

Part II - (Ford GoBike System Data Exploration)

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Investigation Overview

For the presentation, I have focused on:

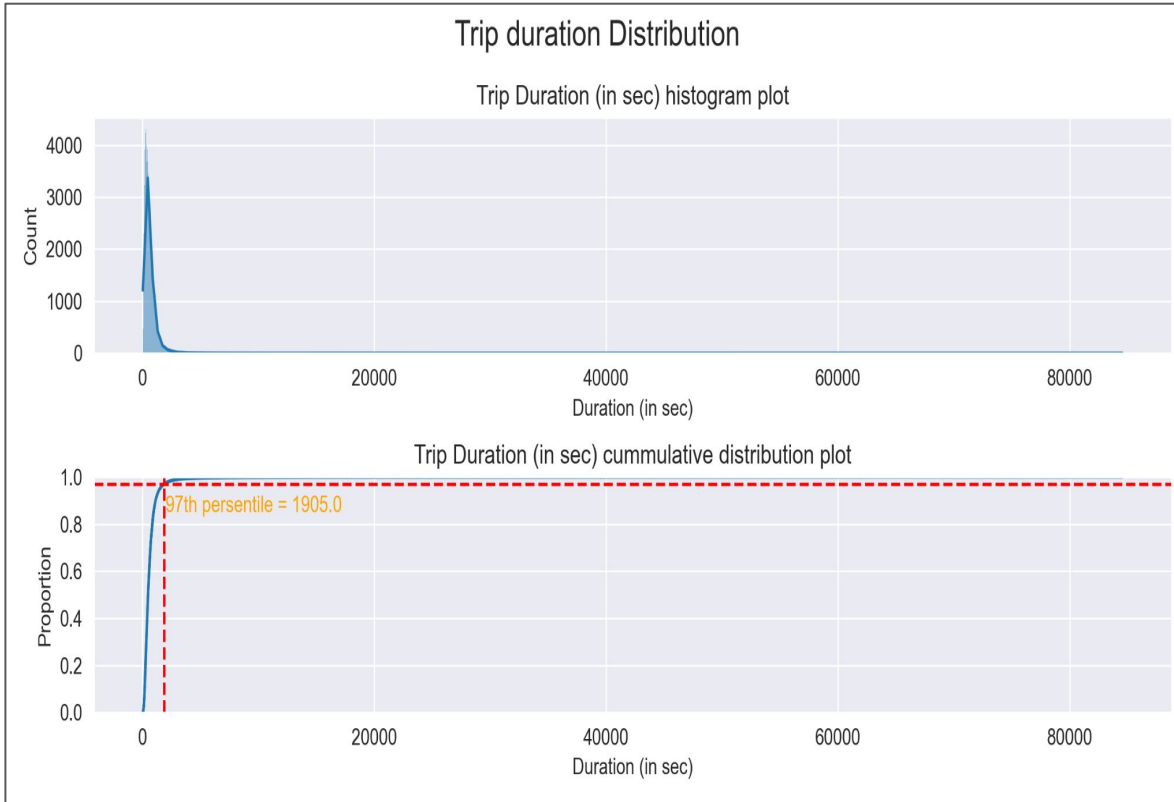
- The time of day, day of week.*
- Average trip duration*
- Surprising fact that even though male are highest users, they don't travel for long durations.*
- Finding out who does longer duration trips.*

Dataset Overview

In the dataset, there are 183,412 bike trip records with 16 columns/features which includes information about station names, ids, geographic positional arguments, date, start & end time, user types, and details about the member/user. The dataset can be found [\[here\]](#).

Before starting the exploration some preliminary data wrangling was done like changing data types, deleting null value/useless records, adding new columns.

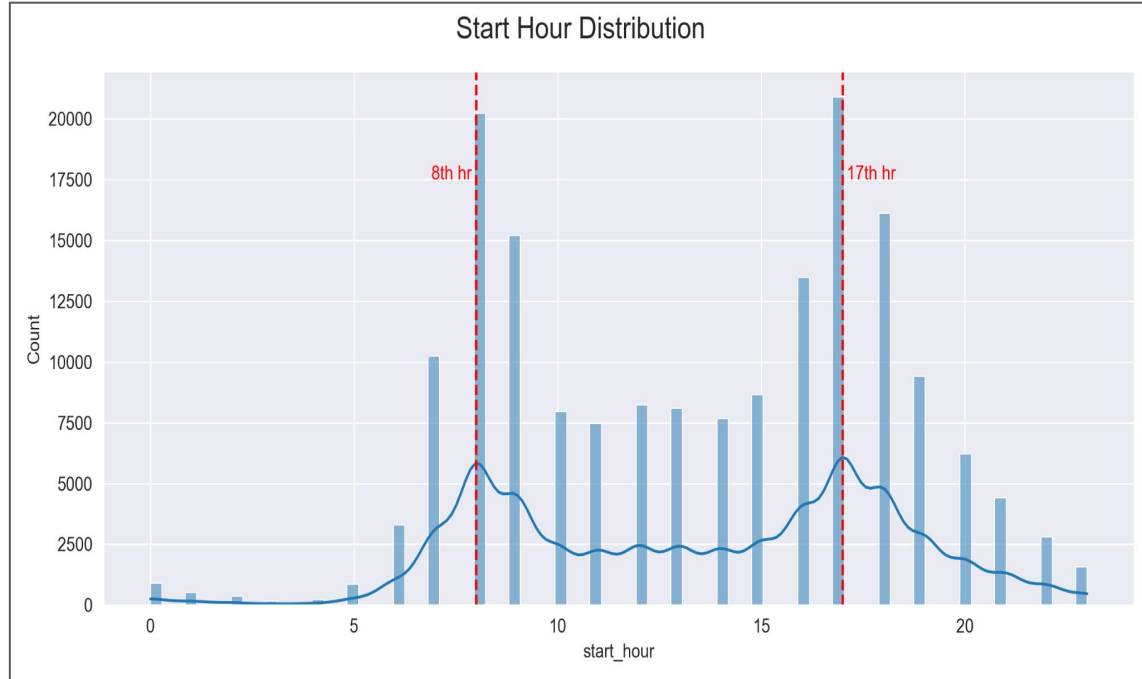
Distribution of Trip Duration



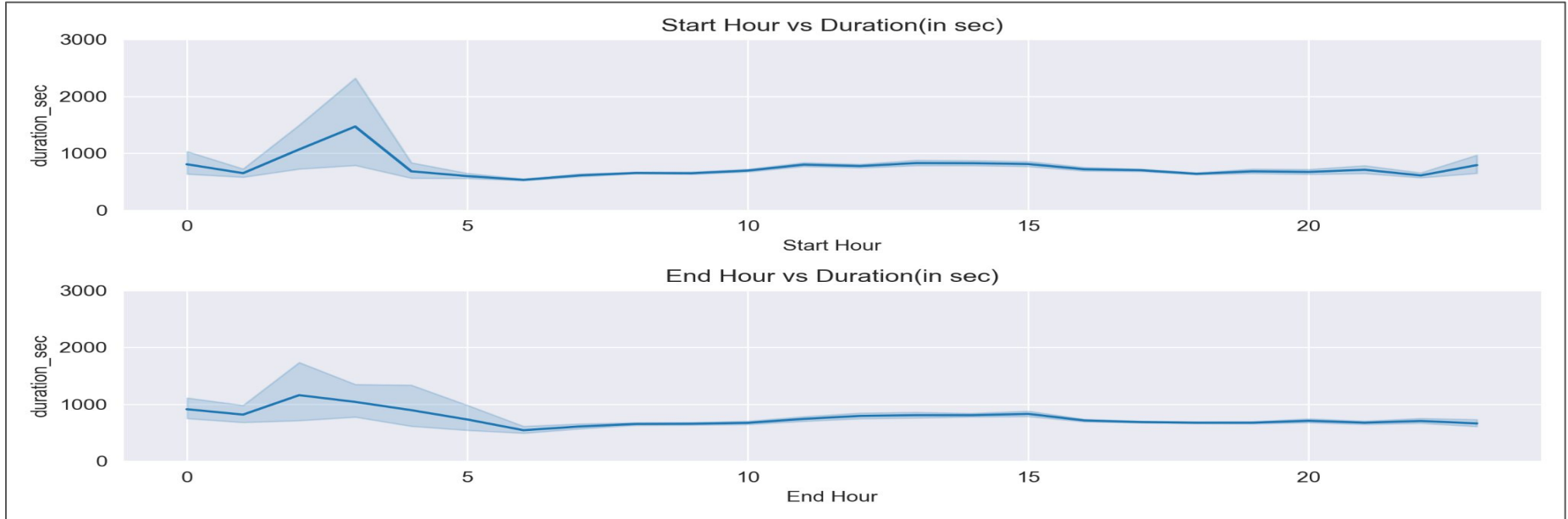
- *It is seen that 'duration_sec' distribution is right skewed.*
- *97% of the trips are shorter than 1905 sec (or 31.75 mins).*

Start Hour Distribution

There are 2 peaks in the plot, i.e., around the 8th and the 17th hour there are more number of trips. So, the morning around 8 am and the evening around 5 pm are the two busiest times, which indicates that these are the office start and end hours.



Start Hour vs Trip Duration



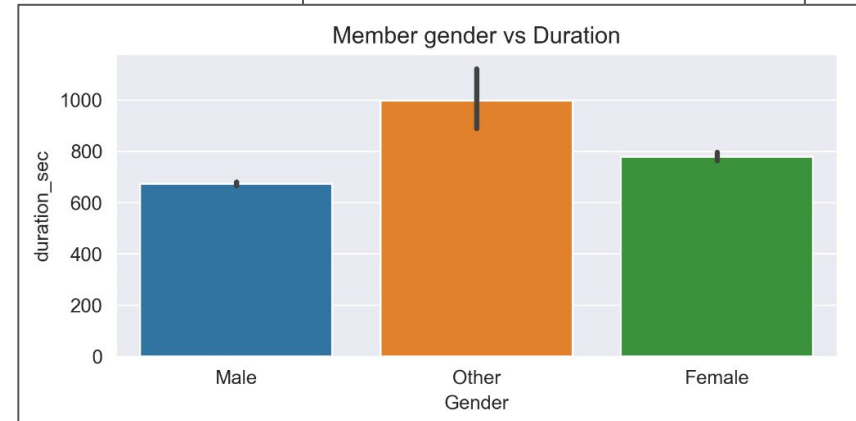
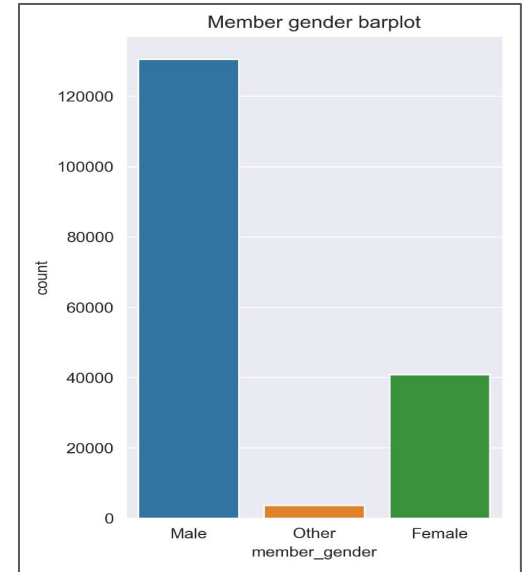
It seems that longer durations trips occur after midnight (0th hour/12am) and before morning (around 4:30/5am).

Are Male users the top in every aspect?

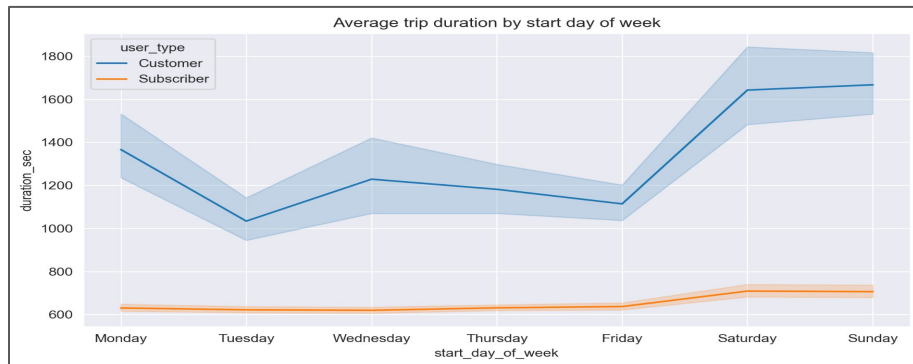
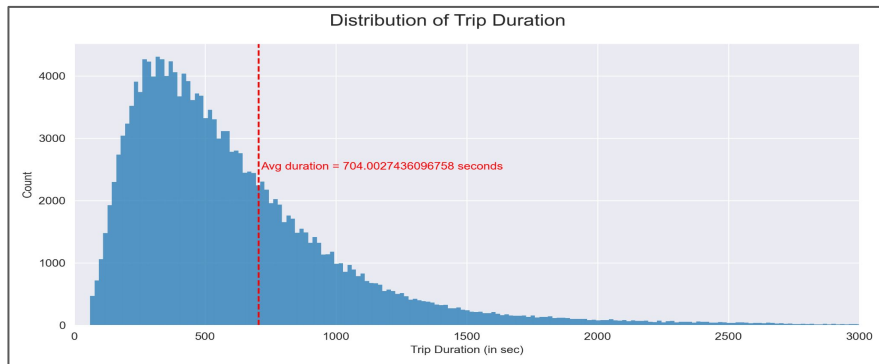
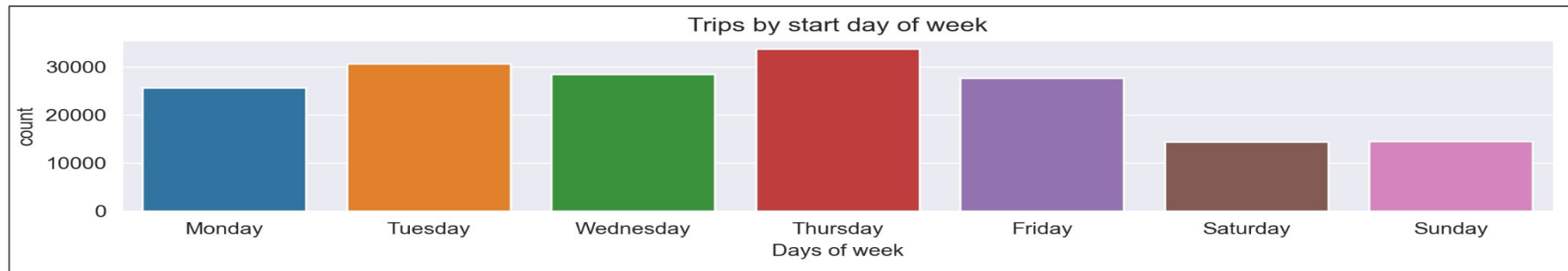
Clearly, from the top plot, we can see that Male amount for the highest number of bike users.

While Males are dominating gender, they are not the users who travel for more duration, in fact they travel least duration.

Not many users do bike share but bike users who share bike are using it for longer duration and they are mainly customers and not subscribers.



Do subscribers enjoy bike everyday?



- Average trip duration is 704 secs (or 11.7 minutes).
- On average no Subscriber has taken longer duration trips than Customers.
- Weekend usage of bikes is almost half of that in the weekdays but users especially Customers travel for longer duration during weekends. Subscribers usage is almost same everyday.

Thankyou