Optimizing Order Fulfillment Process and Enhancing Customer Satisfaction

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Abstract

- This project aims to analyze customer order details using demographic and location information to optimize order fulfillment and enhance customer satisfaction. Data analysis and visualization techniques are employed to identify influencing factors and recommend strategies for improvement.

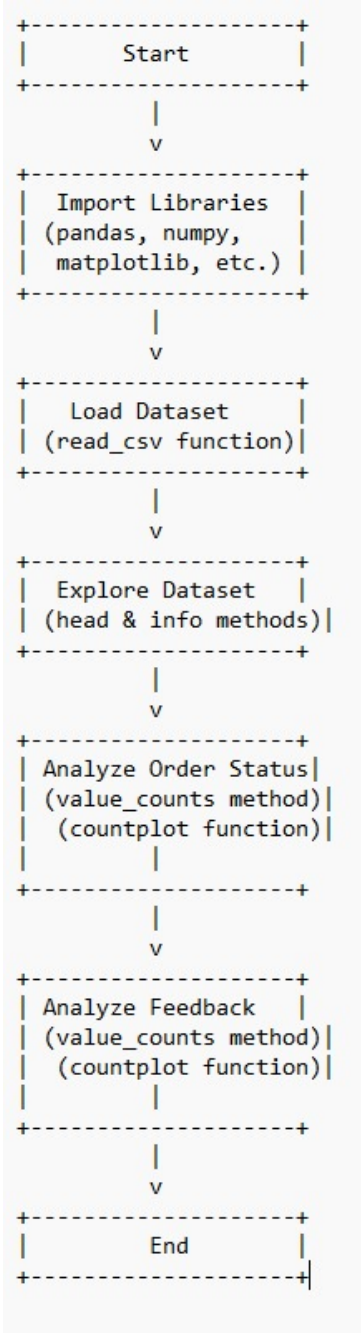
Problem Statement, Objectives & Outcomes

- **Problem Statement:** Inefficient order fulfillment leading to delayed deliveries and unsatisfied customers.
- **Objectives:**
  - Analyze order status and feedback.
  - Investigate demographic and location-specific trends.
  - Recommend improvement strategies.
- **Outcomes:** Improved order processing efficiency, reduced delivery times, and better customer satisfaction.

Technology Stack

- **Programming Languages:** Python
- **Libraries:** Pandas, NumPy, Matplotlib, Seaborn
- **Tools:** Jupyter Notebook, LaTeX

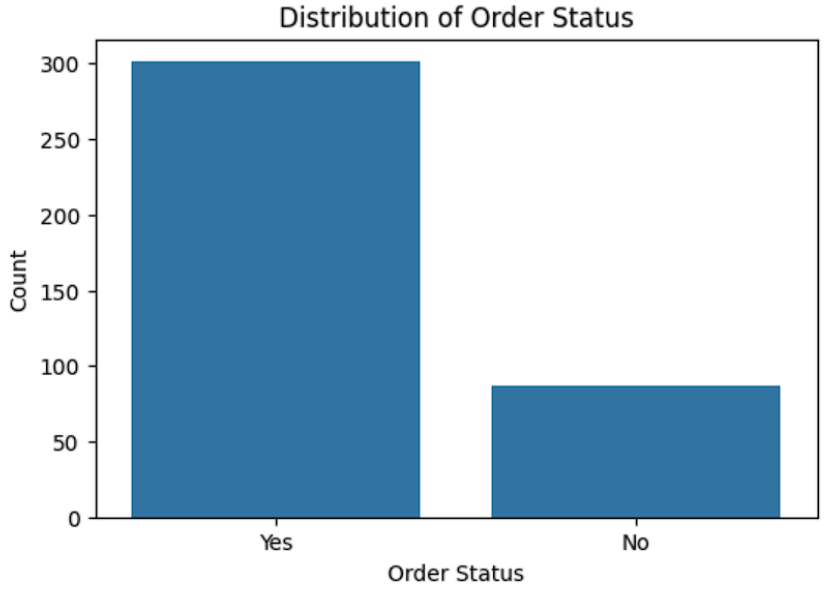
Architecture/System Diagram

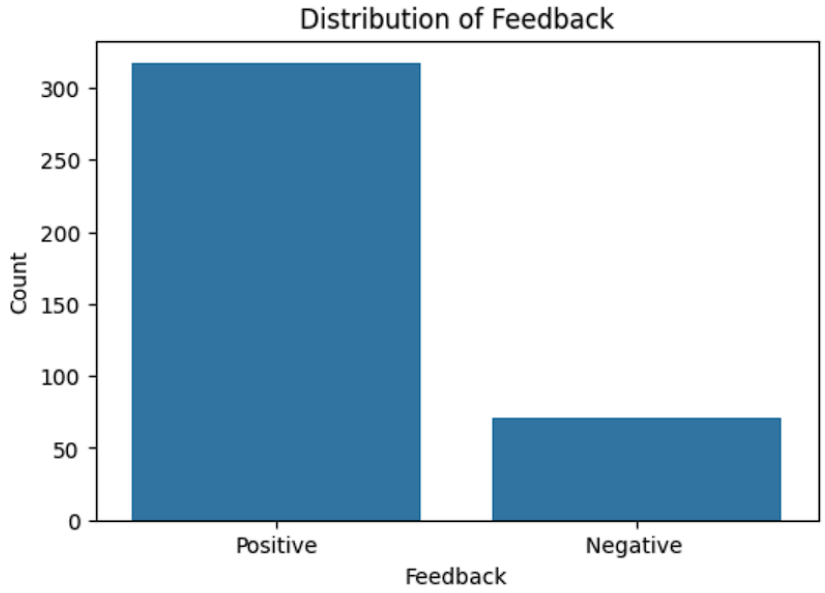


Dataset & Mathematical Models

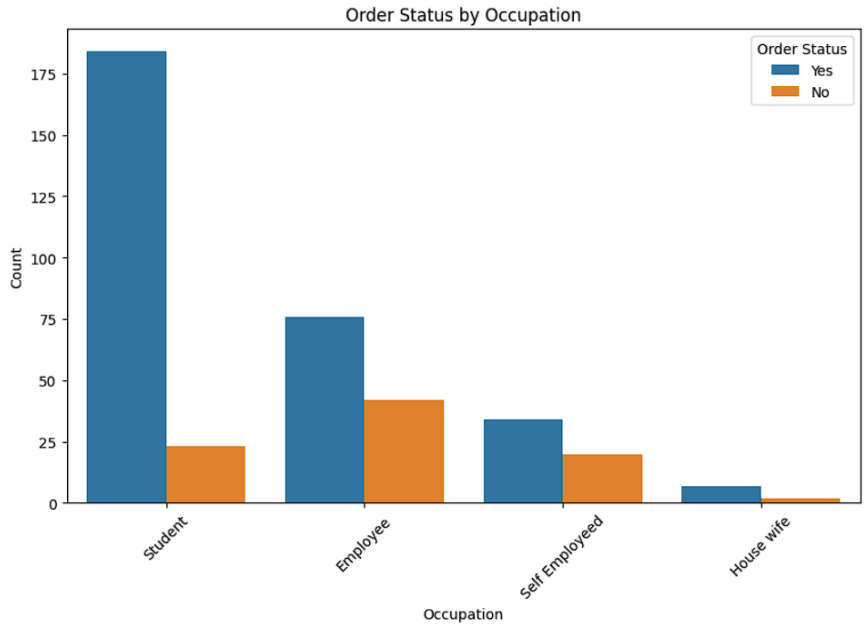
- **Dataset:** Customer order details, including demographic and location information.
- **Mathematical Models:**
  - Descriptive Statistics
  - Visualization Techniques (Count Plots, Scatter Plots)

Implementation Screenshots





Implementation Screenshots



Results Analysis & Visualization Plotting

- Visualizing the distribution of order statuses.
- Visualizing the distribution of customer feedback.
- Investigating order status across different occupations.
- Visualizing order status based on geographic locations.

Conclusion

- **Insights:** Our analysis provided valuable insights into order status distribution and customer feedback.
- **Recommendations:** Streamlining order processing, reducing delivery times, and addressing customer feedback are recommended.
- **Future Work:** Future research could explore personalized strategies based on demographics and real-time data.

Bibliography/References

- Kaggle
- Github
- Youtube

Thank you!