

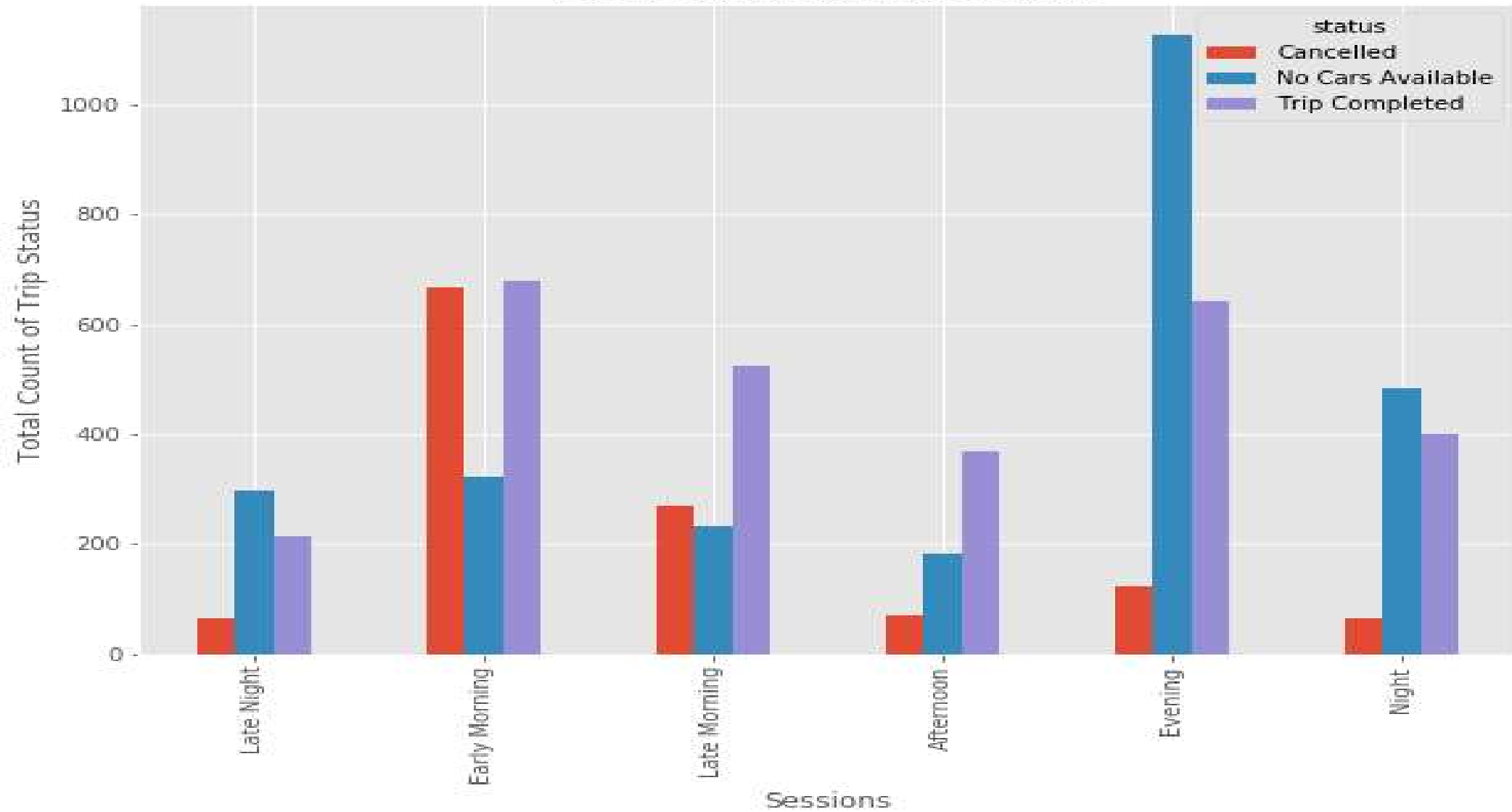


# Uber case study

# Business Problem:

The aim of analysis is to identify the root cause of the problem (i.e. cancellation and non-availability of cars) and recommend ways to improve the situation. As a result of your analysis, you should be able to present to the client the root cause(s) and possible hypotheses of the problem(s) and recommend ways to improve them.

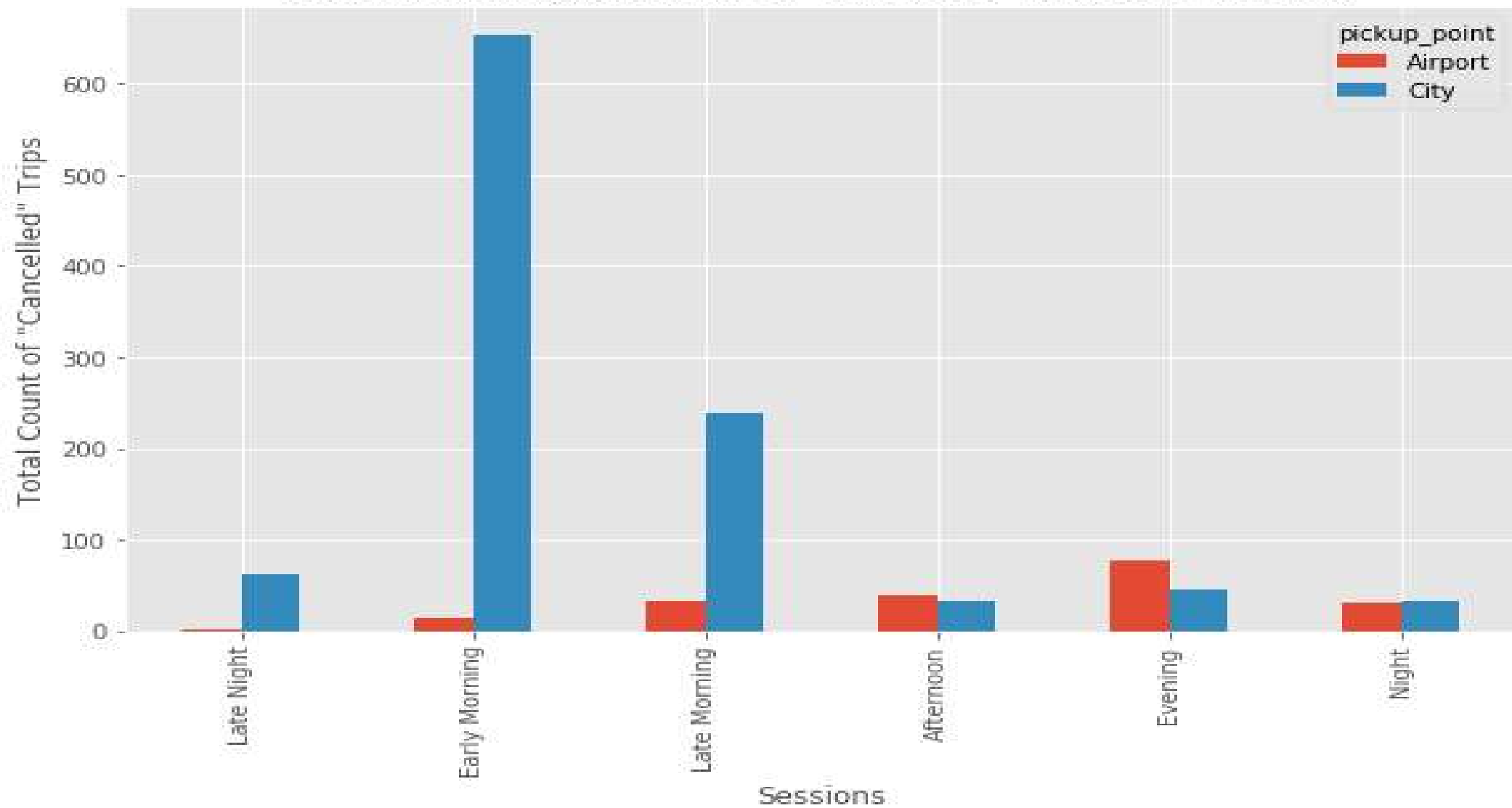
Total Count of all Trip Statuses



## Observations:

1. as the plot shows that maximum number of "No Cars Available" status trip can be seen in evening(Time Slot: 4PM to 8PM).
2. the maximum number of "cancelled" status trip can be seen in early morning(Time Slot: 4AM to 8AM).

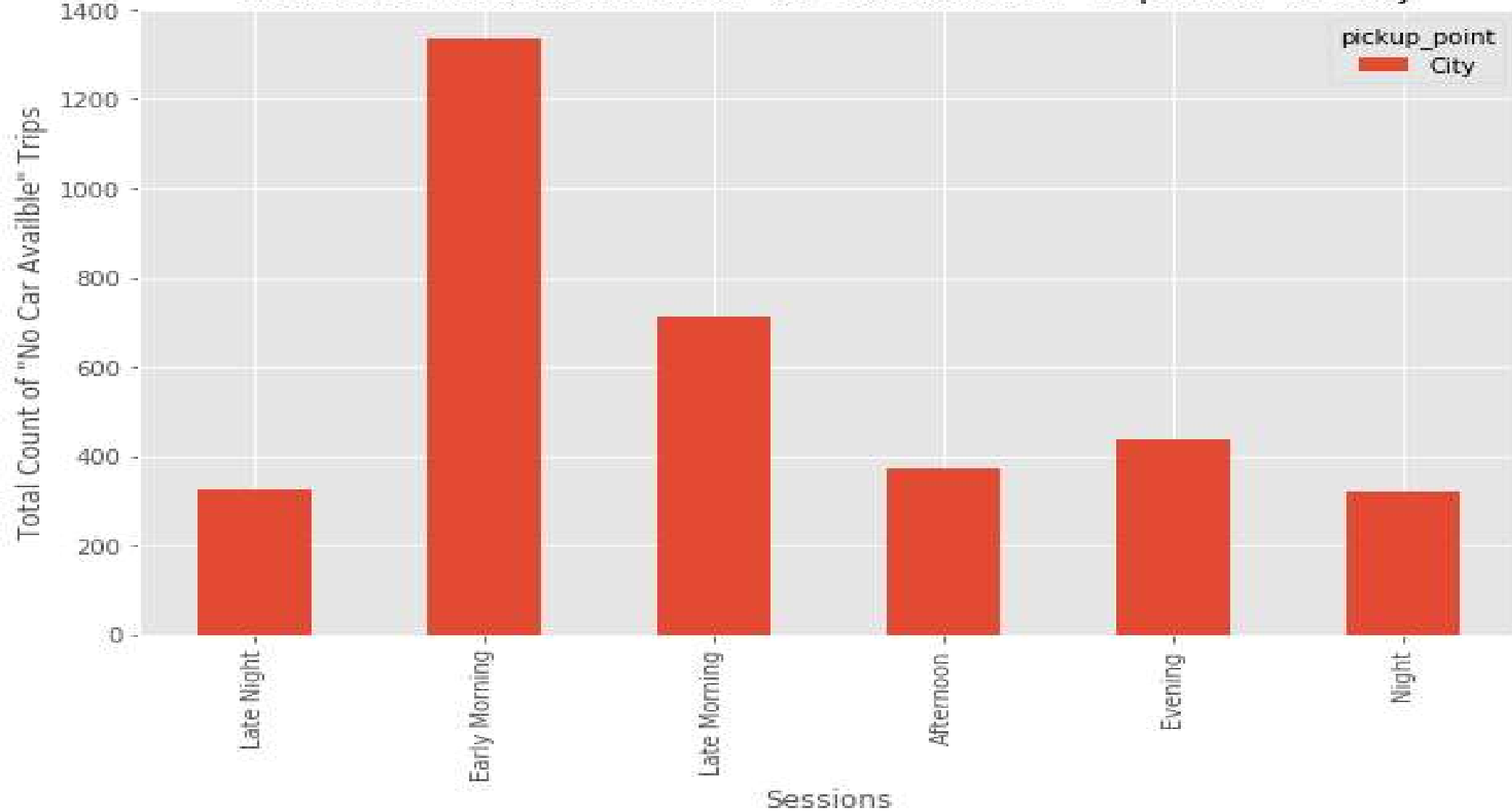
Count and Distribution of all "Cancelled" Trips over the day



## Observation:

1. maximum number of "Cancelled" status trip can be seen when the trip route is city to airport in evening.
2. most of the trips are Cancelled in the "Early mornings" and "Late evening".

Count and Distribution of all "No Car Available" Trips over the day

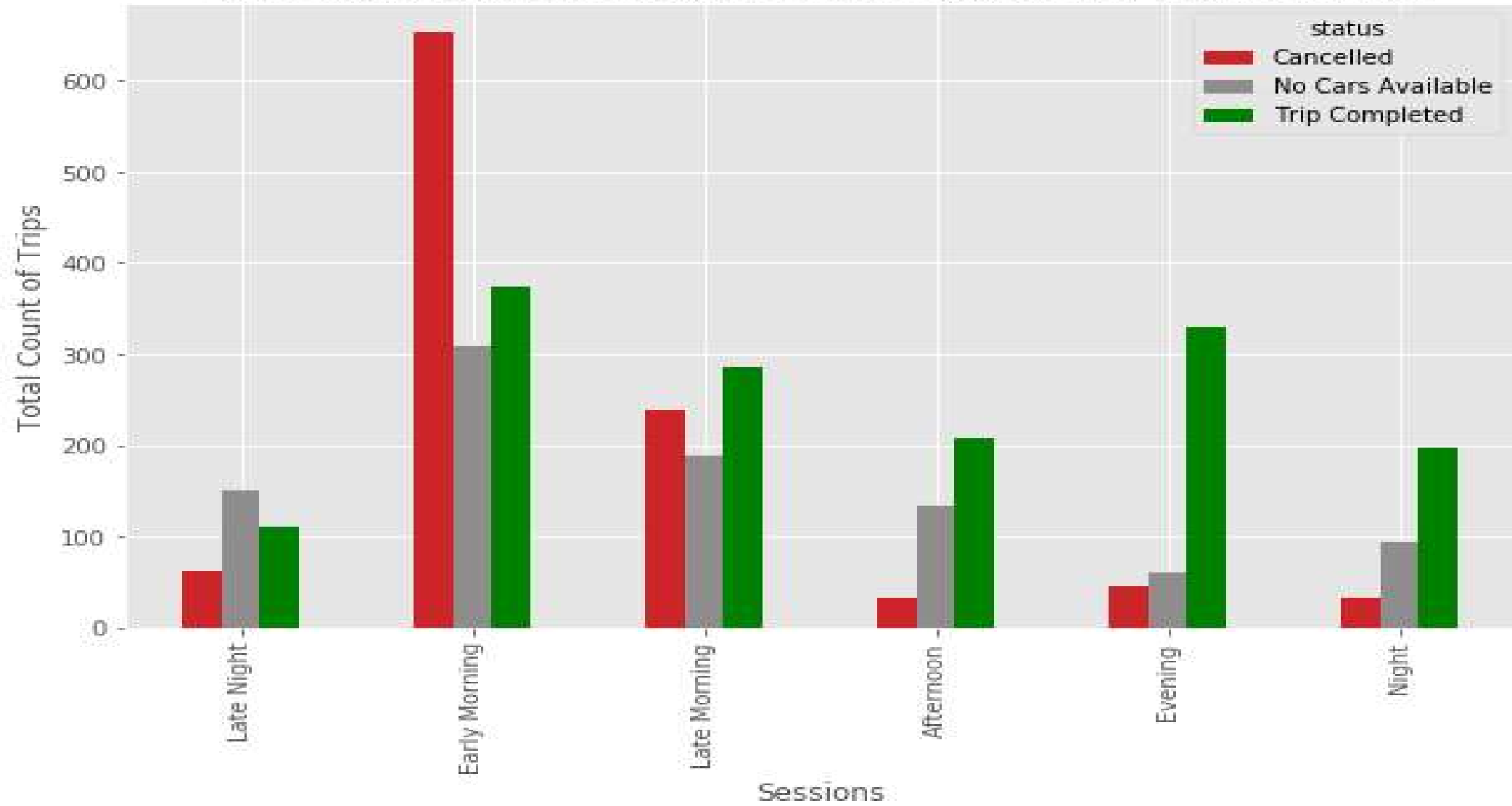


## Observation:

1. from the above plot we can say that, maximum number of "No Cars Available" status trip can be seen when the trip route is airport to city in evening.
2. most of the time chances of getting a cab from airport in "Evening" and "Night" is lesser compared to others.



Total count of all Trip Statuses over the day for City to Airport route

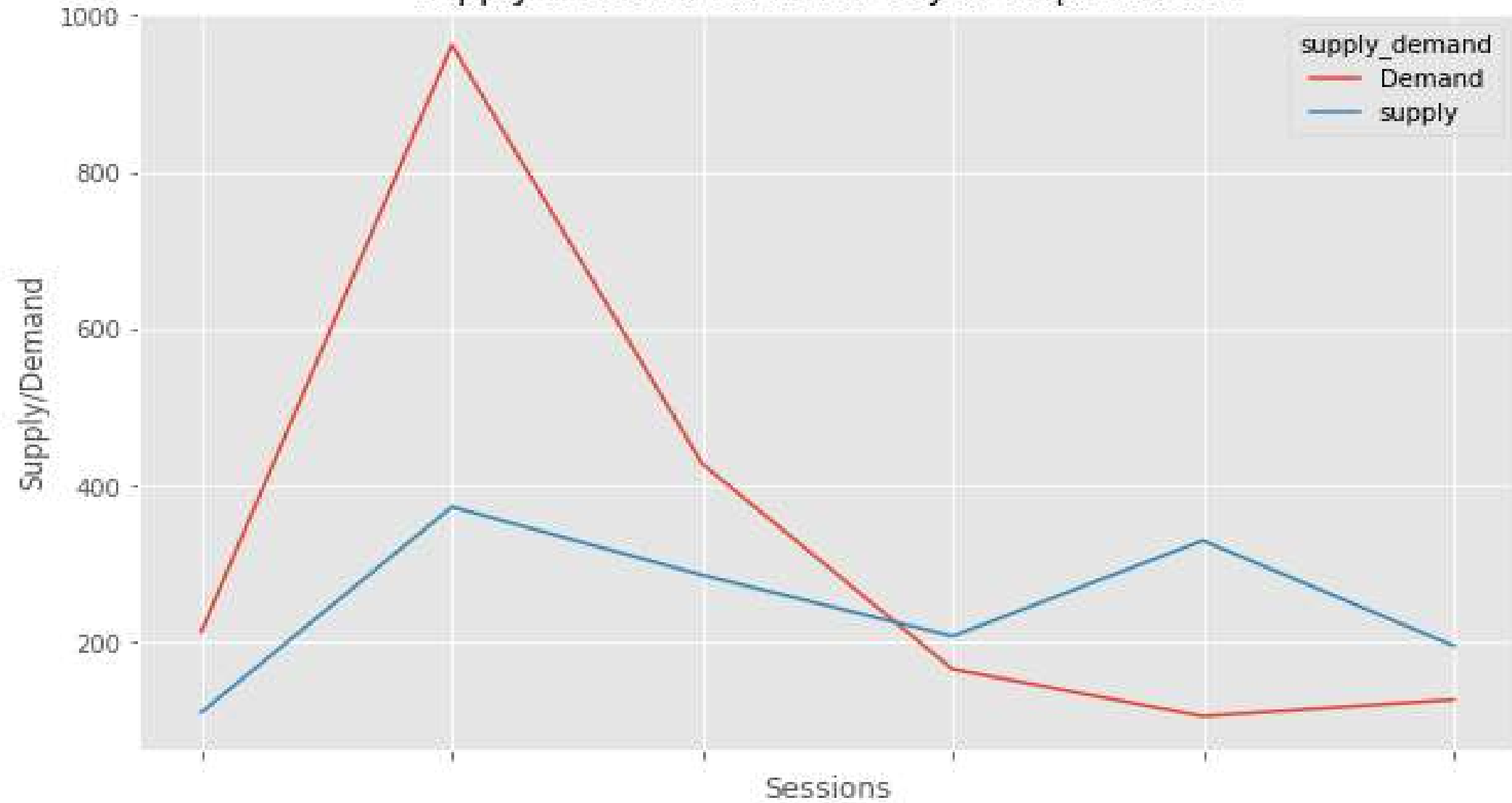




Observation:

We see that maximum number of "No Cars Available" from Airport to city in the Evening session followed by Night Session

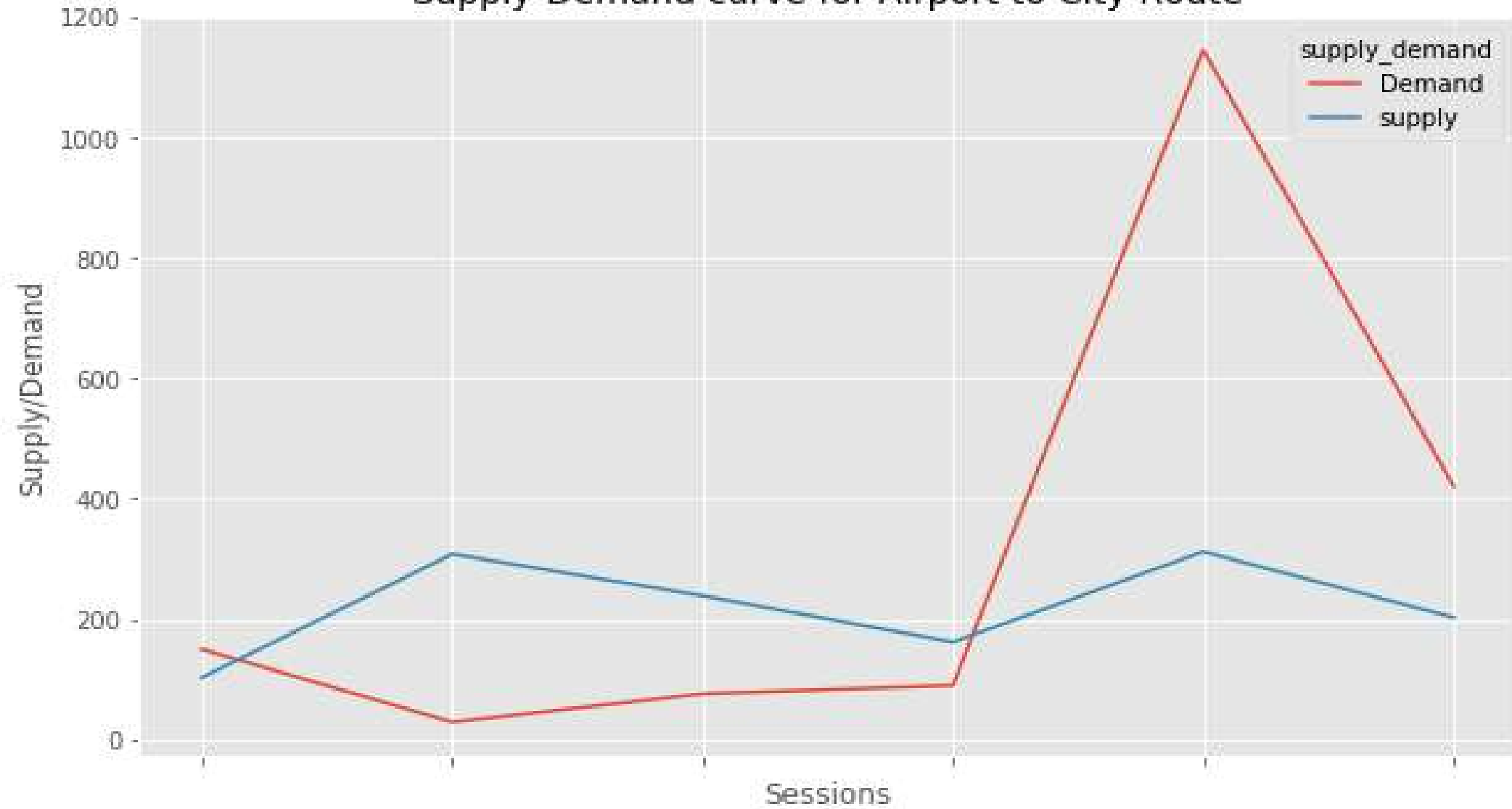
Supply-Demand curve for City to Airport Route



## Observation:

We observe that the Demand is very high in the morning from City to Airport route but the supply is very low

Supply-Demand curve for Airport to City Route



## Observation:

We observe that the Demand is very high in the evening in the Airport to City route but the supply is very low



Correlating these two plots, a possible hypothesis could be:

The demand during morning and afternoon hours from the Airport to City is quite low, which means that a driver who completed a City to Airport route in the morning hours may have to wait a really long time to get a ride back to the City, or he may have to come back without a passenger. Both situations are not ideal for drivers, which might be the reason for highest number of "Cancelled" trips in the City to Airport trip in the morning hours.

The vice versa happens in evening when there are too many flight coming in to the airport and hence there is a high demand for cabs and not enough supply. which is why most number of "No Cars Available" were observed in Evening in the Airport to City route.

## Possible Solution:

Give incentives/surge pricing/bonus for trips from City to Airport during Morning hours. Give incentives/surge pricing/bonus for trips from Airport to City during Evening hours. Uber can give Gas expense to drivers when they return from Airport without a ride or go to airport for pick up without a ride. Uber can increase market share by marketing campaigns and offers to customers when demand is low.