Case Study 1 Roadmap

- What is the problem you are trying to solve? The problem that I am solving is how to convert casual riders into annual members based on the data collection that we have in a span of the past 12 months. Then, we need to design marketing strategies to help us elevate casual riders into annual members and get our strategies approve with the Cyclistic executive team and Director of Marketing.

- How can your insights drive business decisions? I believe my insights from my analysis will be able to help recommend what marketing strategies we can use in order to convert casual riders into annual members. My insights can also help detect trends and characteristics between the two group we're studying in: casual bicycle mobile application users and annual members.

- Are there issues with bias or credibility in this data? Yes, because the ride_length can skewed the data which can systematically skew results in making them unreliable. You can read more about it under the question: Are there any problems with the data?.

- Are there any problems with the data? Some of the observations for ride_length have 00:00:00, so that means to me that they didn't ride the bicycle or use the app at all. ride_length tracks the time the user rode their bicycle to get to one station to another. It is possible that they were about to ride a bicycle, but change their mind and didn't ride at all that day. It's possible that it wasn't recorded or collected properly. There were some that the ride_length was more than 01:00:00 which I find it skeptical and made me reasoned that maybe they return the bicycle at an end station when the user felt like it. So, the user could of rode it for 15 minutes in actuality, and then park it at a nearby café to grab some coffee and food for 30 minutes. Then, return it to a nearby station in 10 minutes. However, when we collect this data, it will tell us ride_length was 55 minutes when it should be 35 minutes because 15 minutes to get to the café with the bicycle and 10 minutes to return the bicycle in a nearby station to dock the bicycle. I also noticed that some users return the bicycle within a number of days, hence few observations in ride_length would be 72:10:00. This means the user was riding the bicycle for 3 days and 10 minutes which is difficult to believe. It is possible that the user had the bicycle stayed overnights at where they were and throughout the day when they're not riding the bicycle.

- What surprises did you discover in the data? I was surprised that there were more annual members compare to casual riders when using count. I expected there to be more casual riders.

- What trends or relationships did you find in the data? Based on my analysis, I found the top 10 starting locations of where riders use our service the most. Within the top 10, I also found 4 starting locations where members often used the service more than casual riders. Saturday has the maximum and mode of bicycle sessions within the span of 12 months. Monday has the minimum of bicycle sessions. Members like to use classic bikes more than casual members. Casual members like to use docked bikes more than annual members. Classic bikes are more often used than docked bikes and electric bikes. Electric bikes usage between casual and annual members were similar. Electric bikes were used more than docked bikes.