# UBER SUPPLY DATA ANALYSIS

Project Overview

This project explores Uber ride request data to uncover supply-demand imbalances, cancellation patterns, and operational inefficiencies. We used Python, SQL, and Excel to gain insights into rider behavior and driver availability across time slots and pickup points.
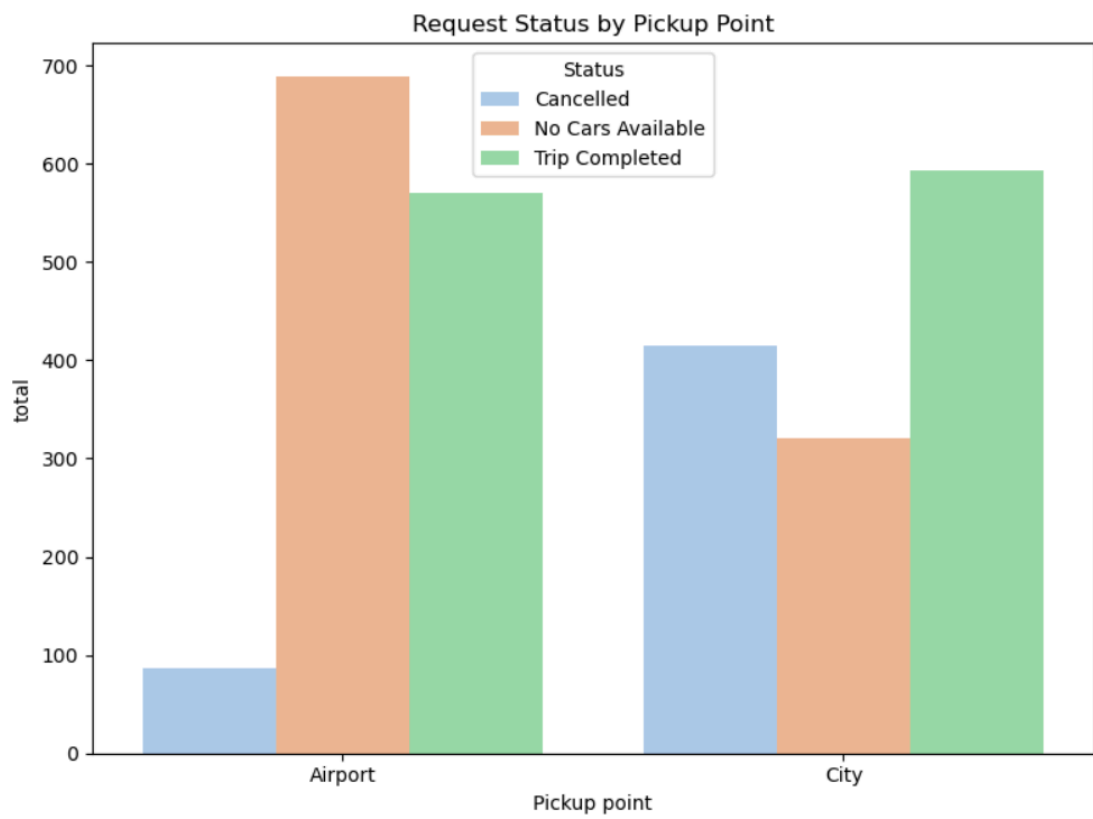
Key Insights

-Morning and Evening show peak demand.

-Early Morning has the highest cancellation rate.

- No Cars Available incidents peak during Late Night.

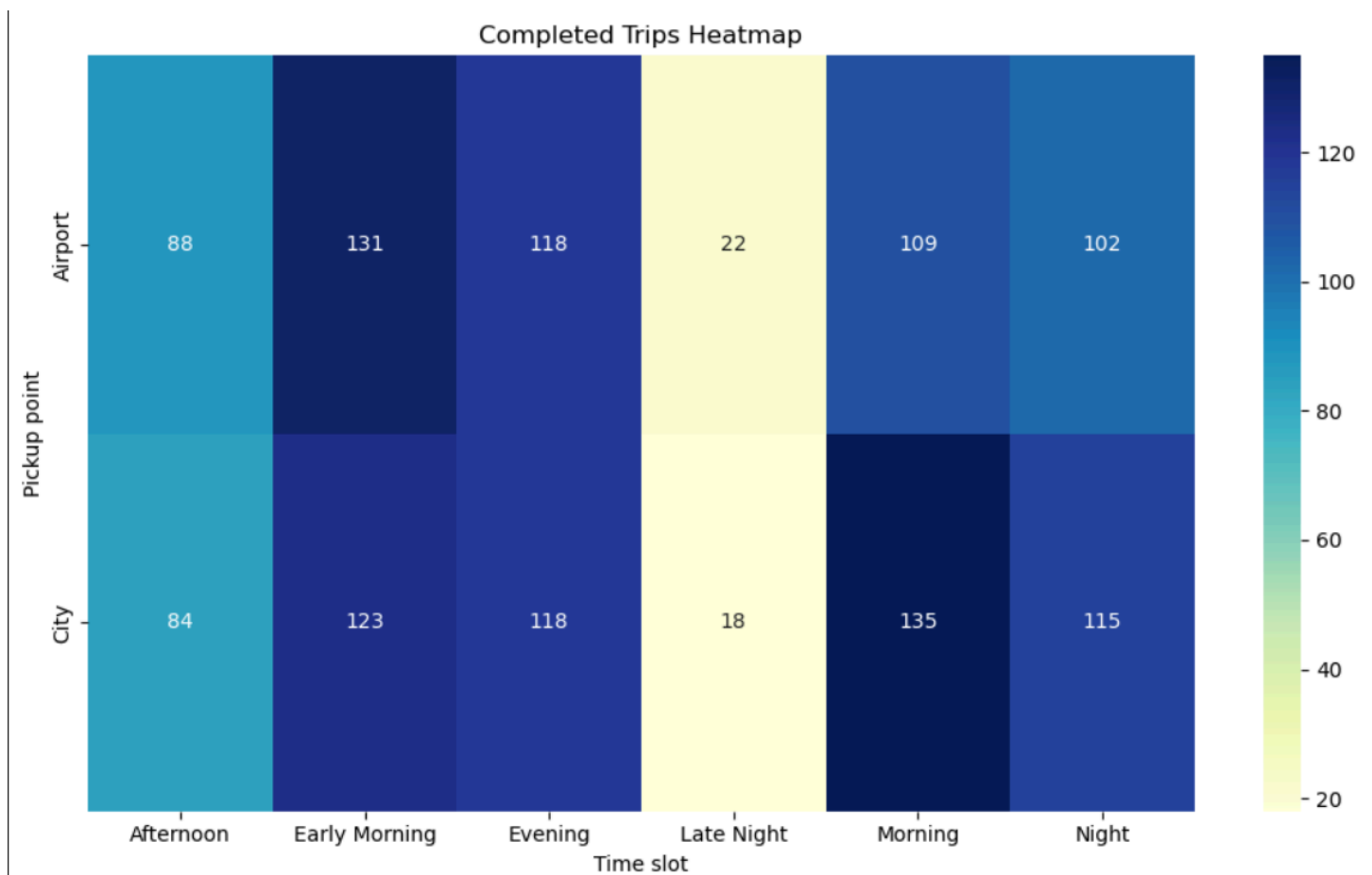- Airport pickups are more likely to be cancelled than City pickups.
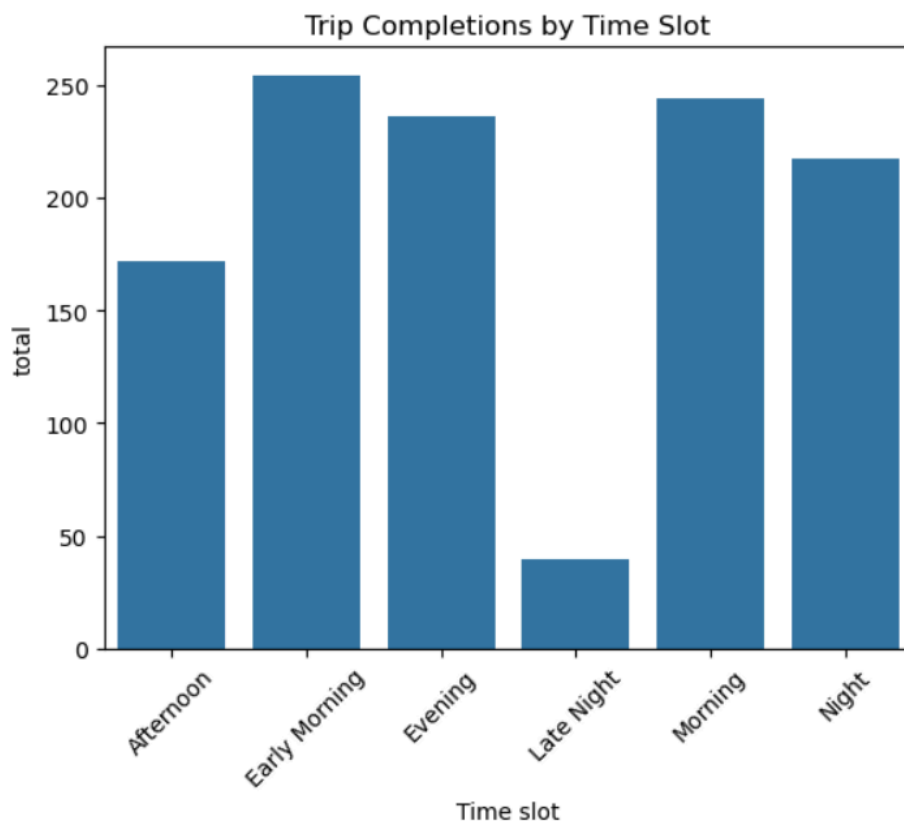
Trip completions by time-slot
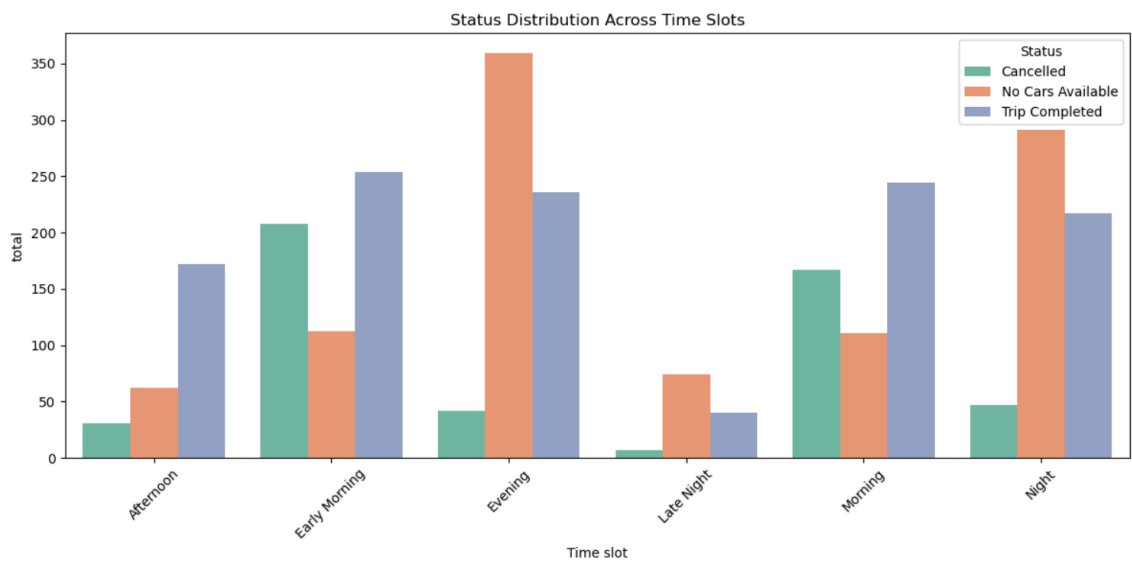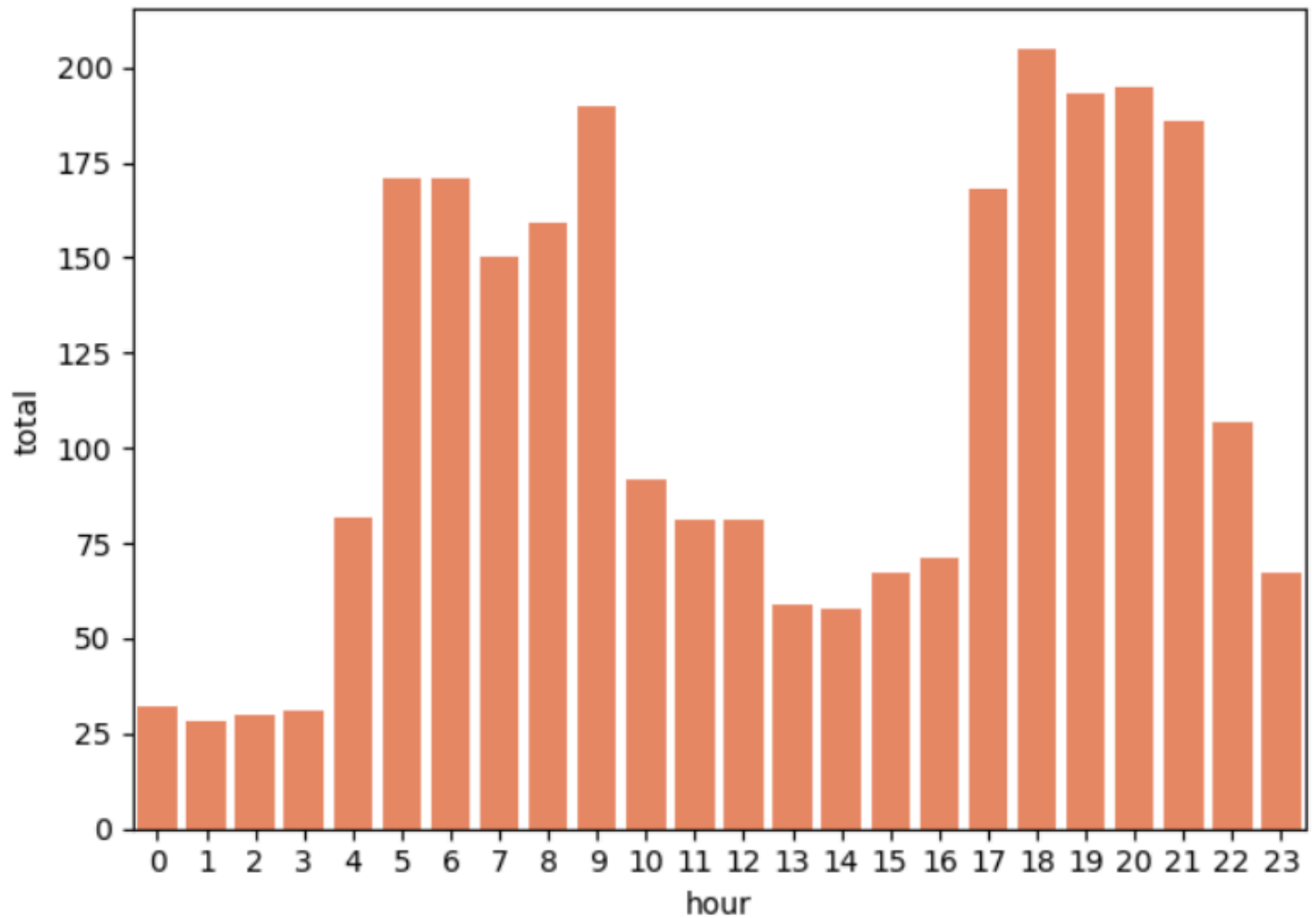
Status Distribution Across Time Slots
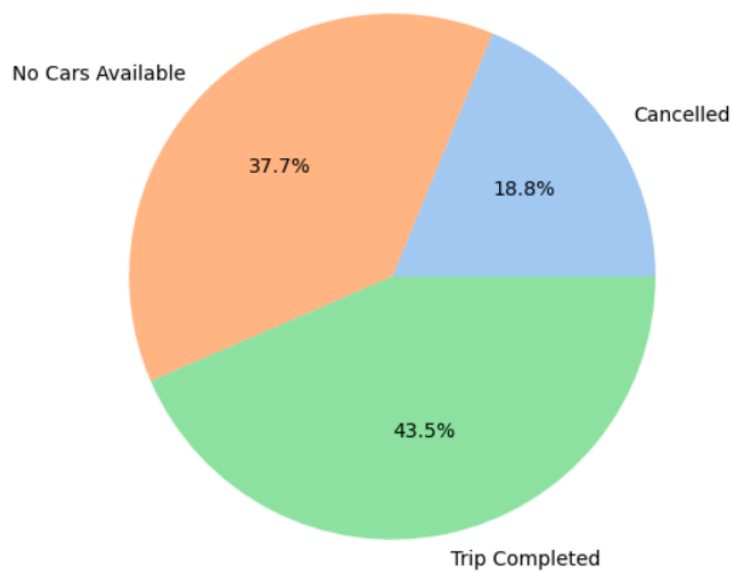
Status by Pickup point
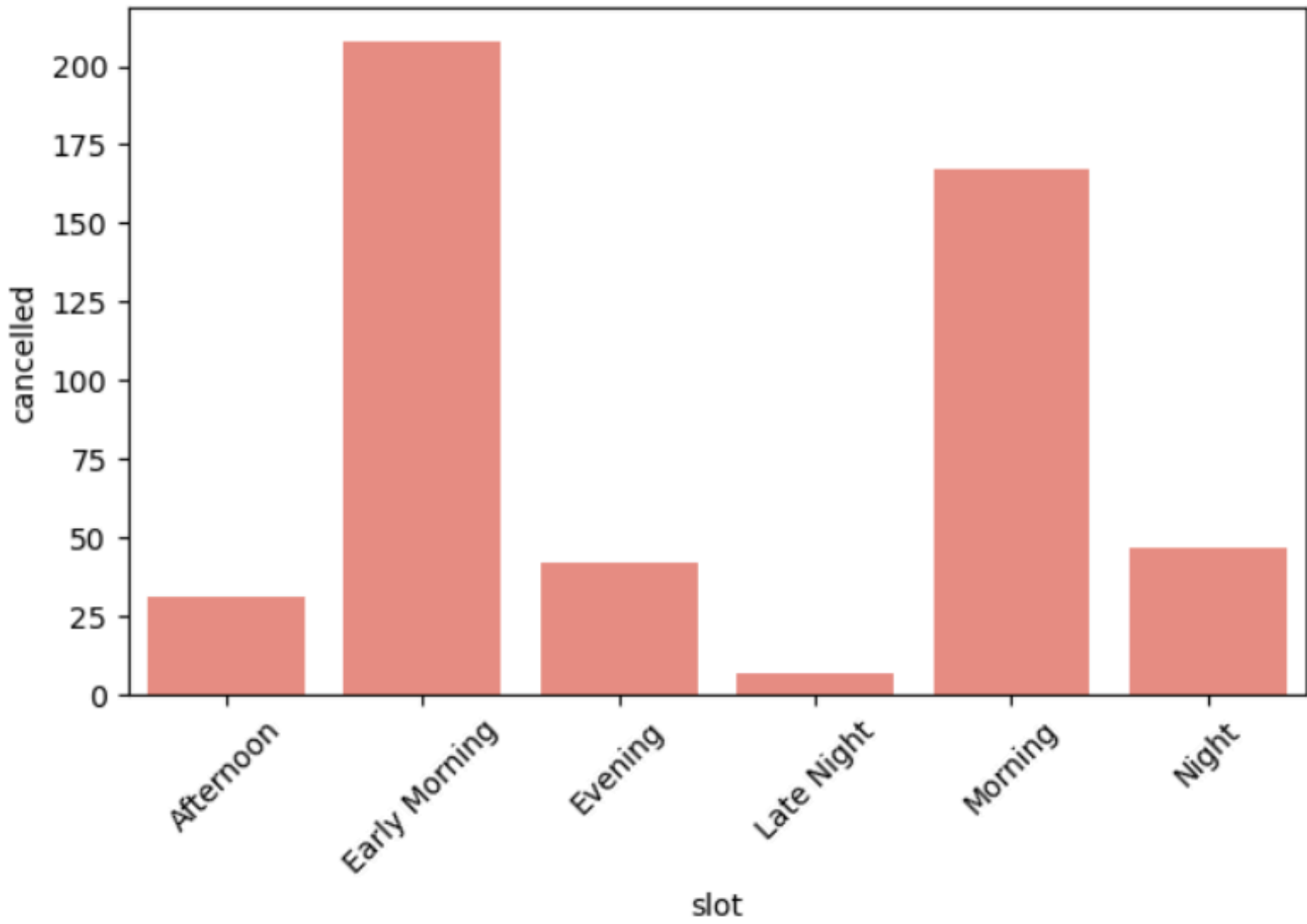

Heat map of completed trips across time slots

Hourly Requests

Ride Status Pie-chart

Cancellations by Time-slot

No cars by Time Slot
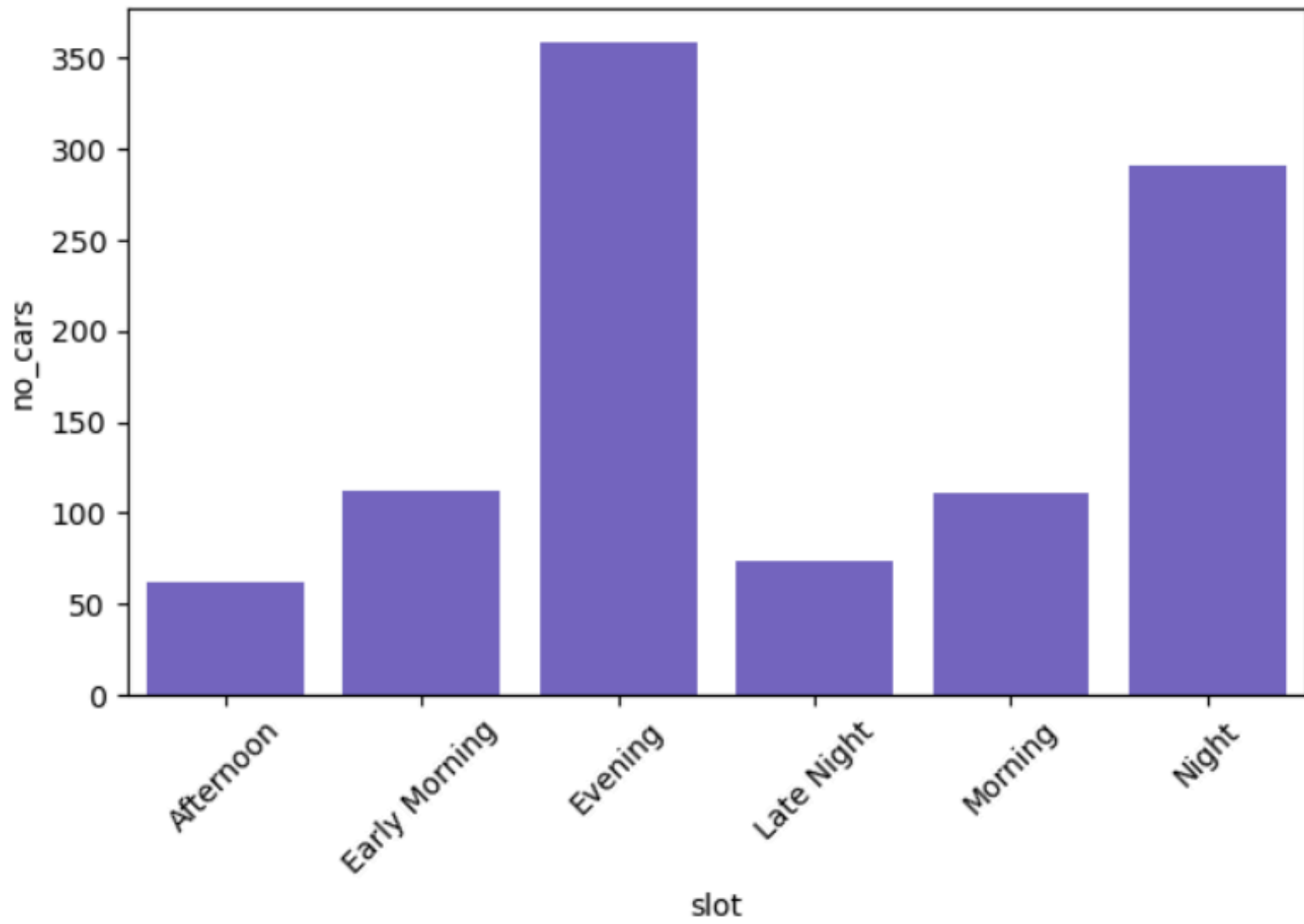
Trip Completion Rate by Time Slot
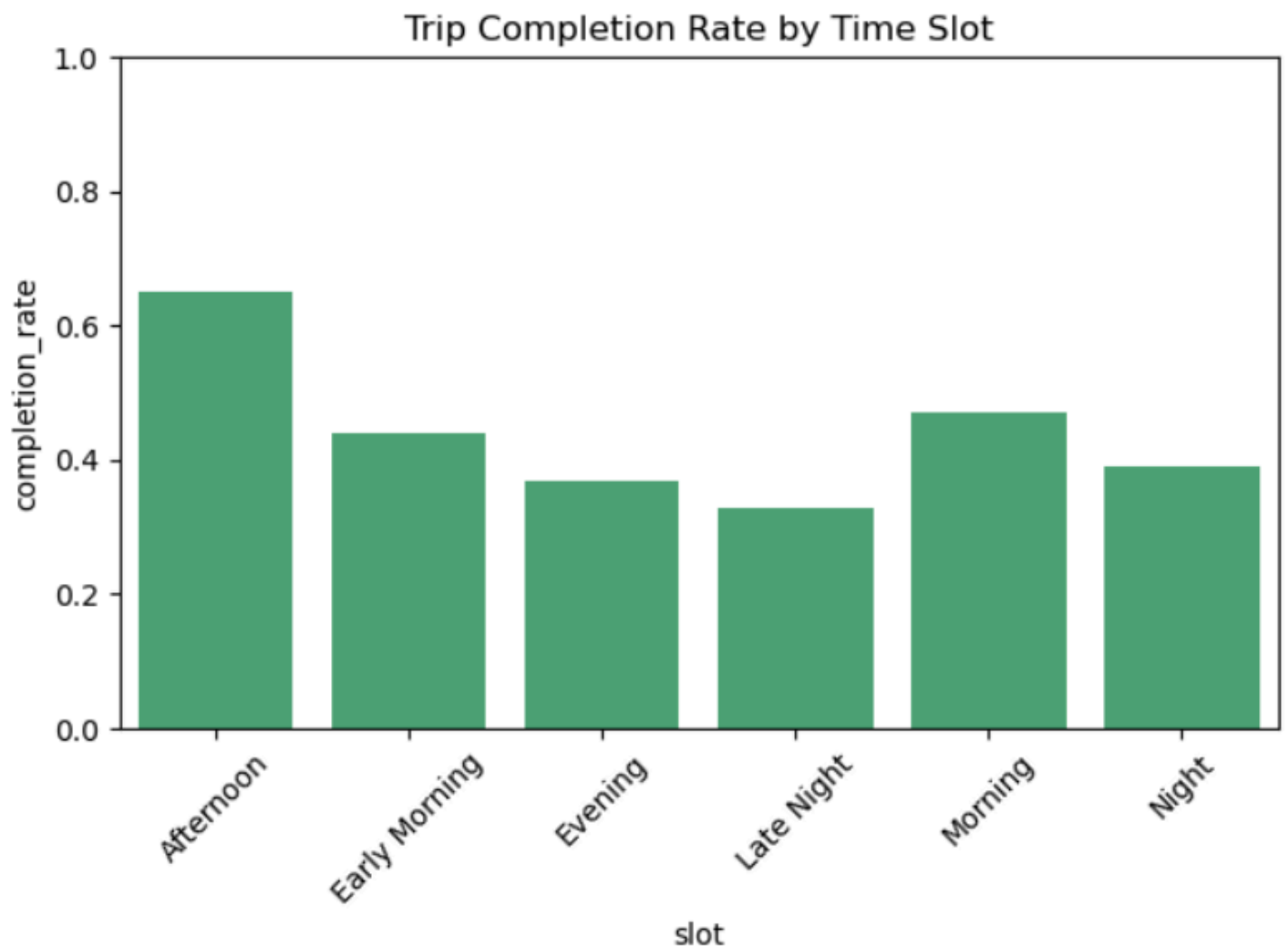
Completion rate by Time-Slot

Recommendations

- Offer incentives for drivers during Early Morning and Late Night

.- Improve pickup flow and driver allocation at the Airport.

- Leverage time-slot analysis to optimize driver dispatching.

- Use predictive demand analytics for real-time allocation adjustments.

Conclusion

The EDA helped uncover critical gaps in Uber's supply and demand system, particularly in off-peak hours and high-traffic zones like airports. These findings can directly improve operational efficiency, driver utilization, and rider satisfaction