Walmart Sales & Customer Insights Dashboard

Author: Ashutosh Kumar

Project Type: Business Analytics & Data Visualization

Deployment: Deployed via Streamlit Cloud

Project Overview:

This interactive dashboard offers comprehensive insight into Walmart's retail performance, covering sales, customer behavior, and payment trends. Designed using Streamlit and Plotly, it serves as a dynamic tool for business analysis.

Tech Stack

Frontend/UI: Streamlit (Dark Mode)

Backend: Python 3.11

Data Handling: Pandas

Visualization: Plotly (Bar, Line, Pie, Violin, Heatmap)

Dev Tools: Git, Docker, .devcontainer.json

Project Structure

walmart-dashboard/
 src/
   walmart_clean_data.csv
   streamlit_app.py
 .streamlit/
   config.toml
 requirements.txt
 README.md
 .gitignore
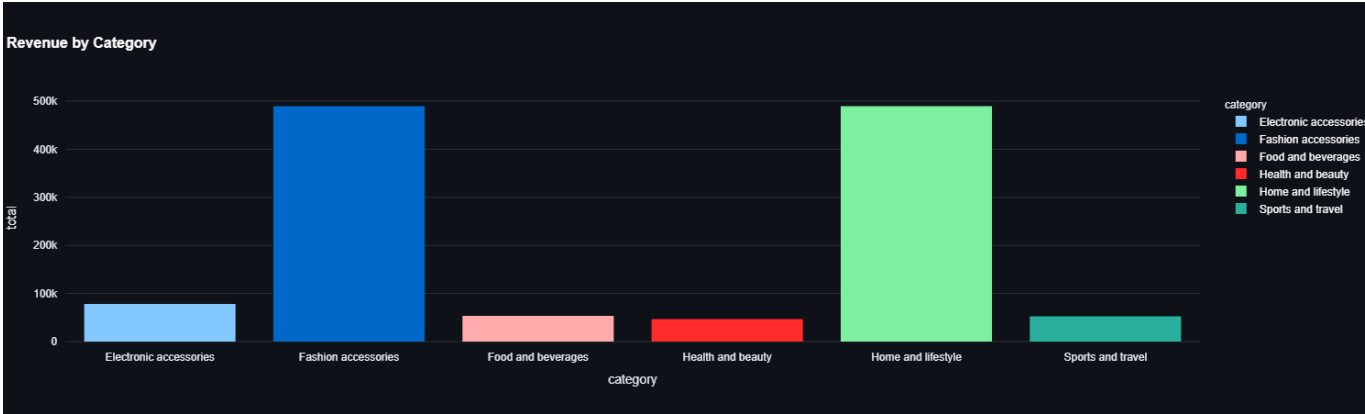
Key Dashboard Features

KPI Metrics:
- Total Revenue
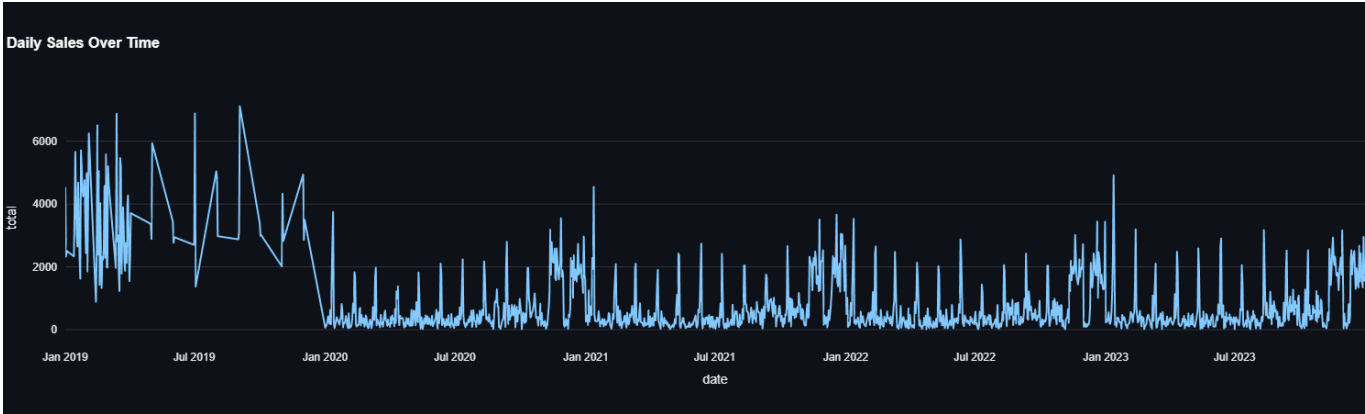- Average Customer Rating
- Total Transactions

Interactive Filters:

Walmart Sales & Customer Insights Dashboard

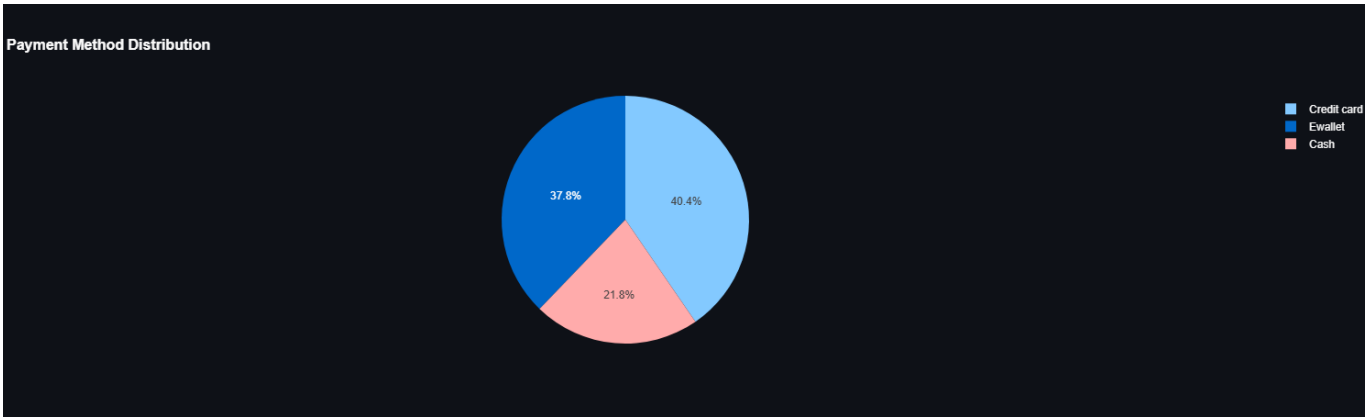- Branch Selection

- Product Category

- Date Range

1. Payment Method Distribution

2. Daily Sales Over Time

3. Revenue by Category

Data Cleaning Highlights

Walmart Sales & Customer Insights Dashboard

- Converted unit_price from string (with $) to numeric.

- Created hour and weekday columns for time-series analysis.

- Removed all missing values.

- Engineered a new column: total = unit_price x quantity

Additional Notes

- Basic error handling for missing data.

- Modular and ready for expansion.

- Streamlit dark theme improves UI focus.

Author & Acknowledgment

Developed by Ashutosh Kumar.

Built for portfolio showcasing data storytelling and dashboard design.