

DATA ANALYTICS ASSIGNMENTS

Subject: Data Analytics Using Tableau

Tool Used: Tableau Desktop

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INTRODUCTION:

This assignment demonstrates the use of Tableau Desktop to perform sales data analysis using multiple visualization techniques. Various chart types are used to analyze product performance, branch comparison, customer payment behavior, monthly trends, and profit distribution.

ASSIGNMENT – 1

1. BAR CHART – Sales by Product Line

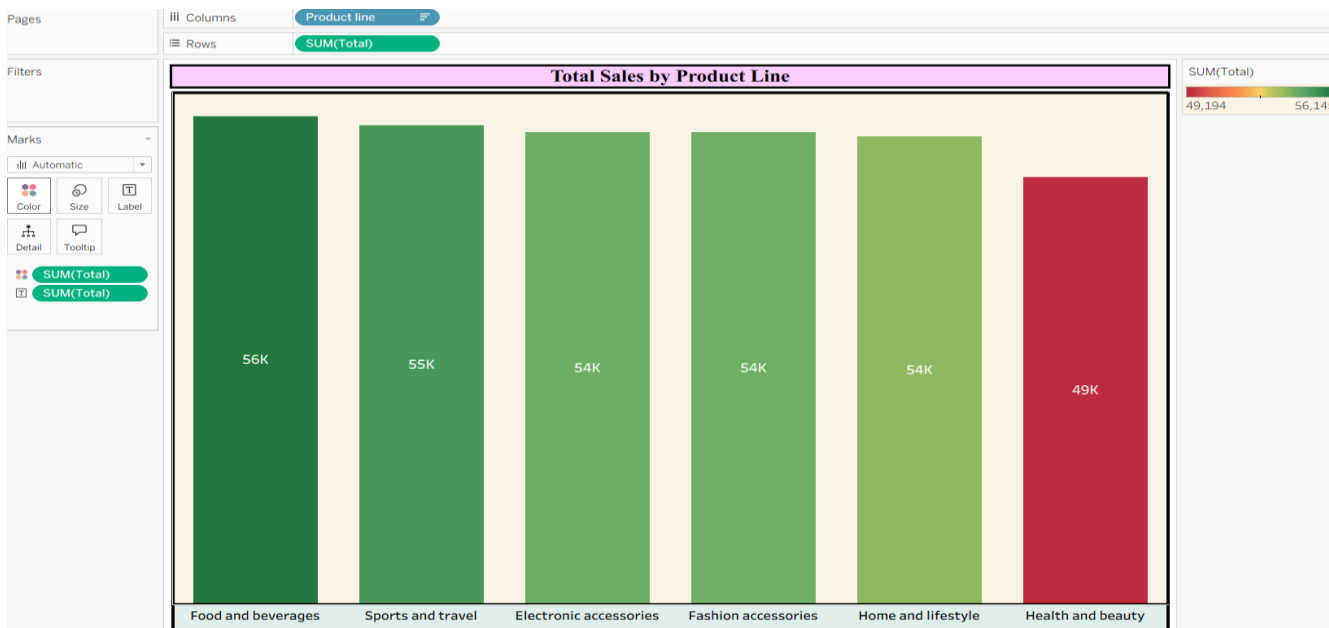
Objective: To compare total sales generated by each product category.

Steps:

1. Drag Product line → Columns
2. Drag Total → Rows (SUM)
3. Select Bar chart
4. Sort descending
5. Show labels

Explanation:

The bar chart compares total revenue generated by each product line and identifies high and low performing categories.



2. PIE CHART – Sales by Payment Method

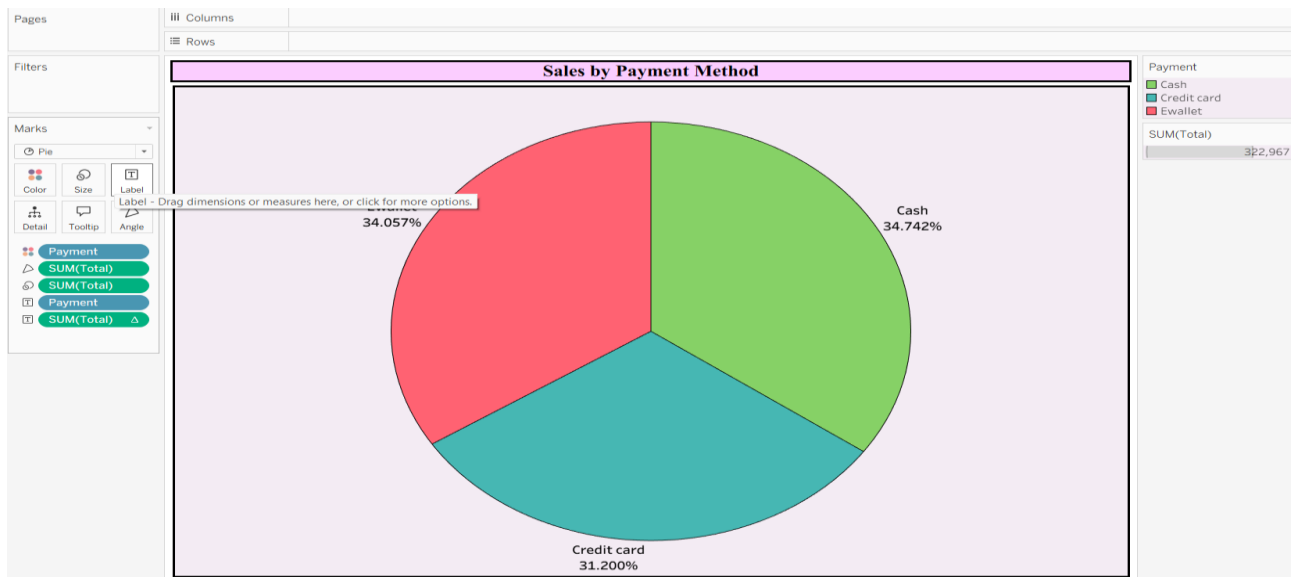
Objective: To analyze customer payment preferences.

Steps:

1. Select Pie chart
2. Drag Payment → Color
3. Drag SUM(Total) → Angle & Label
4. Show percentage

Explanation:

The pie chart displays the percentage contribution of each payment method to total sales.



3. STACKED BAR CHART – Branch vs Product Line

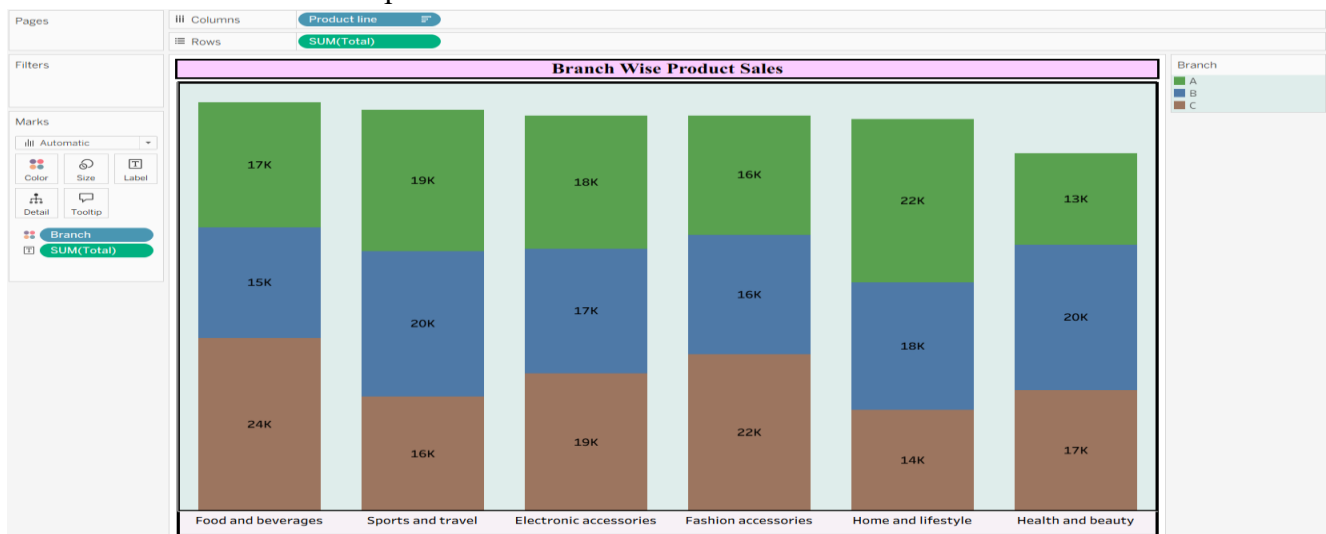
Objective: To compare branch performance.

Steps:

1. Drag Branch → Columns
2. Drag SUM(Total) → Rows
3. Drag Product line → Color
4. Enable Stack Marks

Explanation:

Shows total branch sales and product contribution within each branch.



4. LINE CHART – Monthly Sales Trend

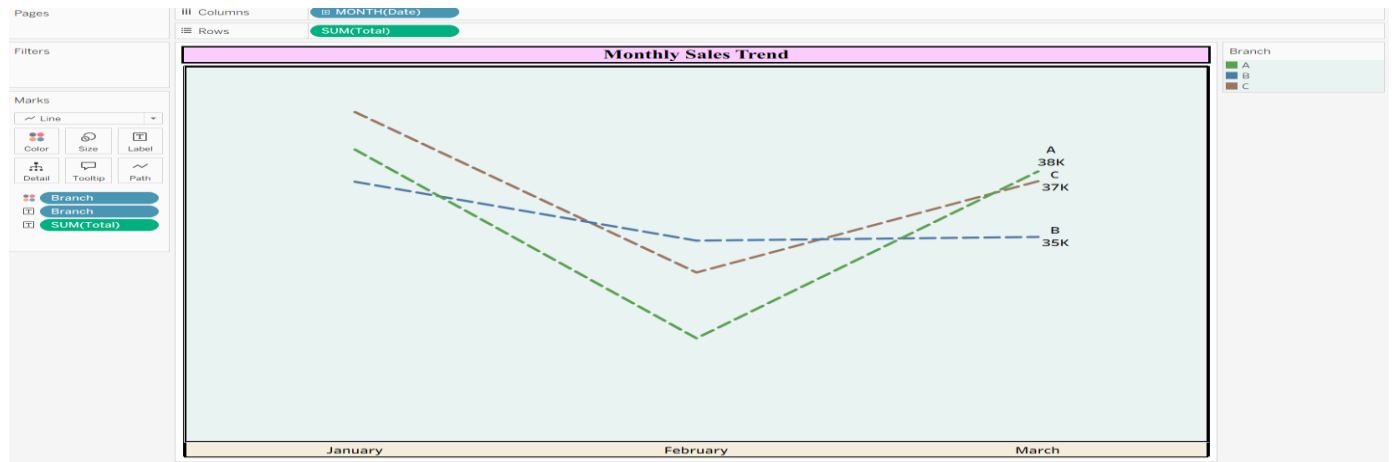
Objective: To analyze sales growth over time.

Steps:

1. Drag Date (Month) → Columns
2. Drag SUM(Total) → Rows
3. Select Line chart

Explanation:

Displays monthly revenue trends and growth patterns.



5. BUBBLE CHART – Sales by Product Line

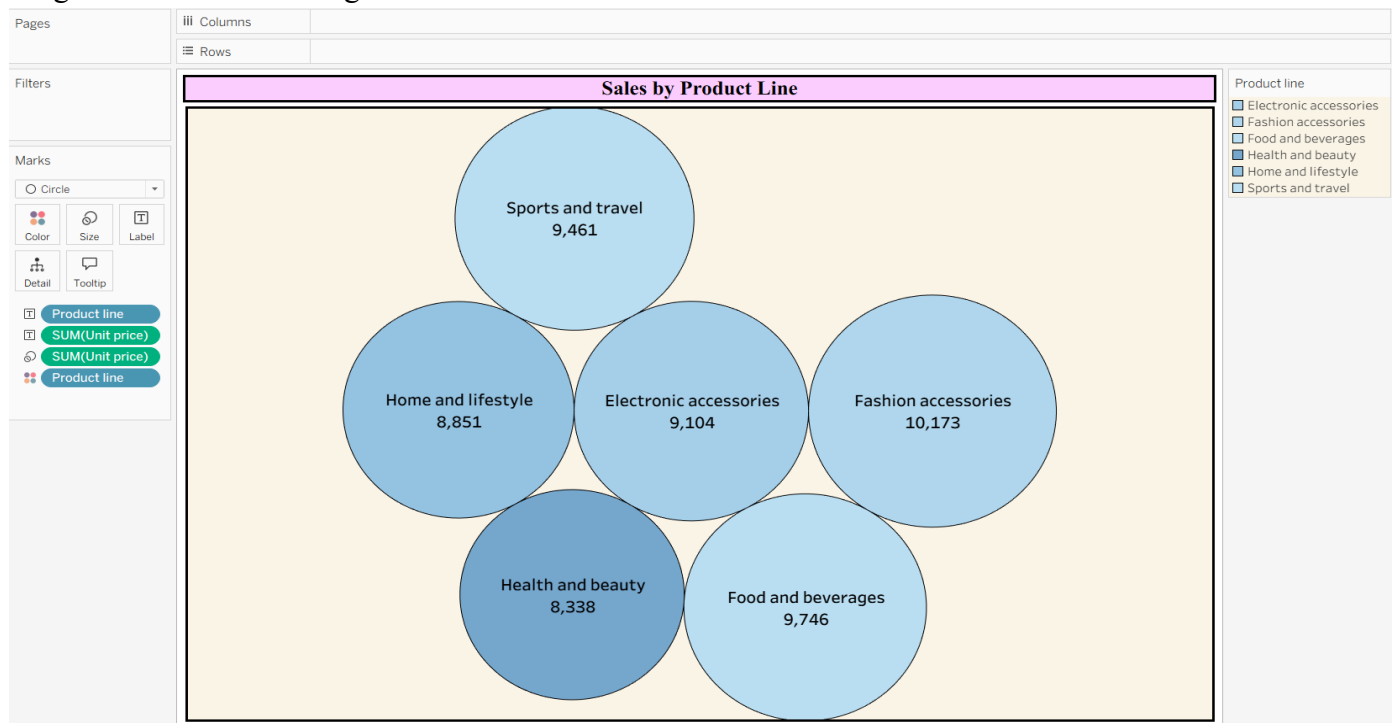
Objective: To visually compare sales contribution.

Steps:

1. Select Circle marks
2. Drag Product line → Detail & Color
3. Drag SUM(Total) → Size

Explanation:

Larger bubbles indicate higher sales contribution.



ASSIGNMENT – 2

6. DONUT CHART – Payment Share

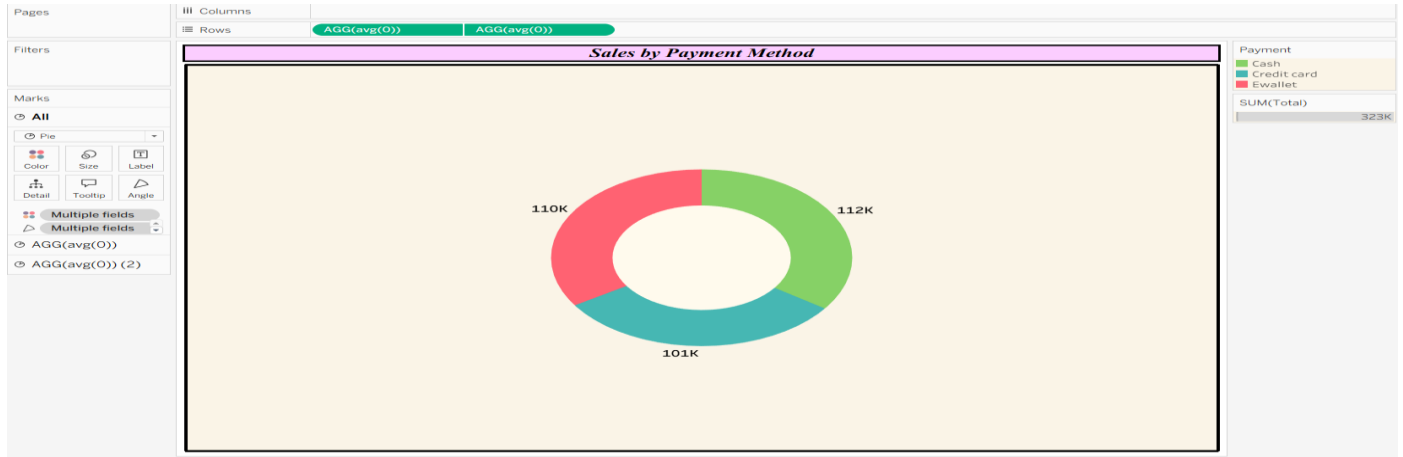
Objective: To show payment contribution visually.

Steps:

1. Create Pie chart
2. Duplicate SUM(Total)
3. Use Dual Axis
4. Create inner white circle

Explanation:

Improved version of pie chart showing payment distribution.



7. AREA CHART – Monthly Sales

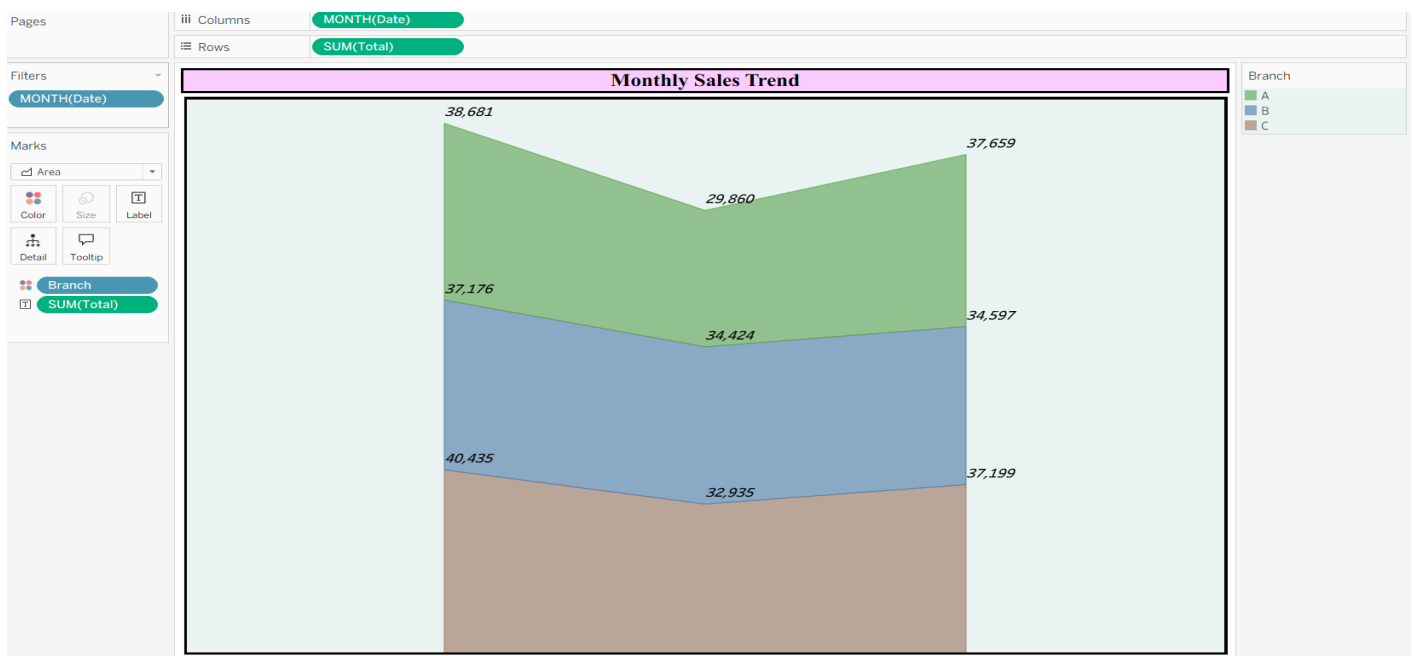
Objective: To visualize sales trend.

Steps:

1. Drag Date (Month) → Columns
2. Drag SUM(Total) → Rows
3. Select Area chart

Explanation:

Highlights volume trend over time.



8. TEXT TABLE – Branch Sales

Objective: To display exact numerical values.

Steps:

1. Drag Branch → Rows
2. Drag SUM(Total) → Text

Explanation:

Displays precise branch-wise sales figures.

The screenshot shows the Tableau interface with the following configuration:

- Columns:** QUARTER(Date), MONTH(Date)
- Rows:** YEAR(Date)
- Filters:** YEAR(Date)
- Marks:** SUM(Total)

The resulting table is titled "Month Wise Total Sales" and displays sales data for the year 2019, broken down by quarter and month.

| Month Wise Total Sales | | | |
|------------------------|---------|----------|---------|
| Year of Date | January | February | March |
| 2019 | 116,292 | 97,219 | 109,456 |

9. HIGHLIGHTED TABLE – Product Line Sales

Objective: To compare performance using color intensity.

Steps:

1. Drag Product line → Rows
2. Drag SUM(Total) → Text & Color
3. Use Square marks

Explanation:

Darker colors represent higher sales.

The screenshot shows the Tableau interface with the following configuration:

- Columns:** (Empty)
- Rows:** Product line
- Filters:** (Empty)
- Marks:** SUM(Total) (Color), SUM(Total) (Text)

The resulting table is titled "Product Line Sales" and displays sales data for various product lines, with colors indicating the magnitude of sales.

| Product Line Sales | |
|------------------------|--------|
| Electronic accessories | 54,338 |
| Fashion accessories | 54,306 |
| Food and beverages | 56,145 |
| Health and beauty | 49,194 |
| Home and lifestyle | 53,862 |
| Sports and travel | 55,123 |

10. WORD CLOUD – Product Popularity

Objective: To show popularity based on quantity.

Steps:

1. Drag Product line → Text
2. Drag SUM(Quantity) → Size

Explanation:

Larger words indicate higher quantity sold.



11. FUNNEL CHART – Sales Funnel

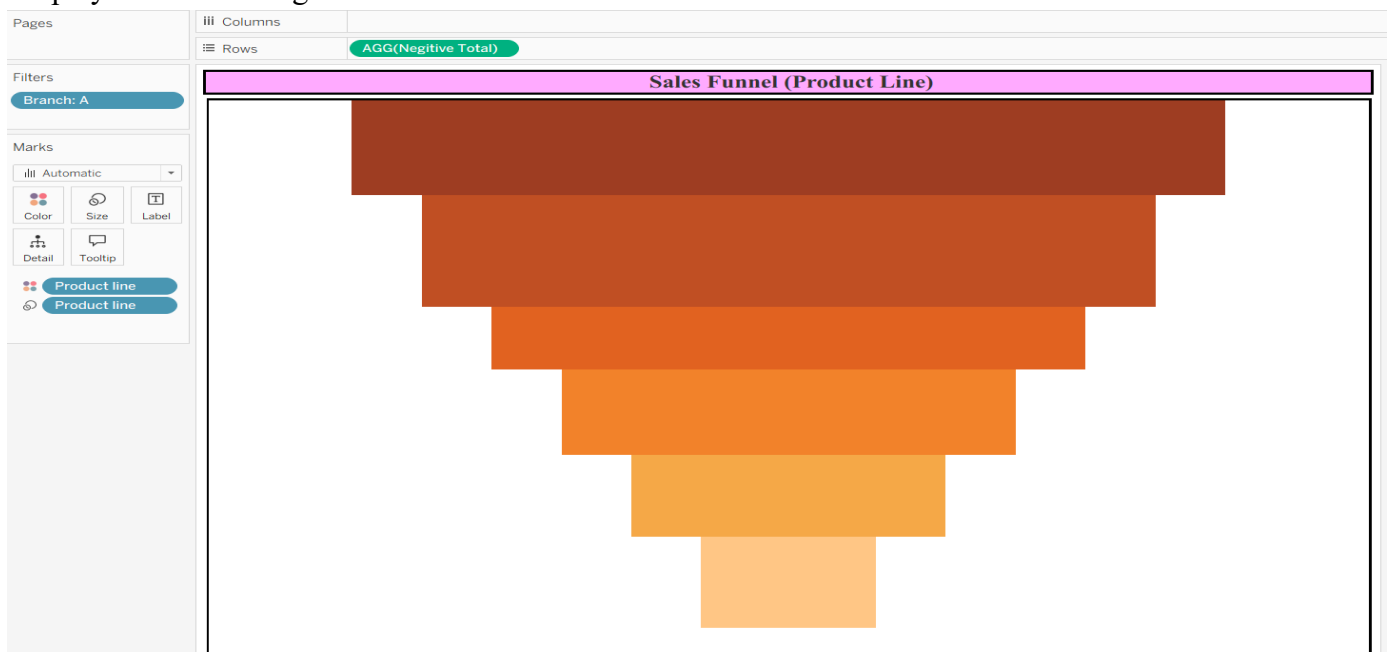
Objective: To show descending product performance.

Steps:

1. Create calculated field: $-\text{SUM}([\text{Total}])$
2. Drag Product line → Rows
3. Drag Negative Sales → Columns
4. Select Bar chart

Explanation:

Displays sales from highest to lowest in funnel form.



12. WATERFALL CHART – Profit Analysis

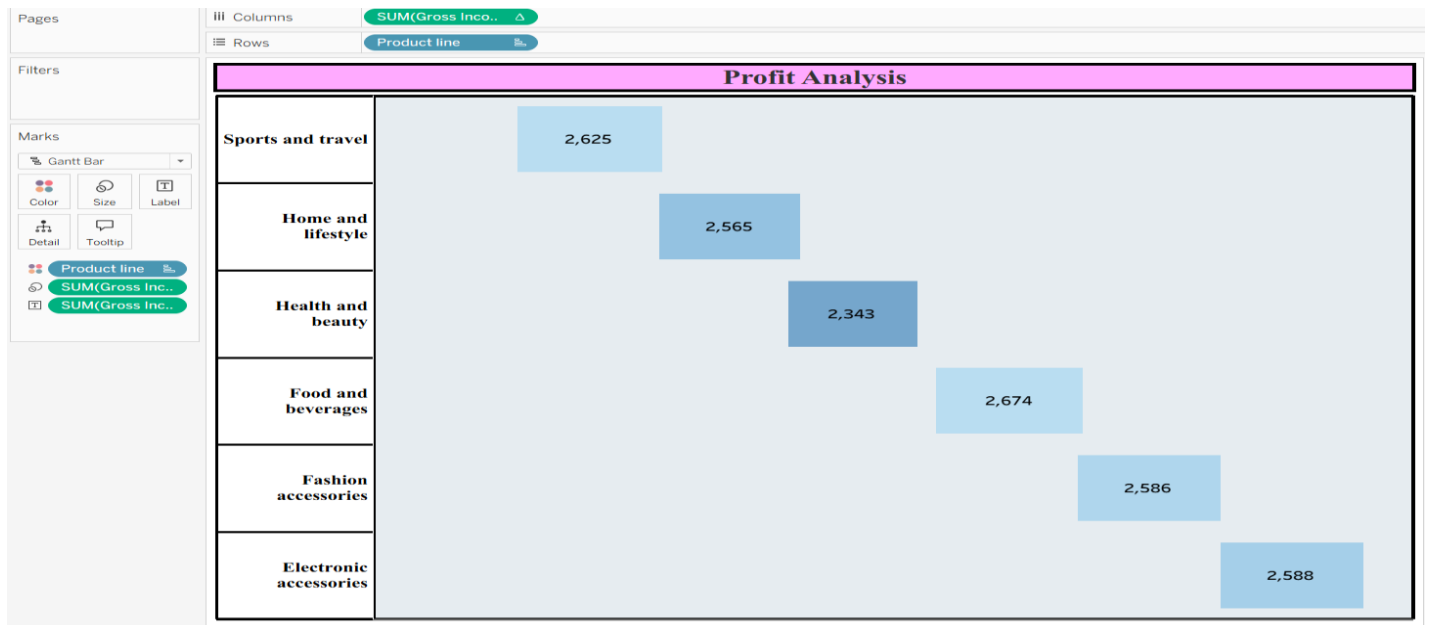
Objective: To show cumulative profit flow.

Steps:

1. Drag Product line → Columns
2. Drag SUM(Gross income) → Rows
3. Apply Running Total
4. Select Gantt Bar

Explanation:

Shows cumulative profit contribution of each product.



CONCLUSION:

This assignment demonstrates various Tableau visualizations used to analyze sales, profit, and customer behavior. Each chart provides unique insights that support business decision-making.