UBER Supply Demand Gap
Case Study

SUBMISSION

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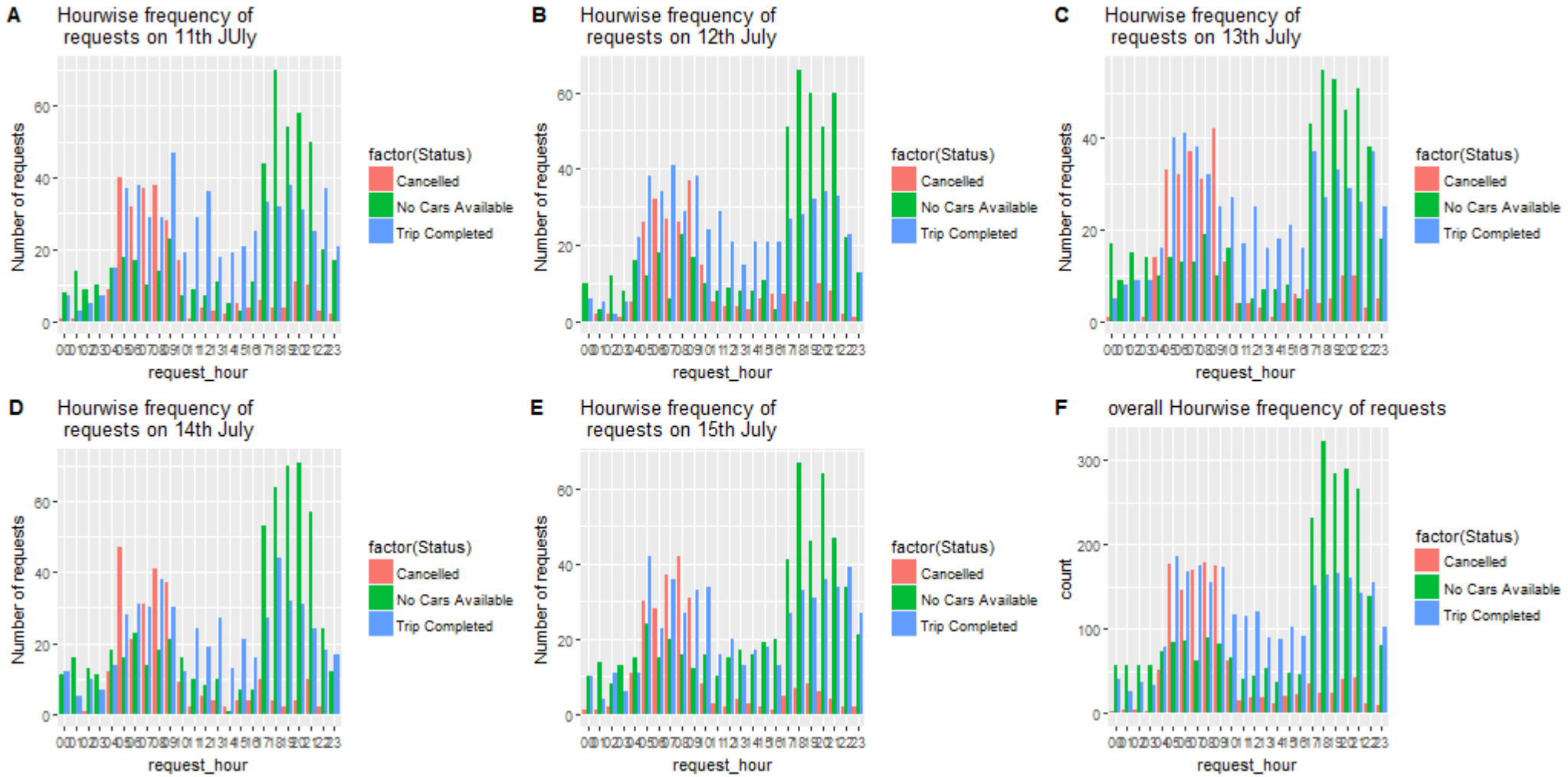
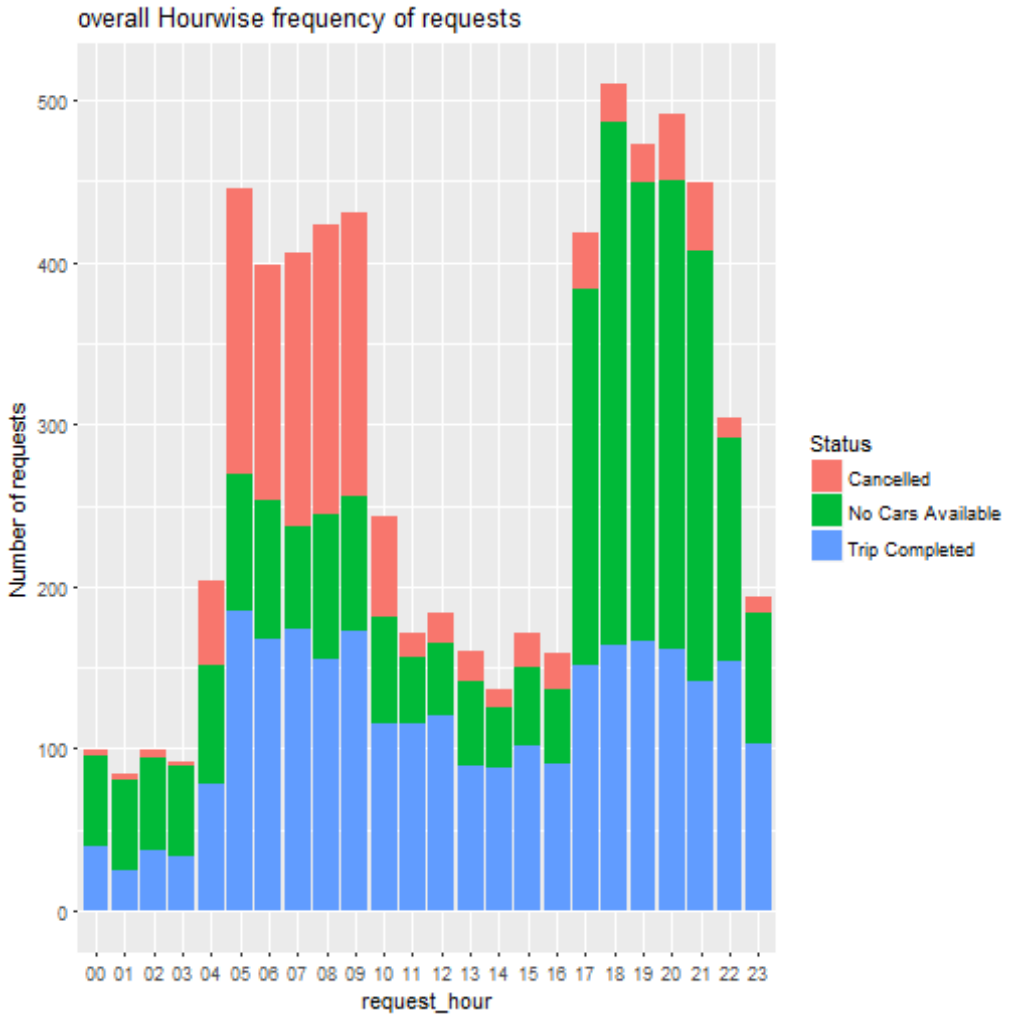
Uber hourly customer call request situation



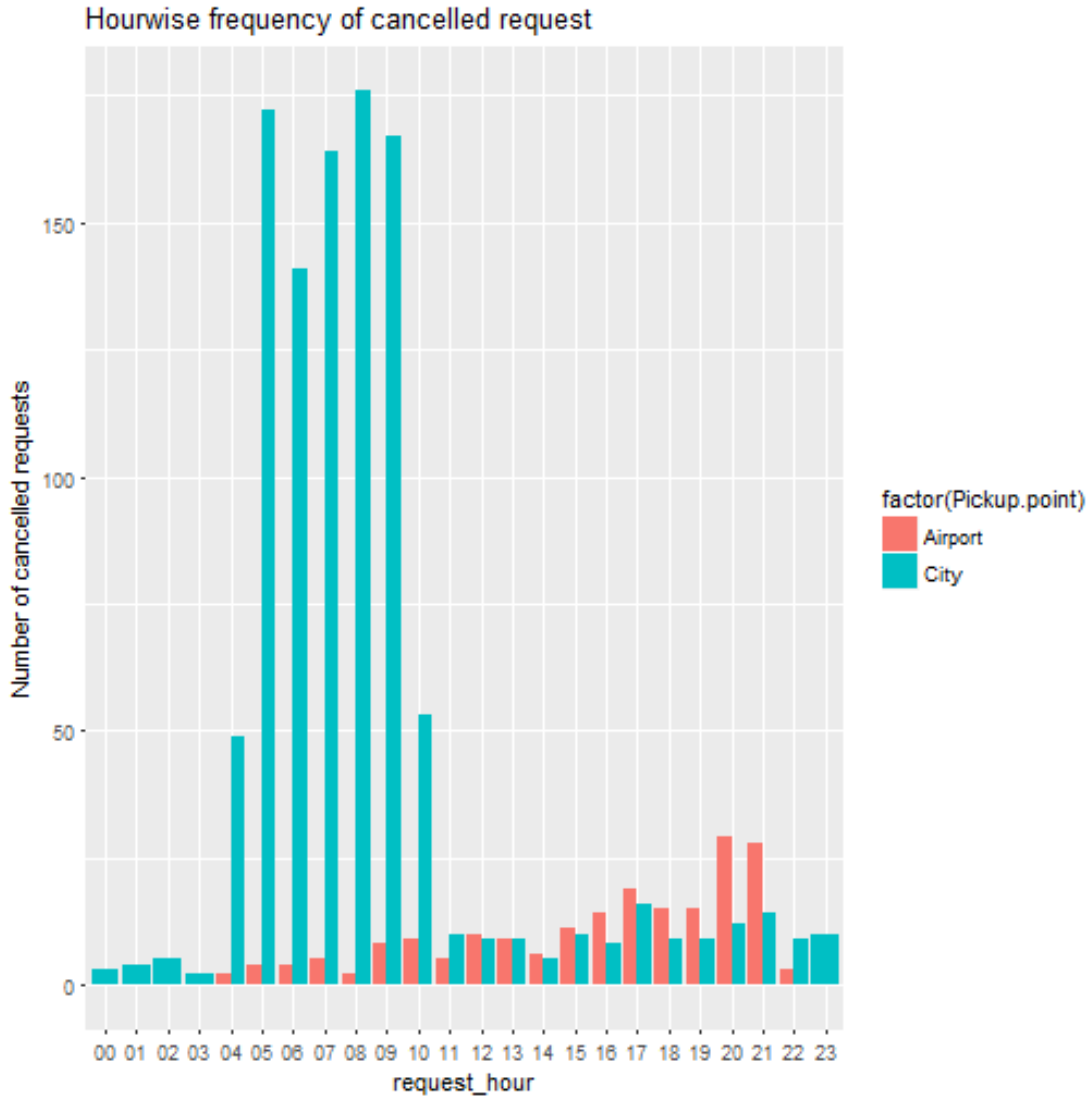
- The trend of red, blue and green peeks are almost same on all the days.
- Problem seems to be same for all the days, hence analysis can be done on overall hourly cab request after combining number of requests per hour for all the days (Plot **F)**

Uber hourly customer call request situation(Overall)



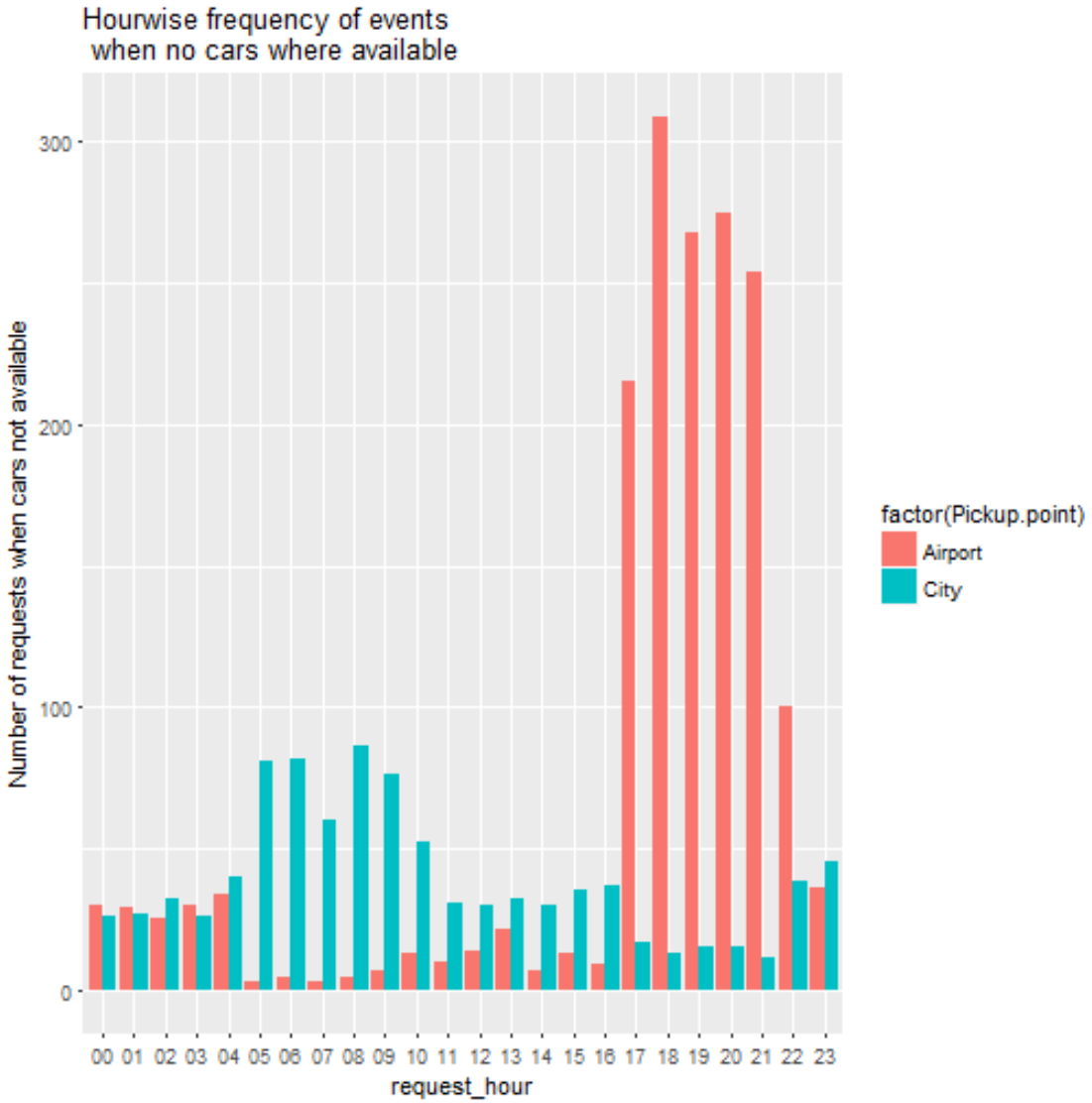
- The Bar Plot shows number of cab requests per hour
- The Bar plot is suitable as it is needed to show the number of cab request for all the status of the request.
- The most pressing problem seems to appear between 04:00 Hrs. to 10:00 Hrs. and between 17:00 Hrs. to 22:00 Hrs.
- Between 04:00 Hrs. and 10:00 Hrs. cancelled request are much more than usual
- Between 17:00 Hrs. to 22:00 Hrs. requests with response of “No Cars Available” are much more than usual.
- As many as 90-100 requests are made per hour per day during busy hours
- Around 50% gap in demand and supply throughout the day

Analysis of the requests with “Cancelled” status



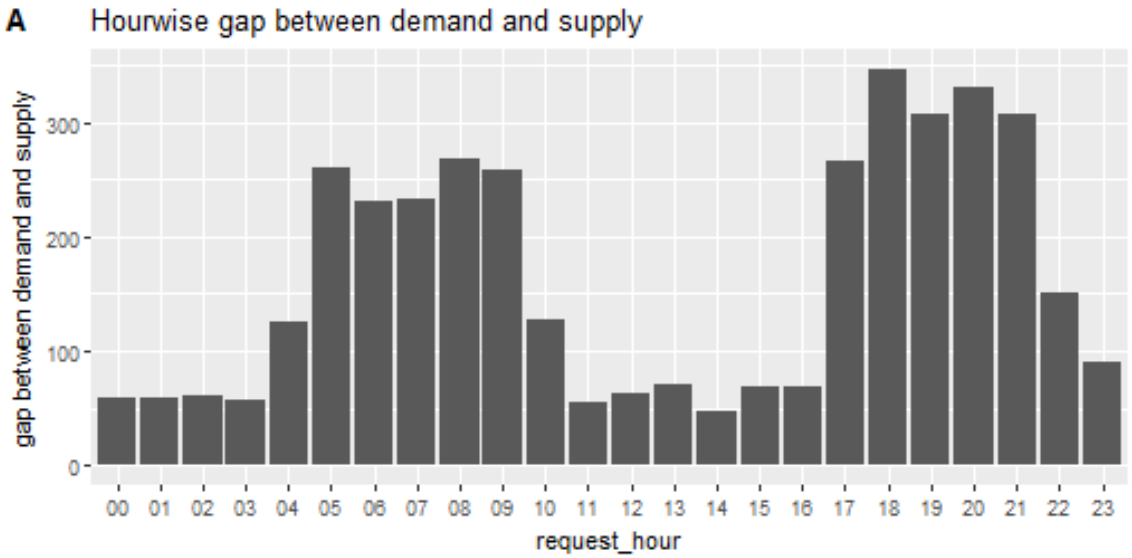
- As expected from the previous plot, number of cancelled requests seems to be peaking between **04:00 Hrs. and 10:00 Hrs.**
- Number of cancelled requests suddenly rises from single digit to 50’s and 100’s over five days.
- This early morning problem is dominant for the **city-airport** rides

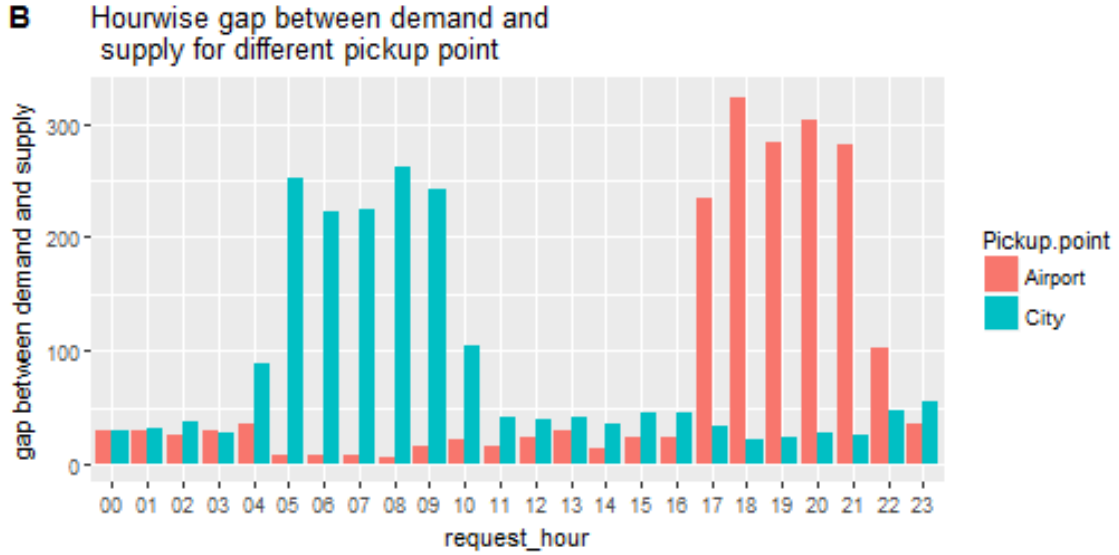
Analysis of the requests with “No Car Available” status



- The late evening problem for Uber is dominated by **airport to city** requests.
- This Problem is arising between **17:00 Hrs. to 22:00 Hrs.**
- The number of such requests is suddenly increasing from 20’s 30’s to 250’s, 300’s.

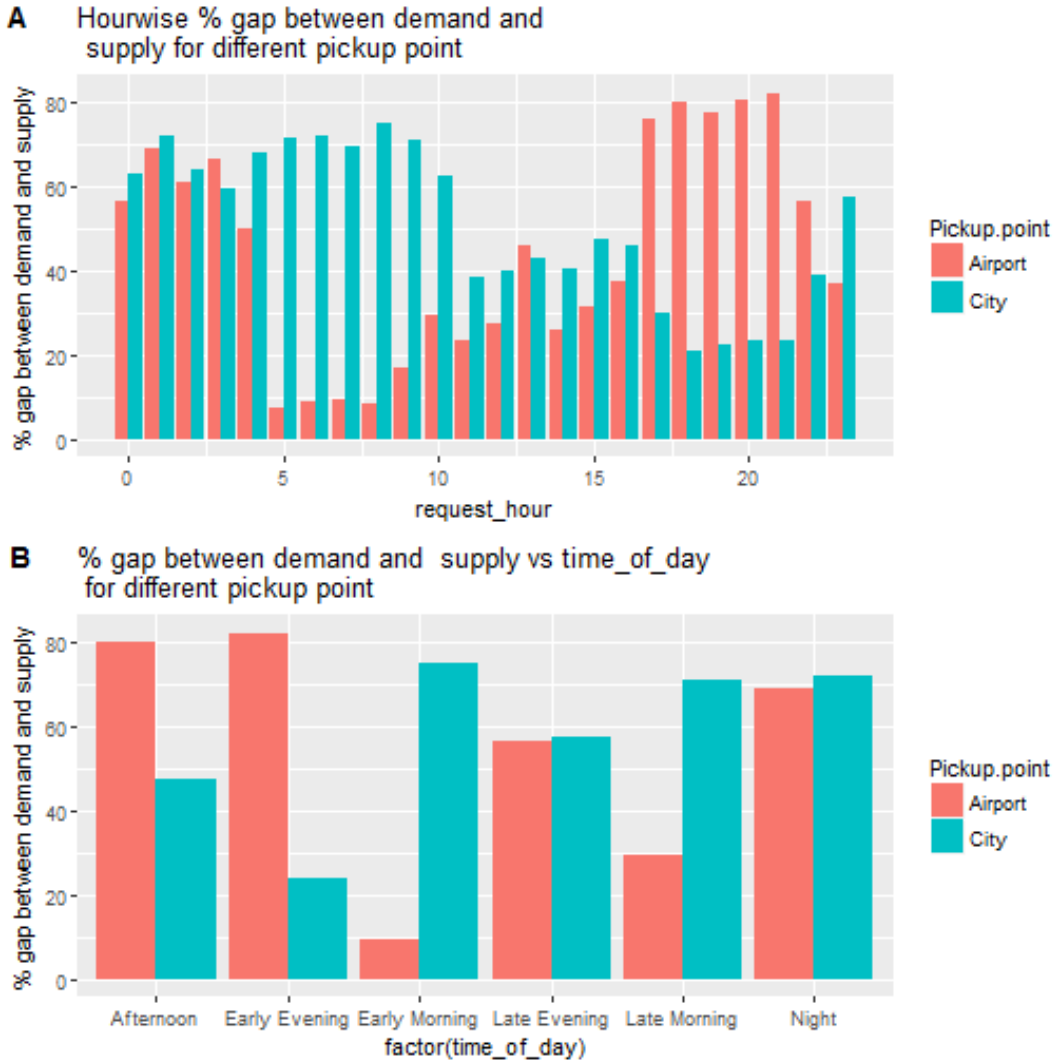
Supply and Demand Gap





- Demand supply gap= total request-(“cancelled request” + “no cars available request”)
- **Plot A**: overall hour wise gap between demand and supply
- The gaps are highest from 5:00 Hrs. to 9:00 Hrs. in the morning hours and 17:00 Hrs. to 21:100 Hrs. in the evening
- **Plot B**: Overall hour wise gap between demand and supply for different pick up points
- The morning demand supply problem is dominated by city-airport requests.
- The evening demand supply problem is dominated by airport-city requests.

Supply and Demand Gap



- Plot A: clearly shows that the gap between demand and supply is not ignorable in during non-peak hour time
- It can be seen, for city-airport rides, the gap is always more than 20% and mostly it is more than 40%
- For airport-city rides, almost in half of day time there, is 50% gap between demand and supply
- .During Early morning and late morning %gap is more for city-airport rides whereas during early evening and afternoon, airport-city rides are dominating the demand supply gap.
- When the demand is less, the gap is comparable for both the routes.

Probable reasons for the pressing problems

- Demand and supply gap is present throughout the day for journey to and from airport. 300 drivers are serving the customers. Just for one route there are 90-100 calls in busy hours.

- A large number of flights are scheduled to depart in the morning hours probably between 6:00 hours and 12:00 hrs.

- To catch up the flight, the cab requests increase sharply after 4:30 Hrs , causing morning woes for Uber. Cancelled requests may be more because
    i. the drivers may be getting the customers readily on easily reachable areas so cancelling requests from small lanes inside a colony
    ii. The drivers hesitate to go to the airport for the waiting time of the next customer is more.

- A large number of flights are scheduled to arrive in the evening hours, probably between 17:00 Hrs. to 22:00 Hrs., hence demand is much more than supplies showing “no cars available”, causing evening woes for Uber.

Recommended Solutions

- Increase the number of cabs in the city to avoid losing on the revenue throughout the day as the demand is clearly more than the supply throughout the day.

- Increase the cost and its share in driver's salary for airport rides to avoid cancellation. Also incur some penalty to the drivers for cancelling any request

- More cabs may be allotted for airport service from the nearby areas for the evening hours from 17:00 Hrs. to 22:00 Hrs. to reduce the demand supply gap. The drivers will chose to opt for airport services as it will pay them more.