

UBER SUPPLY-DEMAND GAP

By Abhishek Hegde

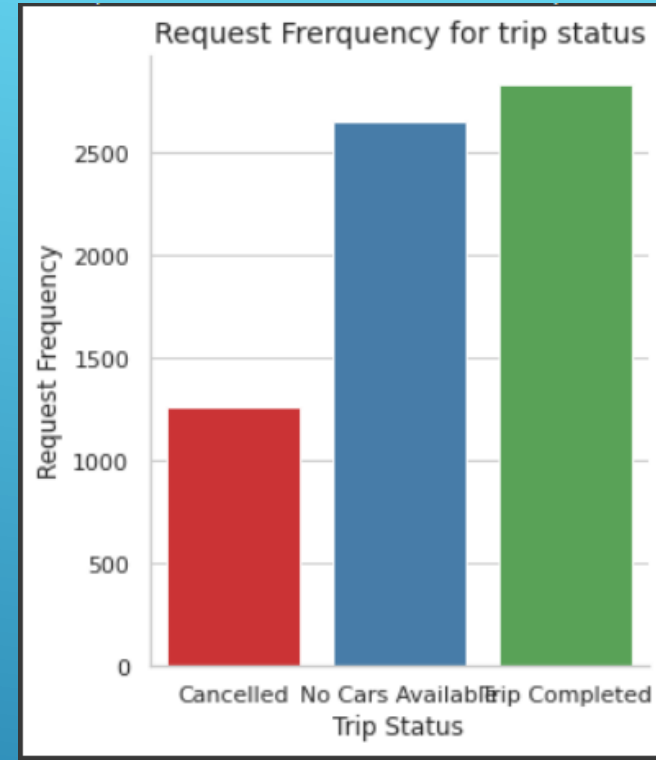
- ▶ To identify the root cause of problems of cancellation of requests and non availability of cabs.
- ▶ To provide a solution to tackle the above problem.

BUSINESS OBJECTIVE

- ▶ The data given is consisting of ride request from Airport to City or city to airport.
- ▶ The span of the data is of 5 days.
- ▶ Identify the type and quality of data.
- ▶ Clean the data by dropping of columns which are not required.
- ▶ Format the date and time variables.
- ▶ Extract new variables which are required for analysis.

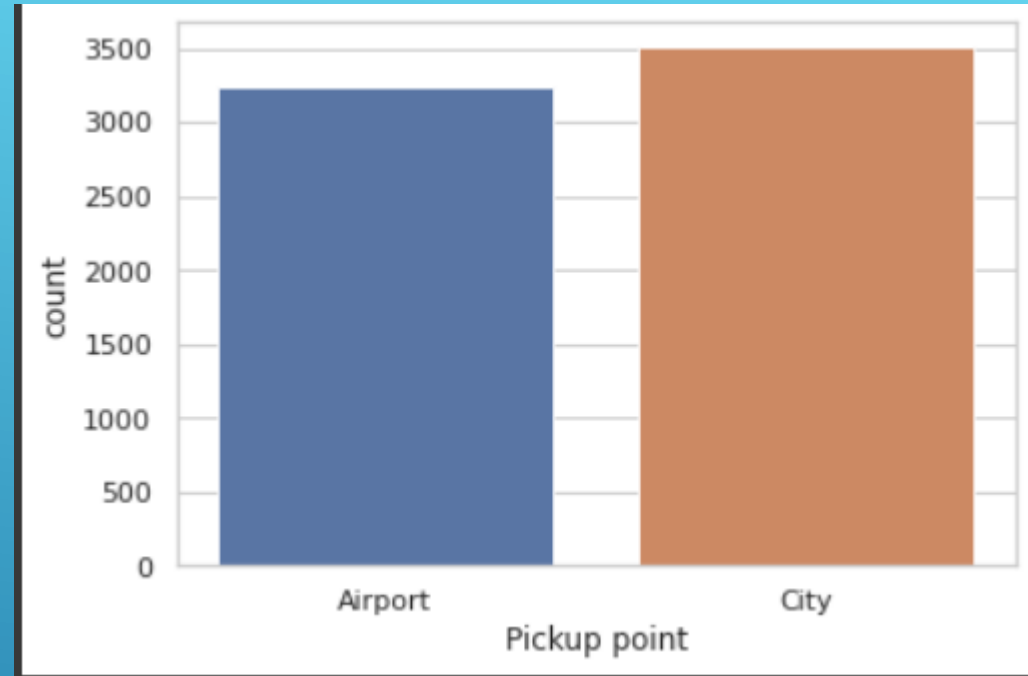
DATA COLLECTION AND CLEANING

- ▶ We can see from the graph that uber is losing its business because there are no cabs available when the request is made.
- ▶ We need further analysis as to why there is shortage of cabs so that this issue can be resolved and can help the business to grow.



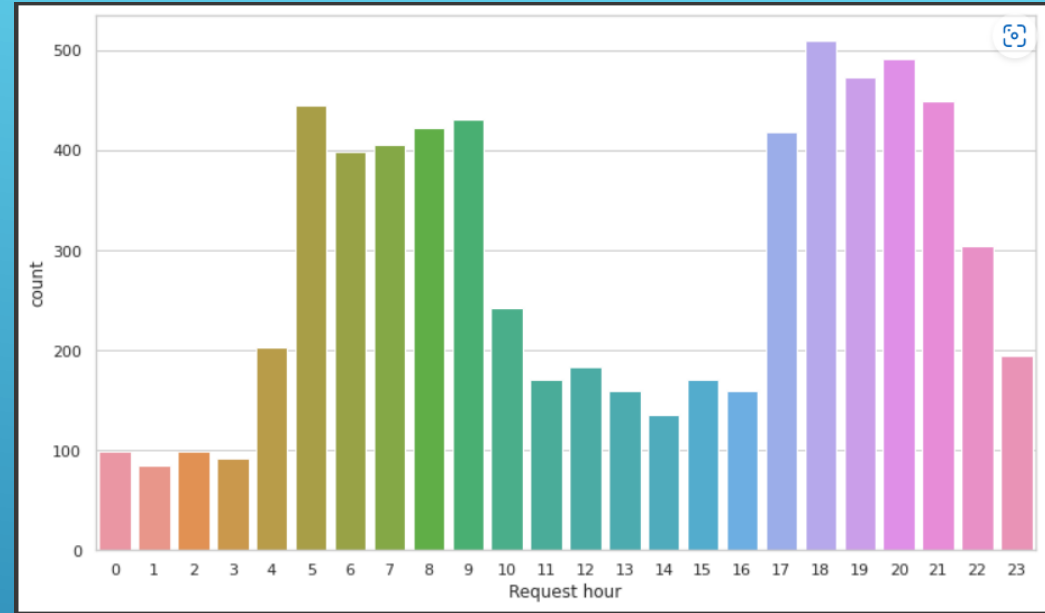
ANALYZING TRENDS FOR COMPLETION OF TRIPS

- ▶ From this plot we can say that the requests from City and Airport are almost equal but there is a slight increase in request when it comes to city.



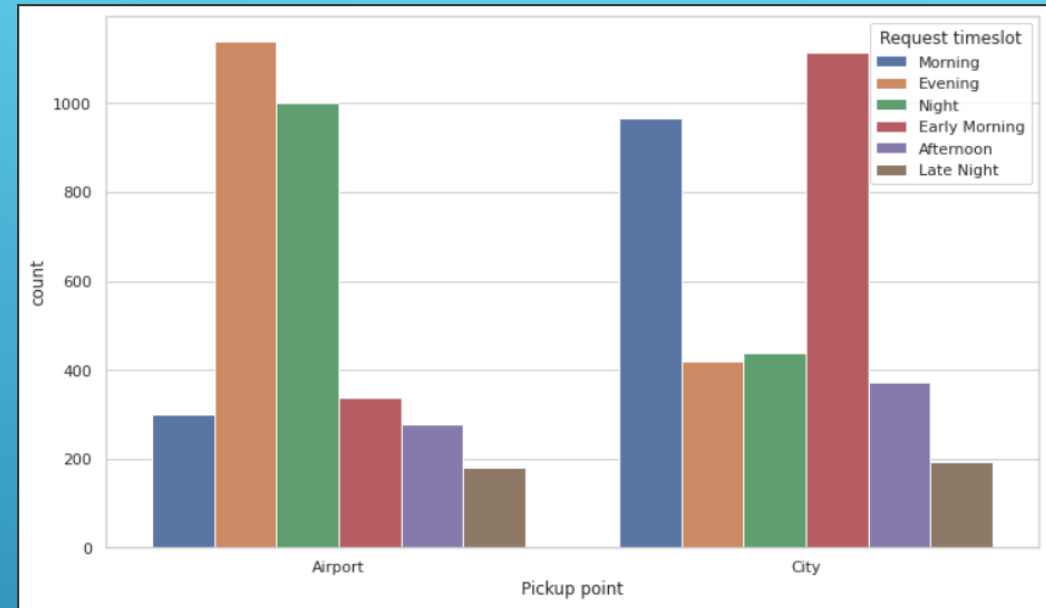
REQUEST AT EACH PICKUP POINT.

- This plot tells us that maximum requests are being done from 5am to 10am in the morning and 5pm to 10pm in the evening and Night.

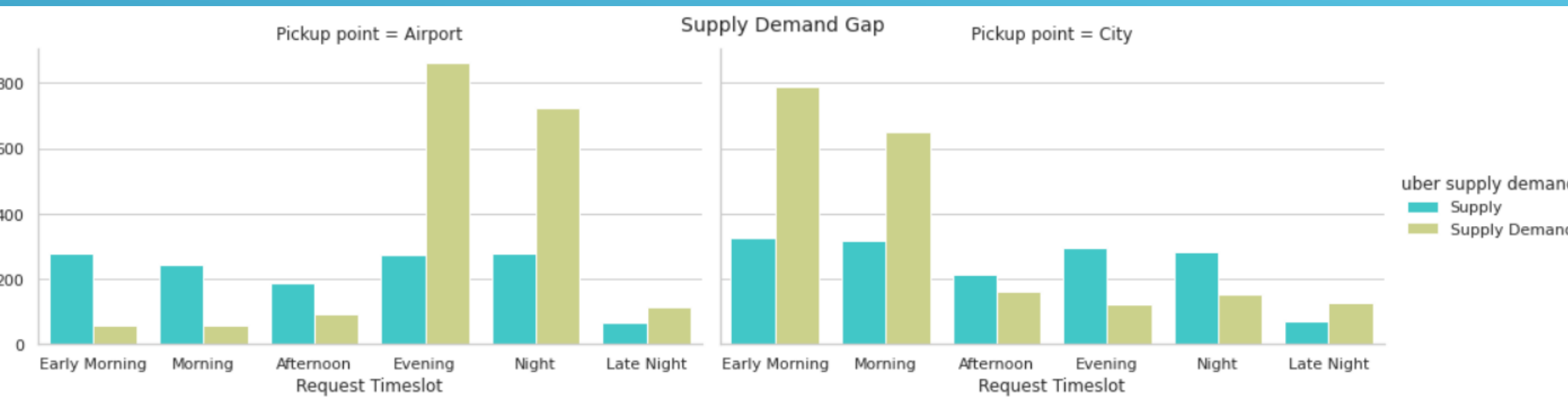


COMBINING DATA FOR HOUR DEMAND ANALYSIS

- ▶ From this graph we see that in Airport the maximum request is during evening
- ▶ Maximum request in city is during early morning.



NUMBER OF REQUEST WITH TIMESLOT



PICKUP POINTS

- ▶ There is a huge gap in supply and demand.
- ▶ There are a lot of rides which are cancelled or where the cars are not available when we compare with completed rides.
- ▶ However we see the data there is a gap in supply and demand. In peak hours the demand is high where they cannot supply and in non peak hours there is gap but not to that extent.
- ▶ This can be solved by trying to fix the gap which is present in peak hours and once that is solved we can automatically solve the gap in non peak hours.

CONCLUSION

► Pickup point: City

- The greatest negative gap and it is problematic due to requests are being cancelled. Reason behind request cancellation could be morning rush. It can be considered that most probably drivers cancelled the request for airport as they can get many rides within the city instead of single airport ride.

► Pickup point: Airport

- The evening time slot show the greatest negative gap and it is problematic due to no cars available. Reason behind no cars available could be due to not enough cars are available as cars might not be in the airport area due they are in the city and some of the drivers might have gone to home.

ANALYSIS

- ▶ Based on the performed analysis of data, there are some recommendations which can be used by uber to bridge the gap between supply and demand:
- ▶ For airport to city, an uber stand can be created at airport where cabs will available all the time, this will itself lower down the no cars available status.
- ▶ For city to airport, uber can give some small reward or something to the drives in the morning. This might attract drivers to go for airport, this step can be helpful in reducing the number of cancellation during morning time for airport.
- ▶ There should be a threshold for cancelling a ride in a day ad some sort of penalty should be imposed.
- ▶ There is definitely need of more cars for filling the gap.

SOLUTION

Thank You

