Uber Case Study

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Strategy to Meet Supply - Demand

- Identify
- Recommend

Data Attributes – Source Provided

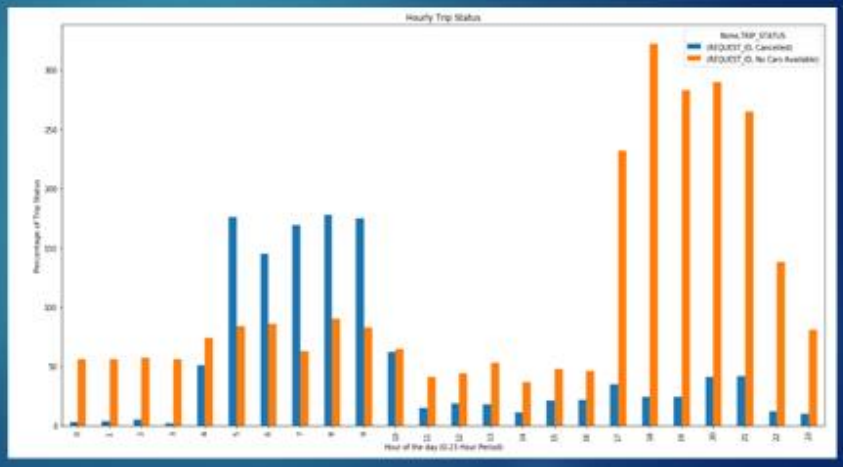
S. No	Attribute Name	Data Element	Attribute Description
1.	Request id	REQUEST_ID	A unique identifier of the request
2.	Time of request	REQUEST_TS	The date and time at which the customer made the trip request
3.	Drop-off time	DROP_TS	The drop-off date and time, in case the trip was completed
4.	Pick-up point	PICKUP_LOC	The point from which the request was made
5.	Driver id	DRIVER_ID	The unique identification number of the driver
6.	Status of the request	TRIP_STATUS	The final status of the trip, that can be either completed, cancelled by the driver or no cars available

Data Attributes – Derived

S. No	Attribute Name	Data Element	Attribute Description
7.	Requested Hour	REQUEST_HOUR	Hour of the day on which the request is made
8.	Requested Timeslot	REQUEST_TIMESLOT	Timeslot – Based on the parts of the day classified as per the Requested Hour
9.	Trip Information	REQ_TRIP	Trip information – City to Airport, Airport to City
10.	Request Status	REQ_STATUS	Status to capture the car availability

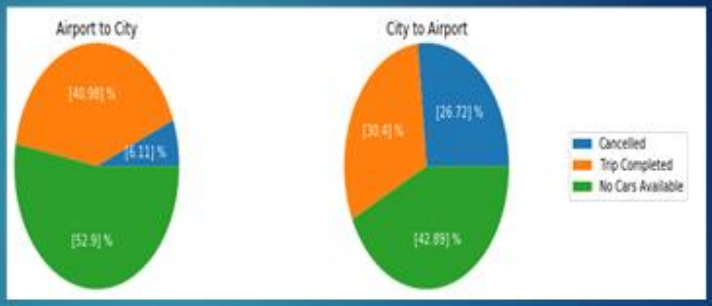
Frequency of Requests that get cancelled or show 'no cars available'

- Cancellation:
  - We observe there is huge spike in cancellation of requests from Morning 5 AM to 9 AM
- No Cars available:
  - We observe there is huge increase in non-availability of cars between 5 PM to 10 PM



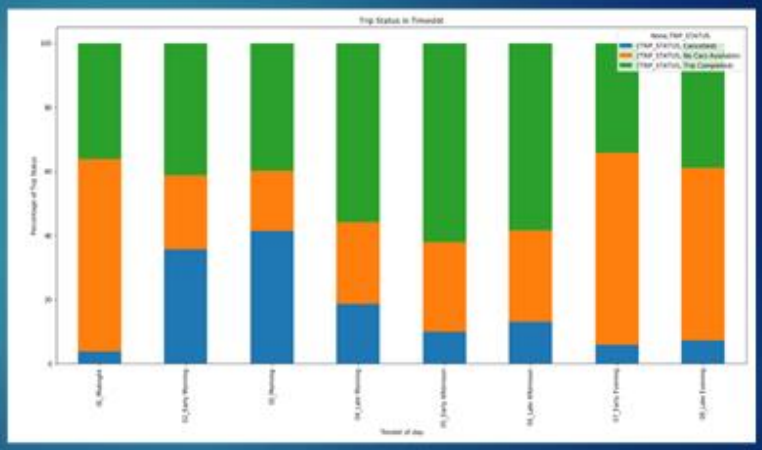
Most Problematic Request

- Both Airport to City ride and City to Airport ride has huge "No car available" issue.
- As we can observe from the pie chart comparing the trips, most problematic ride is the **"Airport to City"** with close to **53%** "No car availability"



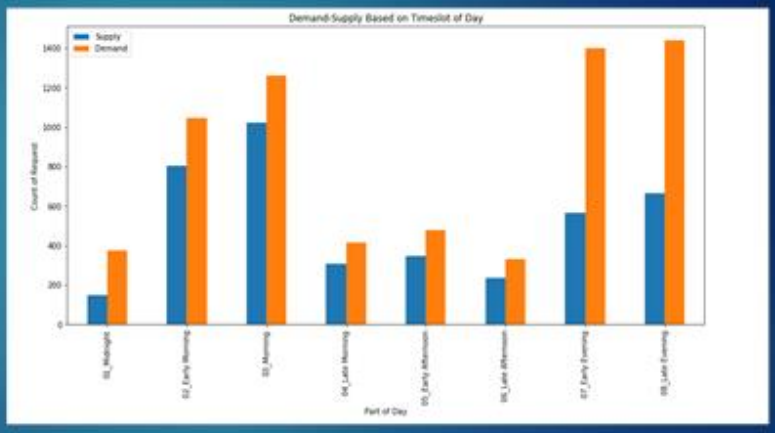
Most Problematic Timeslot

- Based on the chart it is clear that the time slots Early Evening, Late Evening and Mid-night are problematic.
- Reason is there is no availability of sufficient cabs to meet the demand.
- We observe increased cancellation during Early morning and Morning timslot



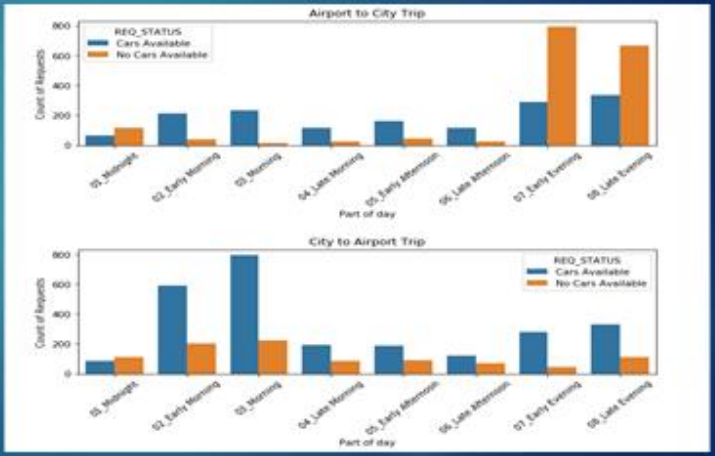
Demand- Supply gap

We could see that there increased gap between the demand and supply during the **Early evening and late evening.**



Demand-Supply (by Trip)

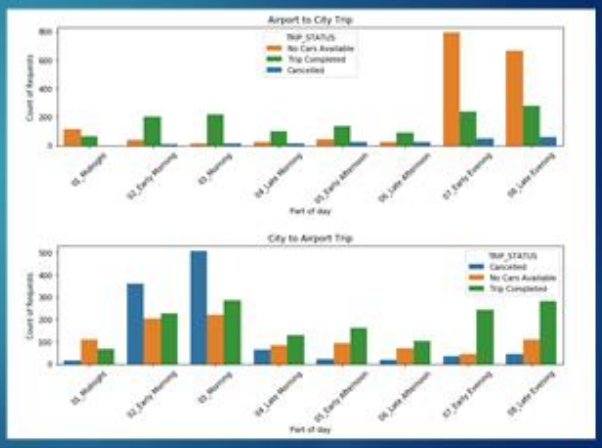
Increase in demand is contributed by **"Airport to City trip"** during Early Evening and Late evening.



Reason for Demand-Supply Gap

Major reason for the demand-supply gap during Early Evening and Late evening is due to

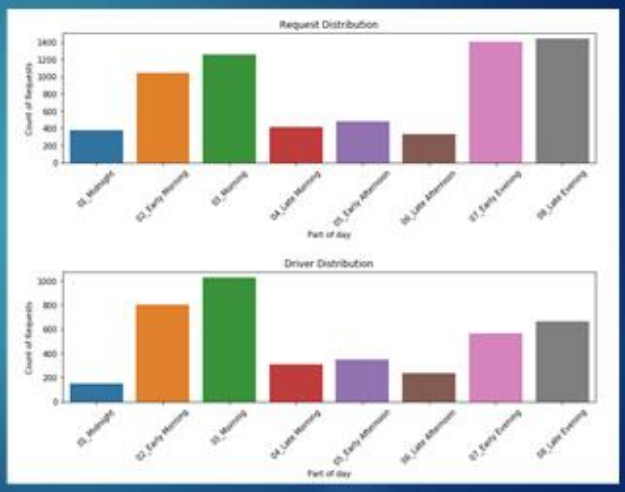
1. Successful or higher requests are getting fulfilled by drivers for "City to Airport"
2. Unavailable or fewer of drivers in Airport area.



Reason for Demand-Supply Gap contd.

Based on the comparison of requests over timeslot of the day to availability of drivers indicate following:

1. Higher number of drivers available in early morning and Morning time which offsets the demand gap in those hours.
2. Whereas in the Early evening and Late evening, we have less number of drivers available. This has caused huge number of requests getting "No car available" status



Recommendation

1. Provide Additional incentive / bonus to work during the peak hours (evening & late evening)
2. During "No car availability", Increase the default search radius by 5-10 KM and compensate the drivers who accept the trip to Airport for customer pickup.
3. Encourage drivers to wait at Airport by providing incentive for idle time at airport.


Thank You!