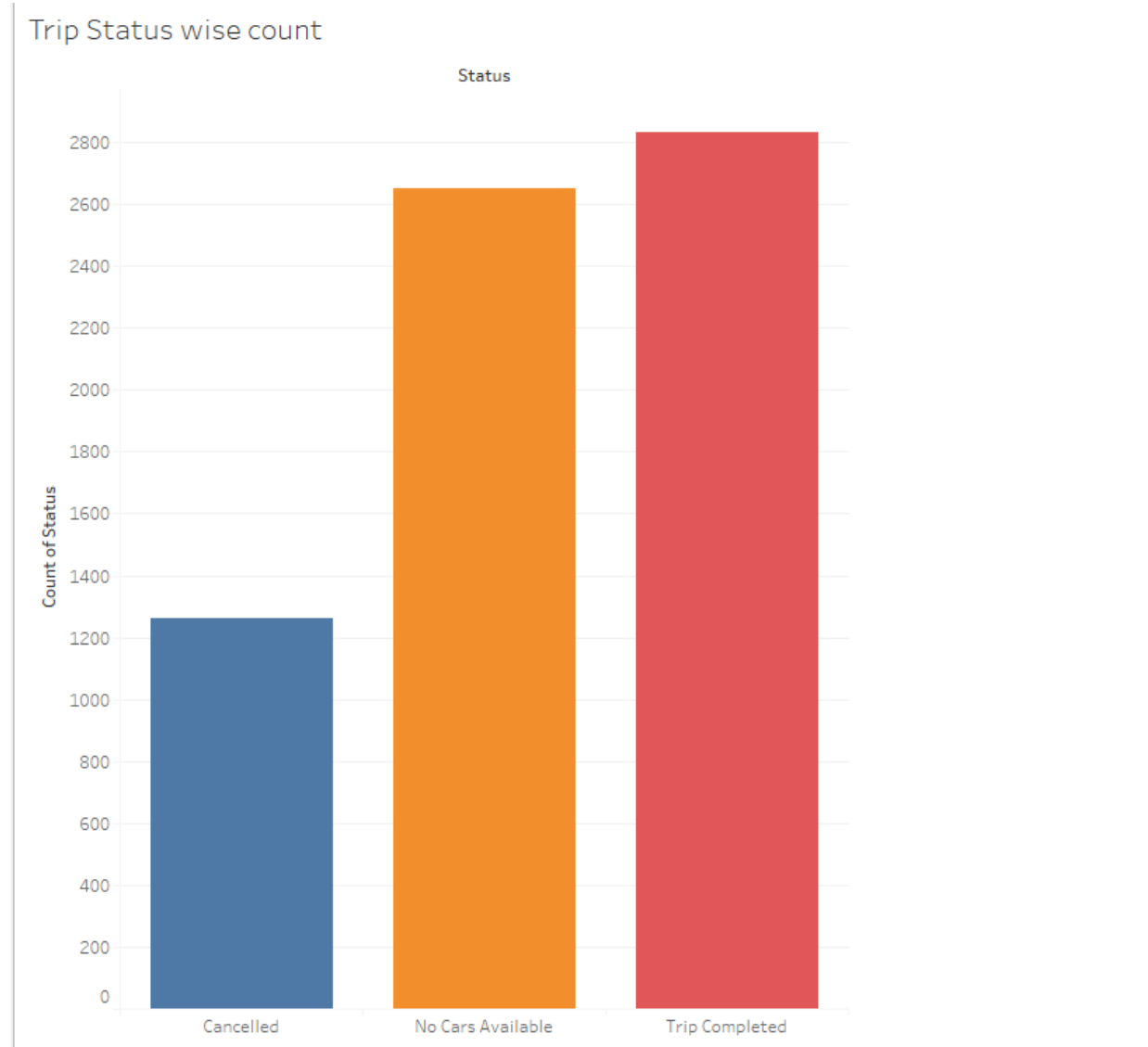# Uber Supply Demand Gap

Assignment Submission

Name: Gayathri Madhira

Synopsis

Uber is one of the famous companies which works on providing cabs for daily commute within or outside city as well .During its operations it faces a lot of issues like cancellation of cabs by drivers/riders or unavailability of cars and results in the loss of revenue . In upcoming slides we will look at an analysis of where the Gap is and what are some measures which can be taken .

Plot showing the count of trip status

This plot tells us that about the percentage difference between the Number of Trips completed is almost as same as No of unavailable cars . So if we target on this part and understand why the cabs are un-available and manage to reduce we can increase our numbers of trip completion and in turn our revenue .
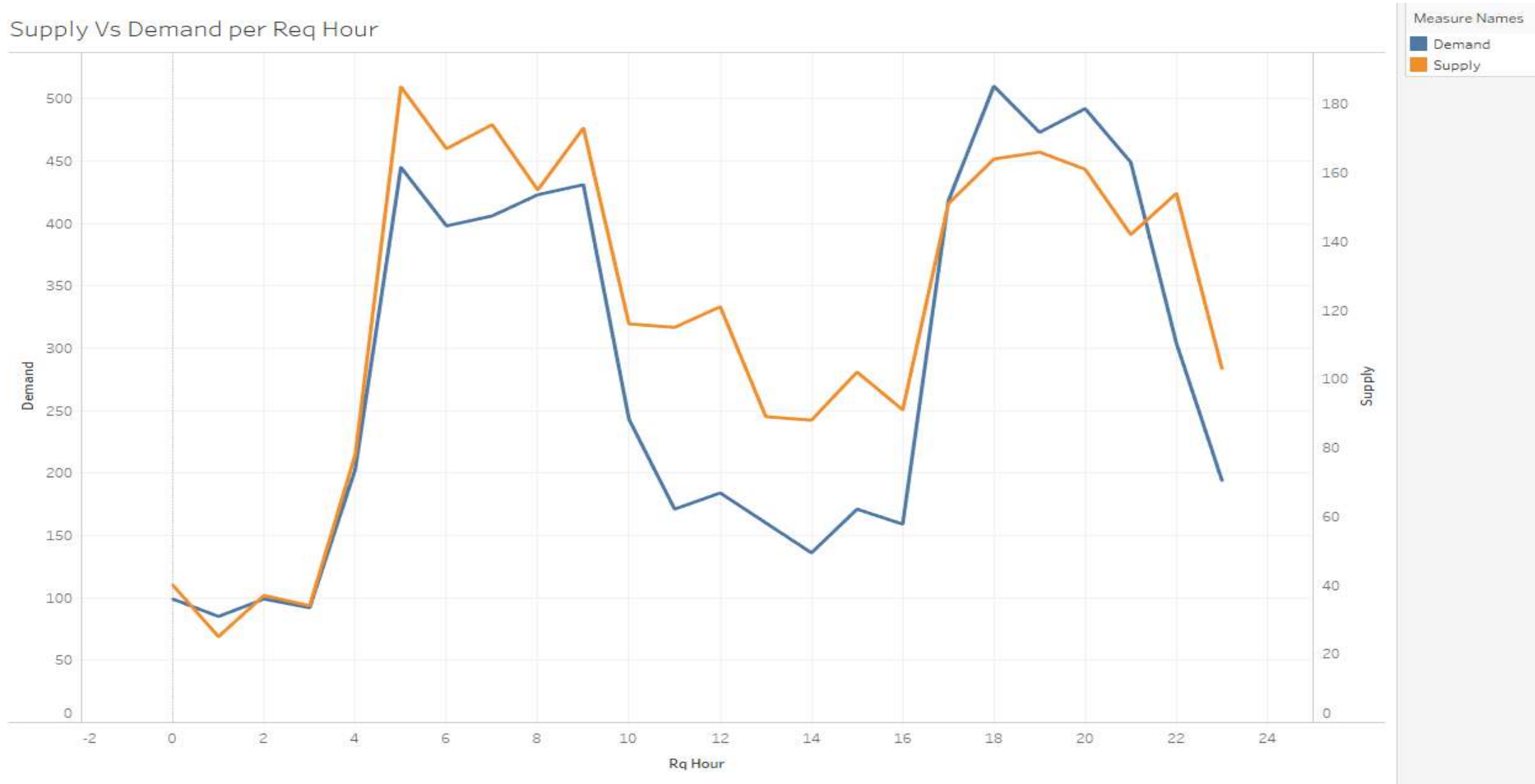

Trip Status wise count

We have 2 observations from the plot in the side

1) This plot tells us that the number of cars unavailable are more during the time 5 pm to 11 pm probably due to a surge in demand as people generally tend to leave from their offices around same time so number of booking is more in city and probably cars get concentrated in city and we don't have any cars available in airport.

1) We also see that a lot of cabs are cancelled from 5 in the morning to 11 . Now the reason could be simple people leave for offices during the same time .
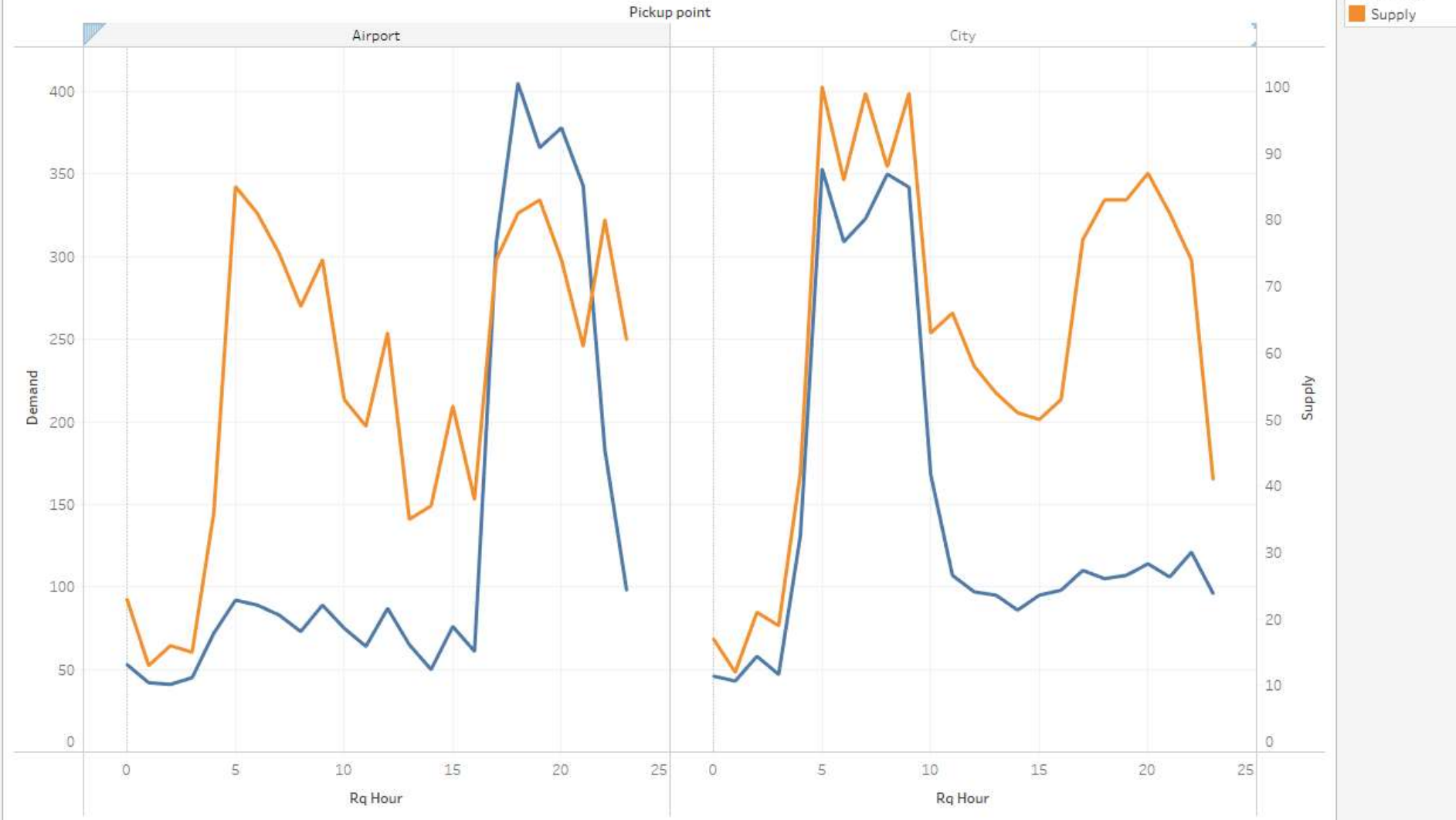
This plot further clarifies the point mentioned in the previous slide that we have more demand during the time 5 pm to 11 pm and more supply during 5 am to 4 pm. Now we need to identify whether this gap during this time period is consistent in both pickup points of Airport and City or in just one of it .

SupplyVs Demand Per Hour and Pickup

We can now have a clear picture that the gap between supply and demand which we were seeing in the evening time was at Airport not in the city ,it is more interesting that the supply is more during the same time in the city so our assumption that the cars getting concentrated at a point is correct .

Reason for supply demand gap

- By the previous observations we can conclude that the supply demand gap is due to the concentration of vehicles at one point either city/airport due to anticipation of increase in demand during that hour which leads to decrease in supply at other part and vice a versa at other .

Proposition to solve the problem

- In order to avoid the mentioned problem we might need to set a lower radius for looking cars when someone requests , that way we will have small chunks of cars available around the city and the wait time for customer will also decrease.

- We also need to identify the drivers frequently cancelling the cabs and bring it to scrutiny to make an informed decision.