Using Python for Data Analysis

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Year:2025

Diwali Sales Analysis Overview

This project analyzes customer purchasing behavior during Diwali using Python.
It focuses on understanding sales trends, popular categories, and important customer patterns through data analysis and visualization.

Tools & Technologies Used

CONTENT:

- Python
- Pandas
- NumPy
- Matplotlib
- Seaborn
- Jupyter Notebook

TITLE:

Data Cleaning & Preparation

CONTENT:

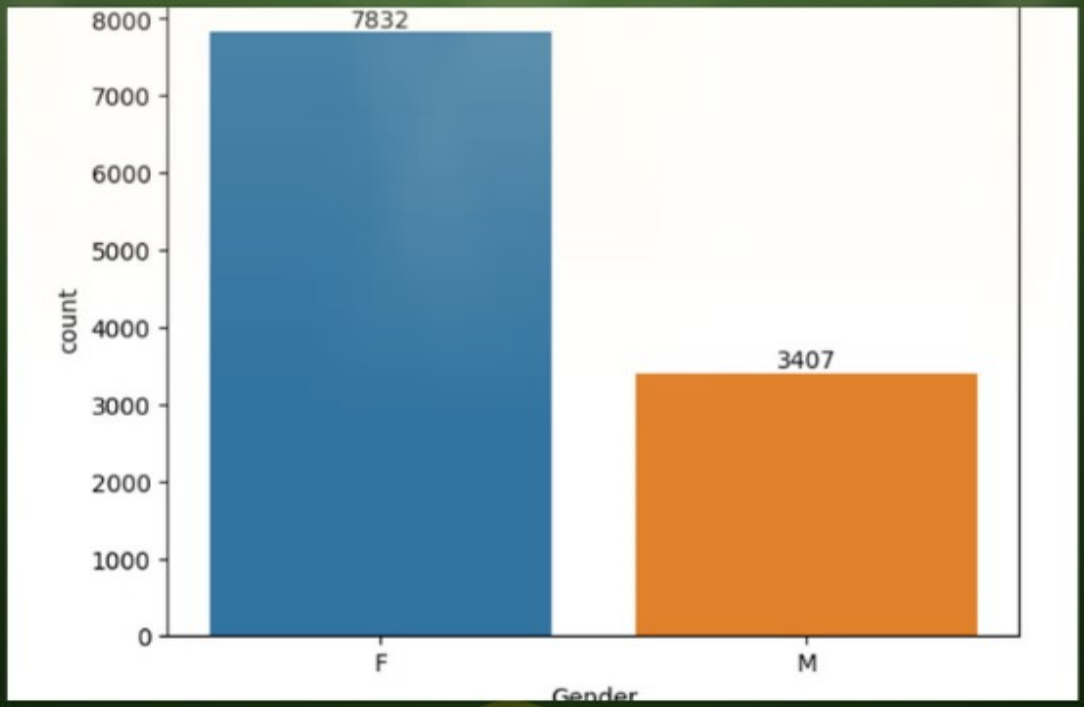
- Removed missing values
- Cleaned incorrect entries
- Converted data formats
- Removed duplicates
- Structured data for analysis

TITLE:

Gender-Based Sales Analysis

CONTENT:

Female customers contributed more to total purchases compared to male customers during Diwali.



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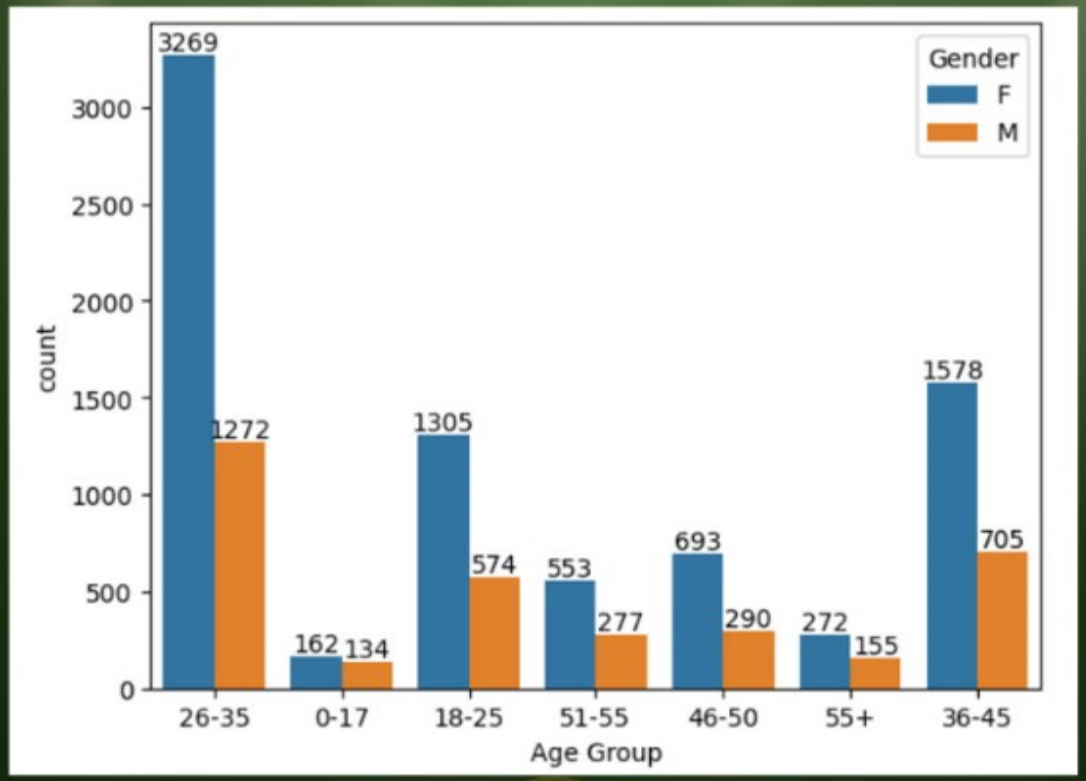
Customer Age Group Analysis

CONTENT:

The age group between 26–35 years showed the highest purchase behavior during Diwali.



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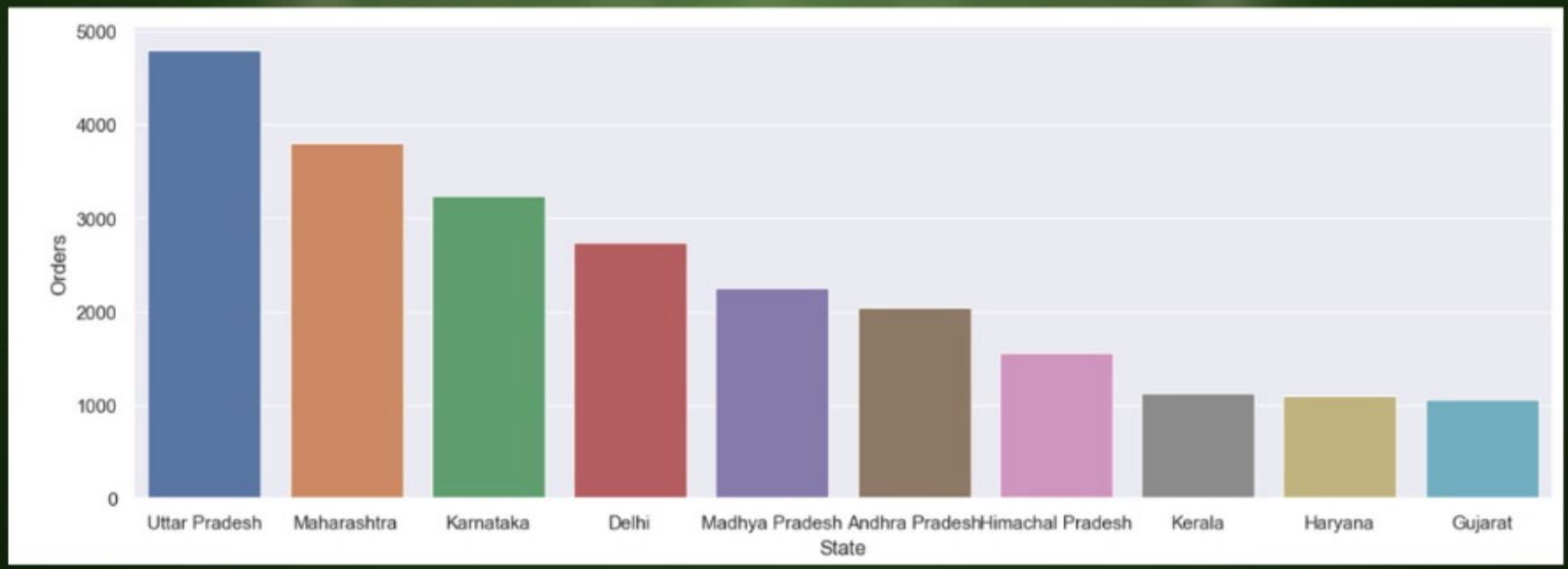
Sales by State

CONTENT:

Some states recorded significantly higher sales than others, reflecting regional demand trends.



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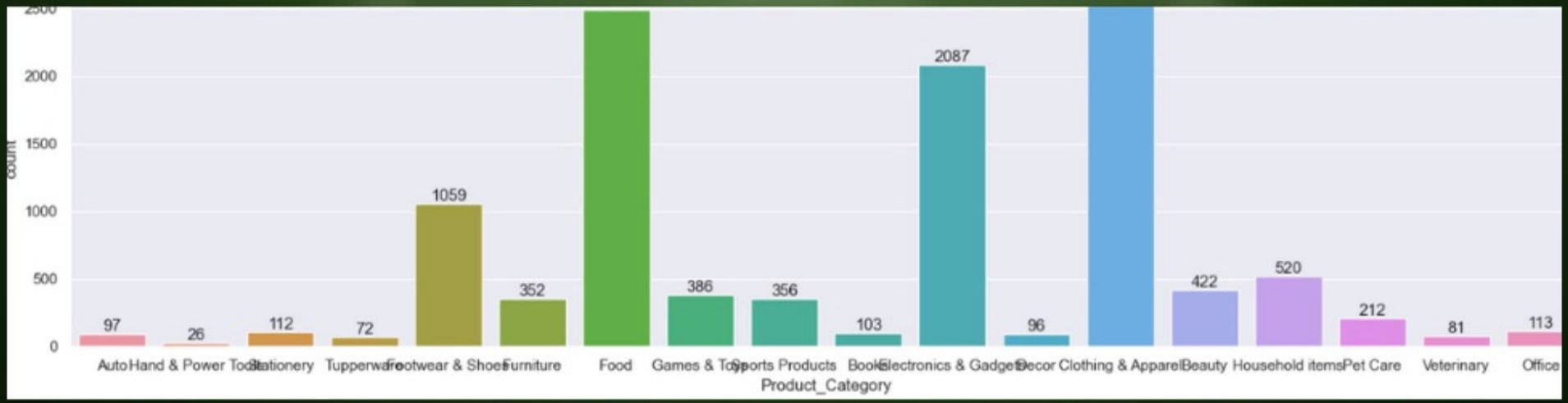
Product Category Performance

CONTENT:

A few product categories generated most of the revenue, indicating high demand and strong consumer preference.



TITLE:
Key Findings

CONTENT:

- Females dominated purchasing
- Young adults were main buyers
- Certain states led in revenue
- Some categories performed exceptionally well

TITLE:
Conclusion

CONTENT:

The analysis provides valuable insights into customer behavior and highlights how data can guide business strategies during festive seasons.

TITLE:

Thank You!