

## Uber Dataset

I used the New York Uber-data set for April, May, June, July, August, and September to carry out the analysis.

### Research Question

1. What are the Uber peak and off-peak hours?
2. Which days of the week is Uber busy?

### Data Analysis

Chart 1

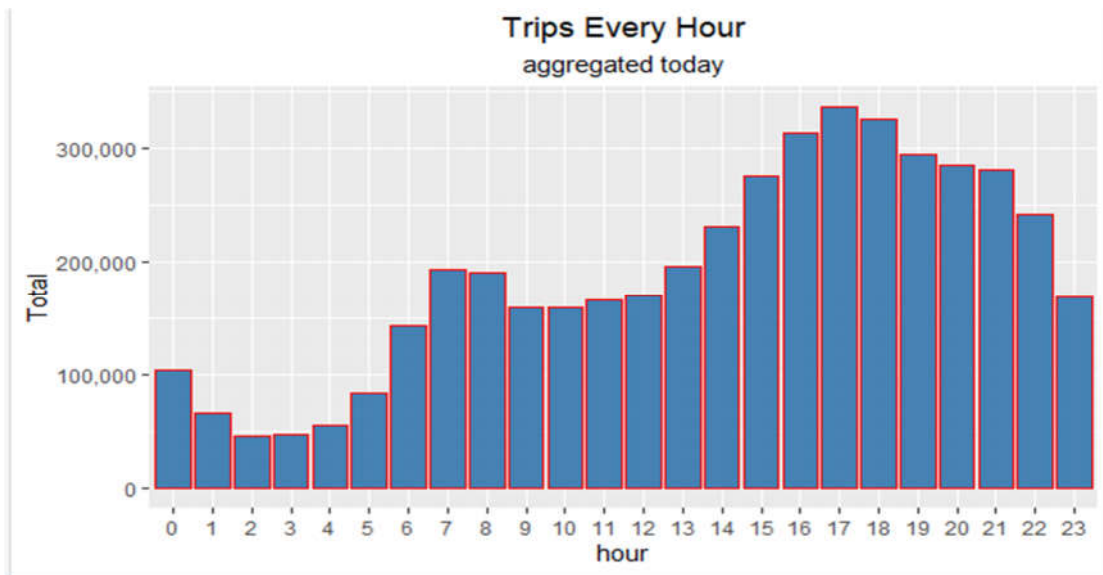


Chart 2

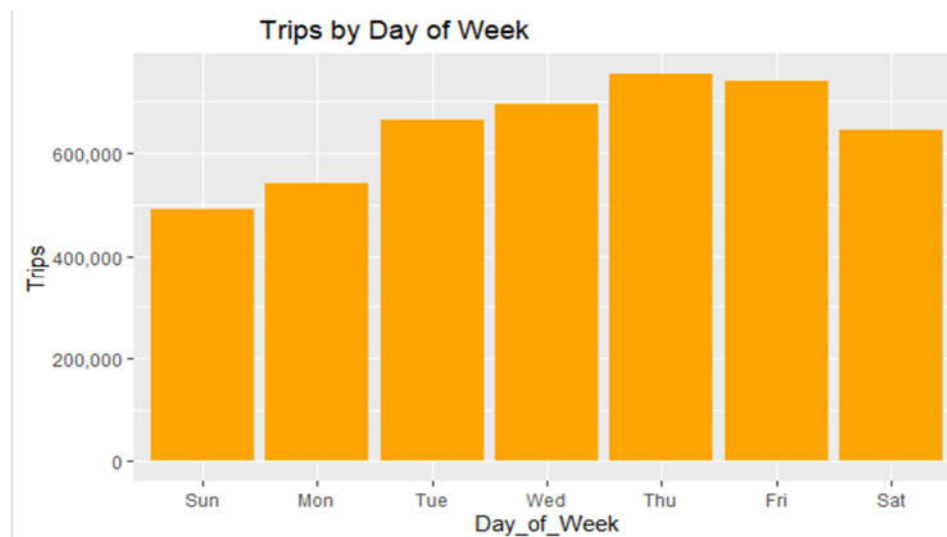
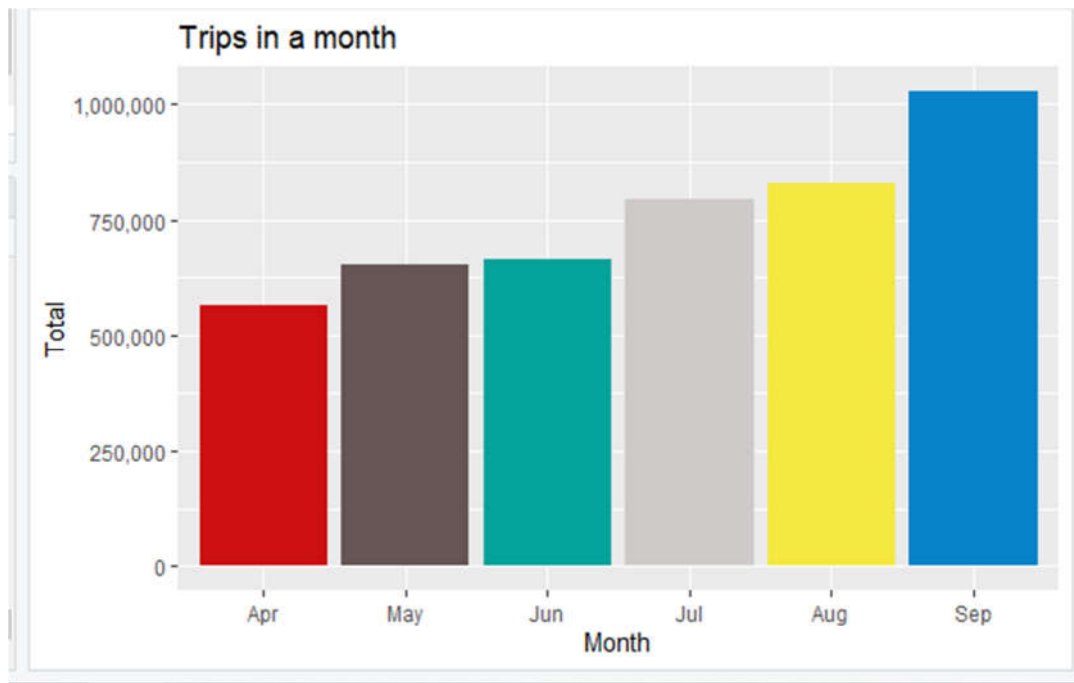


Chart 3



## Analysis

According to chart 1, the taxi company has a high number of trips at 17:00 and the least trips between 2:00 and 3:00. The company makes a high number of trips from 6:00 to 8:00 in the morning hours. The company then experiences a steady flow of customers from 9:00 to 12:00. From 13:00 the company receives many requests from the customers and it makes a large percentage of the rides at 17:00. From 18:00 to 22:00 the Uber trips drop steadily. Between 23:00 and 01:00, the company makes substantial trips.

Chart 2 indicates that the company makes most trips on Thursday and the least trips on Sunday. The number of trips increases gradually from Tuesday to Friday, before reducing on Saturday. According to Chart 3, the company has steadily increased the number of trips from April to September, indicating an increase in its customer base.

## Benefits of the Data Analysis to:

### 1. Company

- Given that the peak times are between 6 am-9 am and between 3 pm-6 pm, Uber should prioritize serving its customers at these hours. Uber is constantly innovating to serve its customers better and operate more efficiently. Uber should devote more effort to serving its customers by having more customer service personnel ready to help their customers have better rides.
- Considering that the peak times are 6 am-9 am and between 3 pm-6 pm, Uber should consider maximizing their profits while offering affordable rates. During the off-peak

hours of 1:00-5:00 am and between 10:00-12:00 am, the company may offer lower prices to attract new customers and increase its market reach.

- The marketing department at Uber may utilize this information to focus on the marketing strategies to use during the different peak or off-peak hours. During peak hours, the marketing department may consider sending their frequent customers messages on the availability of rides, customer discounts, etc. During off-peak hours, the company's marketing department may consider offering irresistible offers to potential customers or customers who have used the ride company a few times during these hours.
- The data will also be crucial to the company as it will improve its route optimization algorithms and guarantee that drivers use the most direct routes to pick up passengers during peak hours. These statistics will help Uber improve its algorithms for determining the most efficient routes for their drivers. The drivers can save time and money by using the most direct routes to pick up passengers during busy periods.
- Due to the increase in demand, the company should consider acquiring more vehicles to cater for the projected increase in demand.
- Since the company has the least number of trips on Sunday, it can offer alternating off-days to its employees on the particular day.

### 3. Customers

- As a customer, knowing the uber peak hours may be beneficial as one can take advantage of the discounts and hence save money on the rides.
- Knowing the busiest pick-up times for Uber allows customers to plan their trips around those times, ensuring they don't have to wait too long for a ride.
- Customers can either avoid the busiest times and wait less for a ride or plan their trips to coincide with the busiest times and get a ride quickly.