UBER Supply-Demand Gap Analysis
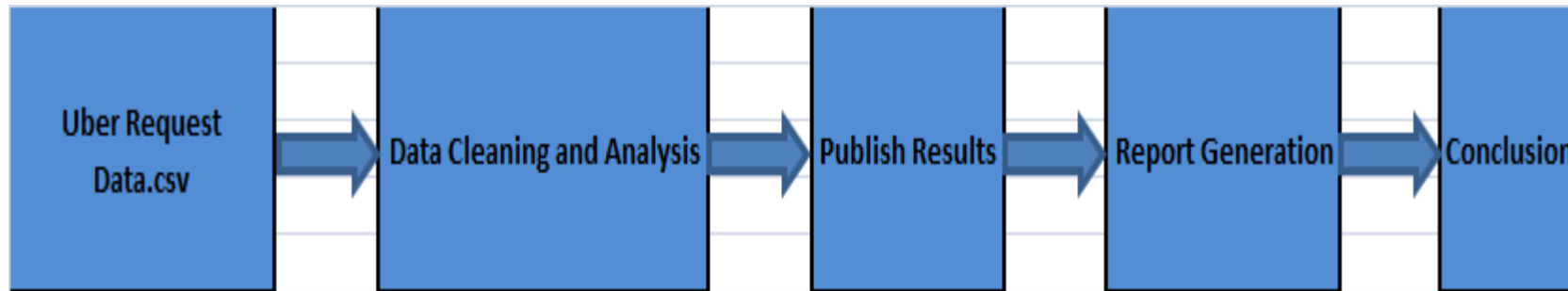
SUBMISSION

Abstract

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

Recommended ways to Analyse:

1.Identify the frequency of different types of requests

2.Identify the timeslots where cancellation and no cabs available are high

3.Calculate highest supply demand gap and identify the corresponding timeslots.

4.Analyse reason for high supply-demand gap
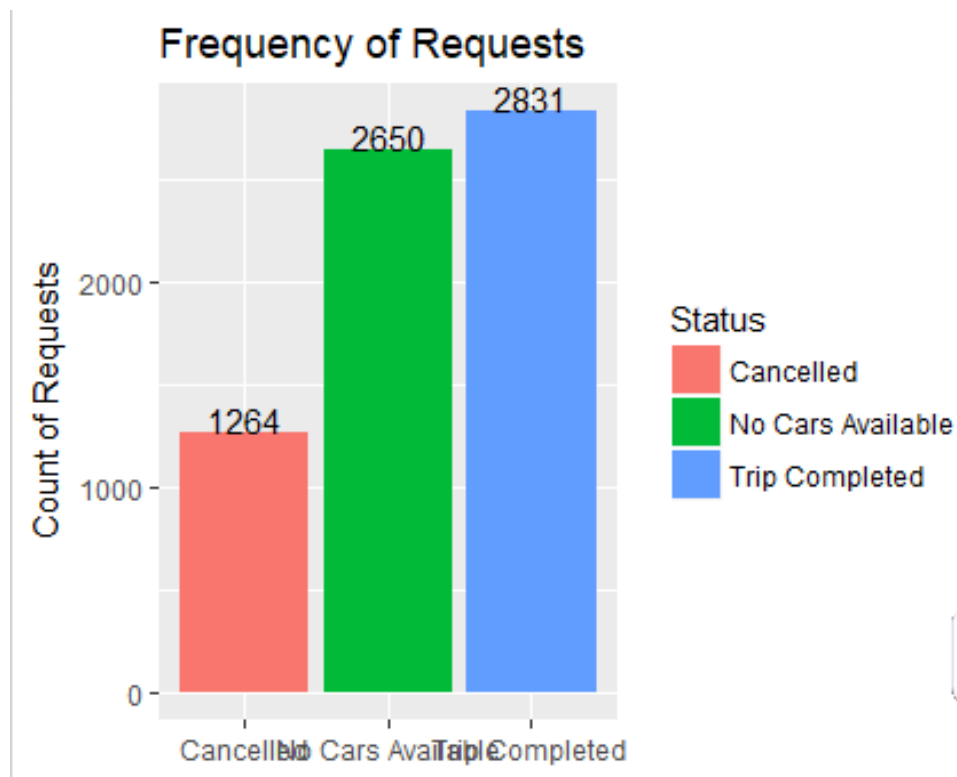
5.Provide recommended steps to resolve the issue.

Problem solving methodology

Below flow describes the High level approach of finding solution to Uber Request Data Analysis.

Uber Request Data.csv	→	Data Cleaning and Analysis	→	Publish Results	→	Report Generation	→	Conclusion

Analysis of Request Types

From the below graph we can say that completed number of trips are almost same as cars not available. Around 42 % of trips are completed and remaining 58% trips are not completed which makes huge impact for Uber bussiness.

Frequency of Requests

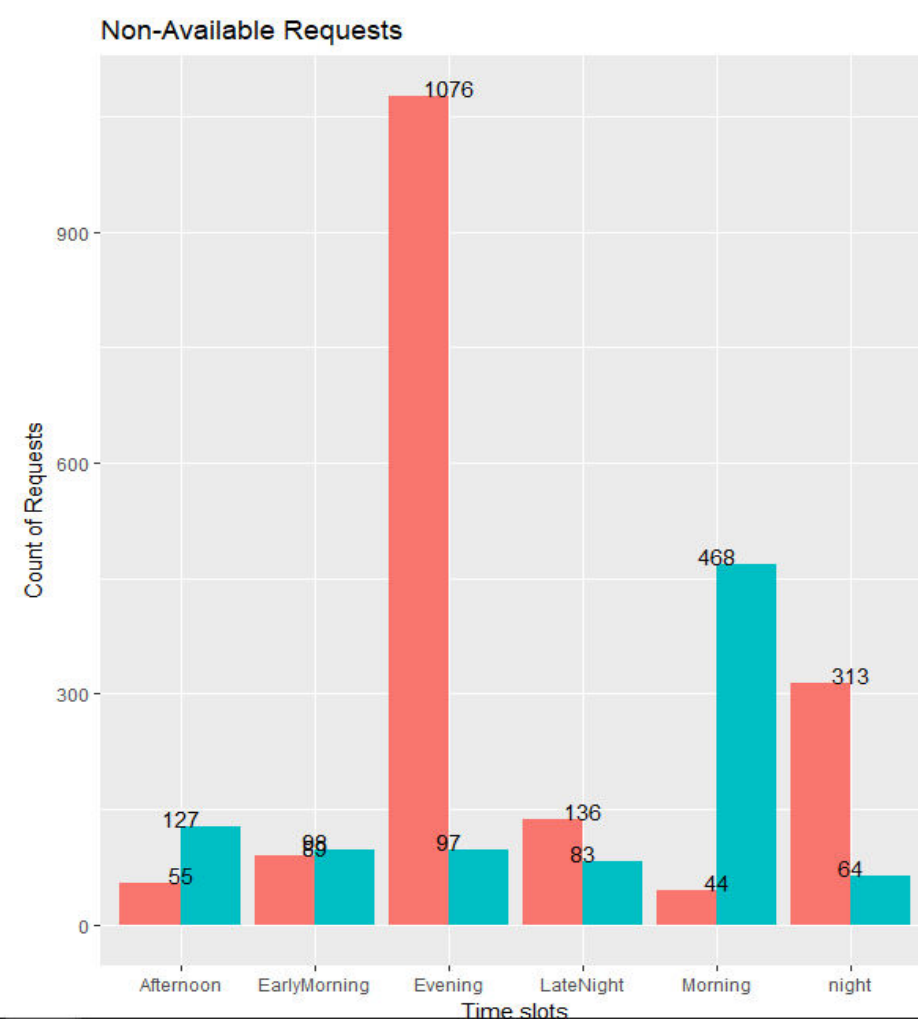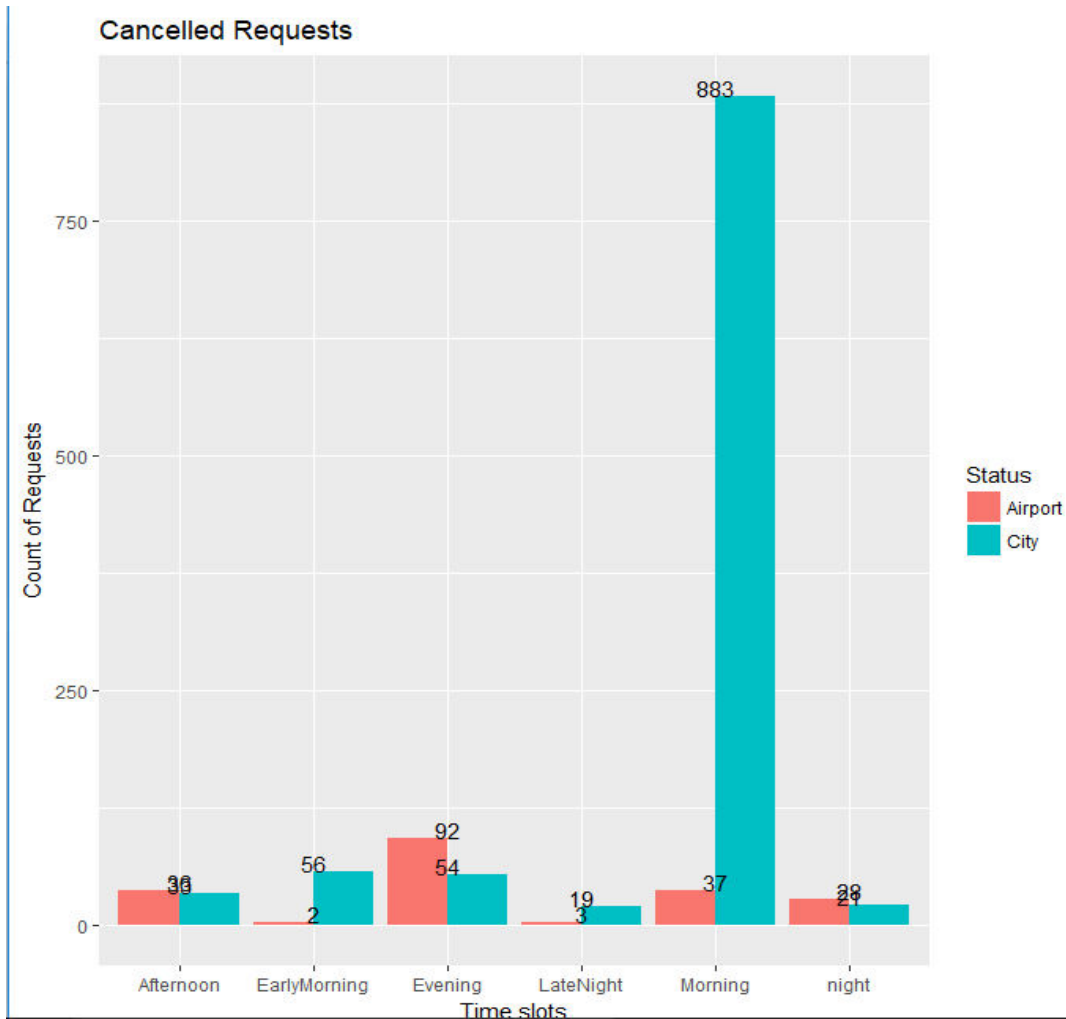| % of Trip Completed	% of No cars available	% of Cancelled
42	39	19

Data Understanding

In Uber dataset we have total 6745 records. All the trips are related to only Airport-city and city Airports.

Among that there are three types of Trips:

- Trips Completed
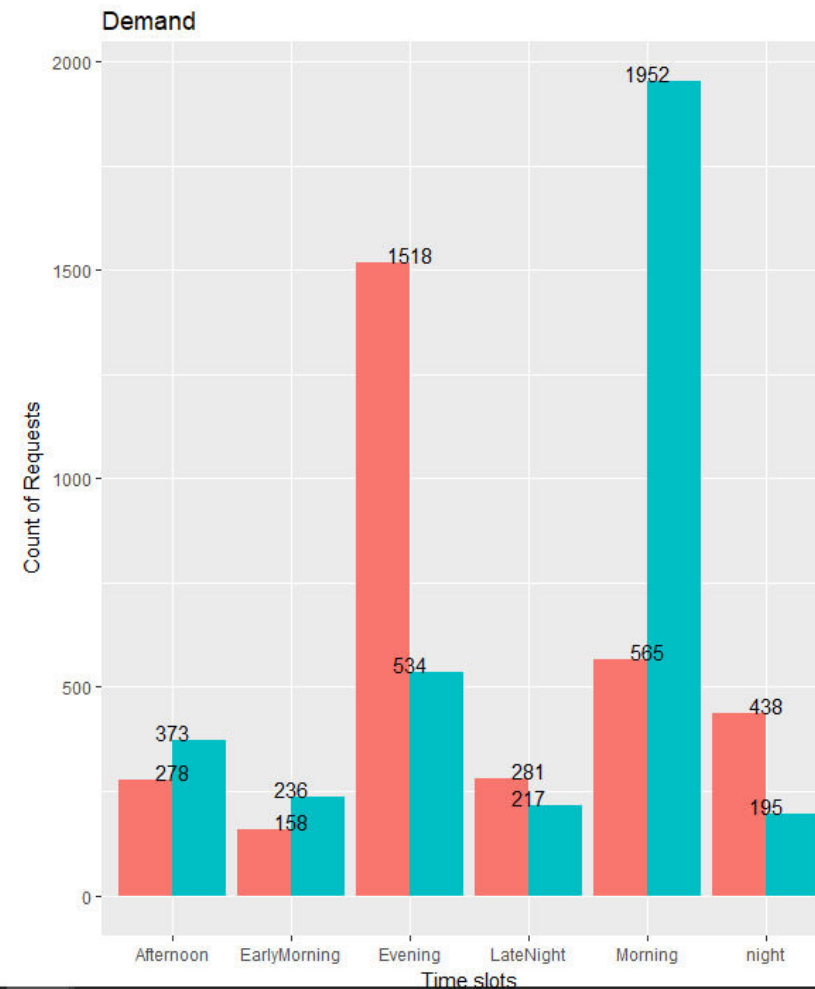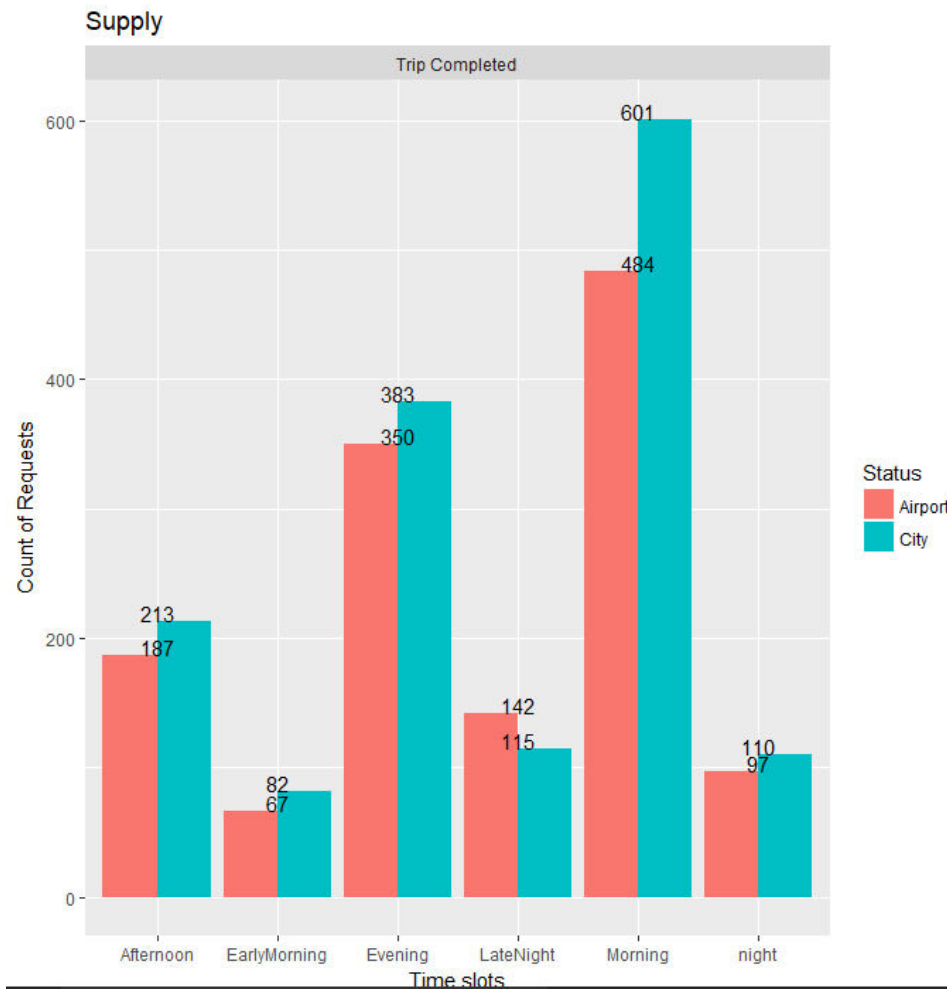- Cancelled
- No Cars Available

Problematic Requests

- During Mornings i.e., 5AM-11AM the cancellation of rides are very high in city.
- During Evenings i.e., 16-20PM the frequency of cabs are very less in Airports.
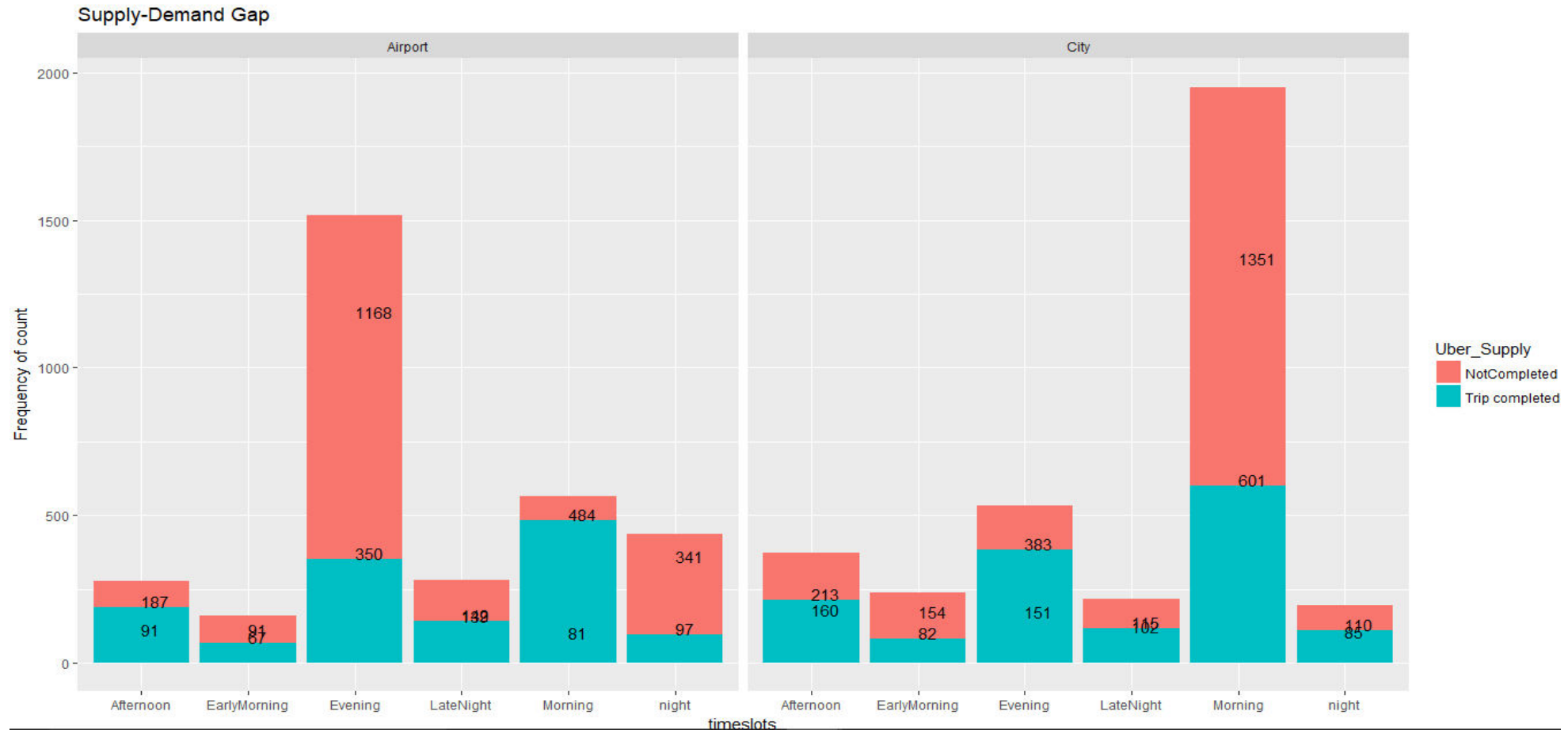
Supply vs Demand

• In City during mornings the demand is very high compared with Supply

• In Airports during Evenings the demand is 4 times the supply.

Supply –Demand Gap

•In Airports during evening timings i.e.,16PM -20PM the gap is high as graph says that demand supply gap is 818 units

•In city during mornings i.e., 5Am-11AM the gap is high and graph says that demand supply gap is 750 units

Problematic Reasons:

Assuming Reasons:

1)During Mornings demand is high in city as most of the employees will go to offices.

Decrease supply in city:

  1)Got Struck at airports in Early morning slots and may be drivers waiting for next trips.

  2)Lot of demand hence got struck in city traffic

  3)Lazy drivers to take pickup

2) During Evenings in Airports demand is high because most of the flights would land at that time.

Decrease supply in airports:

 1)There is a sufficient demand in city so drivers are completing trips in city in order to avoid travelling(airports) to long distance ,toll free charges & waiting time for next rides

Conclusion:

During Mornings the cancellation of rides are very high in city and in evenings the frequency of cabs are less in Airports.

Recommend some ways to resolve the supply-demand gap.

1.By adding boosters where demand is high and supply is less, we can decrease the supply-demand gap.

2.Introducing surge factor where demand is high, we can decrease the Supply- demand gap.

3. Providing toll fee charges to drivers on airport pick ups