

Uber Supply-Demand Gap

By

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Abstract

Problem: To find the root cause of cancellation and non-availability of cars for the requests city to airport / airport to city.



Objective: Provide data-backed suggestions to Uber to identify

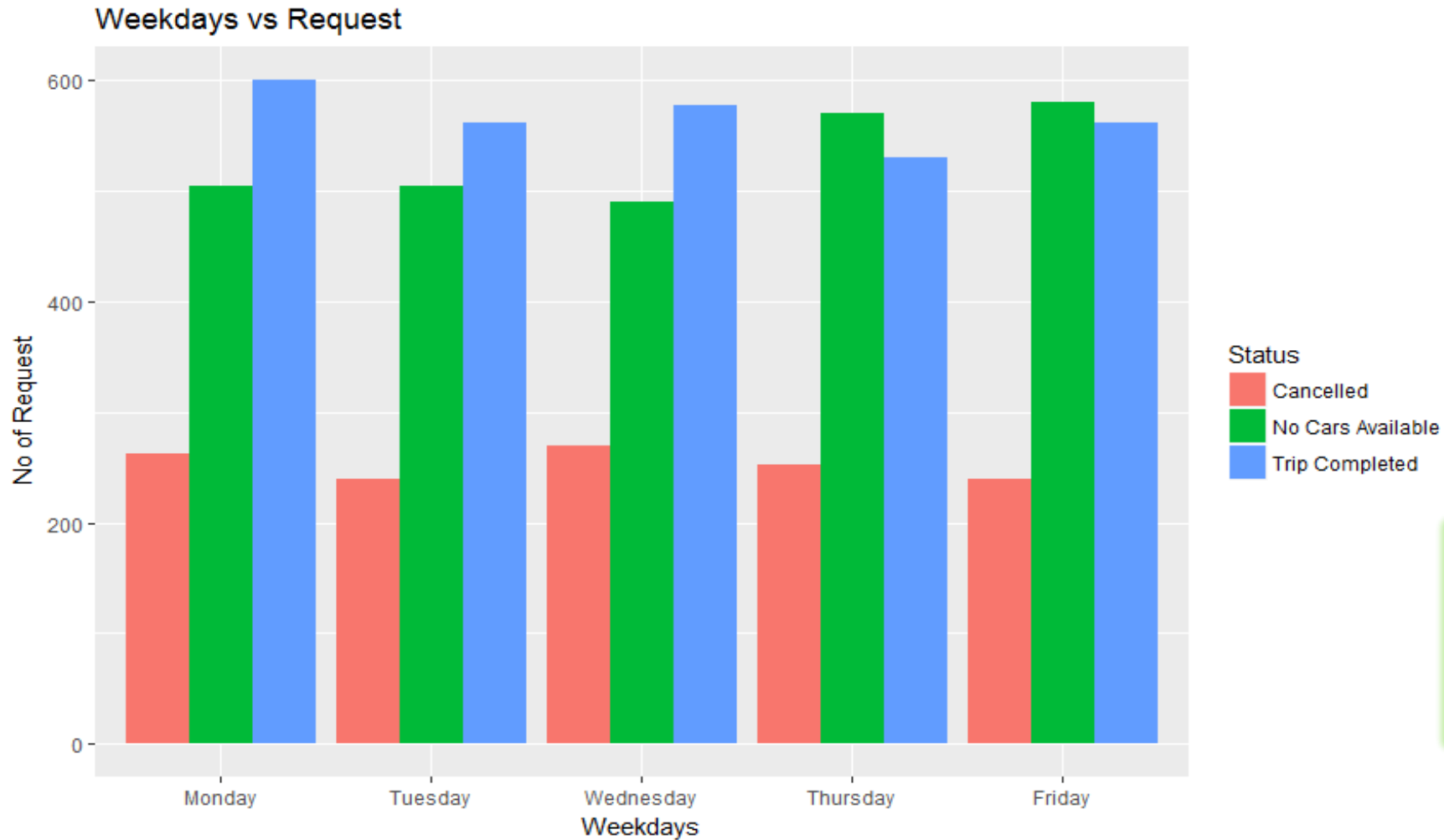


Goals:

- ✓ Visually identify the most pressing problems for Uber.
- ✓ Identify the gap between supply and demand of requests.
- ✓ Identify the Reason for the gap between supply and demand.
- ✓ Provide ways to resolve the supply-demand gap



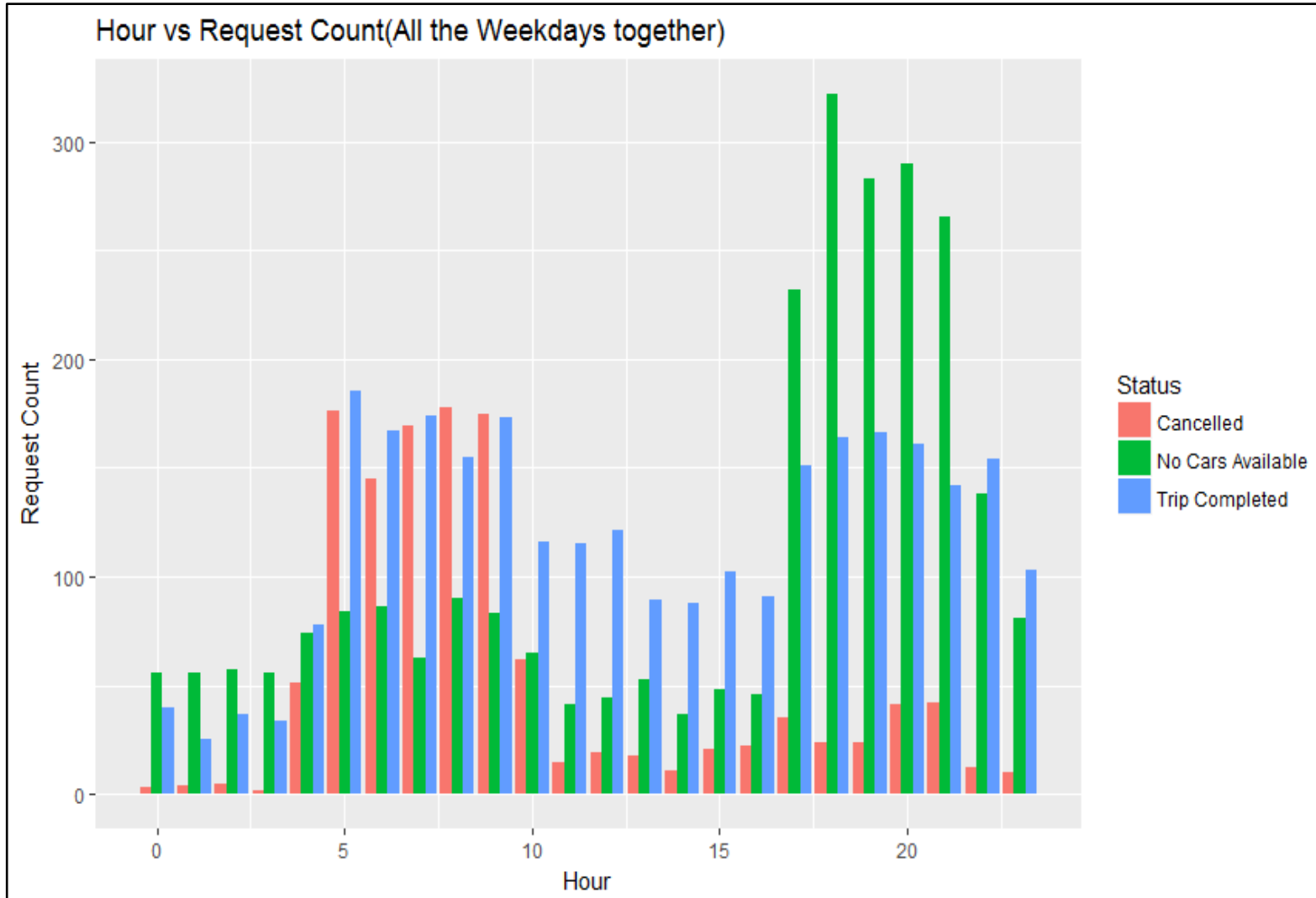
Weekdays vs Request Count



➤ It is clear that the status of the request are same daily.

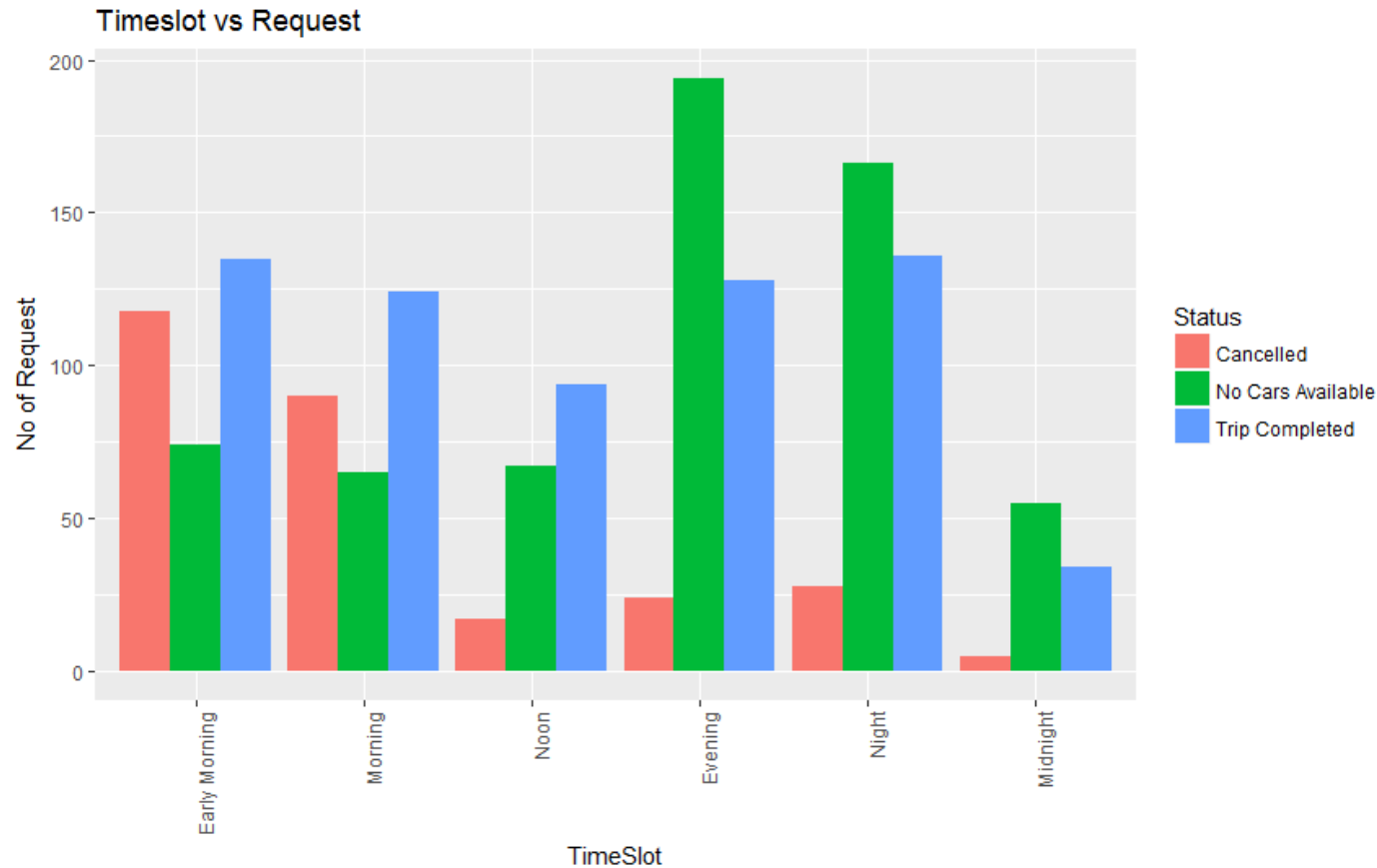
Total Request – 6745
Request completed – 2831
Cancelled req. - 1264
No cars available - 2650

Hour vs Request Count



- Plot between Hours and Request count.(Taking all the weeks together)
- No of cars are high around 5 – 10 PM.
- Request cancellation is high around 5-9 AM.

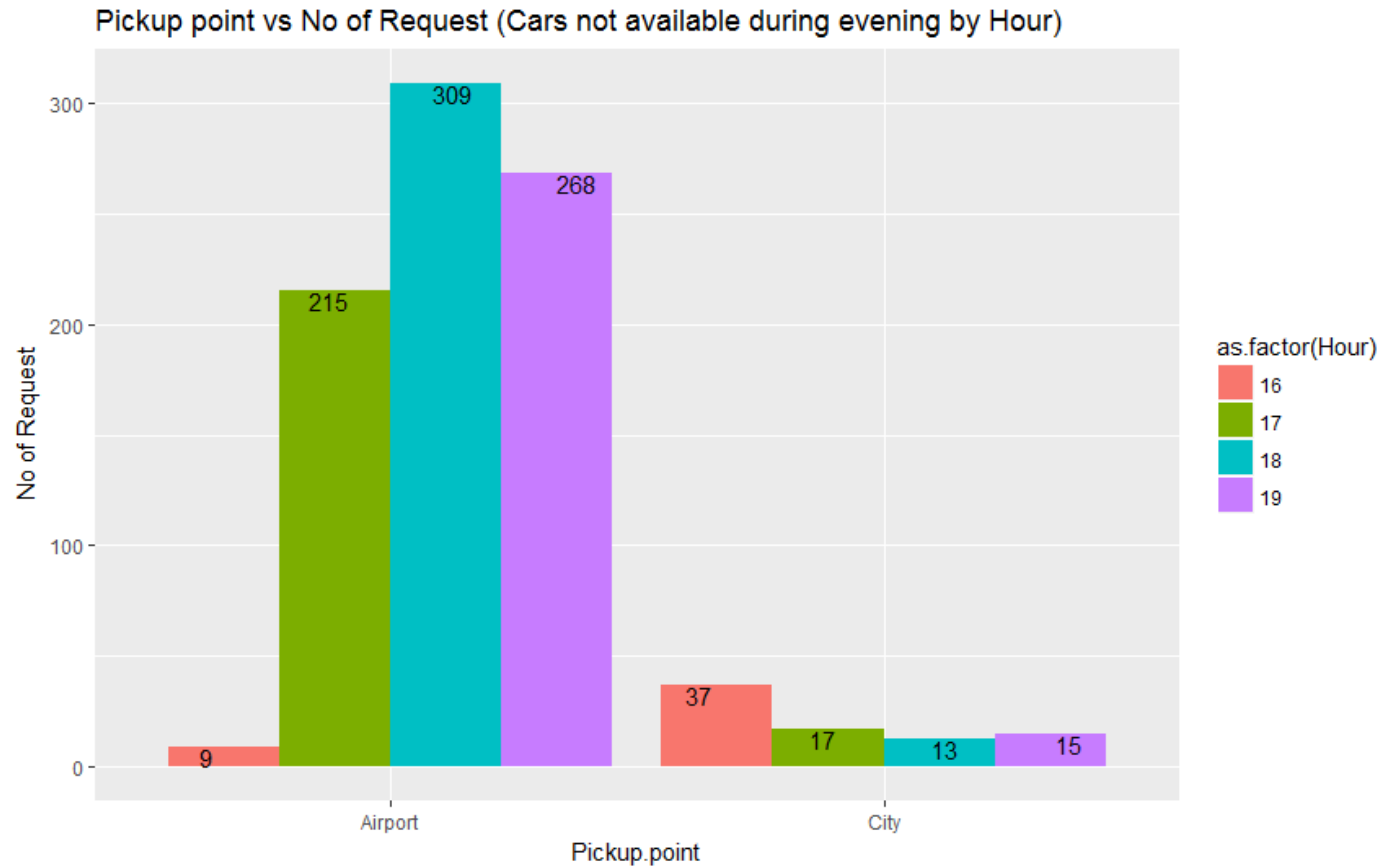
Grouping the hours



- No cars available status is High in Evening Slot.
- Cancelled request is High in Early morning Slot.

3 – 7 AM - Early Morning
7 – 11 AM – Morning
11AM – 3 PM – Noon
3PM – 7PM – Evening
7PM – 11PM – Night
11 PM – 3 AM – Mid Night

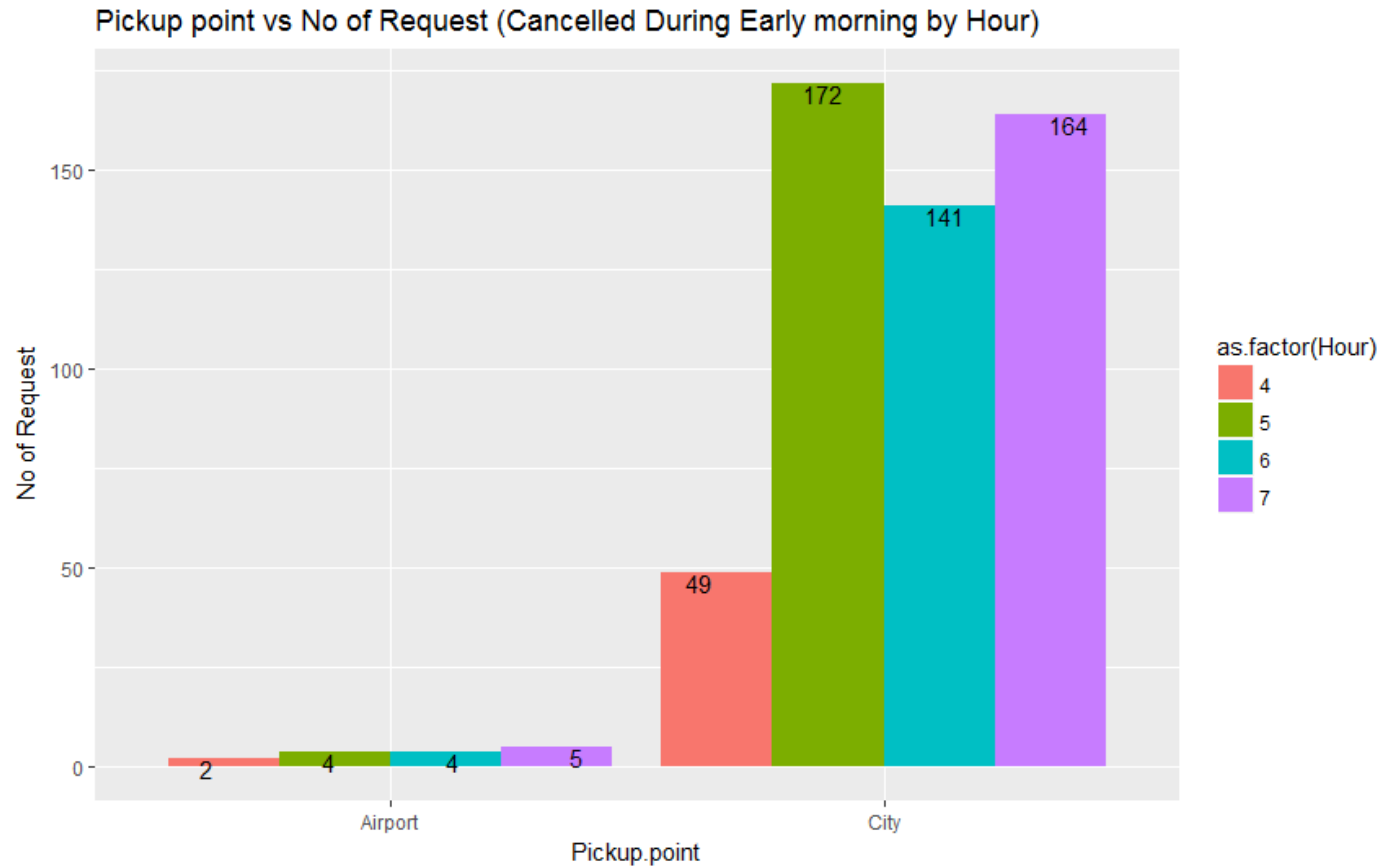
Cars not available during evening Hour



➤ For more count of Airport – City request Cars were not available during Evening.

Cars were not available for 801 Request for Airport – City trips during evening hours.

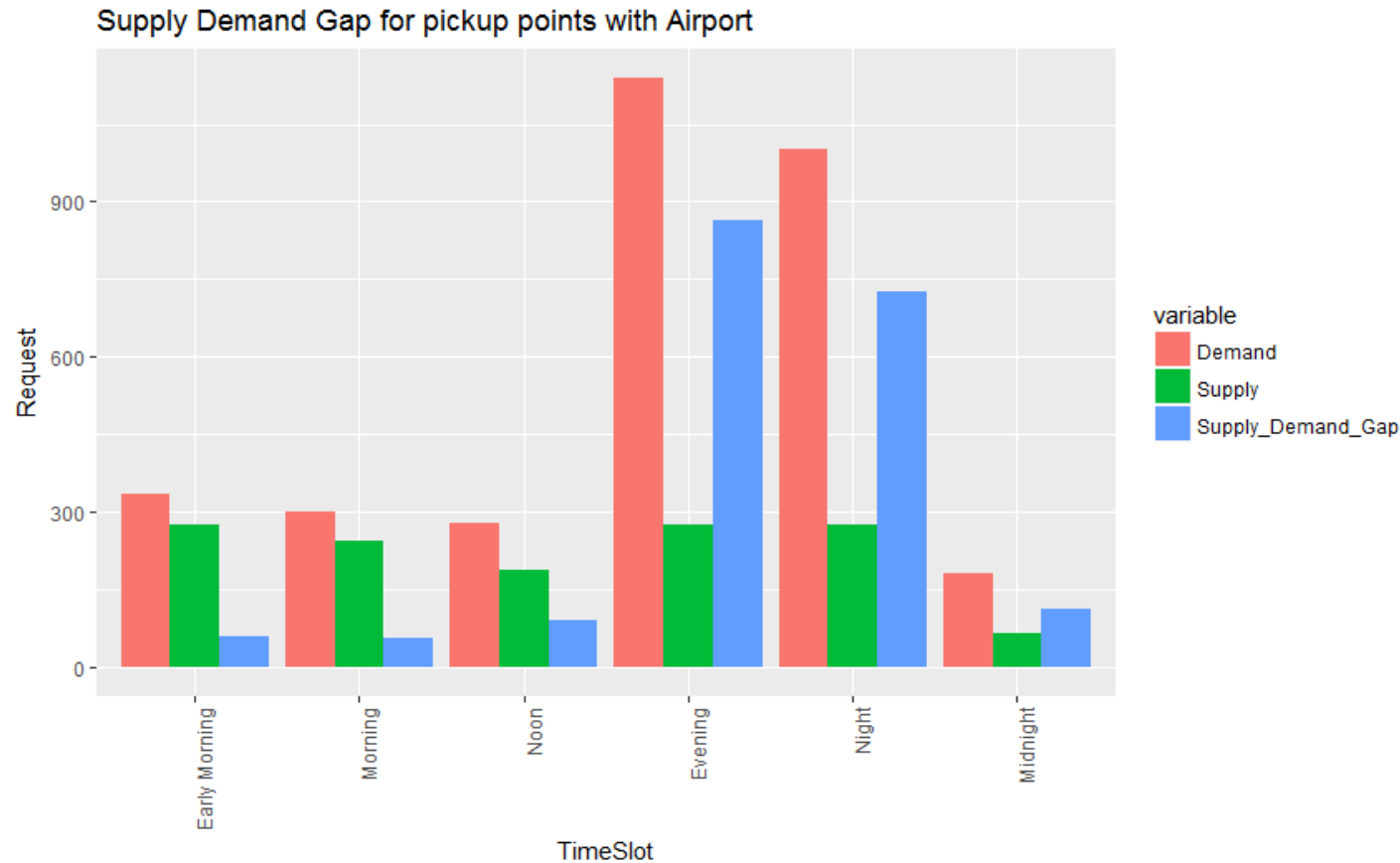
Cancel Req. During Early Morning



➤ Higher count of Request are getting cancelled during Early Morning for City – Airport Trips.

526 City – Airport Request are getting cancelled during Early Morning.

Supply Demand Gap for Airport pickup point



➤ There is huge Demand during Evening when compared to other slots and thre supply is also low.

Demand - 1140 Req
Supply - 276 Req
Gap - 864 Req

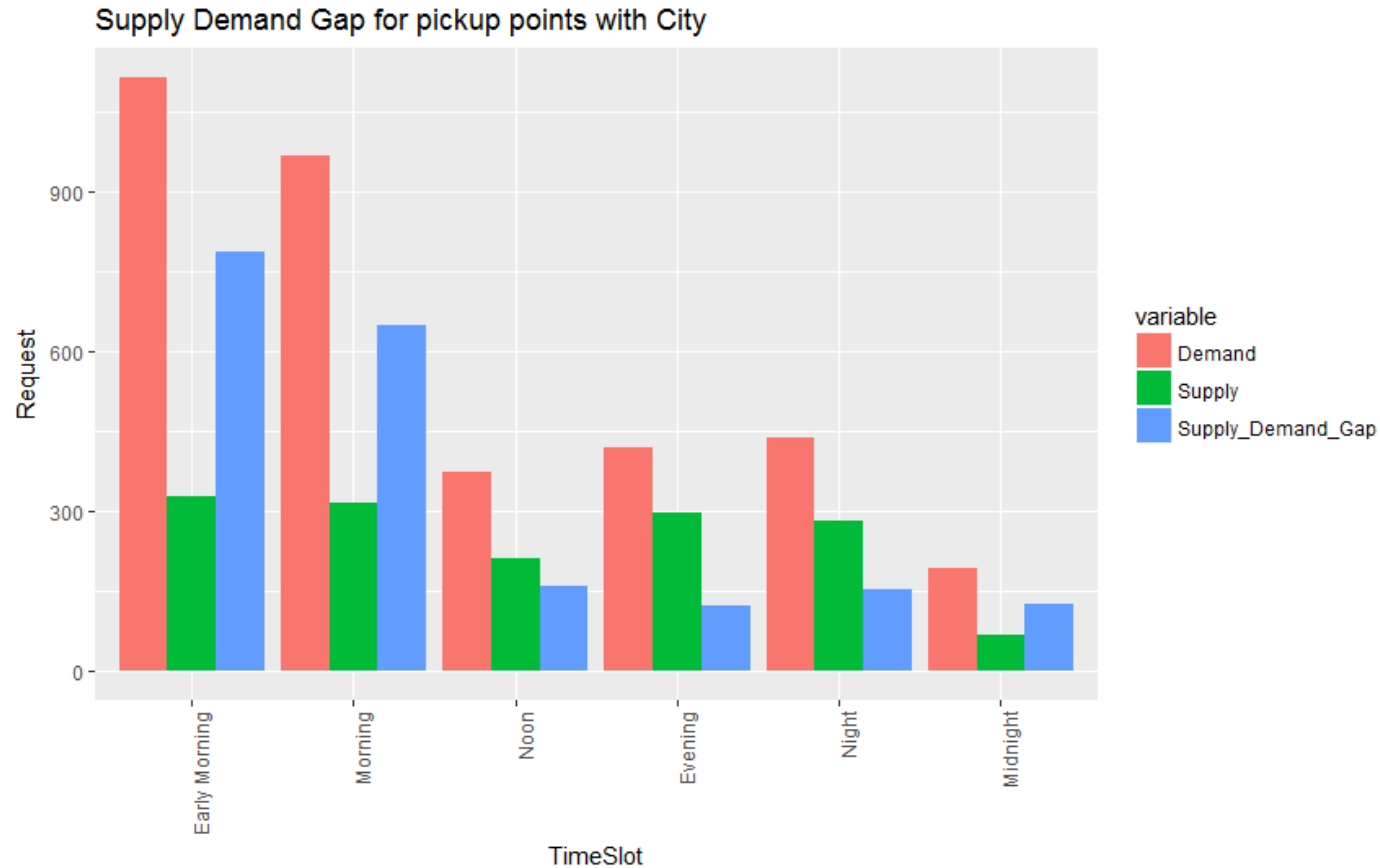
Why there is huge Gap during Evening for Airport pickups



- Since the total time taken for travel during evening the gap is high.
- May be due to heavy traffic.
- And flights arrival during the evening hour is also high

Median time – 51 minutes
1st Quartile – 41 Minutes
3rd Quartile - 64 Minutes
Max - 81 Mins

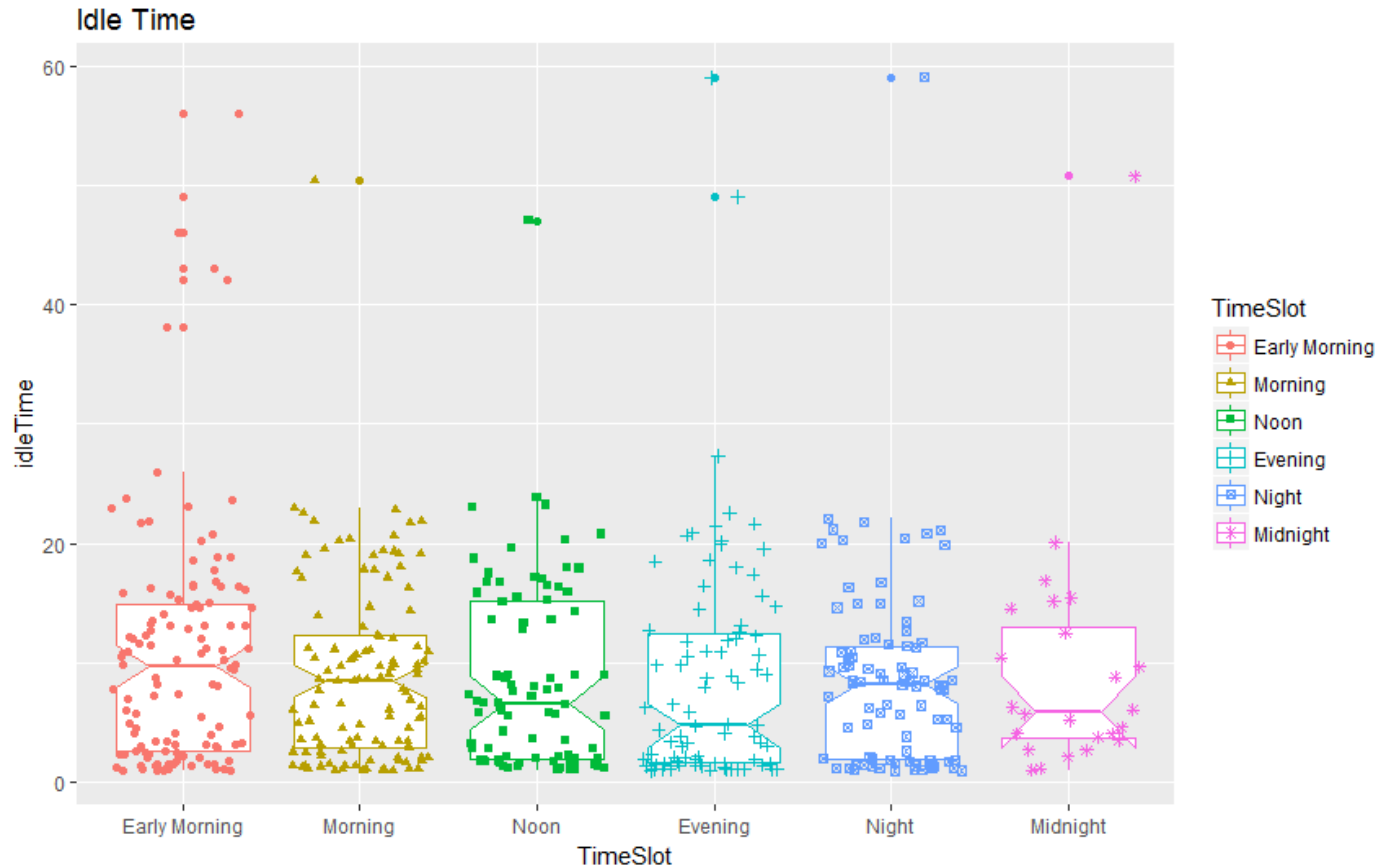
Supply Demand Gap for City pickup point



➤ There is huge Demand during Early morning when compared to other slots and there supply is also low.

Demand - 1116 Req
Supply - 327 Req
Gap - 789 Req

Supply Demand Gap for Citypickup point



- Idle Time of the driver is very high during early morning.
- May be due to the arrival of Flights during early morning may be less.

Median time – 10minutes
1st Quartile – 3Minutes
3rd Quartile - 14 Minutes
Max - 56 Mins

Recommendations

- Supply of cars must be increased during the evening slot to compute with the demand. Because large no of request are not met.
- Drivers should be informed that not all the trips to airport are not the trip back to City. Only few are getting delayed. So they should minimize the cancellations