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# Uber Case Study

# Data Exploration

## ➤ Data set Contains 6 columns

1. Request id
2. Pickup point
3. Driver id
4. Status
5. Request timestamp
6. Drop timestamp

## ➤ **Business Objectives**

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.

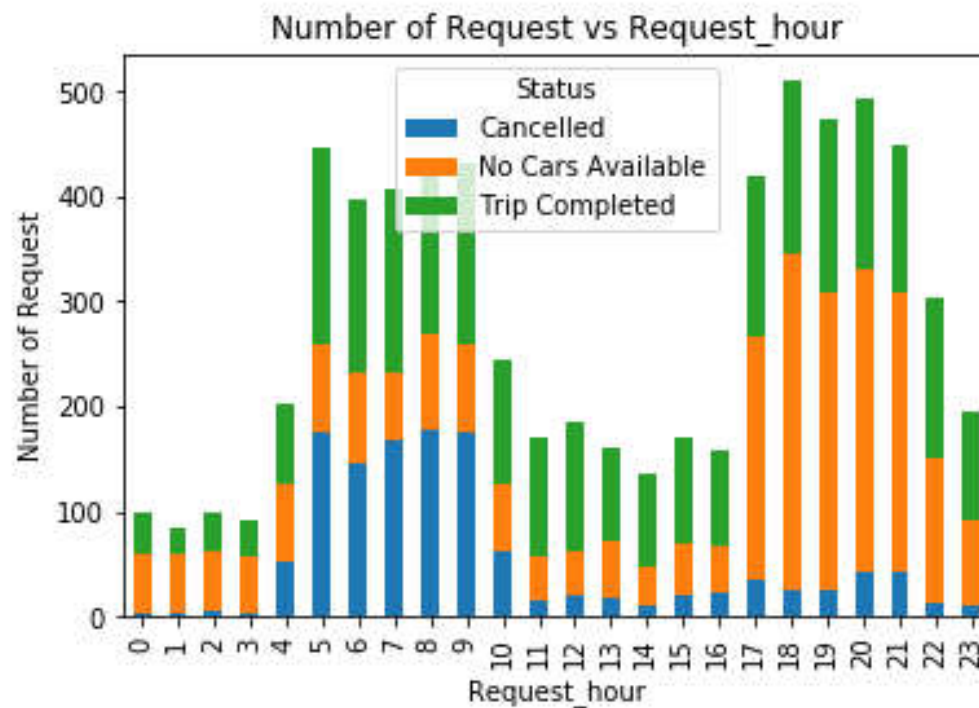
# Data Cleaning and Munging

## ➤ Possible data cleaning and munging

- NA values in the columns of interest
- Request timestamp is in object format. Converted it to datetime format
- Date are separated by “/” and “-”. Corrected this inconsistency

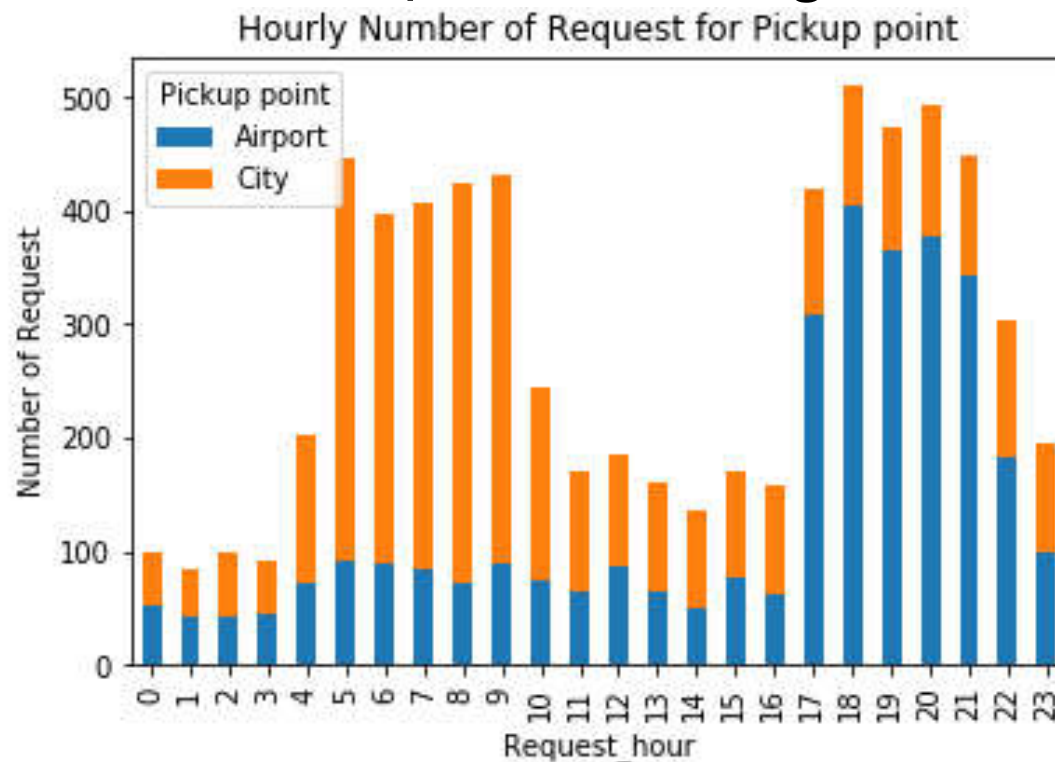
# Requests Analysis – Cancellation and Unavailability

- The pattern of requests are different for status of request for different hours of the day.
- Cancellation in morning, unavailable in evening



## Requests Analysis- City and Airport

- The pattern of request is different for pickup point for different hours of the day.
- High number of request in morning are from city
- High number of request in evening are from airport



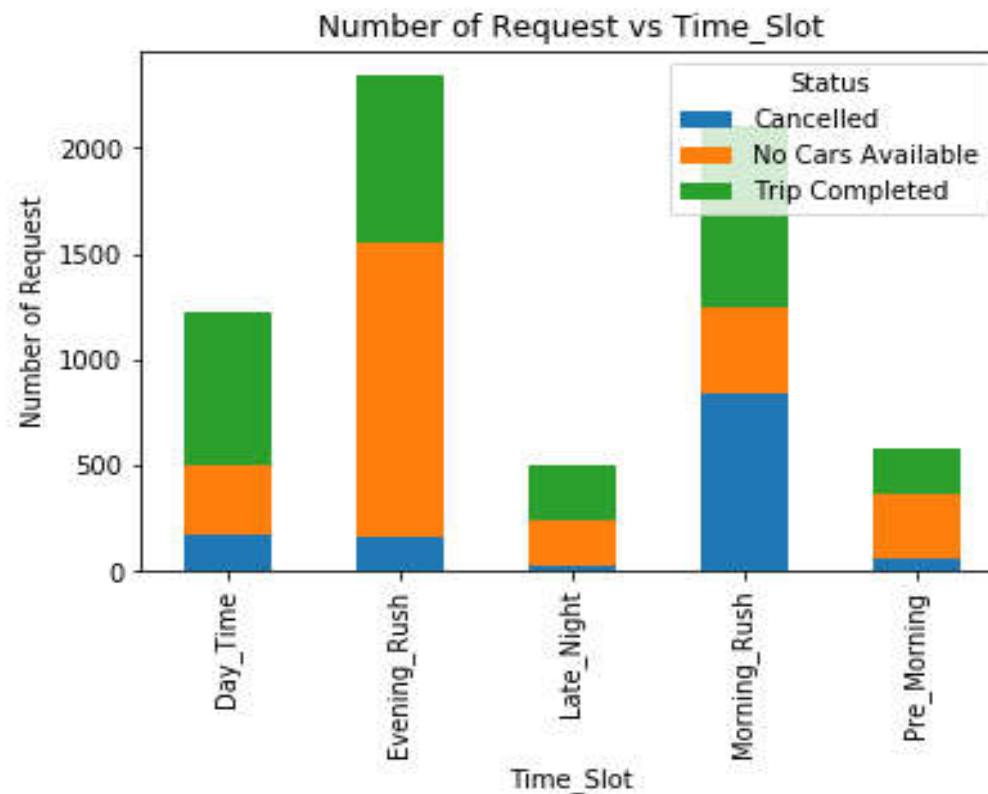
## Binning Time into 5 Categories

- Request generated are divided into 5 homogenous categories based on request time

Time	Category
12 am – 5 am	Pre_Morning
5 am – 10 am	Morning_Rush
10 am – 5 pm	Day_Time
5 pm – 10 pm	Evening_Rush
10 pm – 12 am	Late_Night

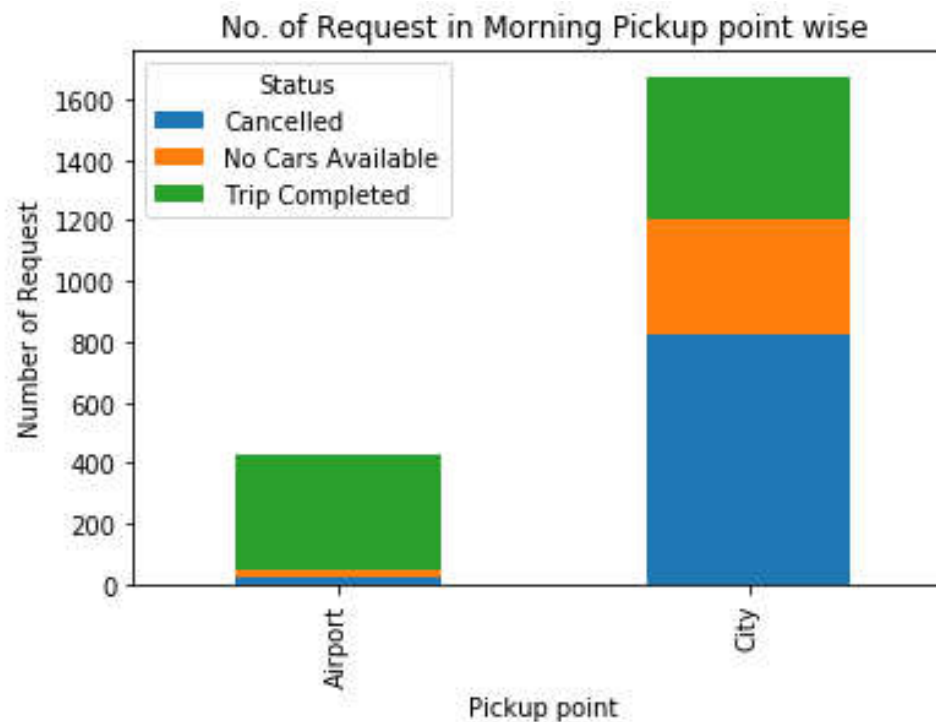
## Problem Identification – Morning and Evening

- Graph shows that the major problem are
1. Cancelled request during the morning rush
  2. Unavailability of cars during evening rush



Cancelled Request are approx. 50% from city

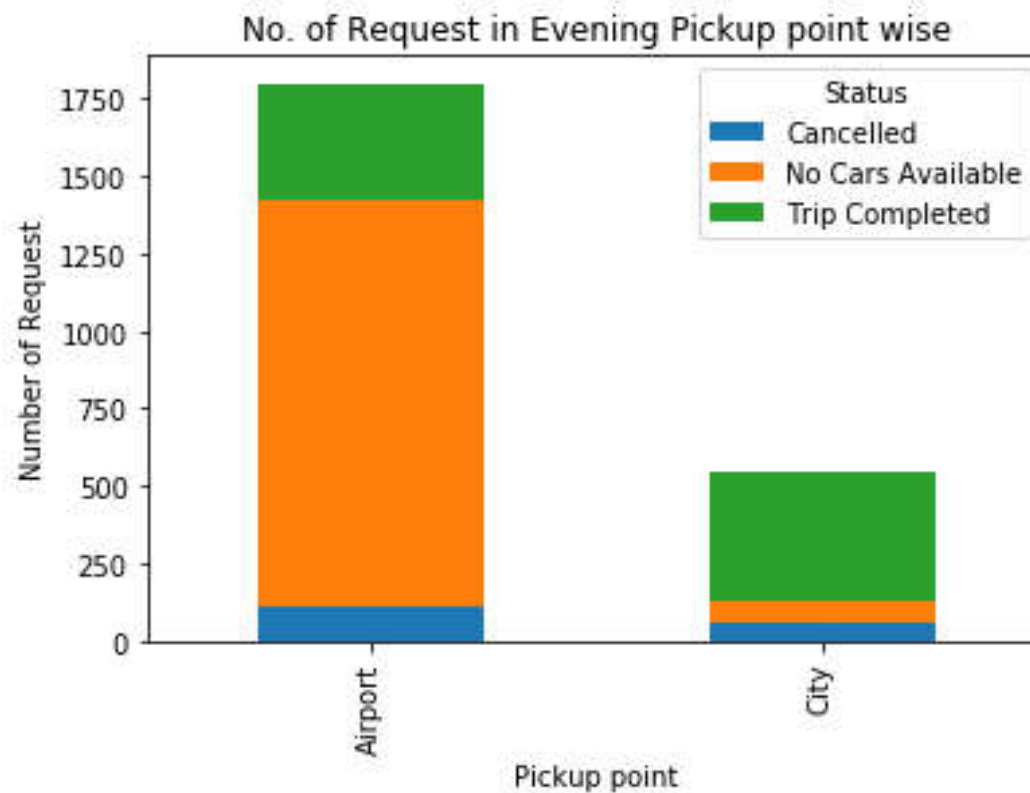
- Approximately 50% of request are cancelled from city in morning





## Unavailable Request are approx. 70% from Airport

- Approximately 70% of request are unavailable from Airport in evening



# Recommendations

- For the request in the morning, drivers can be incentivized to make those trips to airport
  1. They could be given a bonus for each trip from city to airport in the morning rush.
  2. Uber can pay for petrol bill of drivers to come back to city without ride.
- For the Evening unavailability recommendation can be
  1. Drivers can again be given bonus to complete a trip from airport to city in evening.
  2. Uber can pay driver for come without passenger to airport.