**Amazon Sales Analysis Report**

**Project Overview**

This project involves cleaning, analyzing, and visualizing Amazon sales data to understand sales patterns and order fulfillment. The dataset includes order details, shipping information, product categories, and other attributes that influence sales behavior.

**Objectives**

Clean and preprocess the Amazon sales dataset.

Create pivot tables to summarize key sales insights.

Design a dashboard with graphs to visualize sales trends.

**Data Source**

The dataset used in this project was obtained from Kaggle.

**Dataset Description**

The data was sourced from a dataset found on Kaggle containing Amazon sales information. The dataset included columns such as Order ID, Date, Status, Fulfilment, Sales Channel, ship-service-level, Category, Size, Courier Status, Qty, Amount, ship-city, and ship-state.

**Data Cleaning Steps**

* The data was filtered to remove blank cells to ensure data integrity.
* Date formats were verified and standardized.
* State data was cleaned to ensure consistency and accuracy. This included:

1. Correcting spelling errors in state names.
2. Replacing city names in the state column with the correct state names.
3. Expanding state abbreviations to their full names (e.g., "PB" to "Panjab").

* No other data cleaning was necessary.

**Pivot Tables & Insights**

* Sales by Category: This pivot table (Dashboard image) shows the revenue and order volume for each product category, highlighting which categories generate the most sales.
* Sales by State: This pivot table (Dashboard image) shows the revenue and order volume for each state, identifying key markets.
* Order Status Analysis: This pivot table (Dashboard image) shows the number of orders in each status (Shipped, Cancelled), providing insights into order fulfillment.
* Shipping Speed Analysis: This pivot table (Dashboard image) shows the distribution of orders by shipping speed, revealing customer preferences.
* Fulfilment Analysis: This pivot table (Dashboard image) shows the number of orders fulfilled by merchants and Amazon, indicating fulfillment efficiency.
* Sales by Size: This pivot table (Dashboard image) shows the revenue and order volume for each product size, highlighting popular sizes.

**Key Findings**

* Specific product categories generate higher revenue and order volume.
* Certain states are key markets for Amazon sales.
* The majority of orders are successfully shipped.
* Different shipping speeds have varying levels of customer preference.
* Merchants and Amazon contribute to order fulfillment.
* Certain product sizes are more popular than others.

**Dashboard Overview**

The dashboard includes interactive charts and slicers:

* Sales by Category: A combo chart showing revenue and order volume by category.
* Sales by State: A combo chart showing revenue and order volume by state.
* Order Status Analysis: A combo chart showing count of order ID and sum of amount by order status.
* Shipping Speed Analysis: A column chart showing order volume by shipping speed.
* Fulfilment Analysis: A combo chart showing count of order ID and sum of amount by fulfilment.
* Sales by Size: A column chart showing order volume by size.
* Slicers for Fulfilment, Product, Courier Status, Qty, and Months.

**Conclusion**

This project provides insights into Amazon sales performance, highlighting key trends and patterns. The interactive dashboard allows users to explore the data and identify opportunities for improvement.

**How to Use**

Open the Excel file and navigate to the Pivot Table and Dashboard sheets.

Modify filters in pivot tables to analyze different factors.

Use the dashboard for a quick visual summary of insights and to interact with the data through the slicers.