

# Bike Share Project

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# Objective:

- Find the frequency of trips based on time.
- Focus on other variations affecting the above and more.

# Dataset

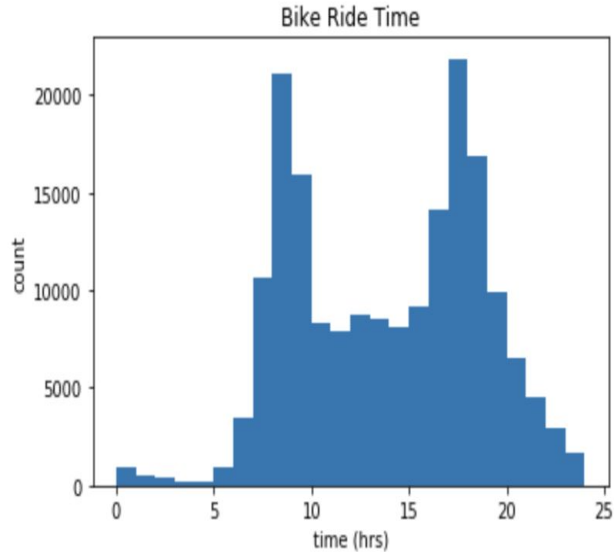
```
: 1 bike = pd.read_csv('fordgobike-tripdata.csv')
  2 bike.head()
```

	duration_sec	start_time	end_time	start_station_id	start_station_name	start_station_latitude	start_station_longitude	end_station_id	end_station_name
0	52185	2019-02-28 17:32:10.1450	2019-03-01 08:01:55.9750	21.0	Montgomery St BART Station (Market St at 2nd St)	37.789625	-122.400811	13.0	Commercial St at Montgomery St
1	42521	2019-02-28 18:53:21.7890	2019-03-01 06:42:03.0560	23.0	The Embarcadero at Steuart St	37.791464	-122.391034	81.0	Berry St at 4th St
2	61854	2019-02-28 12:13:13.2180	2019-03-01 05:24:08.1460	86.0	Market St at Dolores St	37.769305	-122.426826	3.0	Powell St BART Station (Market St at 4th St)
3	36490	2019-02-28 17:54:26.0100	2019-03-01 04:02:36.8420	375.0	Grove St at Masonic Ave	37.774836	-122.446546	70.0	Central Ave at Fell St
4	1585	2019-02-28 23:54:18.5490	2019-03-01 00:20:44.0740	7.0	Frank H Ogawa Plaza	37.804562	-122.271738	222.0	10th Ave at E 15th St

```
: 1 bike.shape
```

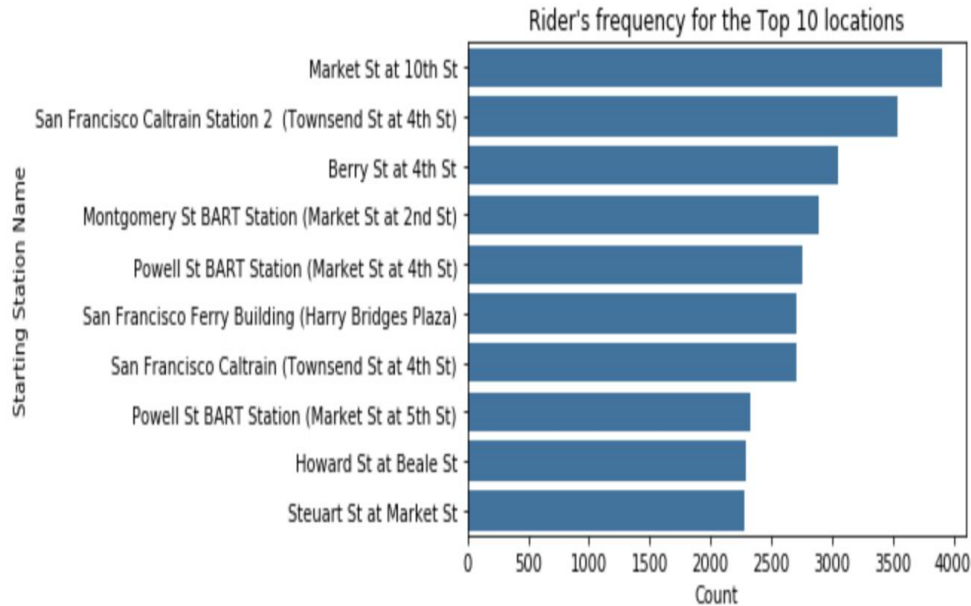
```
: (183412, 16)
```

# Univariate Visualization



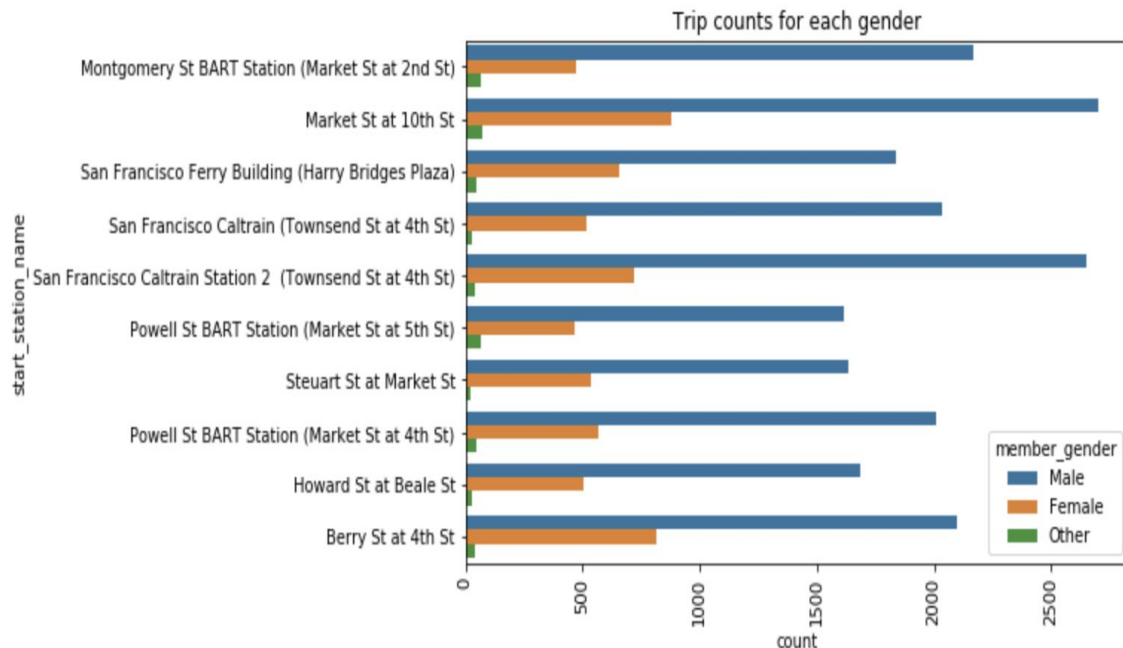
- Bimodal plot
- Peaks align with office hours
- Use the bike for commuting to work and back home.

# Busiest Locations



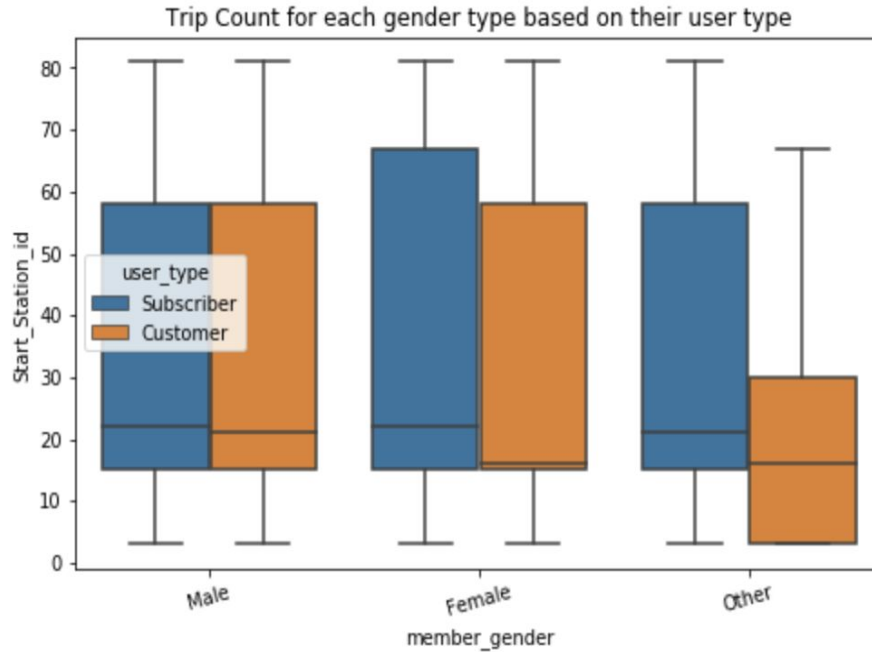
- "Market St at 10th St" is the busiest location with riders count of close to 4000.

# Bivariate Visualization

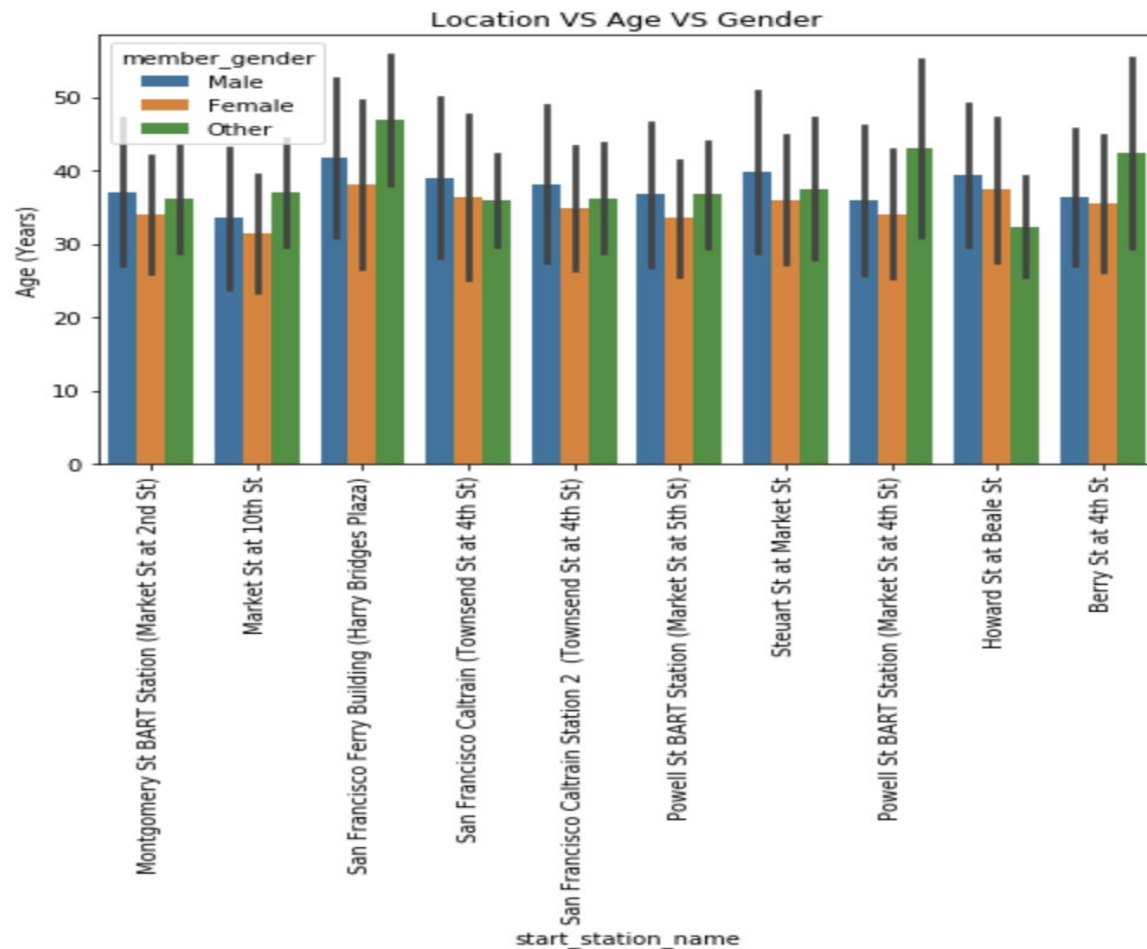


- males dominate the count
- Their count is more than the other two genders combined

# Multivariate Visualization



- For male, it makes no difference, whether the rider is a subscriber or customer.
- For female and other gender type, they tend to favor the subscribe option more



- The age tend to be uniform for all the three genders between the range of 30 to 40 years old.



# Take Away

- It was interesting to see that majority of the bike-share riders were subscribers rather than customers type. The subscribers have an annual pass while the customers have a three day pass. This would mean that people are using these bikes on a regularly routine basis and for some serious work, not just biking for fun.
- This is complemented by my finding in the univariate plot where we see two distinct plots right at the beginning of office hours and end of the office hours.
- My visualization depicts the busiest stations in terms of the bike rider, this could help the bikeshare company come up more business applications and also ways to decrease the traffic.