

Ford GoBike Service



Introduction:

This is a dataset for Ford GoBike Service for Feb - 2019 , It consists of 170 K information about the trip and the users such as thier gender and age.

Ford GoBike is the Bay Area's bike share system. Bay Area Bike Share was introduced in 2013. It services San Francisco, the East Bay and San Jose. Similar to other bike share systems, Ford GoBike consists of a fleet of bikes that can be unlocked in one station and returned in any other network station. Thus, this is ideal for one-way trips. These bikes are available for use thoroughout the year and riders have access to all bikes in the network.

Dataset Dictionary:

- 1- duration_sec: Trip Duration
- 2- start_time :start time for each trip
- 3- end_time : end time for each trip
- 4- start_station_id
- 5- start_station_name
- 6- start_station_latitude
- 7- start_station_longitude
- 8- end_station_id
- 9- end_station_name
- 10- end_station_latitude
- 11- end_station_longitude

12- bike_id

13- user_type: User Type (Subscriber = Member or Customer = Casual)

14 - member_birth_year: Member Year of Birth

15-member_gender

16- bike_share_for_all_trip: members who are enrolled in the "Bike Share for All" program.

Summary of Findings:

From the explanatory data analysis I figured out that:

1- Age:

- Above 53 years old are outliers and I think it is normal.
- Average age of the riders is 32.4.
- The highest age of the users who is using the service is 32 years old.
- Age between 25 to 35 has the heaviest number of rides.

2- Gender:

- Males use the Ford GoBike service more than females, where 74.4% of males and 23.5% females using the service.

3- Weekdays:

- In the weekdays people use the Ford GoBike service more than the weekends.
- Thursday has the highest trips.
- Saturday and Sunday which are the weekend days has the less use of the service.

4- Distance in Km:

- The most distance over the trips is between 0.5 Km and 1.5 Km.
- 6 Km has the least number of trips.

5- Hours of the day:

- 8 am and 17 pm have the heaviest startoff rides , which is in the range of official working hours.
- 6- Stations:
- Market St at 10th St & San Francisco Caltrain Station 2 (Townsend St at 4th St) have the highest number of rides.
- Palm St at Willow St, 21st Ave at International Blvd and 16th St Depot have the least number of rides.

7- User type:

- Users who are subscribe are more than customer users.
- Subscriber riders achive 90.4% rides , and 9.6% from the trips are customers
- Number of males who are subscribers are more than the females subscribers.
- Also the number of males customers are more than the females customers.

8-Bike Share for All program:

- The number of members who did not enrolled in the program are more than who did , which 90.3% didn't enrolled and just 9.7% enrolled.
- The number of males who enrolled and didn't enrolled are more than the females in both.

9- Duration in min:

- The average duration of the total trips in min is 11.7 min .
- The minimum duration of the trips is 1.0 min and the max is 1409 min.

Key Insights for Presentation:

User type is very important as many aspects depend on the user type, also I think it is normal that males use the service more than females.

Market St at 10th St & San Francisco Caltrain Station 2 (Townsend St at 4th St) have the highest number of rides.

References:

- 1- Advanced Data analysis nanodegree , Udacity
- 2- <https://stackoverflow.com/questions/10628262/inserting-image-into-ipython-notebook-markdown>
- 3- <https://realpython.com/pandas-plot-python/>