

# UBER SUPPLY DEMAND GAP ANALYSIS

This project analyzes Uber ride requests to uncover when and where demand exceeds supply.

We performed:

- Data cleaning in Excel
- SQL-based analysis for aggregations
- Exploratory Data Analysis (EDA) in Python

The focus is to identify peak hours, common cancellation patterns, and gaps in driver availability by location.

# PROBLEM STATEMENT

Uber often faces supply shortages during peak hours, resulting in ride cancellations or “No Cars Available” status.

This project aims to identify:

- At what times demand outpaces supply
- Which pickup points face the most issues
- How driver unavailability affects operations

Goal: Recommend actionable steps to reduce cancellations and improve customer experience.

## CHART REQUEST BY HOUR

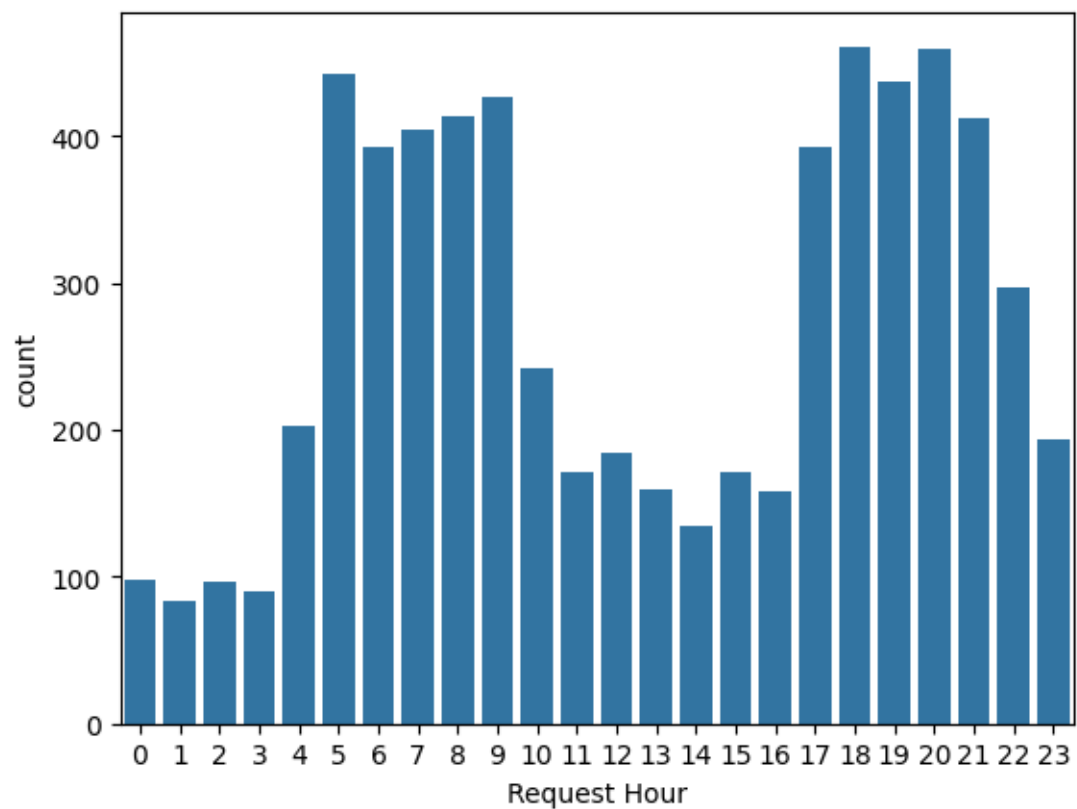


Fig: 1

## CHART REQUEST BY PICKUPOINT

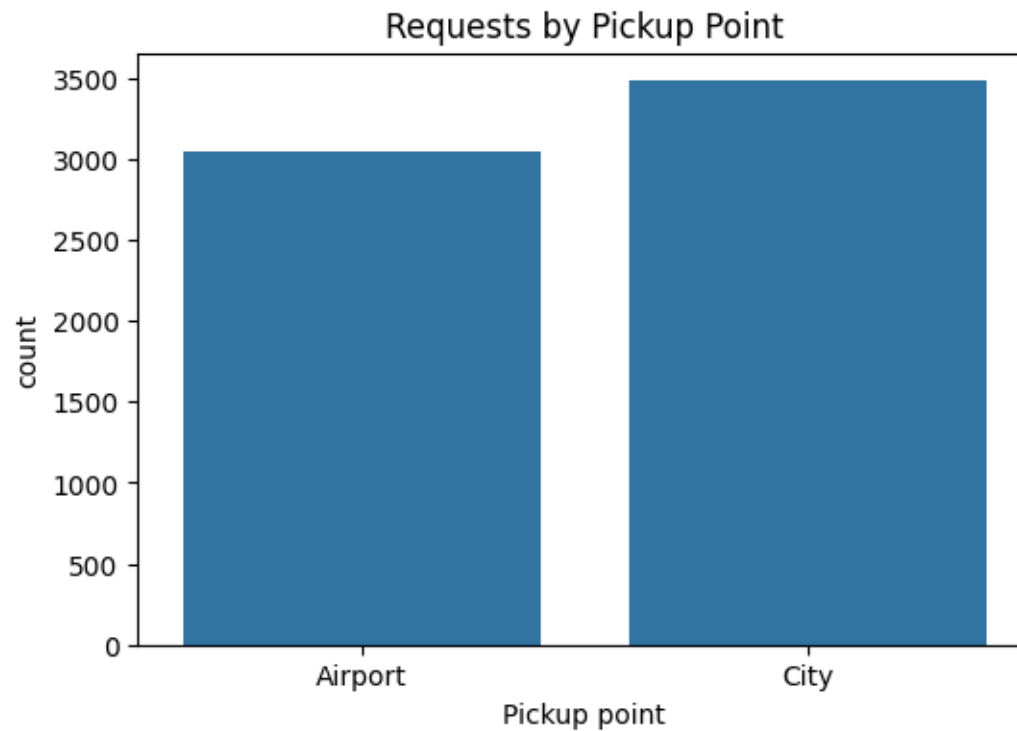


Fig :2

## CHART TRIP STATUS DISTRIBUTION

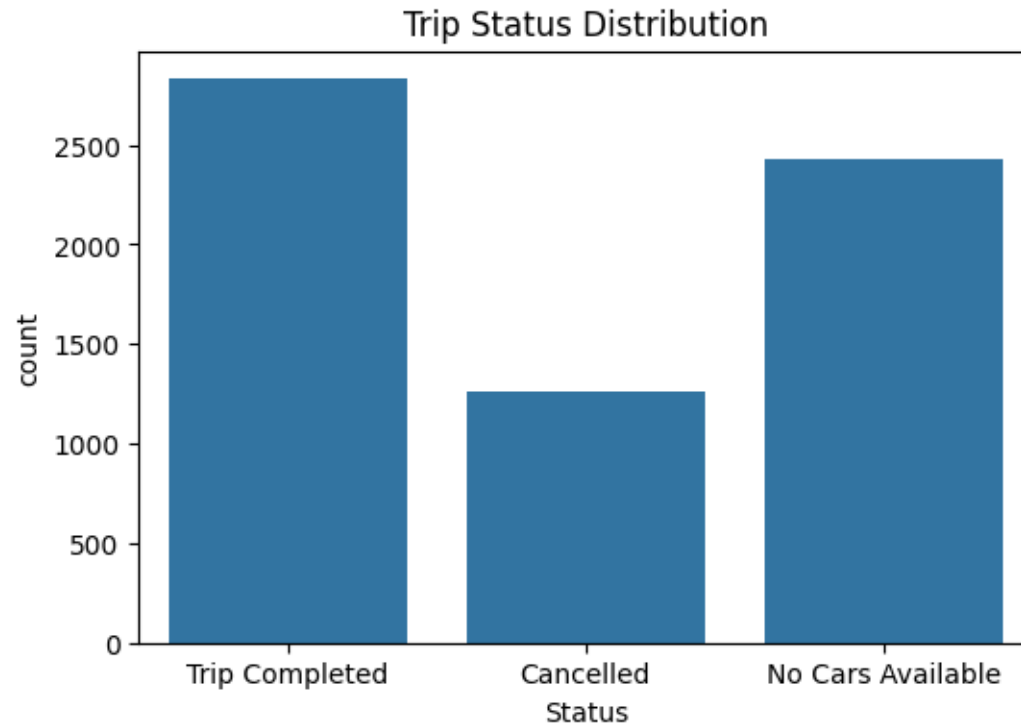


Fig :3

## CHART BY CANCELLED/NO CARS OVER TIME

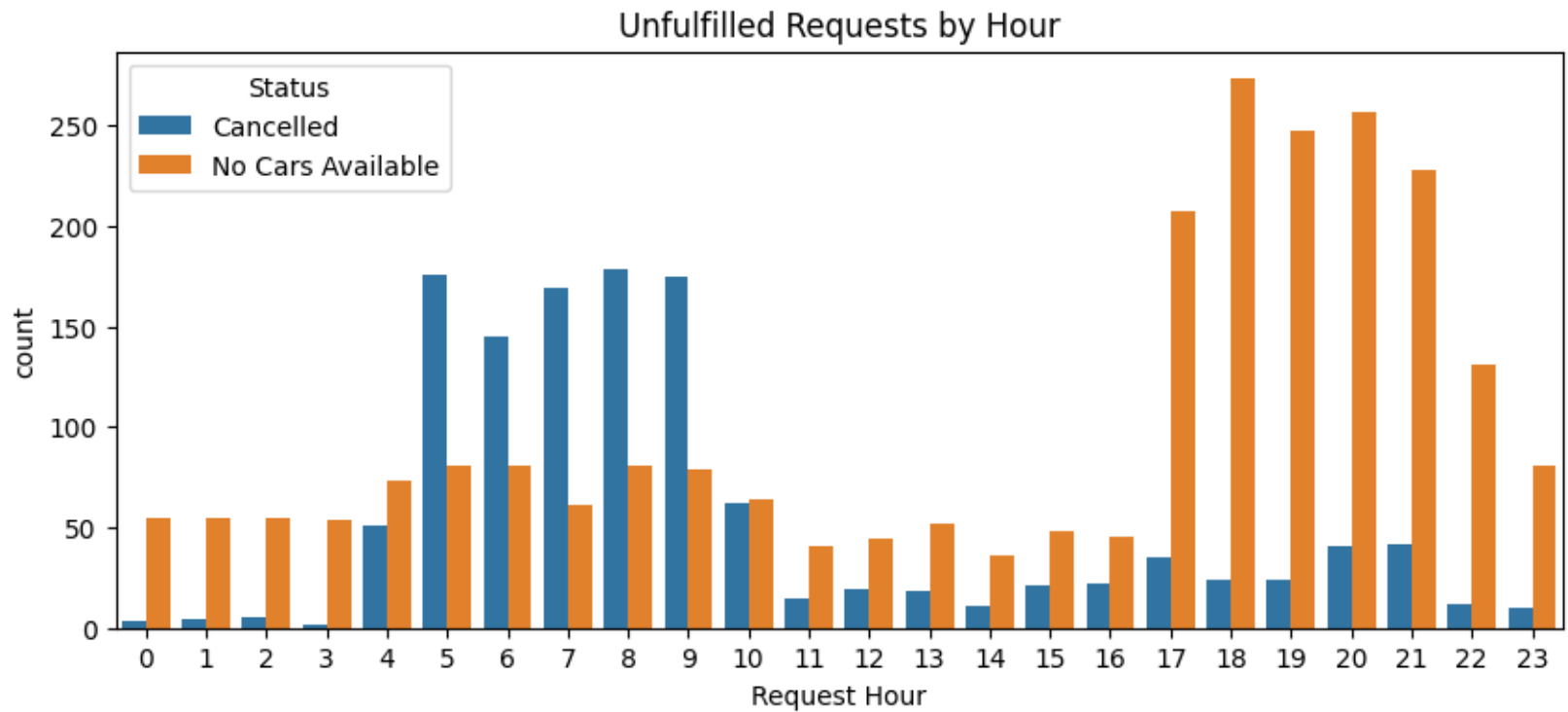


Fig :4

## CHART BY TRIP STATUS BY PICKUPPOINT(GROUPED BAR CHART)

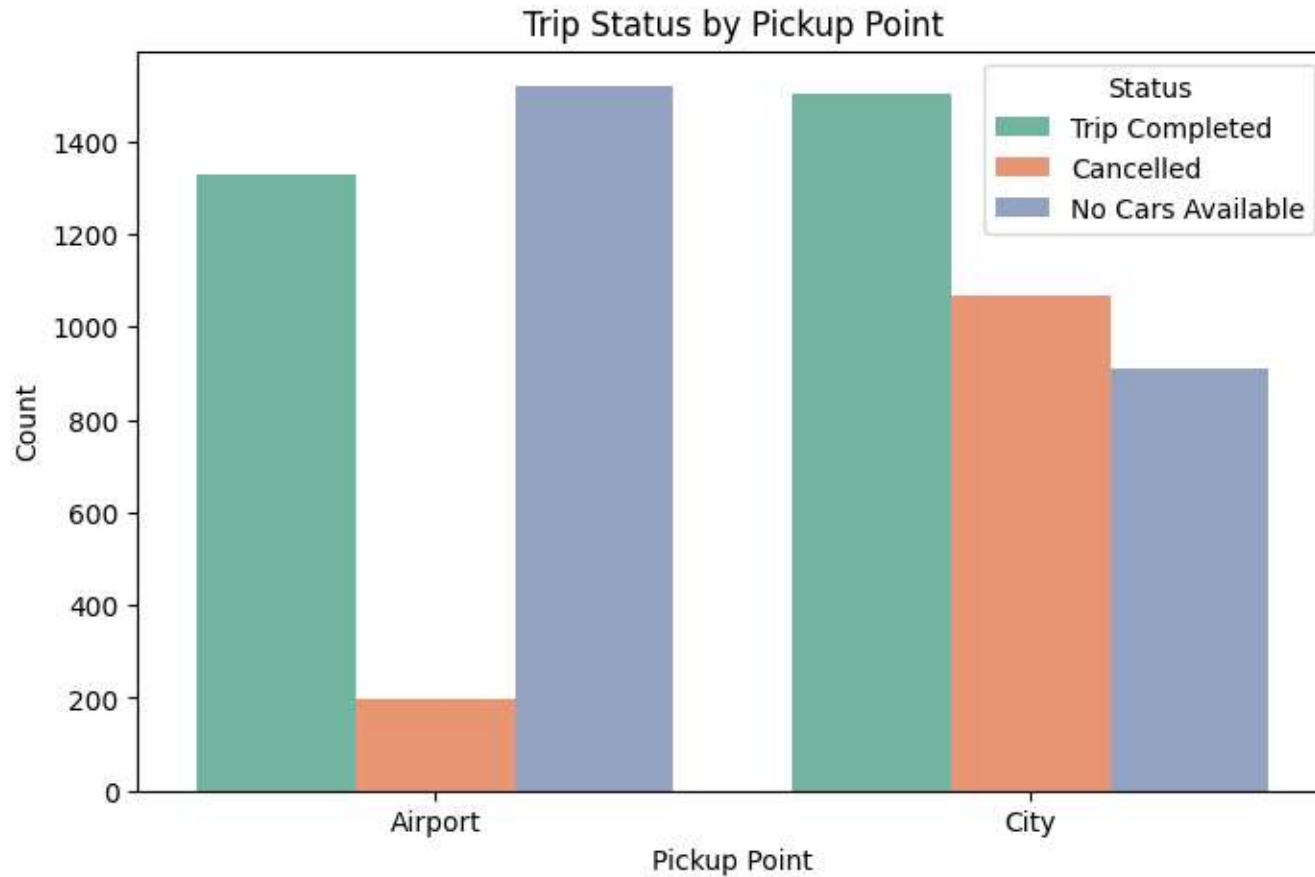


Fig :5

# BUSINESS SOLUTIONS & CONCLUSION

## 1}Boost Driver Availability During Peak Hours

Deploy more drivers during 7–9 AM and 5–7 PM, when demand peaks, using historical request data for planning.

## 2}Balance Pickup Point Demand

Assign standby drivers to high-cancellation areas (City or Airport) and rebalance them dynamically based on demand.

## 3}Enhance Driver Engagement

Send real-time alerts and offer incentives to drivers near high-demand zones.

## 4}Minimize Unfulfilled Requests

Improve assignment algorithms and monitor frequent no-show zones to reduce “No Cars Available” issues.