

Amazon Sales Data Analysis

Wireframe Documentation

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| Author | Shubham Gaikwad |
| Company | iNeuron.ai |
| Project Name | Amazon Sales Data Analysis |

Introduction:

The purpose of this wireframe design document is to establish the essential visualisations and functionality for a BI dashboard that evaluates Amazon sales data. Using Exploratory Data Analysis (EDA) approaches, the data was pre-processed and examined in Jupyter Notebook. The dashboard's goal is to provide useful information on sales trends, KPIs, and item performance, as well as the relationship between sales and profitability.

As per the problem statement, analysis done into three sections:

1.Sales Analysis by Month and Year

2.Analysis on Sales Metrics and Items

3.Sales and Profitability Analysis

1.Sales Analysis by Month and Year: The visualisations in this section will provide a thorough look of Amazon sales data by month and year. The purpose is to detect sales trends, seasonality, and patterns.

A. Line Chart: Monthly Sales Over Time

- A line chart showing the trend of total sales amount over different months and years.

- X-axis: Time (Months and Years)

- Y-axis: Total Sales Amount

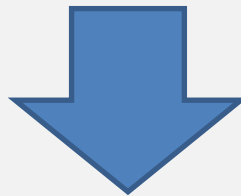
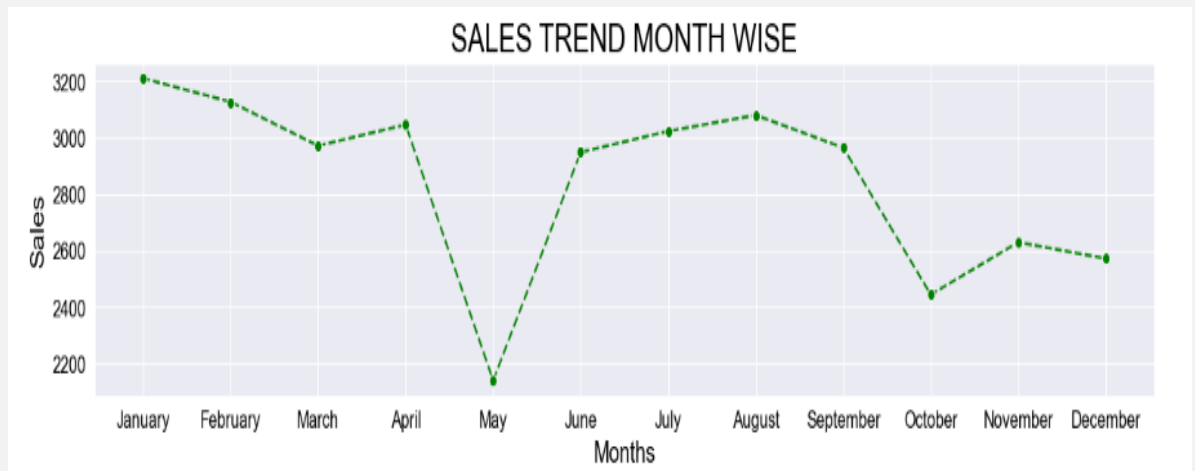
B. Cat Plot: Sales Breakdown by Year

- A bar chart representing total sales amount for each year.

- X-axis: Year

- Y-axis: Total Sales Amount

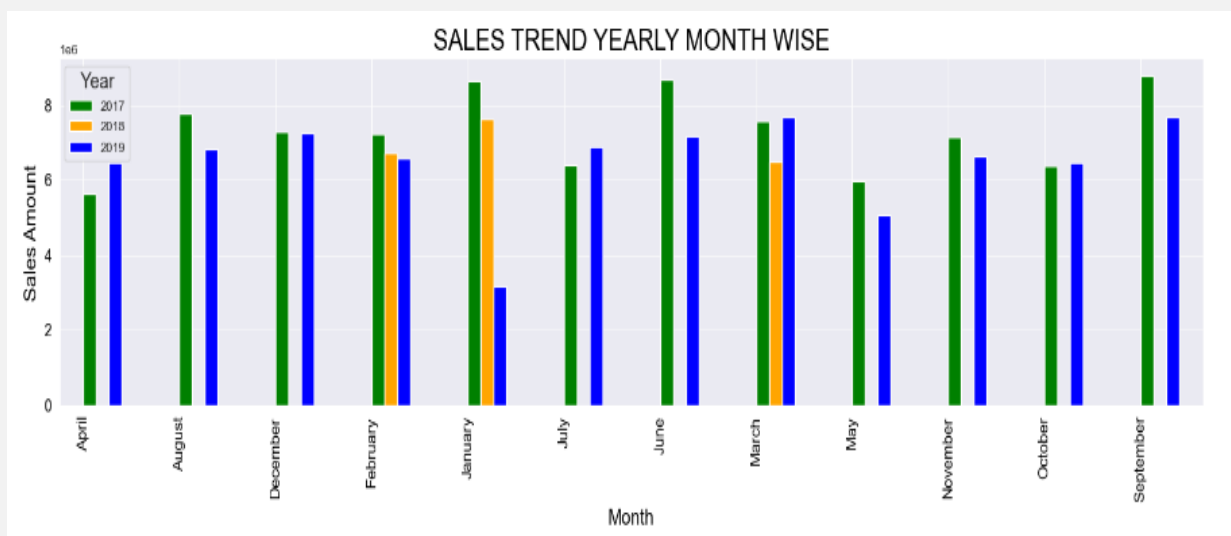
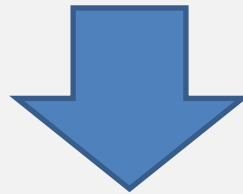
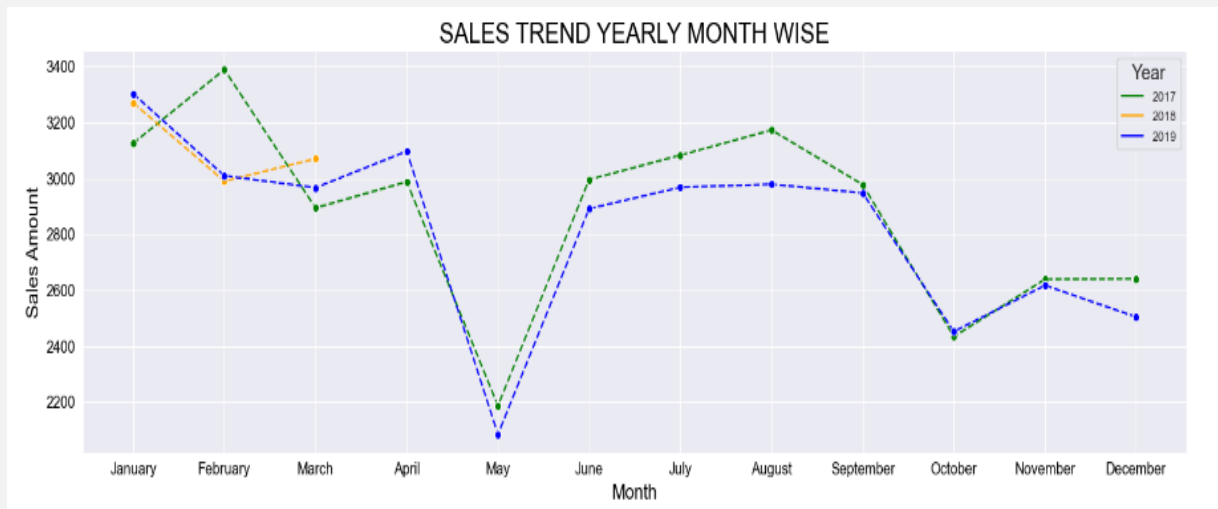
Relation Between Sales and Months



Relation Between Sales and Year



Relation Between Sales Year and Months



2. Analysis on Sales Metrics and Items: This section will focus on analysing various sales metrics and item-specific performance. The goal is to understand top-selling items, best-performing categories, and other key sales metrics.

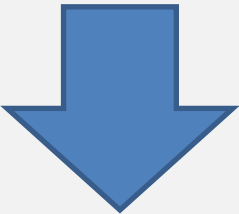
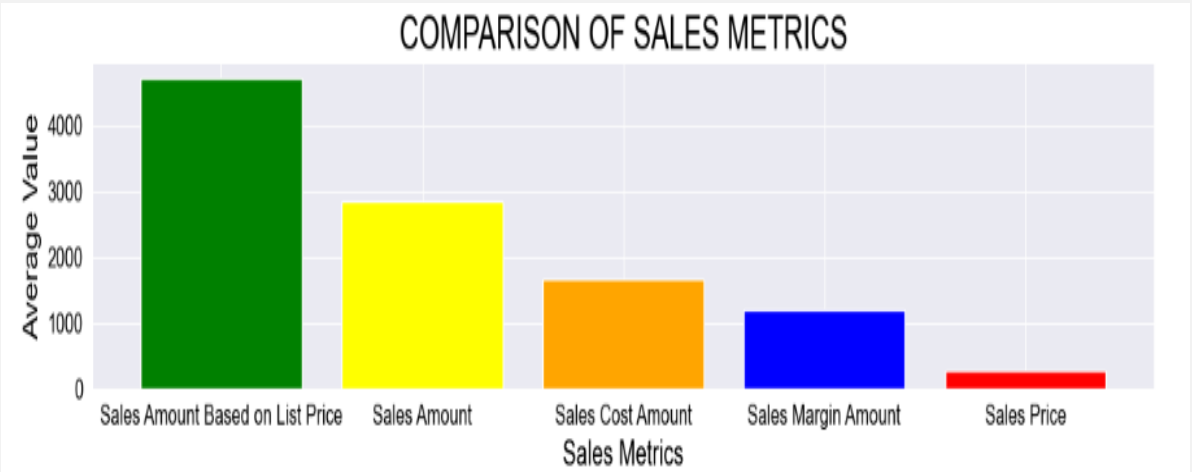
A. Horizontal Bar Chart: Top-Selling Items

- A horizontal bar chart displaying the top-selling items by their sales amount.
- X-axis: Total Sales Amount
- Y-axis: Item Name or ID

B. Stacked Bar Chart: Sales Metrics

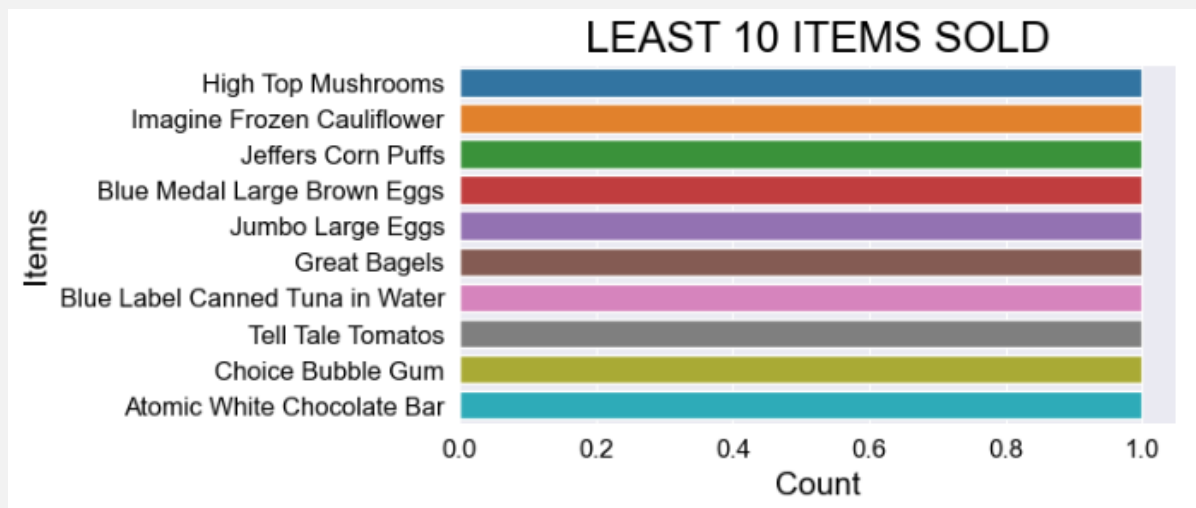
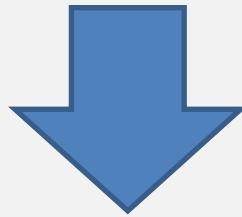
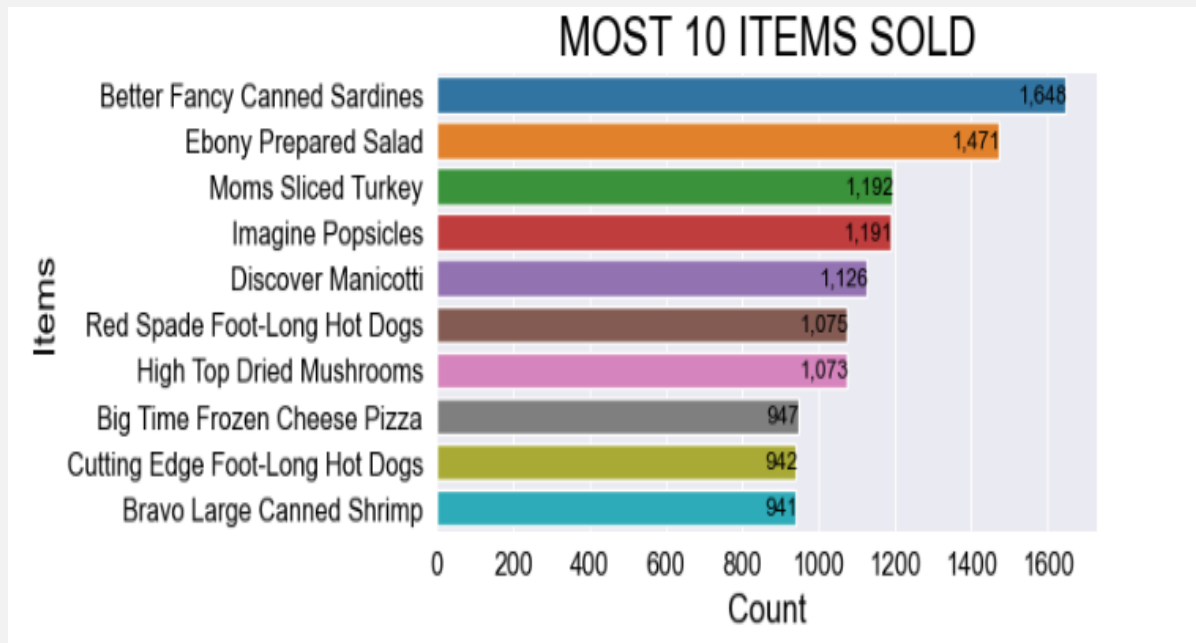
- A stacked bar chart representing sales Average amount for each category.
- X-axis: Category
- Y-axis: Total/Average Sales Amount

Relation Between Sales and Mean



| | |
|----------------------------------|-------------|
| Sales Amount Based on List Price | 4707.473613 |
| Sales Amount | 2852.038373 |
| Sales Cost Amount | 1660.979228 |
| Sales Margin Amount | 1191.059145 |
| Sales Price | 283.611569 |

Relation Between Sales, Most and Least



3. Sales and Profitability Analysis: This section will explore the relationship between sales and profitability. It will focus on identifying high-profit items and analysing their sales performance.

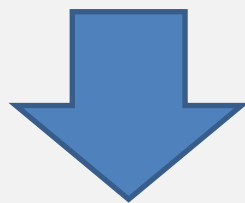
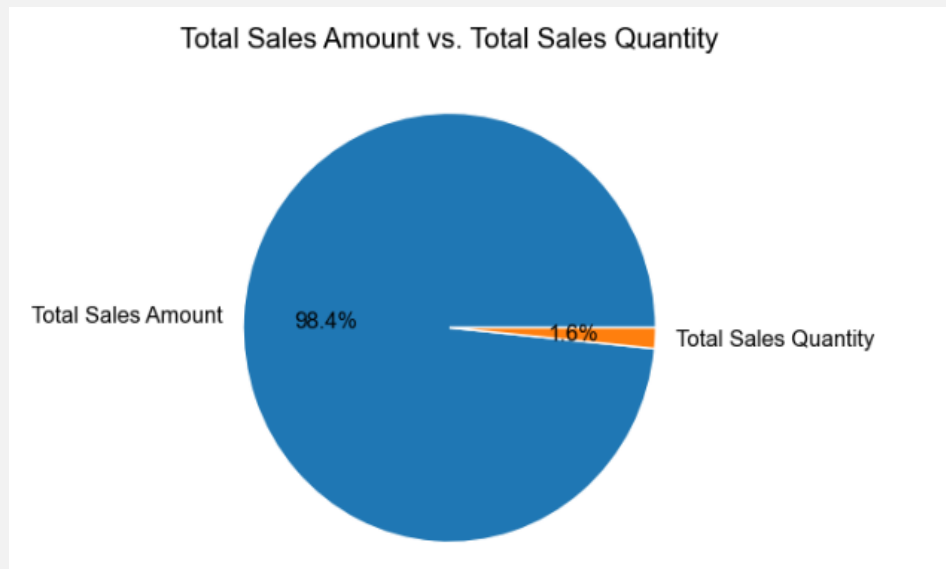
A. Pie Chart and Donut Plot: Sales vs. Profitability

- A Pie chart showing the relationship between sales and profitability for each item.

- Values: Total Sales Amount

- Labels: Total Profit Percentage

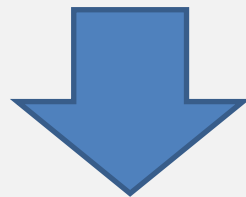
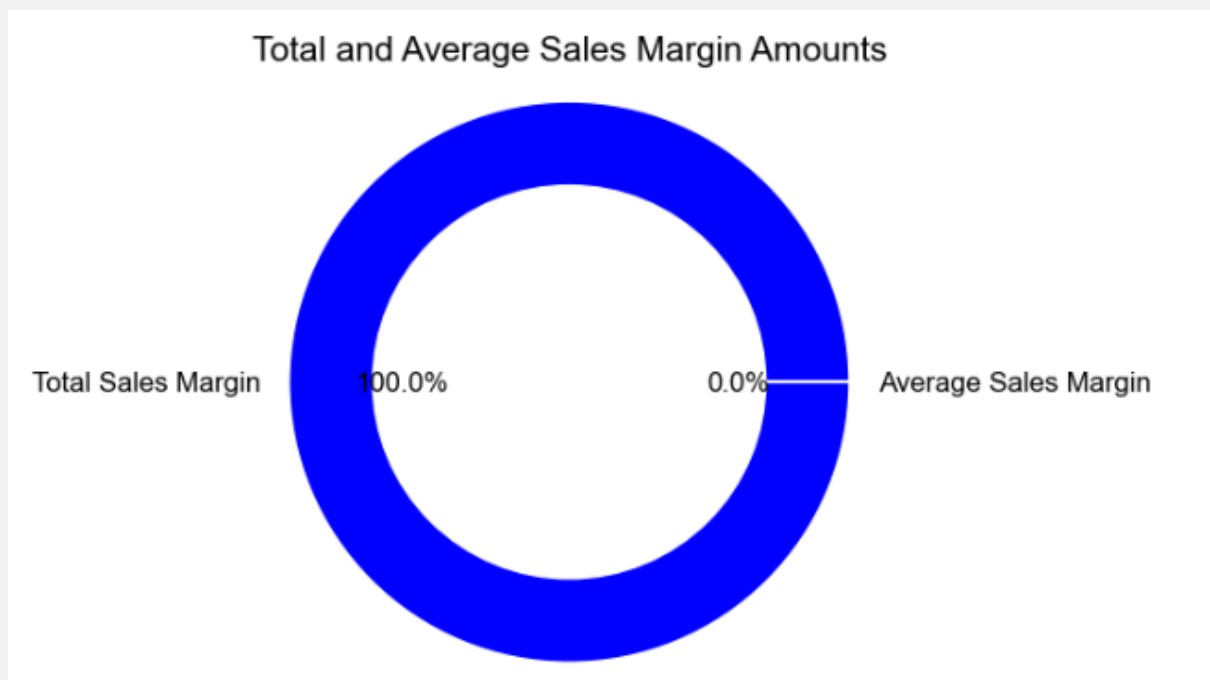
Relation Between Total Sales Amount and Total Sales Quantity



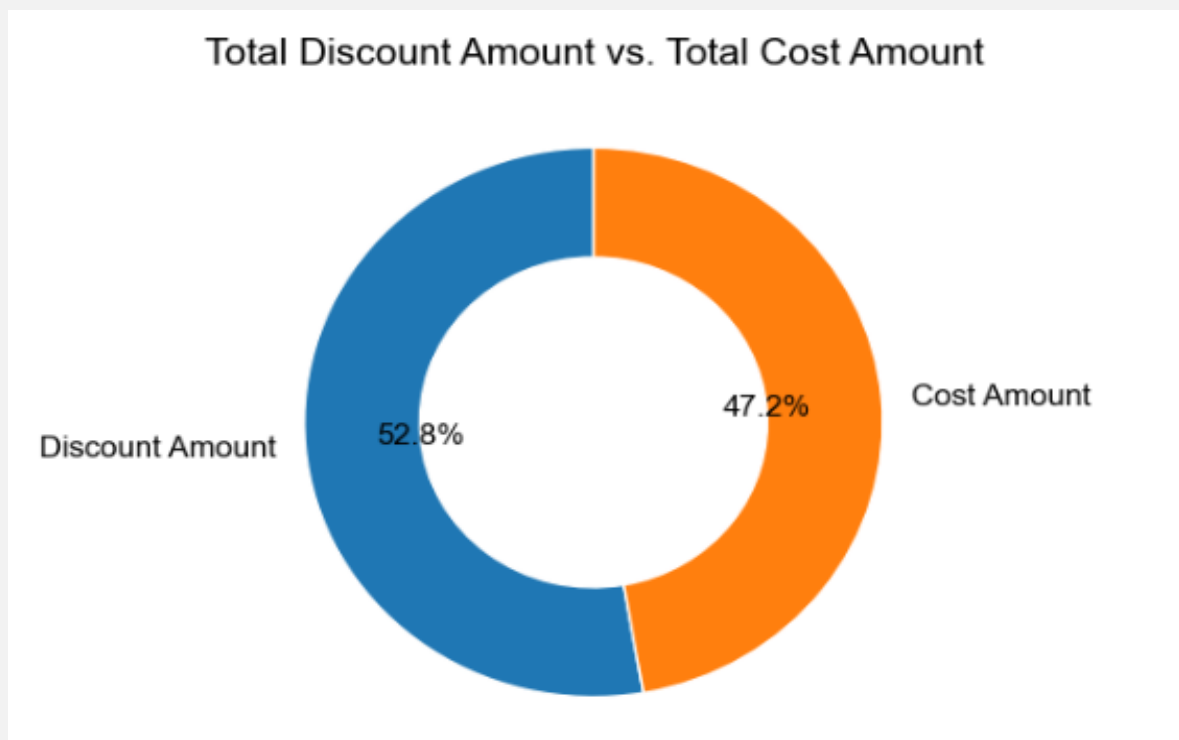
Relation Between Average Sales Amount and Average Quantity



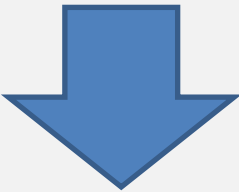
Relation Between Total and Average Sales Margin Amounts



Relation Between Total Discount Amount and Total Cost Amount



Relation Between Total List Price and Total Profit





Conclusion:

The wireframe design document for the Amazon Sales Data Business Intelligence interface highlights the primary visualisations and functionality. The dashboard's goal is to provide useful information on sales trends, KPIs, and item performance, as well as the relationship between sales and profitability. The wireframes will serve as the foundation for the creation of an interactive and user-friendly BI dashboard.