

UBER SUPPLY-DEMAND GAP SUBMISSION

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Strategy and Objective

Objective:

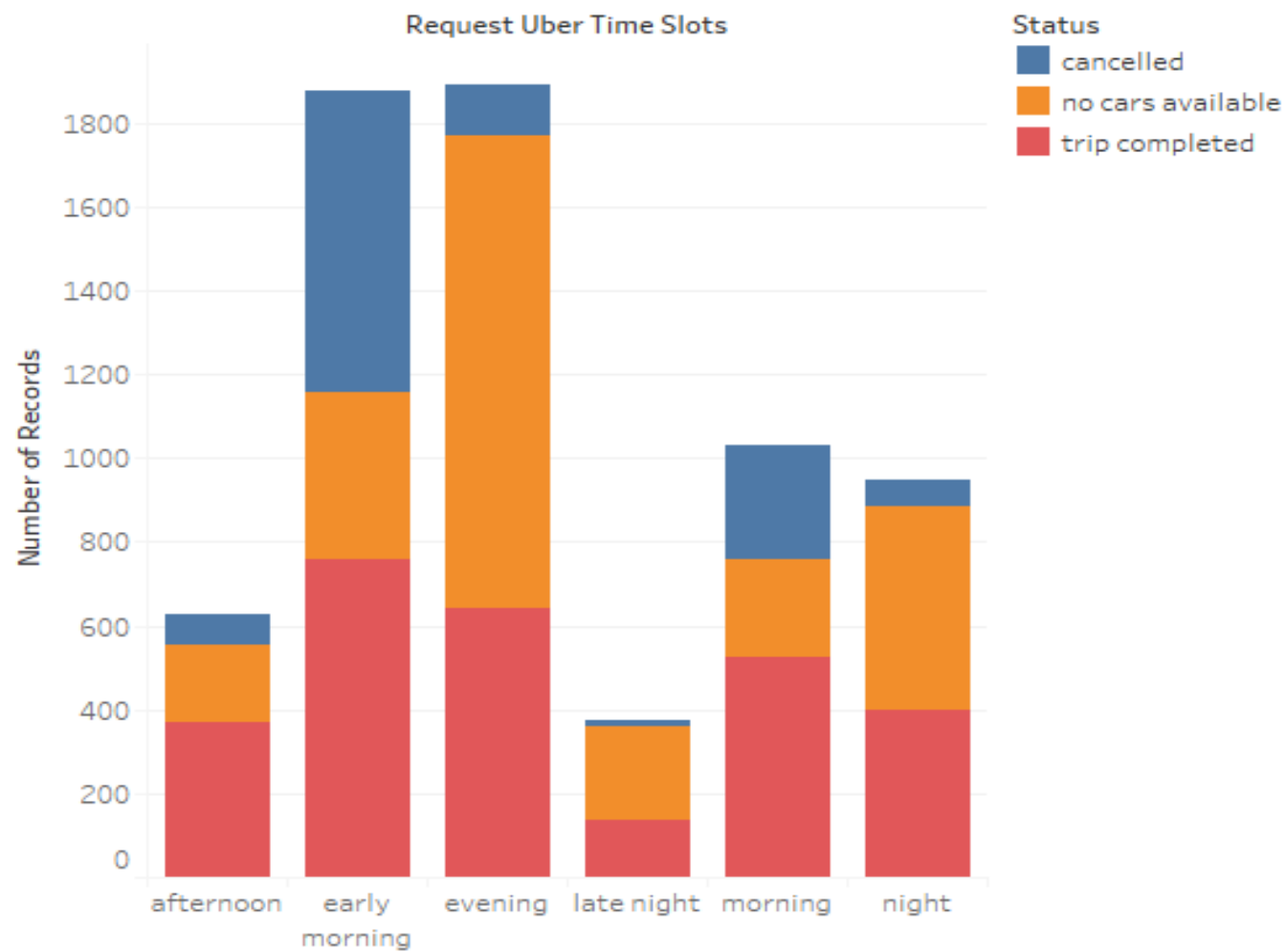
The aim of analysis is to identify the root cause of the problem (i.e. cancellation and non-availability of cars) and recommend ways to improve the situation.

Strategy:

Uber needs recommendation to resolve supply- demand gap

Question:1 Visually identify the most pressing problems for Uber.

A: create plot for the time slots using plots

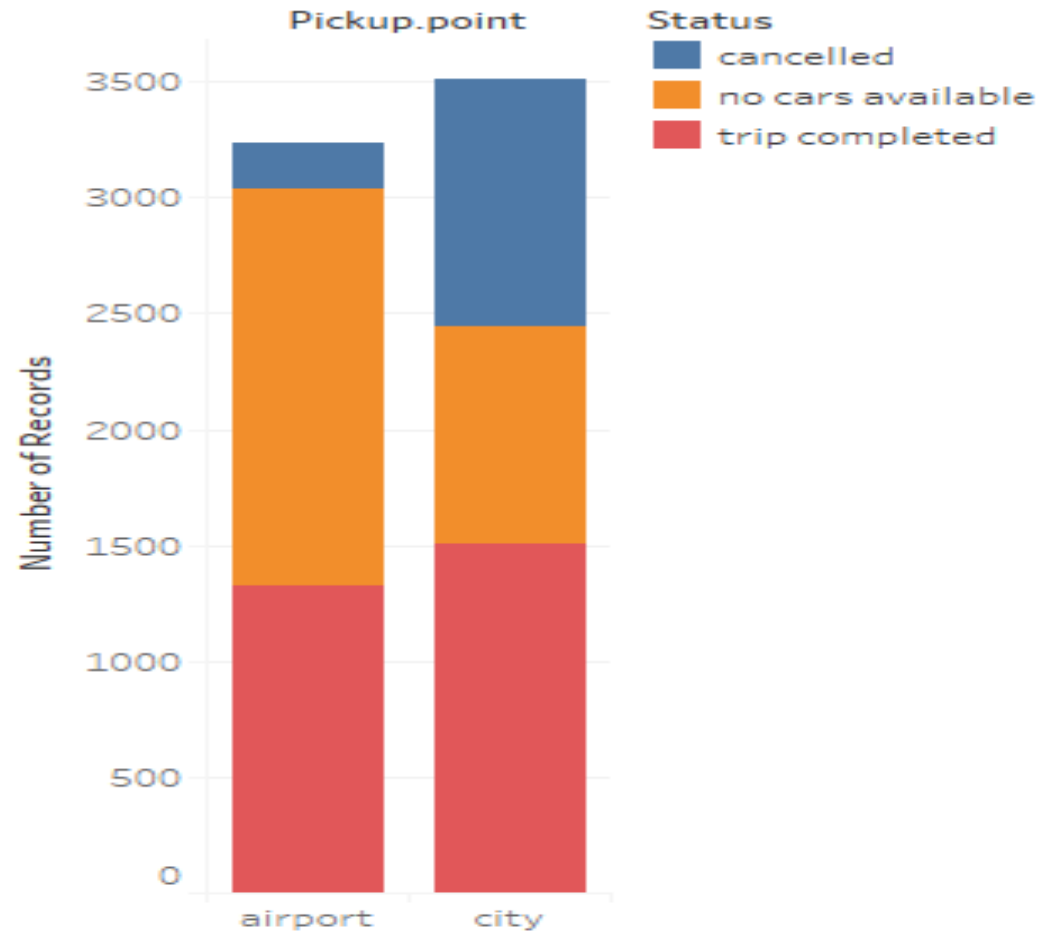


- Main problematic time slot is early morning and Evening
- At early morning maximum number of request status is cancelled and then next is no cars available also at evening time cars are not available and very few times request is cancelled

Sum of Number of Records for each Request Uber Time Slots. Color shows details about Status.

Question:1 Visually identify the most pressing problems for Uber.

B: Identify the most problematic types of requests (city to airport / airport to city)



- Most of the time request is cancelled and most no cars available is at city, so most problematic type of request is city to airport

Sum of Number of Records for each Pickup.point. Color shows details about Status.

Question-2: Find out the gap between supply and demand and show the same using plots.

Answer:

supply = Total trip completed (2831)

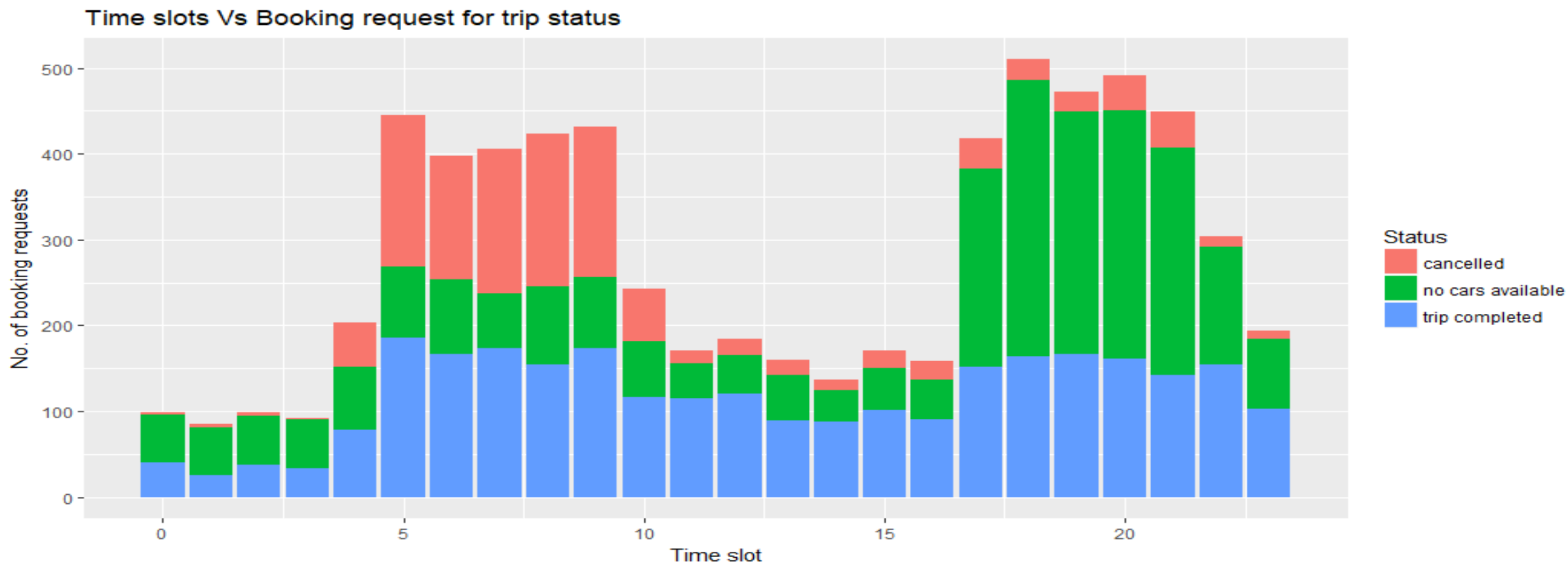
demand = Cancelled & no cars available (3914)

$$\begin{aligned}\text{Demand-Supply Gap} &= \text{Demand} - \text{supply} \\ &= 3914 - 2831 \\ &= 1083\end{aligned}$$

Question-2: Find out the gap between supply and demand and show the same using plots.

A. Find the time slots when the highest gap exists

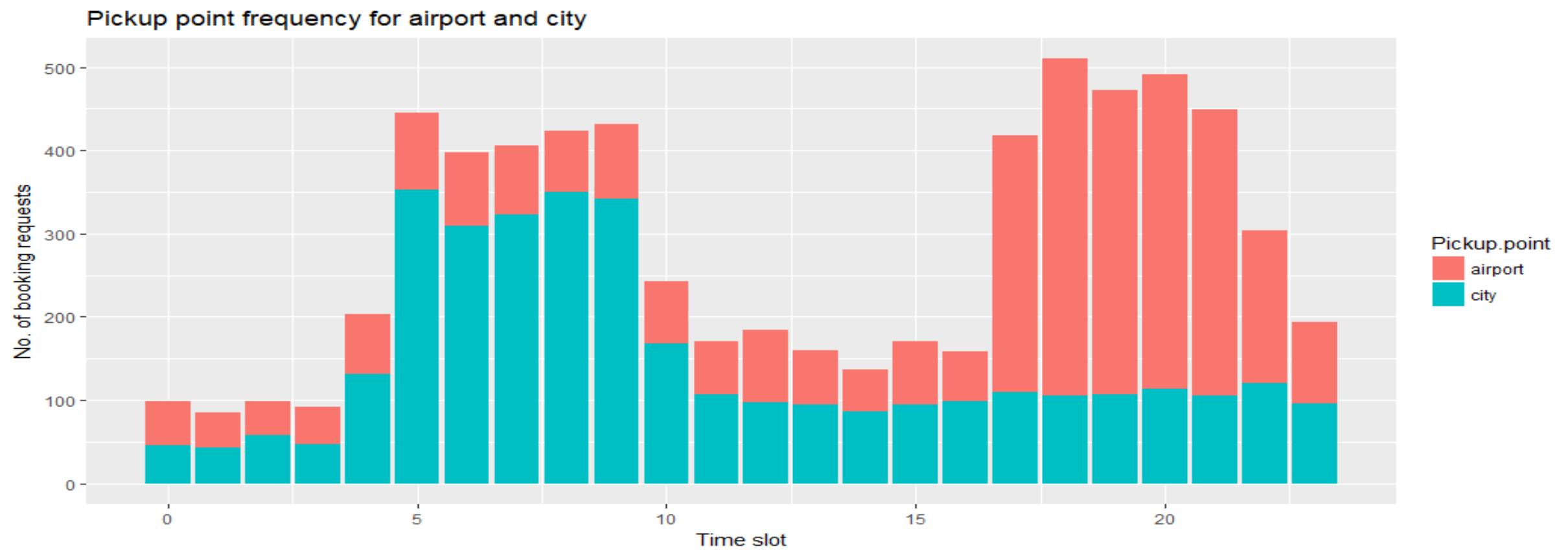
- Highest gap is between 16 hour to 24 hour means in evening and night slots the supply and demand gap is highest



Question-2: Find out the gap between supply and demand and show the same using plots.

B. Find the types of requests (city-airport or airport-city) for which the gap is the most severe in the identified time slots

- As per graph less pickup is from city so for request from city-airport gap is more severe in identified time slots



Question-3: What do you think is the reason for this issue for the supply-demand gap?

Answer:

Reason-1

- As per our plots the supply and demand gap is high for evening(16Hr-20Hr) and night(20Hr-24Hr) time slots.
- Most of the flights arrival time at airport could be 24Hr to 4Hr so if driver take passenger request between 16Hr to 24Hr then for driver need to wait till late night so he will get new passenger ride.
- Like average trip time is 1hr 20min so if drive take trip at 16hr then he will reach at 17hr 20min, so he need to wait 4-5 hour for next trip.

Reason-2

- It could be happen that maximum drivers working time is day time (eg.7am to 7pm)
- So less amount of drivers could have work after evening so no cars available count is more



Question-4: Recommend some ways to resolve the supply-demand gap.

Answer:

1. Uber can give bonus to driver who will complete maximum ride in maximum demand-supply gap slot like,
 - If driver complete more than 15 to 25 trip in demand-supply gap slot time slot then driver will get bonus amount of 1000 Rs or 10% of total collection
 - If driver complete more than 25 trip in demand-supply gap slot then driver will get bonus amount of 2000 Rs or 20% of total collection
2. Uber can make compulsion that at least 2 days of week all driver must work in night timing (eg. From 4 pm to 4 am)