

Effects of Trip Data Characteristics on Their Duration

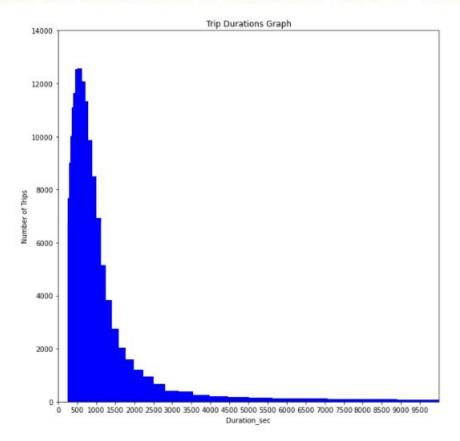
## Investigation Overview:

In this investigation, The main focus was on the five: age, start station, end station, user type, and gender because with these I wanted to look at the characteristics of trip data that could be used to predict their duration.

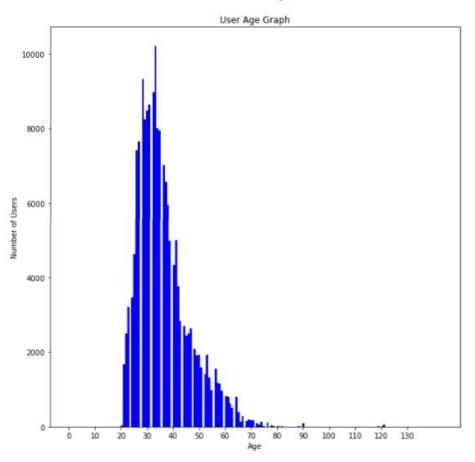
#### Dataset Overview:

The data consisted of approximately 183,412 rows and The attributes included the five, as well as additional measurements such as start station name, start station latitude, and start station longitude.

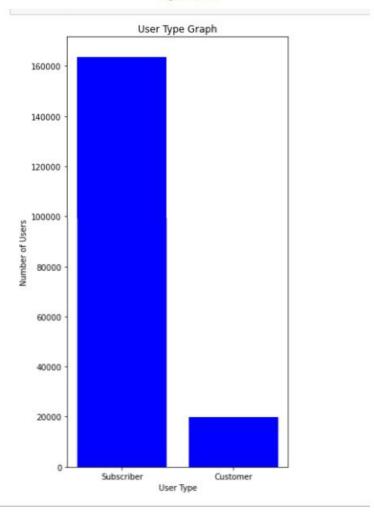
Trip duration is mostly centered on values which are less than 2000 seconds with peak around 600 seconds. Number of Trips values first increases starting from around 8000 values to 12000 values at around 600 seconds but then starts to fall below at 2000 values under 2000 seconds



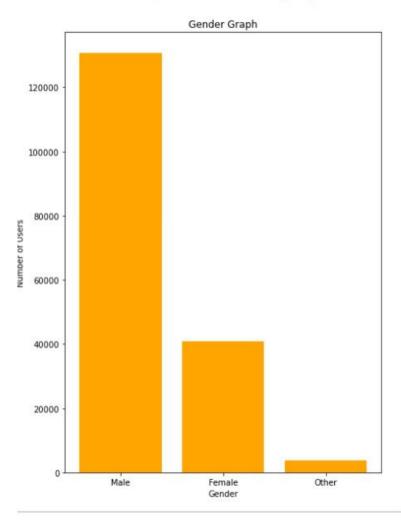
## you can see that the distribution is more concentrated between 20 to 40 years old and the peak is about 35 years old.



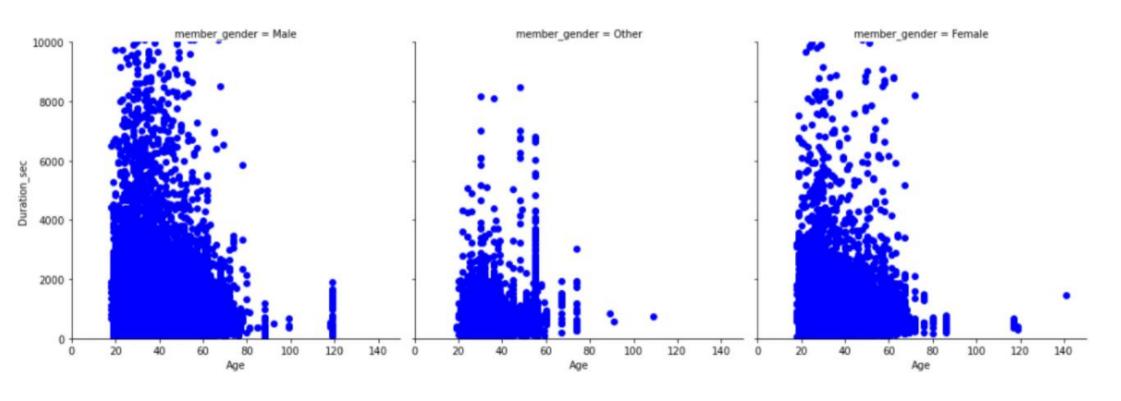
# Most of the users are Subscribers as shown in the graph



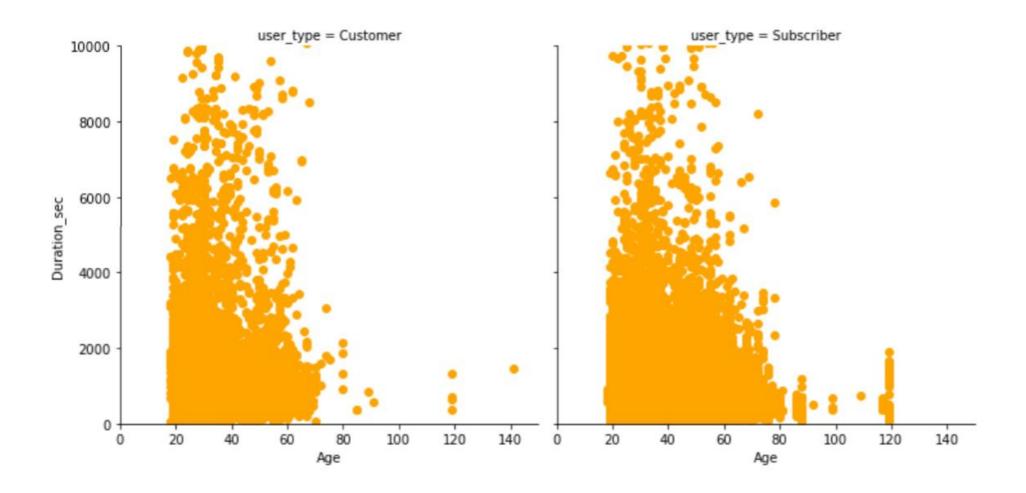
## Most of the users are males and Male bikers are about 3 times of female bikers as shown in the graph.



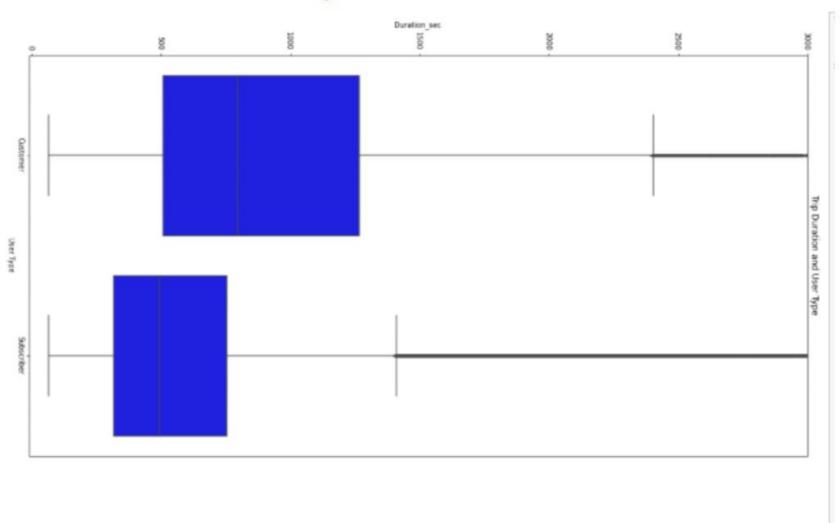
### the age, duration, and gender, for the others leap at an older age (around 60 years) to got 3000 trip duration



the age, duration, and user type, both Customer and Subscriber are showing similar trends for age and trip duration, but for subscribers the trip duration is higher for older age



we can see that higher percentage of customer rides longer trips then subscriber although number of subscriber riders are higher than customers



we can see that higher percentage of female and other rides longer trips then males although number of male riders are higher than other and female.

