

# DATA ANALYTICS ASSIGNMENTS

**Subject:** Data Analytics Using Tableau

**Tool Used:** Tableau Desktop

**Name:** Jajimoggala Gangotri

**Roll No:** 2302702218

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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

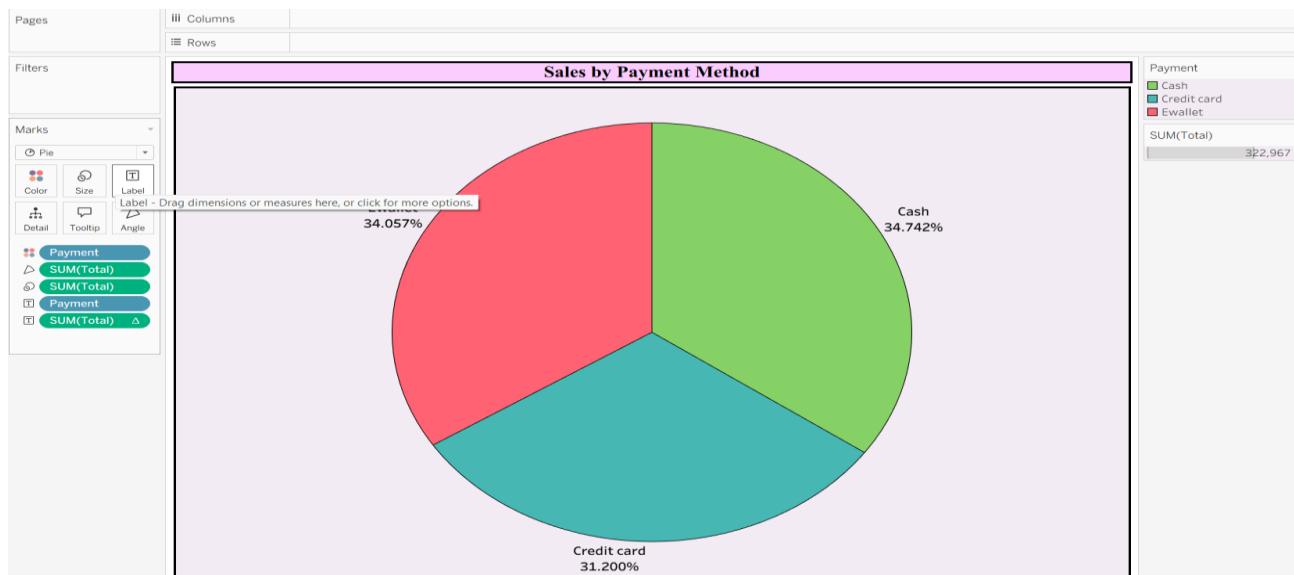
**Objective:** To analyze customer payment preferences.

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

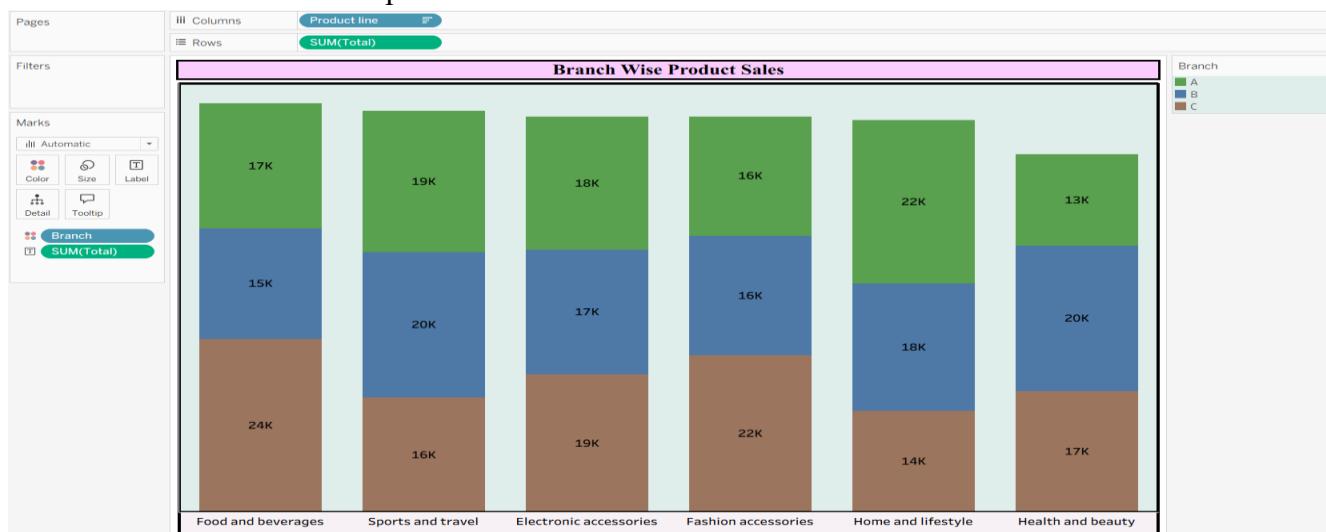
**Objective:** To compare branch performance.

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

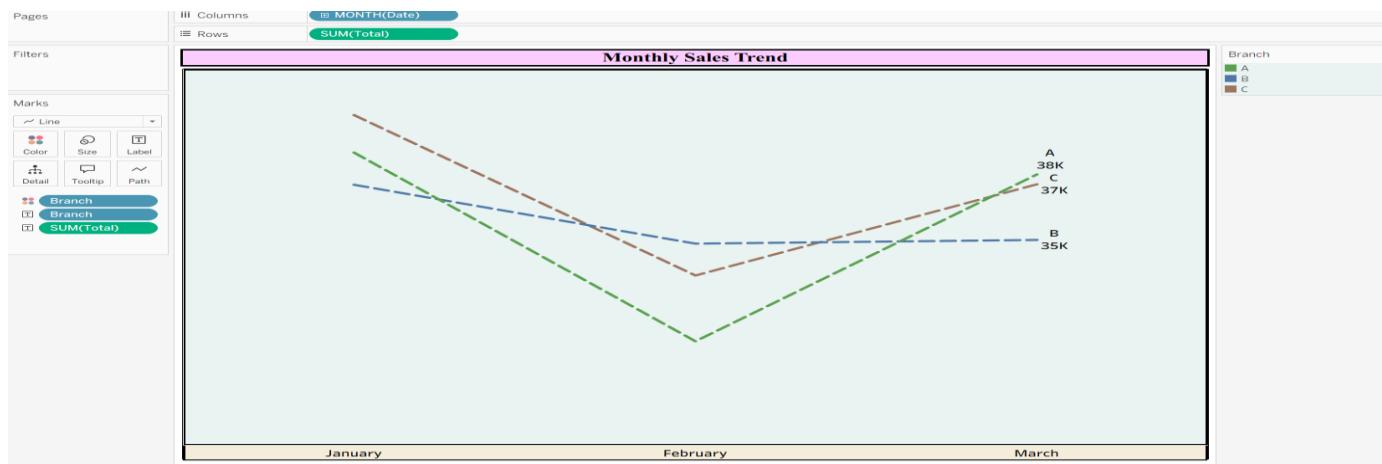
**Objective:** To analyze sales growth over time.

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

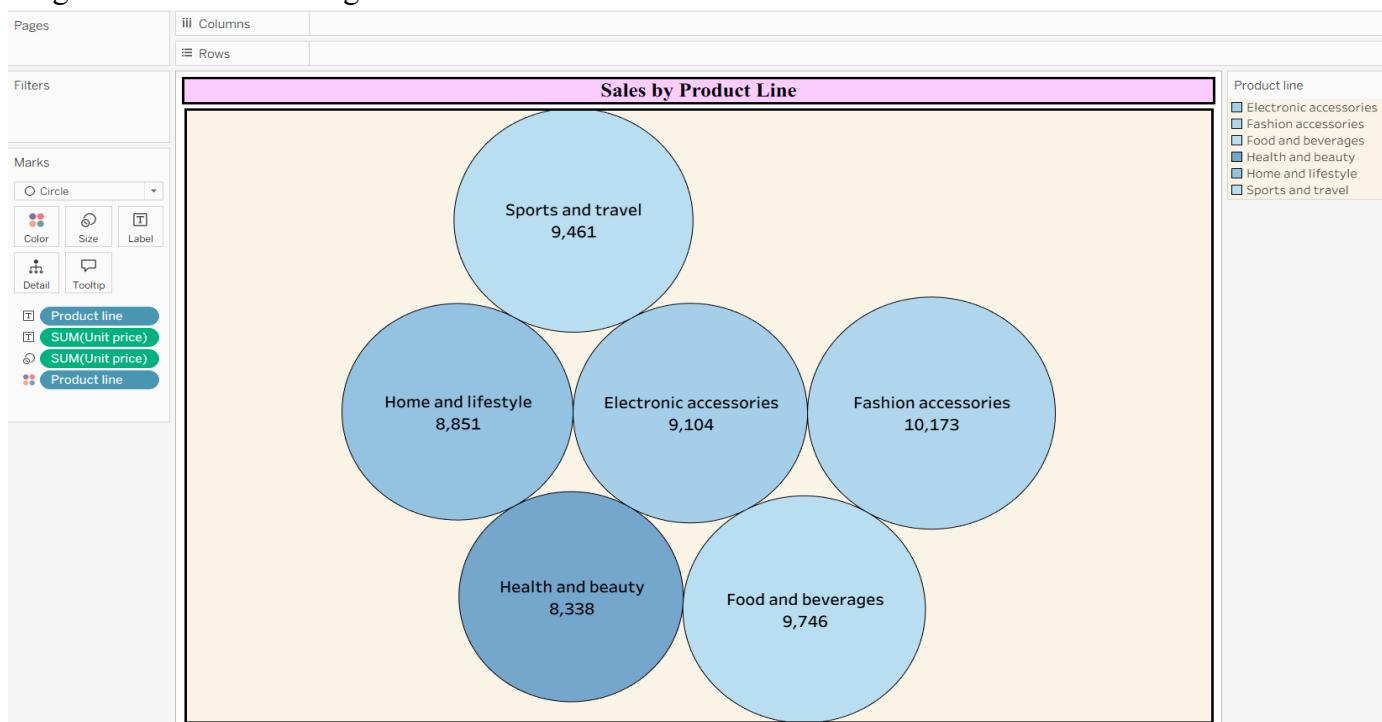
**Objective:** To visually compare sales contribution.

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

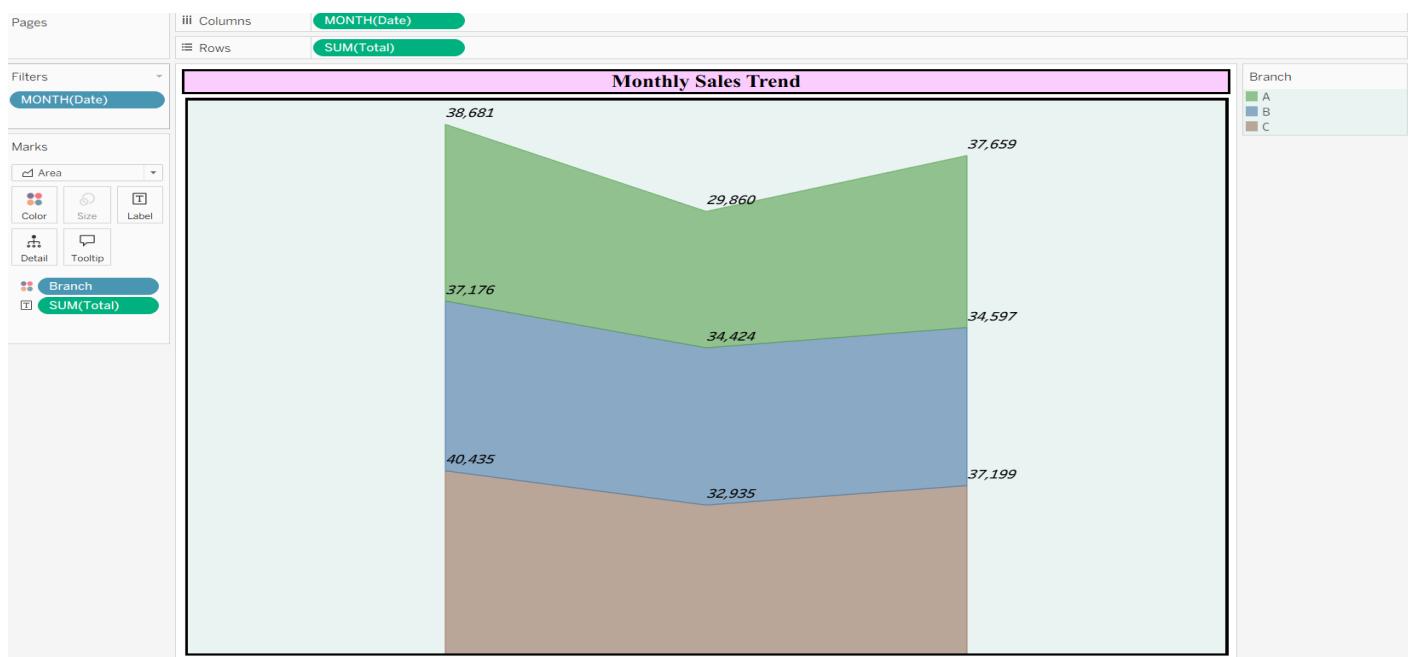
**Objective:** To visualize sales trend.

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

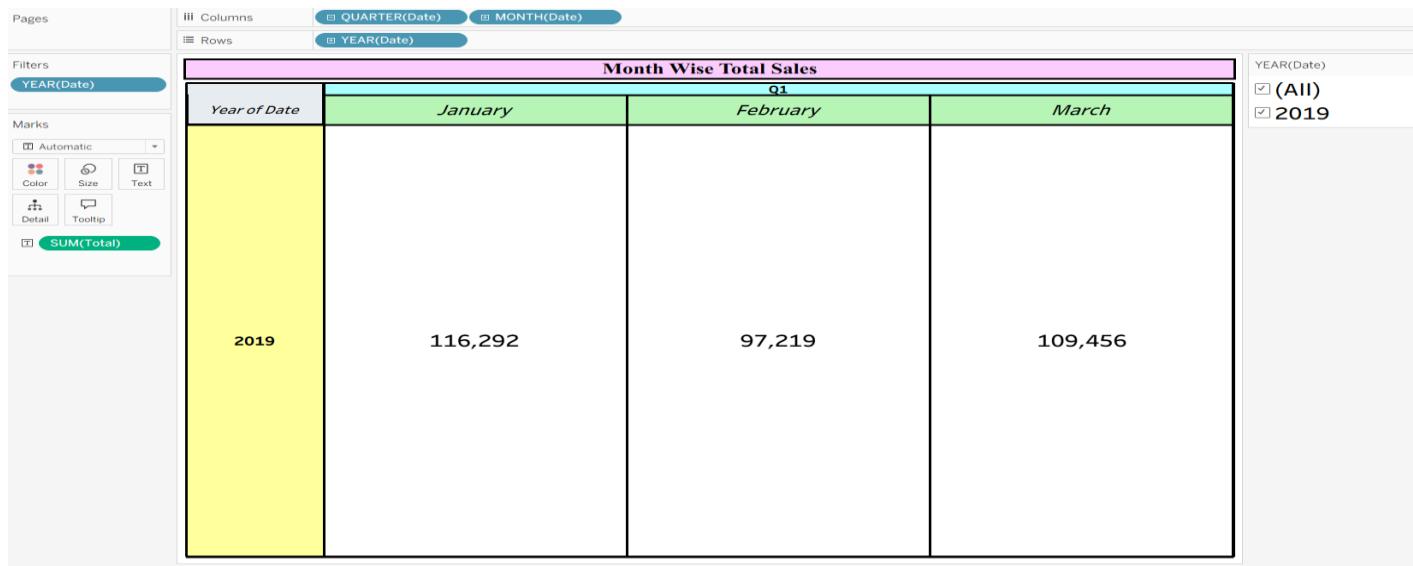
**Objective:** To display exact numerical values.

Steps:

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

**Explanation:**

Displays precise branch-wise sales figures.



## 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.



## 10. WORD CLOUD – Product Popularity

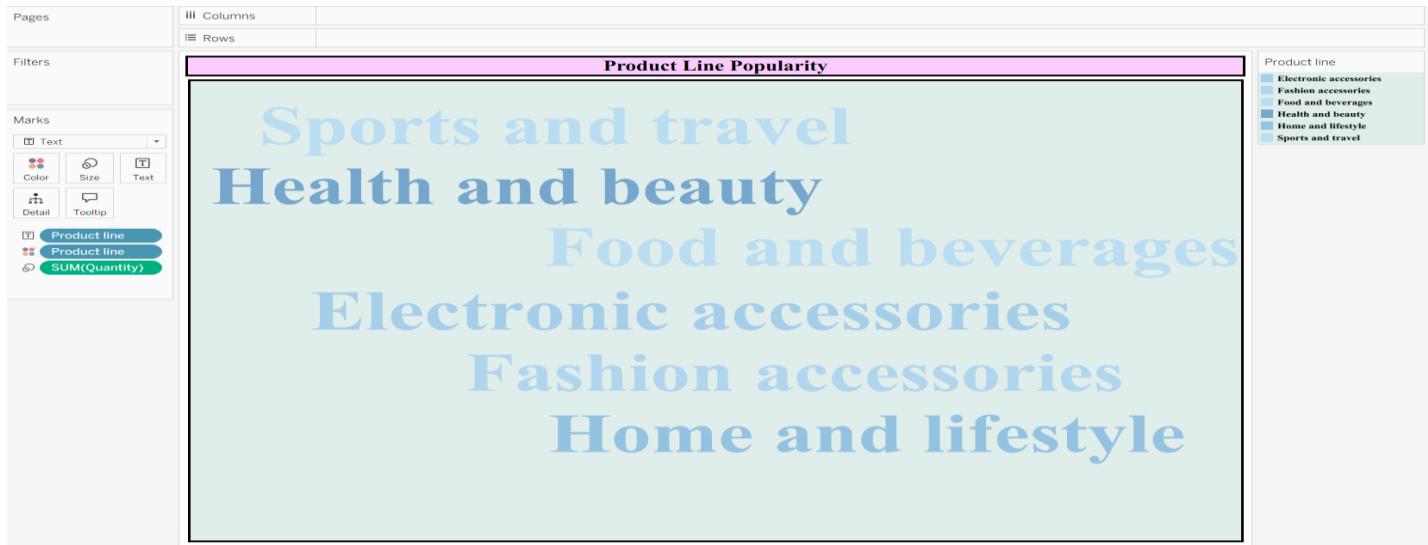
**Objective:** To show popularity based on quantity.

Steps:

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

**Explanation:**

Larger words indicate higher quantity sold.



## 11. FUNNEL CHART – Sales Funnel

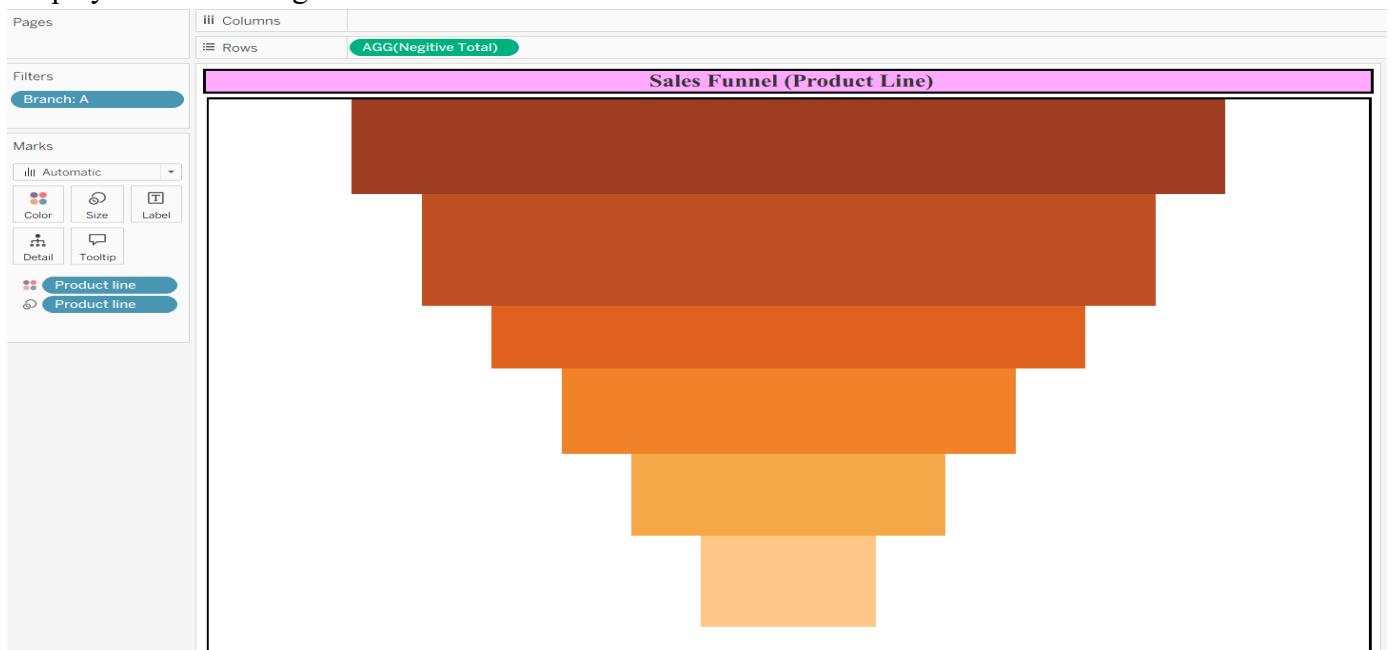
**Objective:** To show descending product performance.

Steps:

1. Create calculated field: -SUM([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

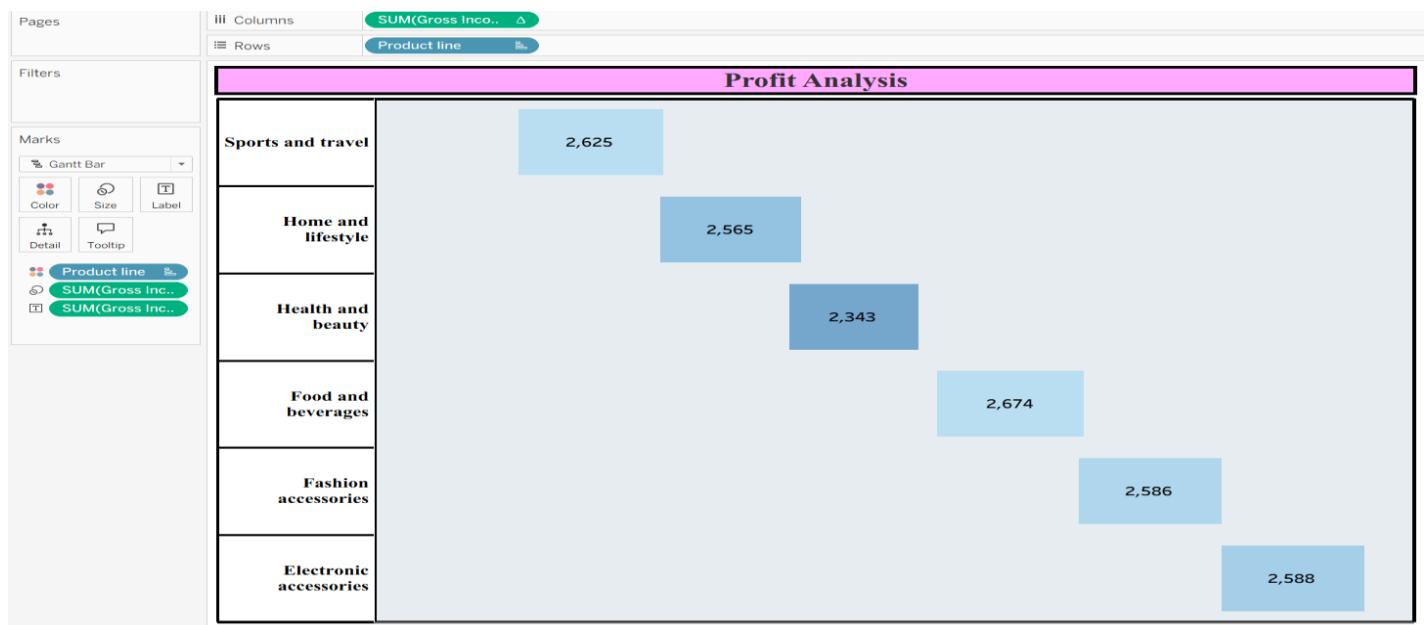
**Objective:** To show cumulative profit flow.

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.