

Data Science 201 Project

Sales Forecasting with Walmart Data to Predict sales

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Stage 1: Ask A Question

Our Project:

- Sales Forecasting with Walmart
<https://www.kaggle.com/datasets/yasserh/walmart-dataset/>
- Predict the sales of Walmart in a week and how holidays and special deals sours the sales in the store
- Machine learning for weekly sales forecasting at Walmart helps improve inventory management, staffing, and customer satisfaction. It also aids in planning promotions, reducing costs, and staying competitive by predicting market trends. This data-driven approach allows for adaptability and personalization, leading to better decision-making, innovation, and operational efficiency, ultimately benefiting Walmart's profitability.

Stage 2: Get the Data

1. Preparing the dataset:

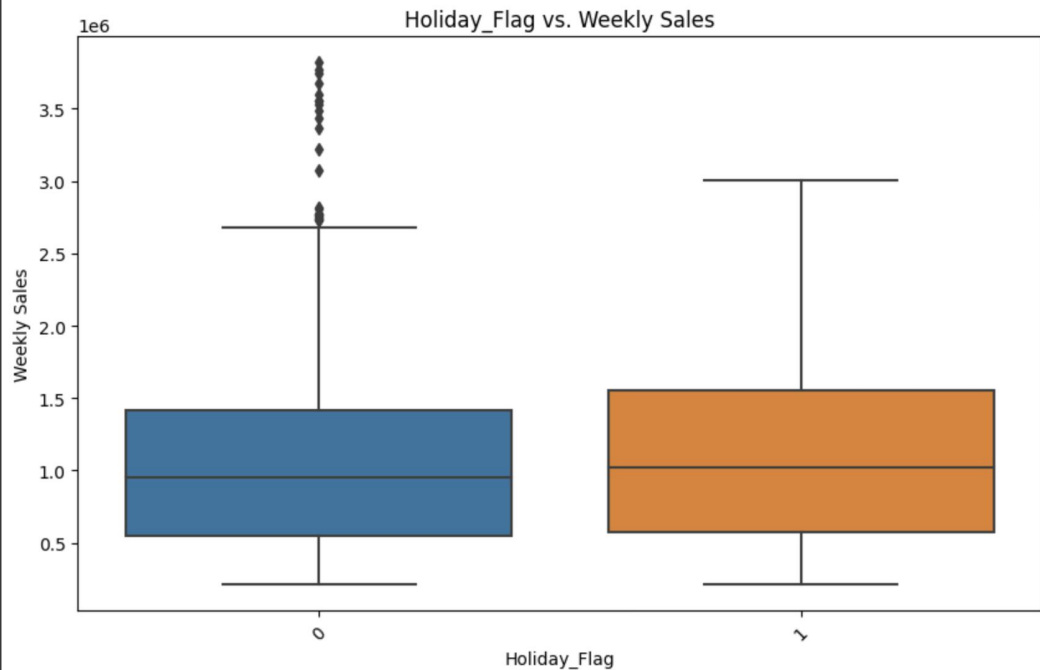
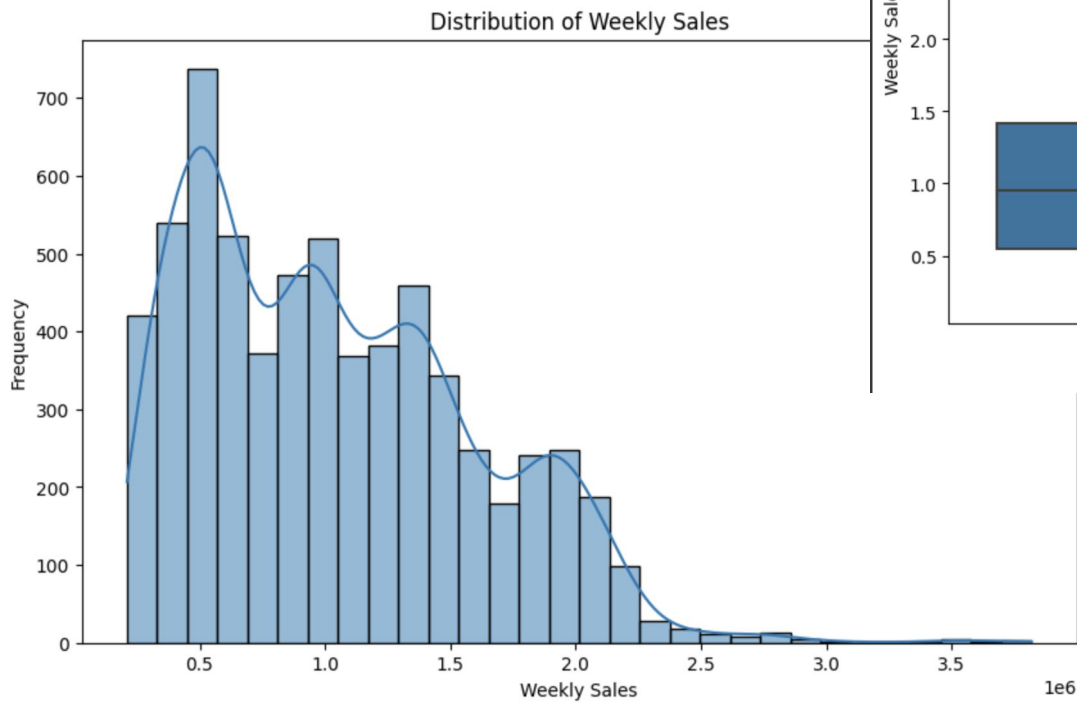
- How do we cleaned our data?
- How did we prepare it?

2. Did we need to acquire more related dataset?

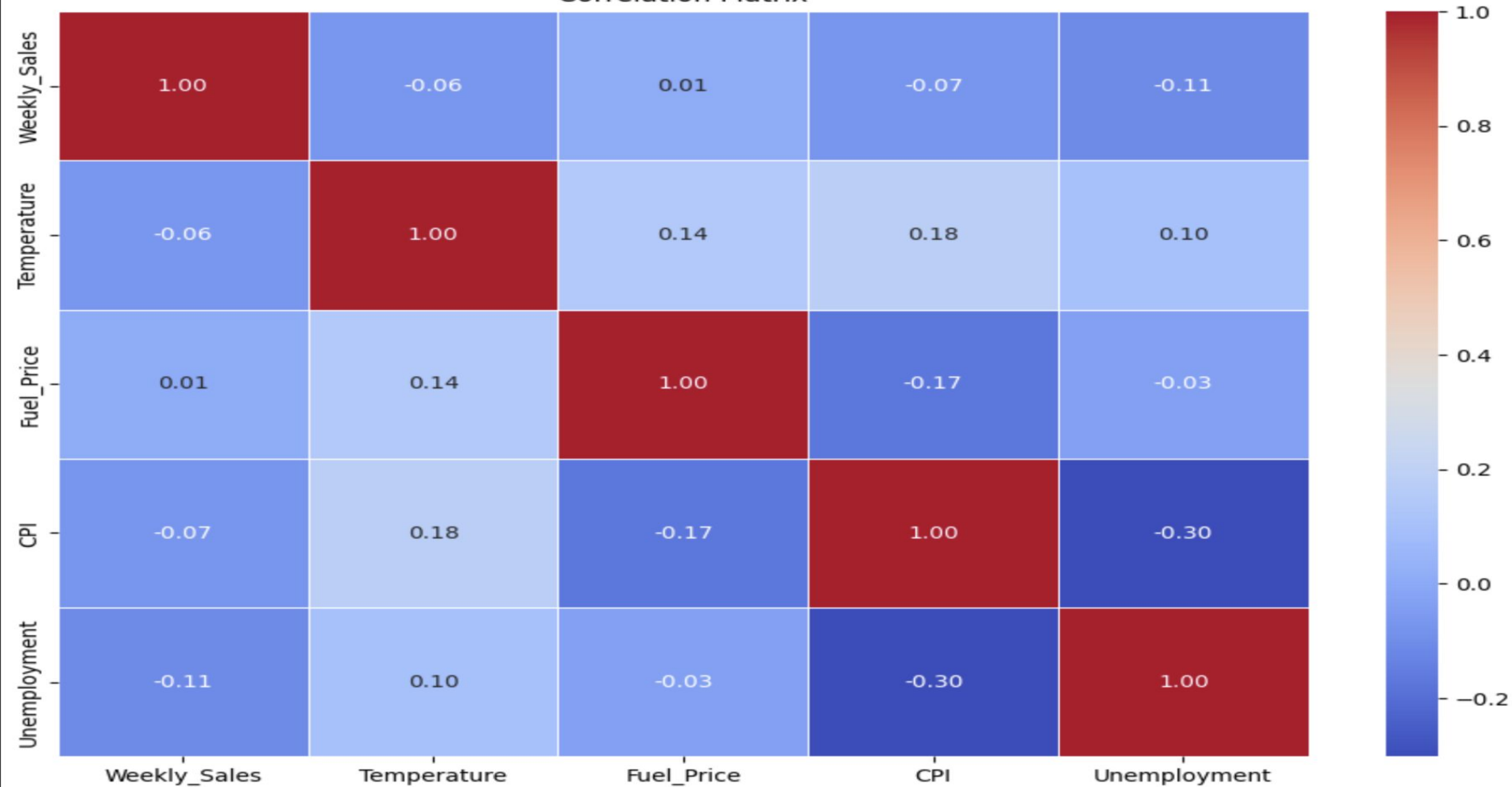
Stage 3: Explore the Data:

1. Descriptive analysis
2. Get to know data, develop hypotheses, patterns? anomalies?
3. Problem with data? How to improve this dataset in the future?

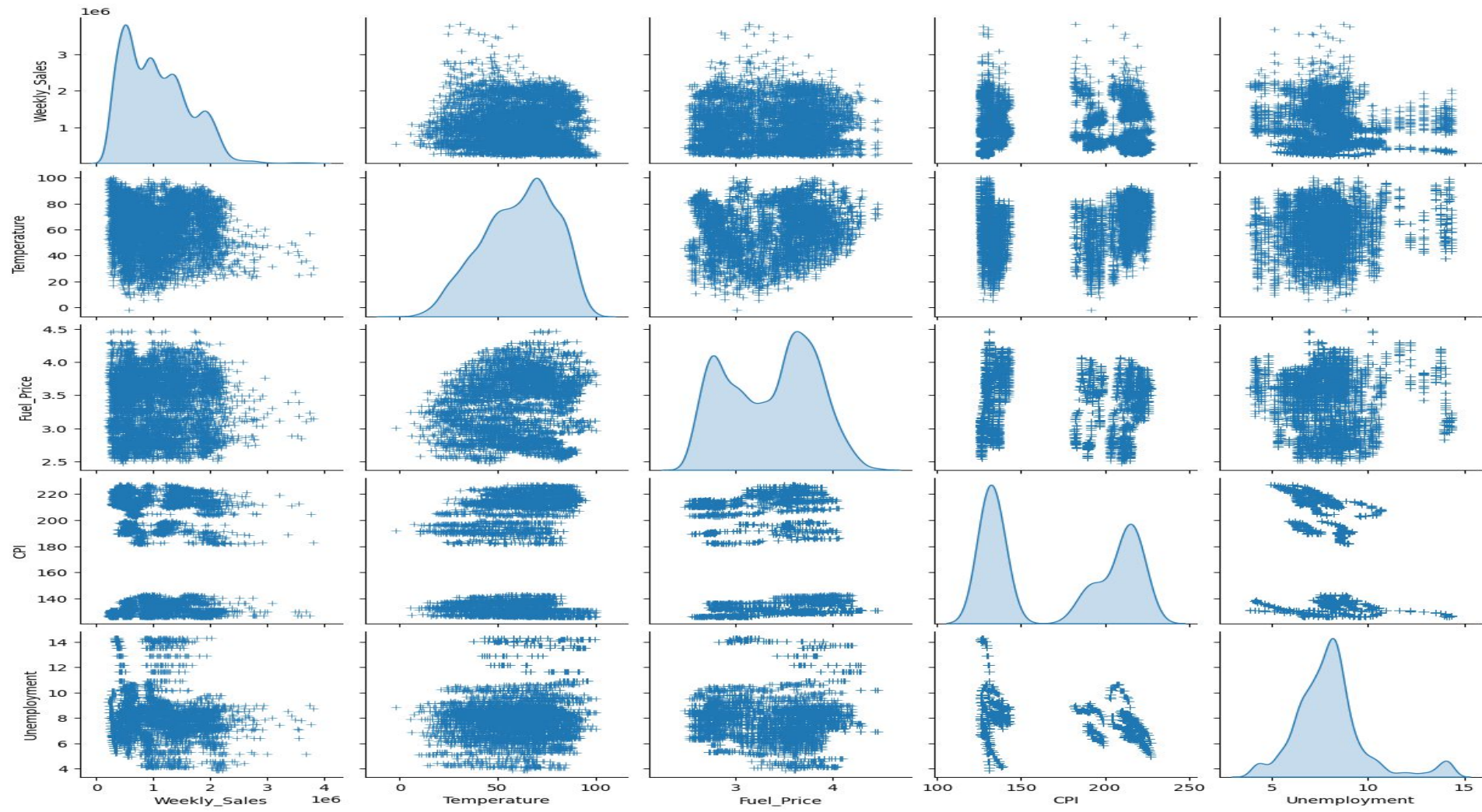
GRAPHS



Correlation Matrix



Pair Plot of Selected Features



Stage 4: Model the Data

Stage 5: Communicate the Data

What we Learned About the Data

- Sales trends observed
- Correlation analysis
- Outlier analysis
- Segment specific patterns
- Data quality Management

Conclusion