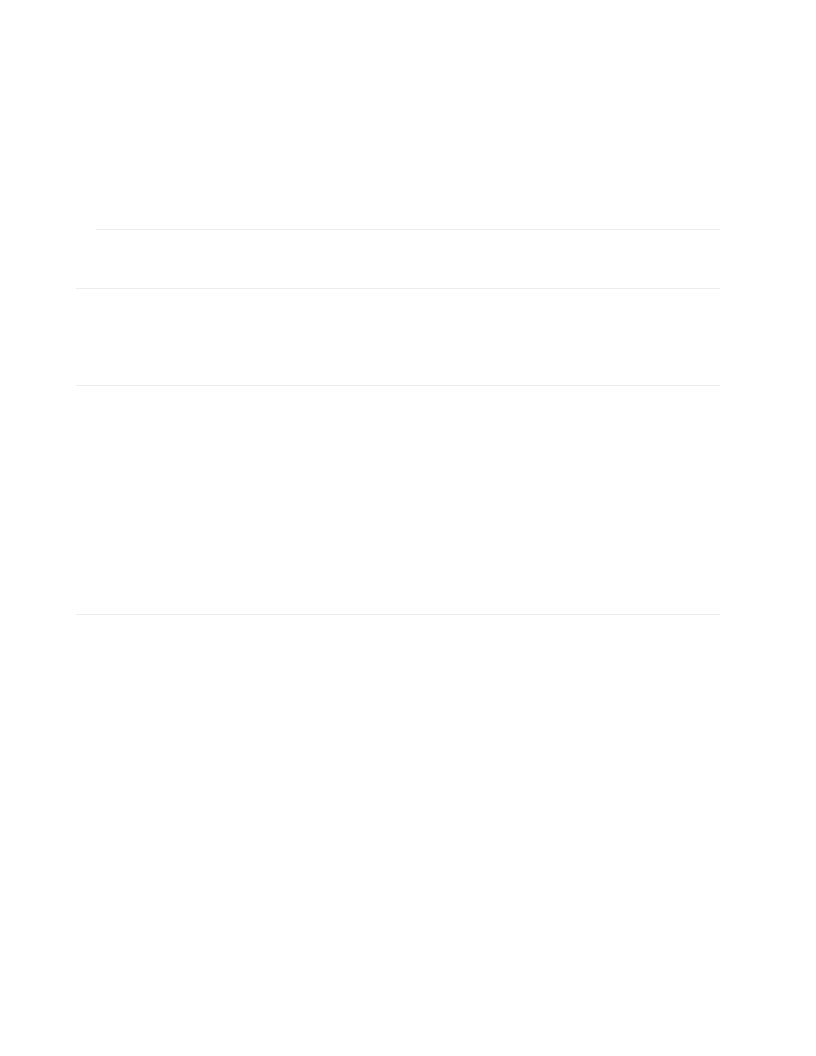
**Data Exploration of Bay Wheels System Dataset**



**by Ahmad Shapiro**

This is the final project from Udacity's Data Analyst Nanodegree

**Dataset**

This dataset consists in a set of information about individual rides made in a bike-sharing system around the area of San Francisco city. The goal for Bay Wheels is offering a fun and economical way of going through the city for two blocks or 2 miles. About this system, Bay Wheels (previously Ford GoBike), is a bike-sharing system with different types of subscriptions: you can ride just one time, for a day or have unlimited rides, of course with different pricing for each subscription. They have lots of bicycle types, even electric ones, to attend every consumer needs.

**Summary of Findings**

In this project, we aimed to analyze the dataset from Bay Wheels to understand or at least find some insights about the consumer behaviour in the bay area. The Bay Wheels shares all the data from each ride in their website (you can find it here: <https://www.lyft.com/bikes/bay-wheels/system-data> ), for this project we are going to focus on the data from 2017's last semester. It's large amount of data almost 520k rows with 15 columns (variables).

In order to achieve our goal, this analysis will be guided by the following points: **1- What are the rush hours and period for renting?**

We found out that around 8:00 AM and 17:00 PM was the most rush hours, but by categorizing the day into periods starting from Morning going to Night, we found out that the most the period having highest rentings is Morning from 7:00 AM to 12:00 PM.

**2-Is there any significance difference between day of week ?**

We found out that almost everyday is the same except saturdays and sundays are the lowest.

**3-Do the duration of rentings differs across the days of the week ?**

We found out that people tend to spend more time with their bikes on Sundays and Saturdays.

**4-Does the renting station affects the renting duration ?**

We found out that The Embarcadero at Sansome St station has the highest duration and the most variance across the TOP 10 renting stations.

**5-Does the sales (renting) get affected on holidays ?**

Our data is starting from January 2017 to January 2018 and it experienced a huge decrease in the period around December 2017, so yes the holidays affects the sales.

**6-Do Subscribers ride more (number of rentals) than Customers ?**

We found out that subscribers reserve a bike way more than customers in week days, but on Saturdays and Sundays Both rates are significantly close than the rest of the week.

**7-Do Subscribers ride more (duration) than Customers ?**

We found out that there's a huge difference between both , Customers duration mean is way more bigger than subscribers , and probably We can say that the subscribers renting the bicycle for a certain reason that's why their mean is approximately the same, in contrast , the customers are just having fun and that’s why their mean is way bigger.