Visualizations Created:

Below are the screenshots of the visualizations created in Tableau:

1. Donut Chart



2. Area Chart



3. Text Table

Tableau Public - Assignment2

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Tableau Desktop Public Edition Buy Tableau

Columns: Measure Names

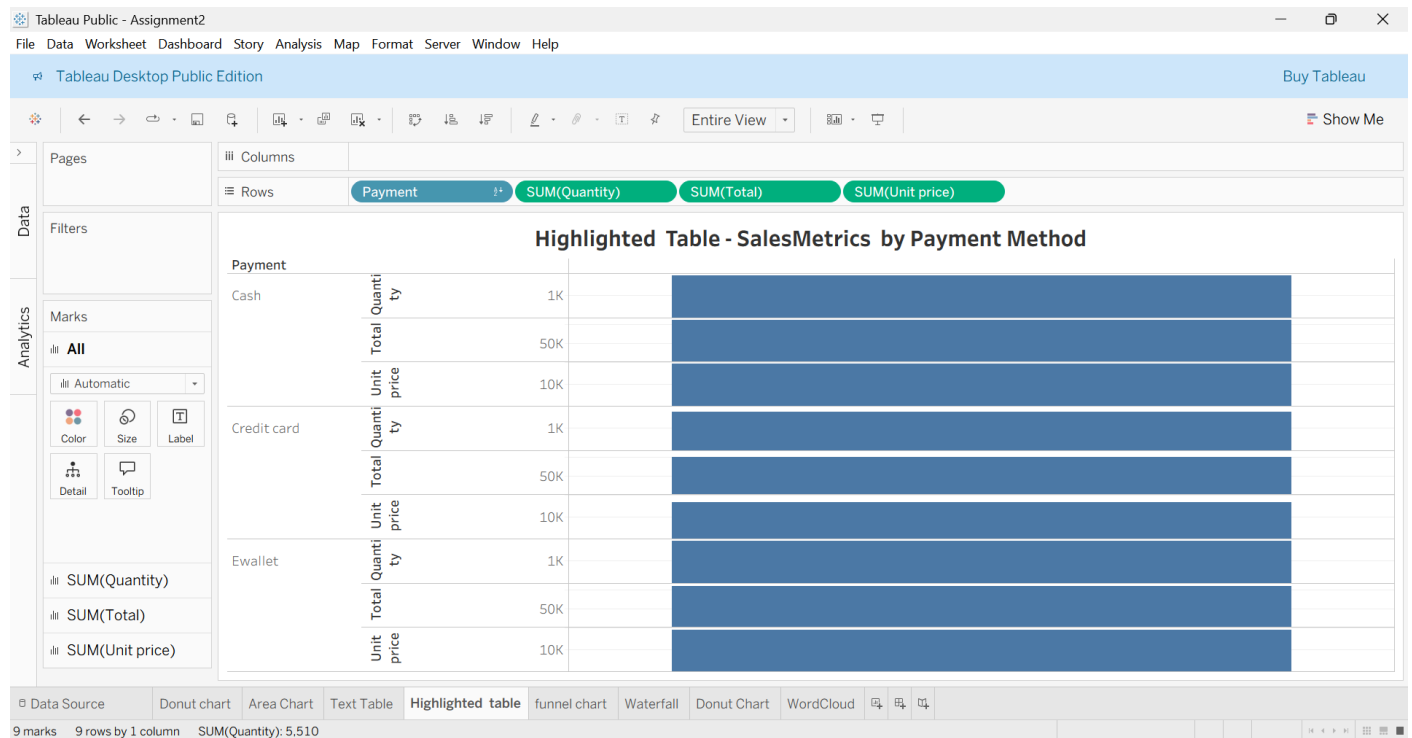
Rows: City, Product line

Text Table - city wise Product Sales Summary

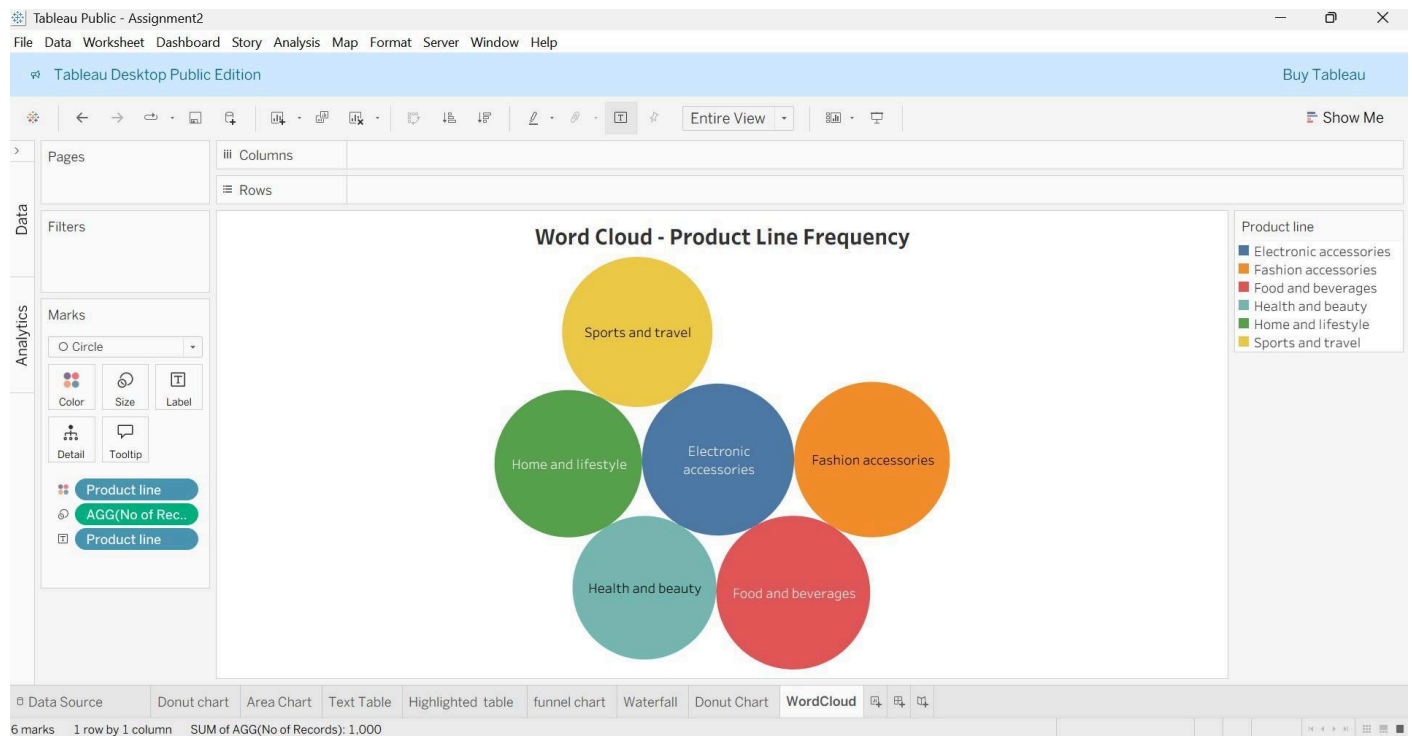
| City | Product line | Quantity | Total | Unit price |
|-----------|--------------------|----------|--------|------------|
| Mandalay | Electronic acces.. | 316 | 17,051 | 2,742 |
| | Fashion accesso.. | 297 | 16,413 | 3,400 |
| | Food and bevera.. | 270 | 15,215 | 2,777 |
| | Health and beau.. | 320 | 19,981 | 3,084 |
| | Home and lifesty.. | 295 | 17,549 | 2,776 |
| | Sports and travel | 322 | 19,988 | 3,700 |
| Naypyitaw | Electronic acces.. | 333 | 18,969 | 3,070 |
| | Fashion accesso.. | 342 | 21,560 | 3,883 |
| | Food and bevera.. | 369 | 23,767 | 3,780 |
| | Health and beau.. | 277 | 16,615 | 2,911 |
| | Home and lifesty.. | 245 | 13,896 | 2,445 |
| | Sports and travel | 265 | 15,762 | 2,480 |
| Yangon | Electronic acces.. | 322 | 18,317 | 3,292 |
| | Fashion accesso.. | 263 | 16,333 | 2,890 |
| | Food and bevera.. | 313 | 17,163 | 3,189 |
| | Health and beau.. | 257 | 12,598 | 2,344 |
| | Home and lifesty.. | 371 | 22,417 | 3,630 |
| | Sports and travel | 333 | 19,373 | 3,281 |

54 marks 18 rows by 3 columns SUM of Measure Values: 384,149

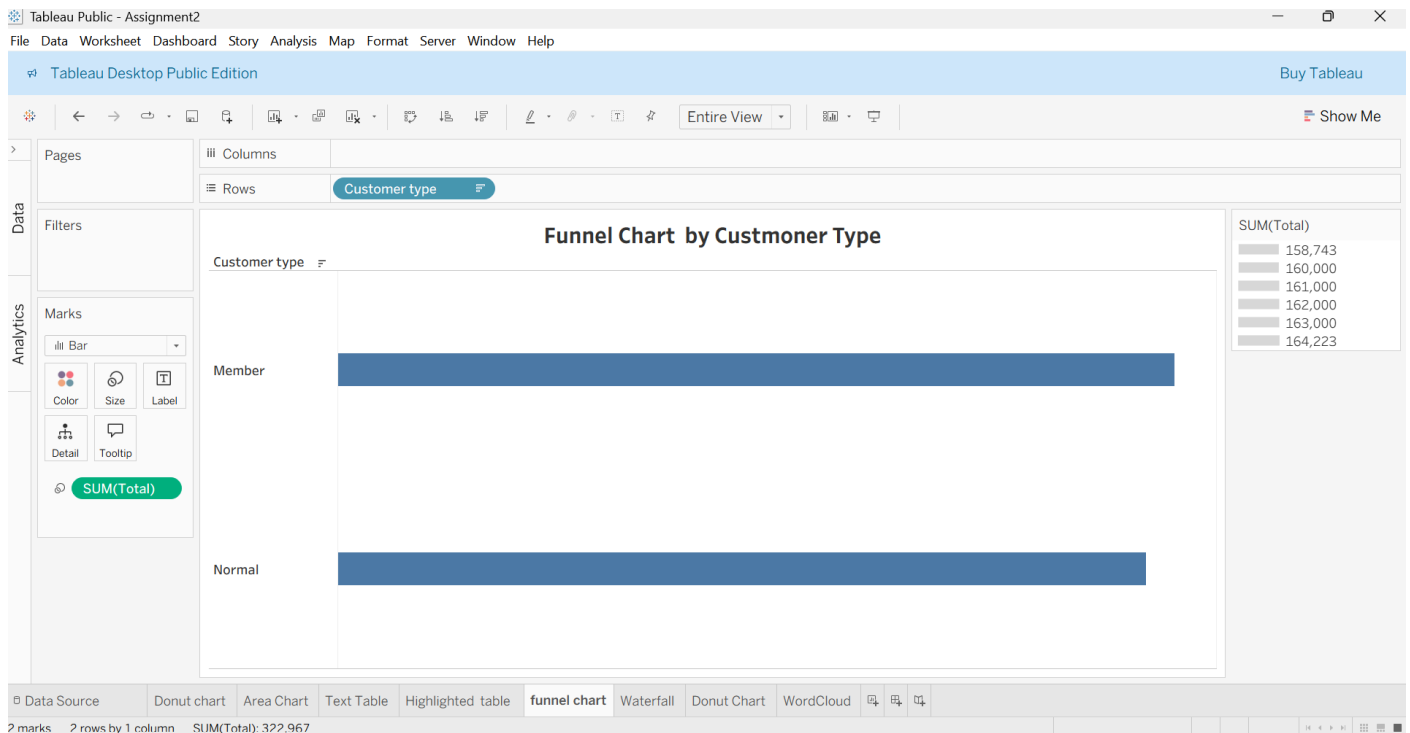
4. Highlighted Table



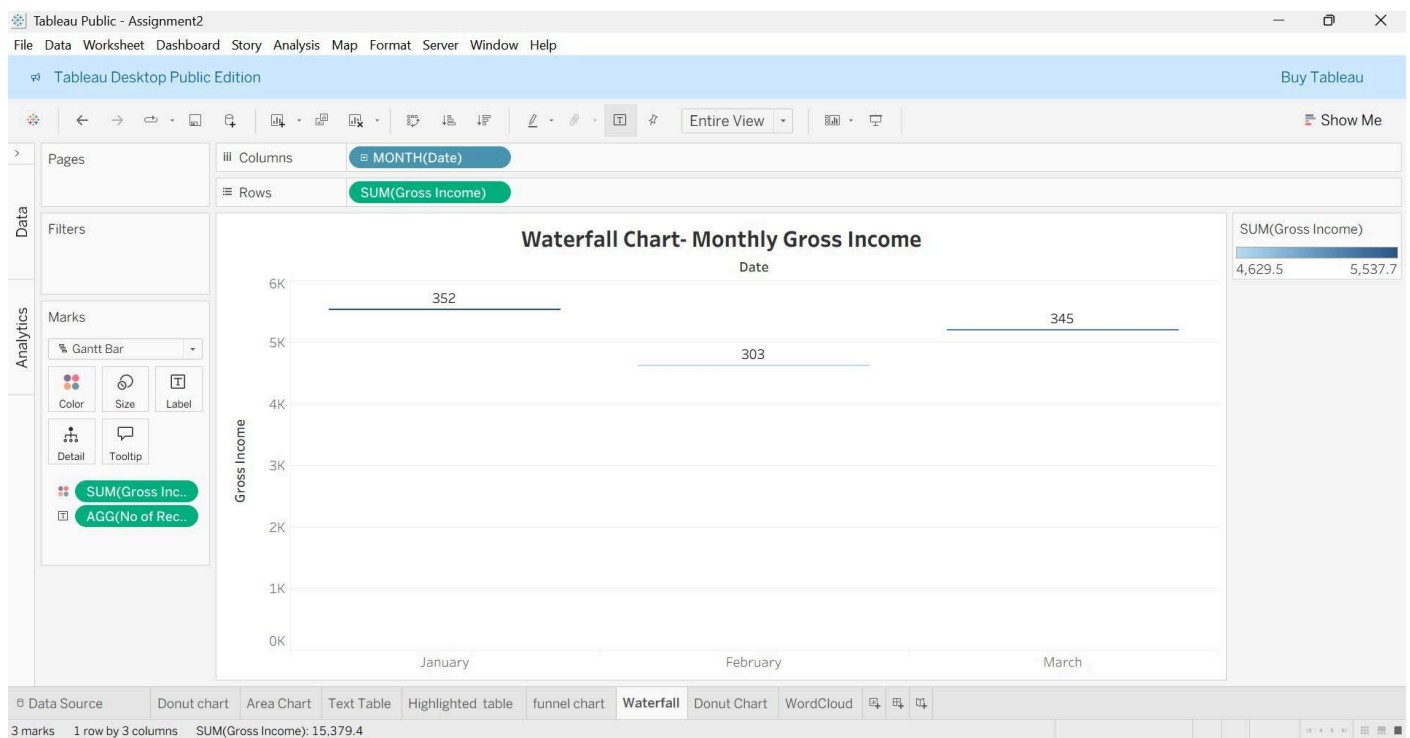
5. Word Cloud



6. Funnel Chart



7. Waterfall Chart



Conclusion:

The Tableau visualizations offered a detailed view of supermarket sales trends across branches and product categories.

End of Submission