

Assignment Title: DA Assignment - 2

Track: Data Analytics with Tableau

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1. Visualization Task Overview

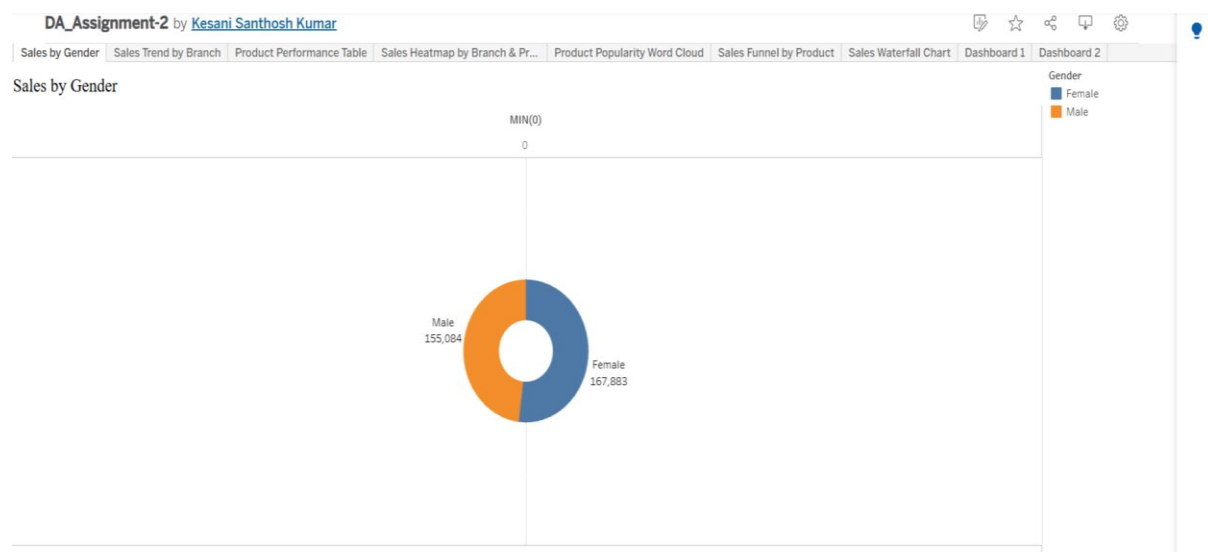
This assignment involves advanced visualization techniques applied to supermarket sales data. The objective is to analyze customer demographics, sales trends, and product performance using seven distinct chart types, culminating in a comprehensive dashboard.

Live Dashboard Link: https://public.tableau.com/views/DA_Assignment-2/Dashboard1

2. Visualizations

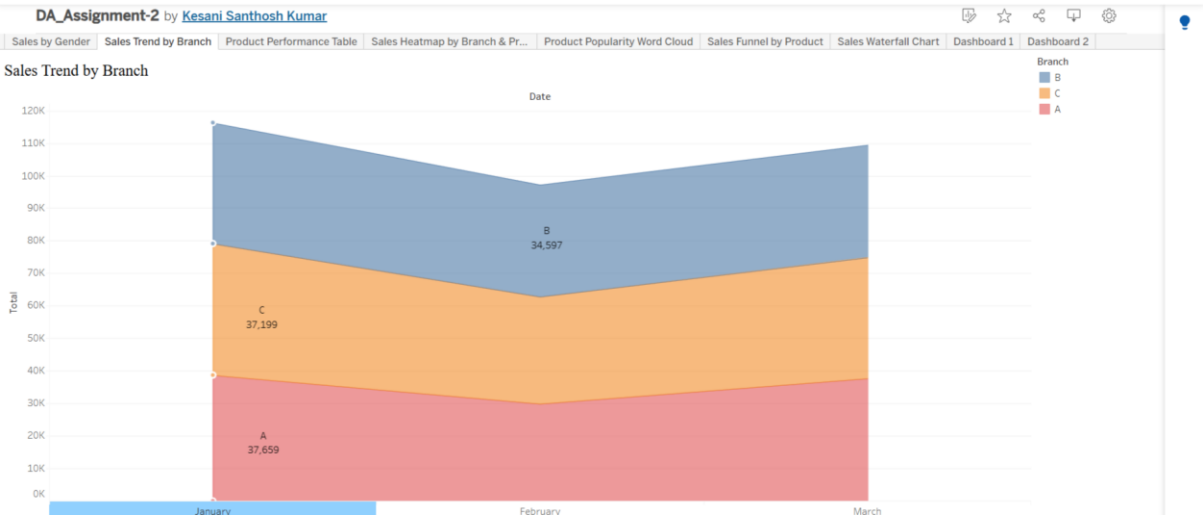
A. Donut Chart: Sales by Gender

Description: A dual-axis chart transforming a standard pie chart into a donut chart to compare total sales revenue between male and female customers. **Interpretation:** The sales distribution is fairly balanced. Female customers contribute slightly more to the revenue (\$167,883) compared to Male customers (\$155,084), suggesting a marginal dominance in female purchasing power within this dataset.



B. Area Chart: Sales Trend by Branch

Description: A time-series area chart displaying the monthly sales volume for January, February, and March, stacked by Branch (A, B, C). **Interpretation:** Sales volume remains relatively stable across the quarter. Branch A (Red) and Branch B (Blue) show consistent performance, while Branch C (Orange) experiences a slight contraction in February before recovering in March.



C. Text Table: Product Performance Table

Description: A precise cross-tabulation table detailing Gross Income, Quantity, and Total Sales for each product line. **Interpretation:** "Food and beverages" leads in volume with 952 units sold and \$56,145 in total sales. "Health and beauty" shows the lowest comparative performance with 854 units, highlighting it as an area for potential marketing focus.

Product line	Gross Income	Quantity	Total
Electronic accessories	2,588	971	54,338
Fashion accessories	2,586	902	54,306
Food and beverages	2,674	952	56,145
Health and beauty	2,343	854	49,194
Home and lifestyle	2,565	911	53,862
Sports and travel	2,625	920	55,123

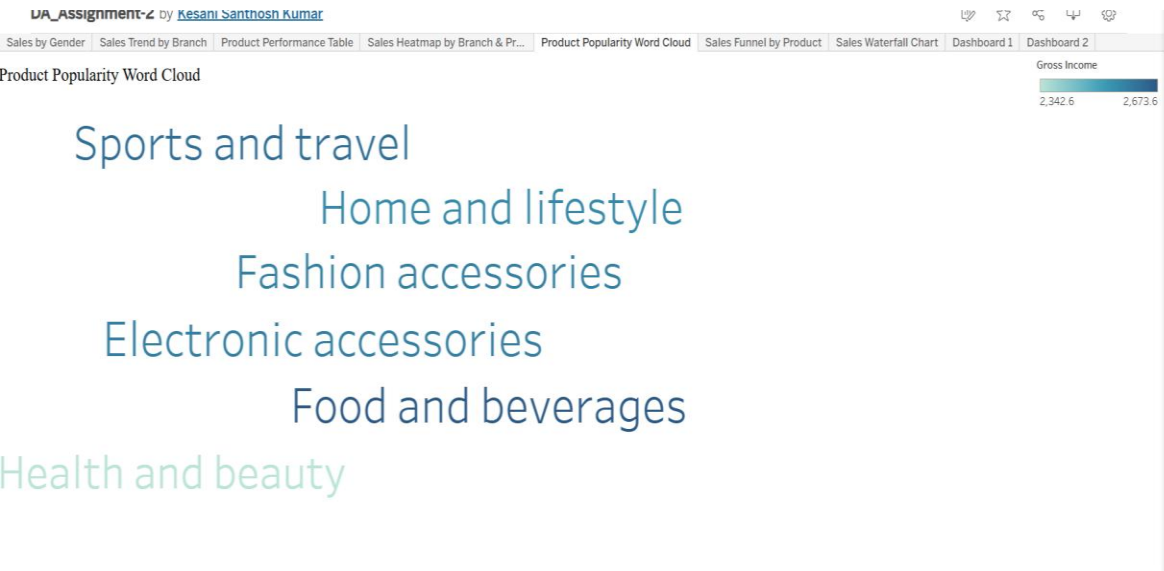
D. Highlight Table: Sales Heatmap by Branch & Product

Description: A heatmap that uses color intensity to visualize sales performance across different Branches (Rows) and Product Lines (Columns). **Interpretation:** The dark red cell for "Food and beverages" in Branch C indicates it is a standout high-revenue category (\$23,767). Conversely, "Health and beauty" in Branch A is a lighter shade (\$12,598), indicating lower revenue generation in that specific sector.



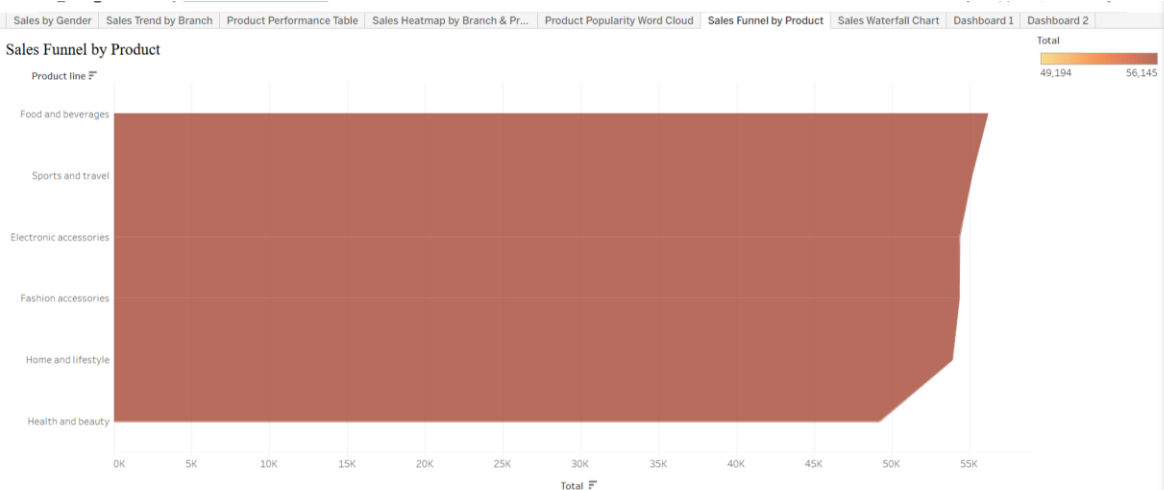
E. Word Cloud: Product Popularity

Description: A visual representation where the size of the product names corresponds to the Gross Income generated. **Interpretation:** "Food and beverages", "Sports and travel", and "Electronic accessories" appear as the largest text, visually confirming them as the top three revenue-generating categories.



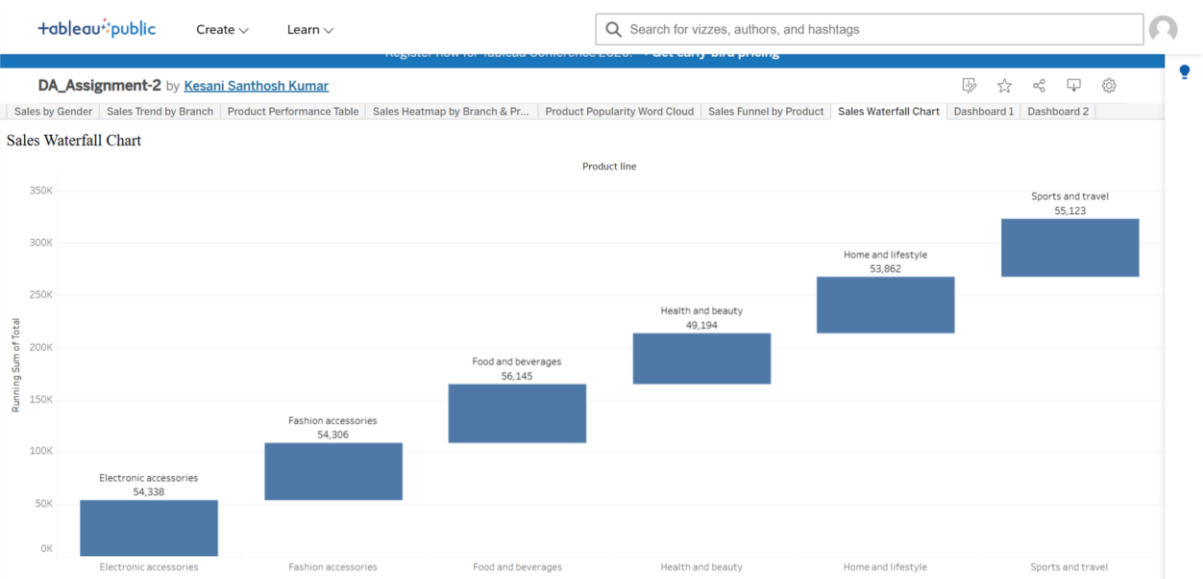
F. Funnel Chart: Sales Funnel by Product

Description: A sorted area chart illustrating the hierarchy of sales revenue by product line, from highest to lowest. **Interpretation:** The funnel shows a gradual, non-steep decline from the top category ("Food and beverages" at \$56k) to the bottom ("Health and beauty" at \$49k), indicating a healthy and evenly distributed product portfolio without heavy reliance on a single item.



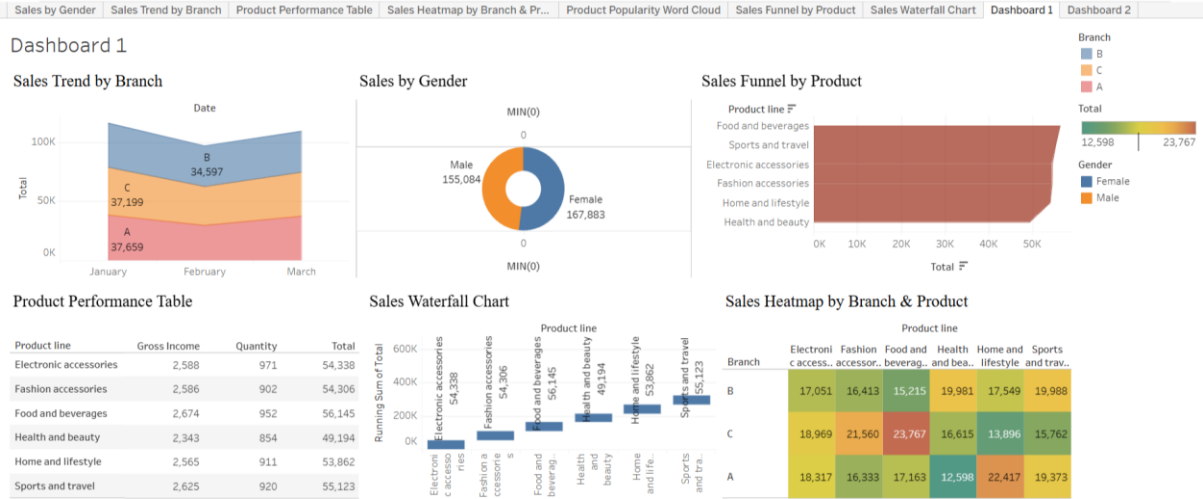
G. Waterfall Chart: Sales Waterfall Chart

Description: A Gantt-style waterfall chart tracking the cumulative running total of sales across all product lines. **Interpretation:** Each step represents the incremental revenue added by a product category. The chart effectively visualizes how the individual category sales accumulate to reach the grand total revenue of over \$320,000.



3. Final Dashboard View

Description: A consolidated dashboard integrating all seven visualizations to provide a holistic view of the supermarket's sales data.



Branch

Product line

Electroni

Fashion

Food and

Health

Home and

Sports

c access.

accessor.

beverag.

and bea..

and life..

and trav..

B

17,051

16,413

15,215

19,981

17,549

19,988

C

18,969

21,560

23,767

16,615

13,896

15,762

A

18,317

16,333

17,163

12,598

22,417

19,373