UBER DEMAND-SUPPLY ANALYSIS

SUBMISSION

Submitted by
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BUSINESS OBJECTIVE

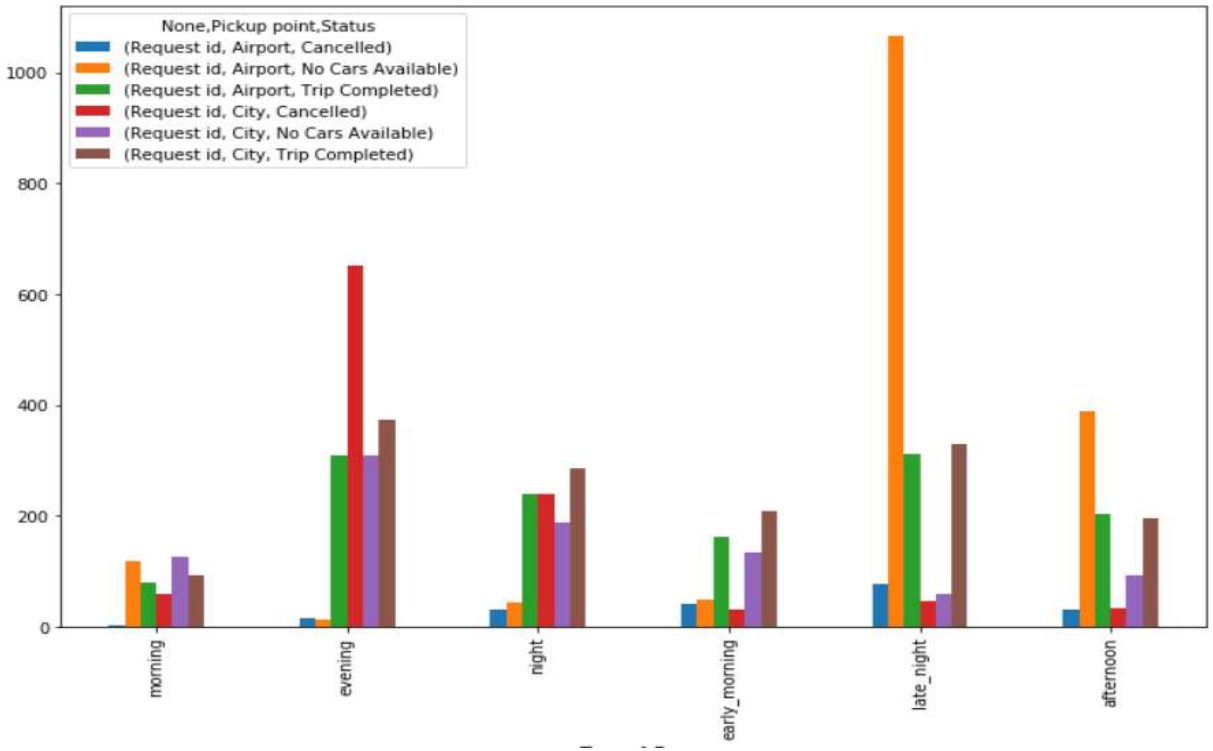
- To identify the root cause of the problem (i.e. cancellation and non-availability of cars) and recommend ways to improve the situation.
- To identify the root cause(s) and possible hypotheses of the problem(s) and recommend ways to improve them.

DATA CLEANING AND ASSUMPTIONS

- Assumed Time Slots are 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

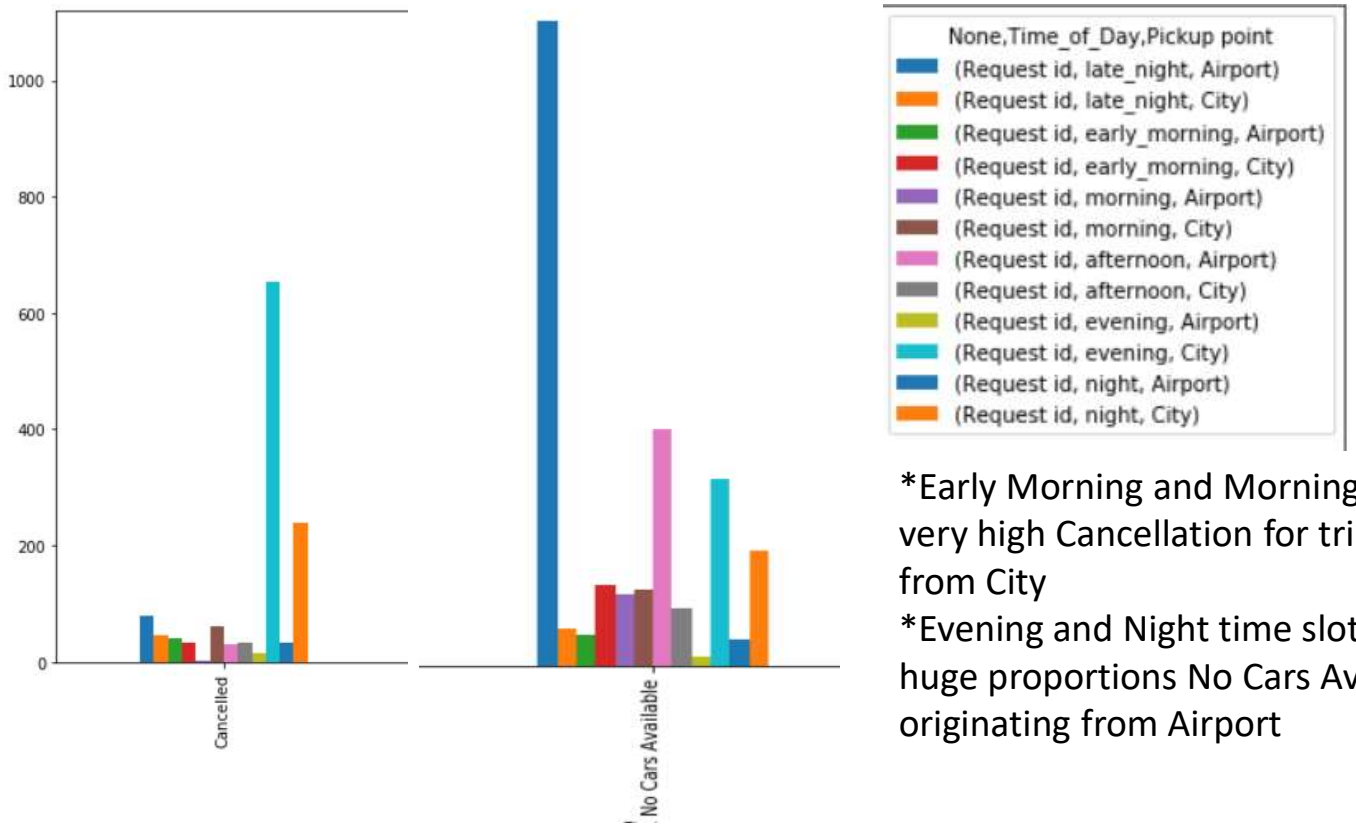
Converted timestamp to single format so as to create uniform data for analysis.

IDENTIFY PROBLEMATIC TYPE OF REQUESTS



*Higher proportion of Completed Trips originate from City
*Cancelled trips huge in trips originating from City
*High proportion of No Cars Available in trips originating from Airport

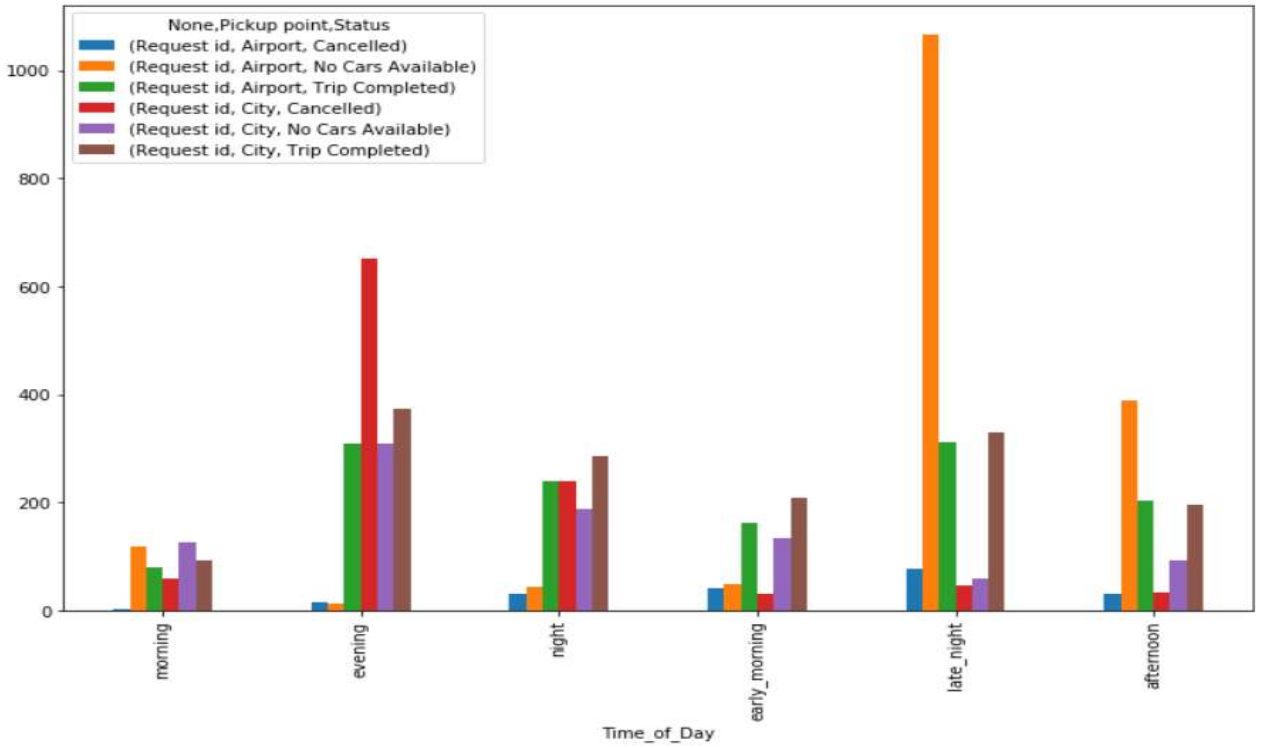
IDENTIFY PROBLEMATIC REQUEST TIME SLOTS



*Early Morning and Morning time slots have very high Cancellation for trips originating from City

*Evening and Night time slots have very huge proportions No Cars Available for trips originating from Airport

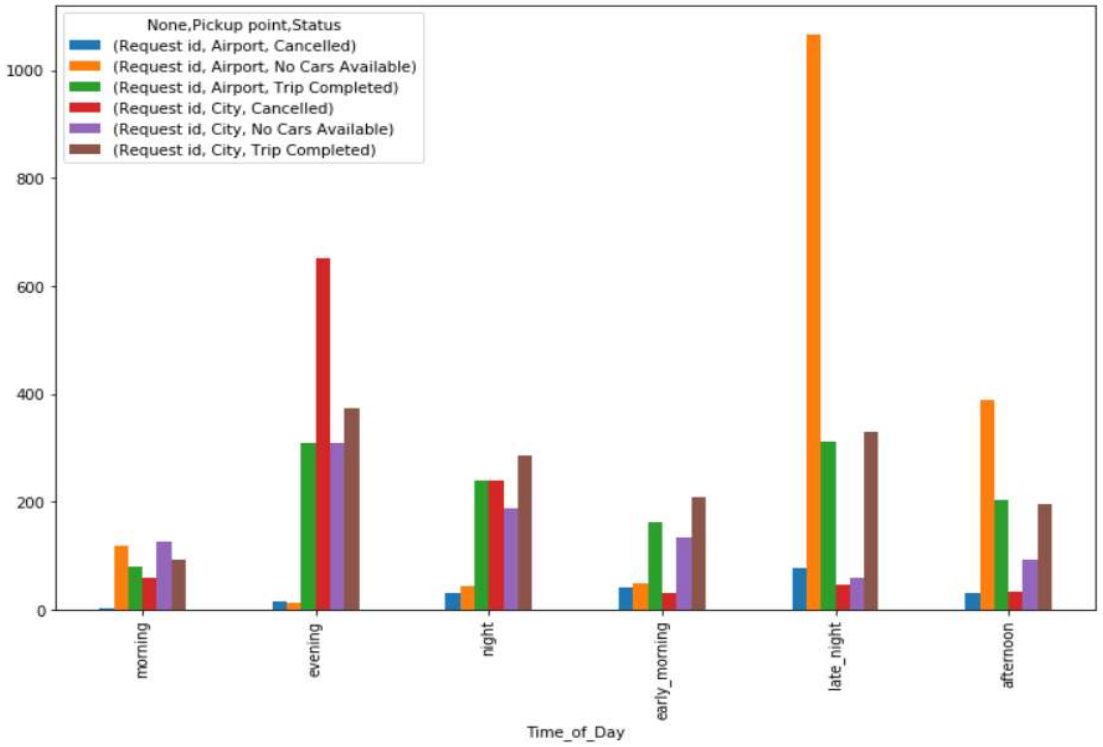
AIRPORT CITY TRIPS



*Evening has the highest Demand followed by the Night time slot with Non Availability of Cars being the major reason for Non Completion of Ride

*Must improve Trip Completion levels for Evening and Night time slots which have the highest demand

CITY AIRPORT TRIPS



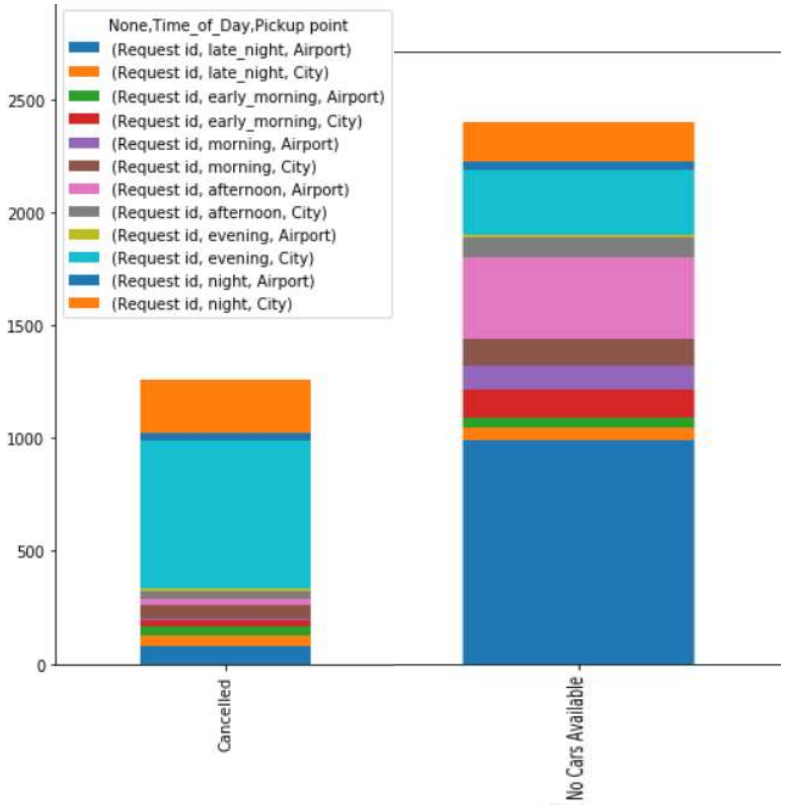
*Early Morning has the highest Demand followed by Morning time slot with ride being Cancelled as the major reason for Non Completion of Ride

*Must improve Trip Completion levels for Early Morning and Morning time slots which have the highest demand

SUPPLY-DEMAND GAP METRIC

- Supply-Demand Gap = Total Rides Requested - Total Rides Completed
- Total Rides Requested = Completed Trips + Cancelled Trips + No Cars Available Trips
- Total Rides Completed = Completed Trips
- Thus, **Supply-Demand Gap = Cancelled Trips + No Cars Available**

SUPPLY-DEMAND GAP ANALYSIS



Demand –Supply Analysis

- At an Overall level,
- Evening & Night time slots mainly because of Non Availability of Cars and, Early Morning & Morning time slots due to Cancellation seems to be the time slots where the highest Supply-Demand Gap exists for Uber.
- For trips originating from Airport, Huge Supply-Demand Gap exists during Evening and Night time slots majorly because of Non Availability of Cars at the Airport.
- For trips originating from City, Huge Supply-Demand Gap exists during Early Morning and Morning time slots majorly because the rides are being Cancelled by the drivers.

REASONS FOR THE SUPPLY-DEMAND GAP

For trips originating from the Airport, most probable reasons for such a huge Non Availability of Cars during Evening and Night request time slots are:

- For most of the driver partners this time period is the end of their working hours thus leading to non-availability of cars at the airport.
- Also since the frequency of flights landing after these time slots start reducing the wait period for the driver partner is increased, thus they are reluctant to be at the airport at these time slots.

For trips originating from the City, most probable reasons for such a huge Cancellation during Early Morning and Morning request time slots are:

- Higher waiting period at the airport after these time slots. Chances of more trip completion and higher earnings if choosing a trip that is not bound for airport.

WAYS TO RESOLVE SUPPLY-DEMAND GAP

1. Incentivise trips to Airport from City during the problematic request time slots i.e. Early Morning and Morning.

2. Incentivise driver partners to be available for ride at Airport to City during problematic request time slots i.e. Evening and Night.

3.Increase the car fleet in the airports during peak hours of demand.

4.Provide attractive offers to customers and drivers during problematic time slots and manage demand-supply gap.