



UBER SUPPLY-DEMAND GAP CASE STUDY

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Business Objectives

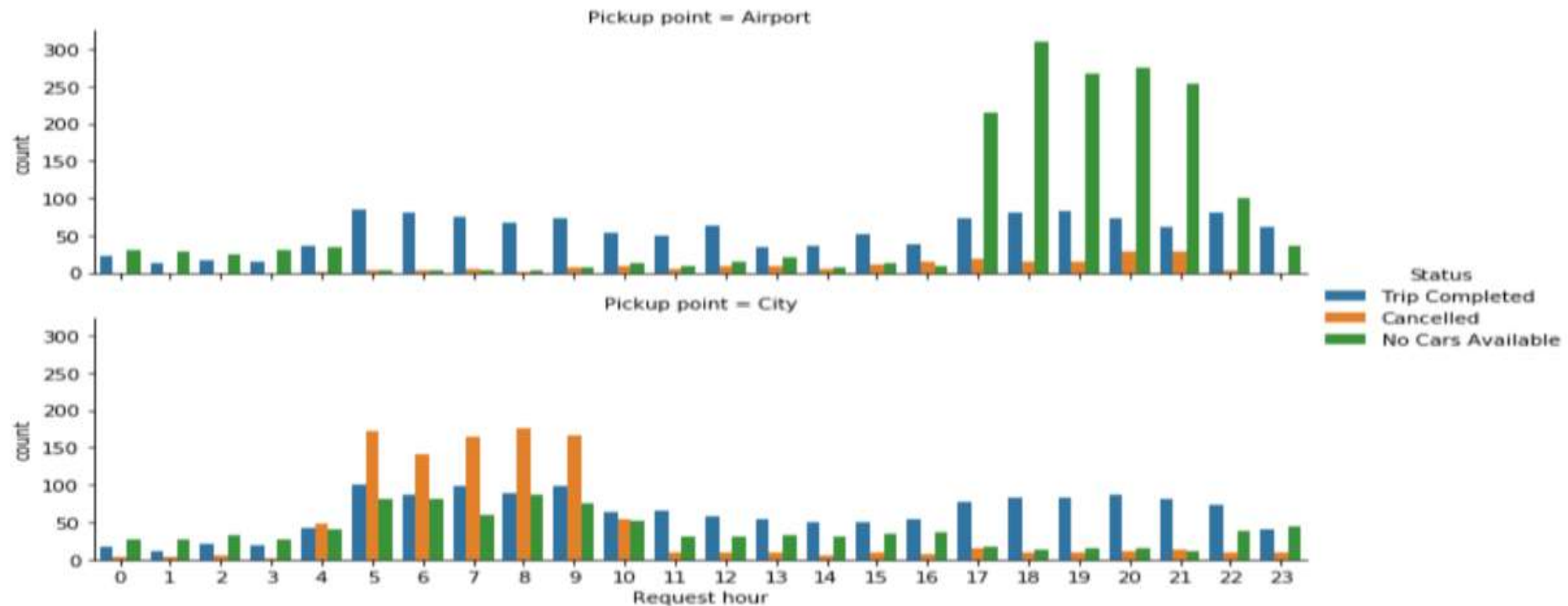
- The aim of analysis is to identify the root cause of the problem (i.e. cancellation and non-availability of cars).
- Recommend ways to improve the situation.

Assumptions:-

- Assumed Time Slots as mentioned below:
 1. Early Morning : 4 AM - 8 AM
 2. Morning : 8 AM - 12 Noon
 3. Afternoon : 12 Noon - 4 PM
 4. Evening : 4 PM - 8 PM
 5. Night : 8 PM - 12 Mid Night
 6. Late Night : 12 Mid Night - 4 AM

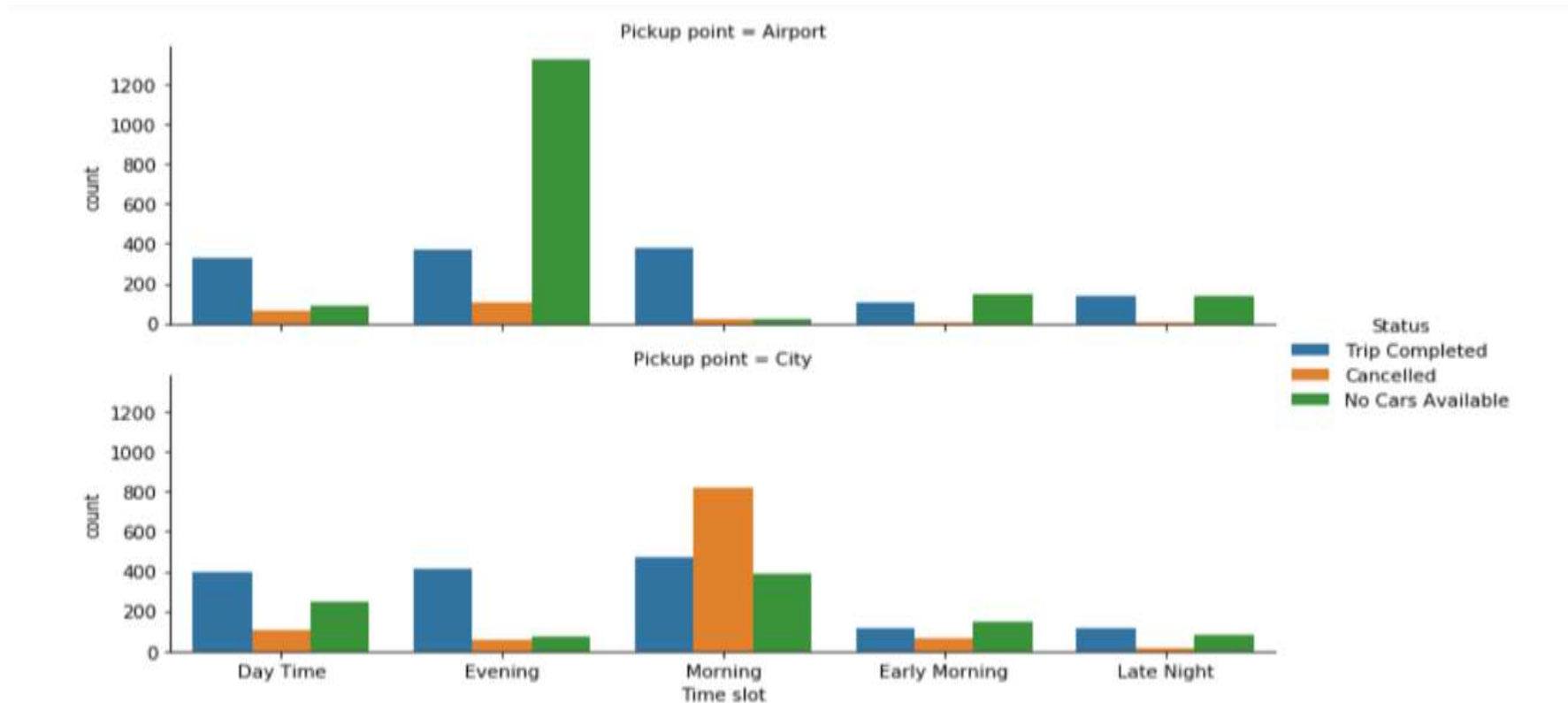
Visualization & Analysis

- Plots to visualise the frequency of requests that get cancelled or show no cars available



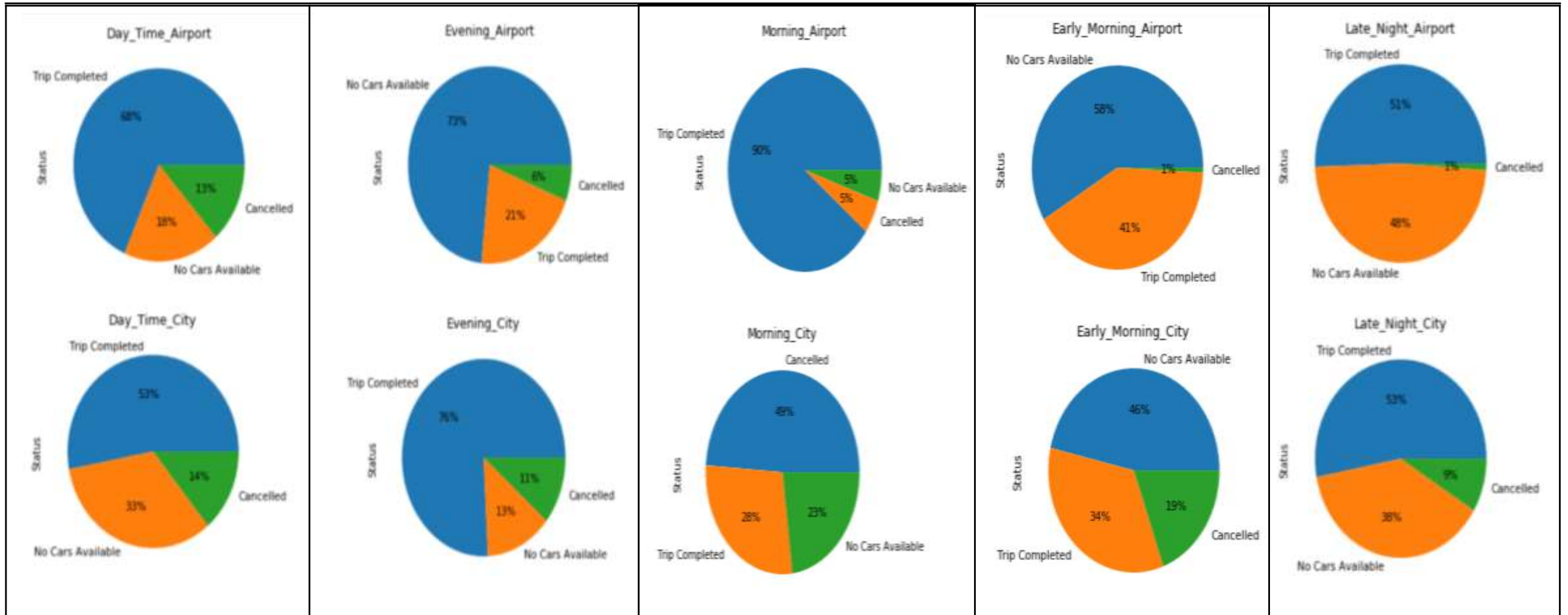
- Inference 1: Uber is facing 'No Car Available' issue at Airport during 5pm to 12am.
- Inference 2: Uber is facing cab 'Cancelled' issue in City during 4am to 10am.

- Plots to visualise the frequency of requests that get cancelled or show no cars available in the different time slots (early mornings, late evenings etc.)



- Inference 1: Uber is facing 'No Car Available' issue at Airport in evening .
- Inference 2: Uber is facing cab 'Cancelled' issue in City during morning .

Supply and Demand Gap



- Inference 1 : 81% demands were fulfilled during day time (10am to 5pm) at Airport and 67% demands were fulfilled during day time (10am to 5pm) at City.
- Inference 2 : 27% demands were fulfilled during evening (5pm to 10pm) at Airport and 87% demands were fulfilled during evening (5pm to 10pm) at City.
- Inference 3 : 95% demands were fulfilled during morning (5am to 10am) at Airport and 77% demands were fulfilled during morning (5am to 10am) at City.
- Inference 4 : 42% demands were fulfilled during early morning (midnight to 5am) at Airport and 53% demands were fulfilled during early morning (midnight to 5am) at City.
- Inference 5 : 52% demands were fulfilled during late night (10pm to midnight) at Airport and 62% demands were fulfilled during late night (10pm to midnight) at City.

What is the reason for this supply and demand gap?

- The flow of traffic is one-directional due to flight timings.

✓ Early Morning and Morning : High demand from City, but low demand from Airport. Hence it's risky/less opportunity for drivers to get return trip to City and the trips are cancelled.

✓ Late Evening and Night : High demand from Airport but not enough cars around as less number of cars go towards airport in evening.

Ways to resolve the supply - demand gap

- A penalty for driver cancelling booking.
- Provide bonus to driver for more trip completion from City at Morning and Early Morning.
- Provide bonus to driver for more trip completion from Airport at Evening and Late Night.
- Provide bonus to driver for waiting for passenger.

THANK YOU