



Divvy Bike Share Analysis

Google Data Analytic Professional Certificate

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Business Task

1. How do annual members and casual riders use Cyclistic bikes differently?
2. Why would casual riders buy Cyclistic annual memberships?
3. What is the most common starting and ending station?
4. How and when can Cyclistic use digital media to influence casual riders to become members?

Tool

- Excel
 - Changing the date format to YYYY:MM:DD HH:MM:SS
 - Filling the empty cells with 0
- MySQL
 - Import, clean, process, extract, and export data
 - Analyze data with different conditions
- Tableau
 - Create multiple visualizations
 - Created dashboard

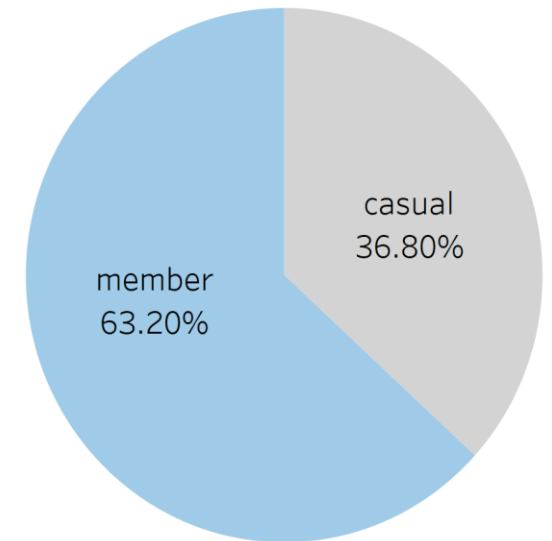
Analysis Phase

- Member vs. Casual Customer
 - Total number of trips and the percentage
 - Total number of trips, total number of ride length in minutes, average number of ride length in minutes base on day of week
 - Total number of trips, total number of ride length in minutes, average number of ride length in minutes base on day of season
 - Top 5 common start and end stations
 - Different type of bikes

Total number of trips

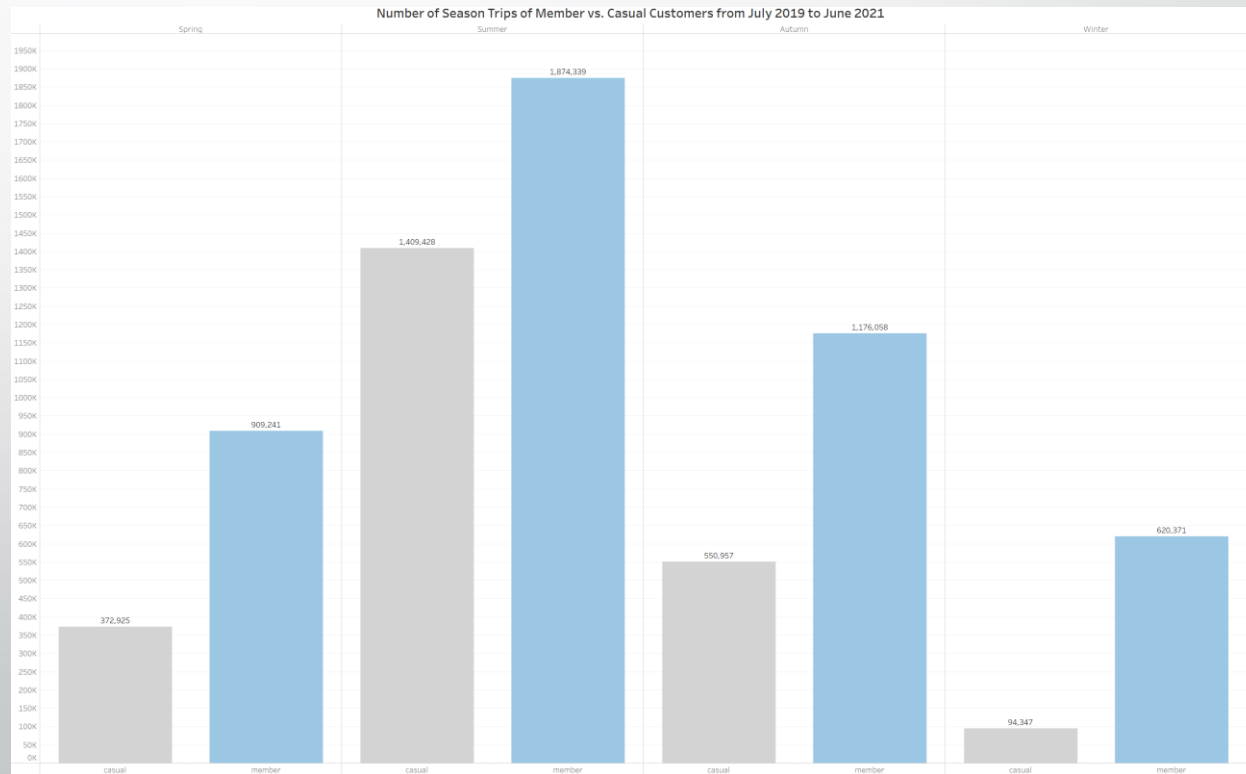
- Primary goal: convert casual customers to member
- Total trips:
 - Member: 63.20%
 - Casual customers 36.80%
- Still rooms for converting casual customers into members

Percentage of Members Vs. Casual Customers from July 2019 to June 2021



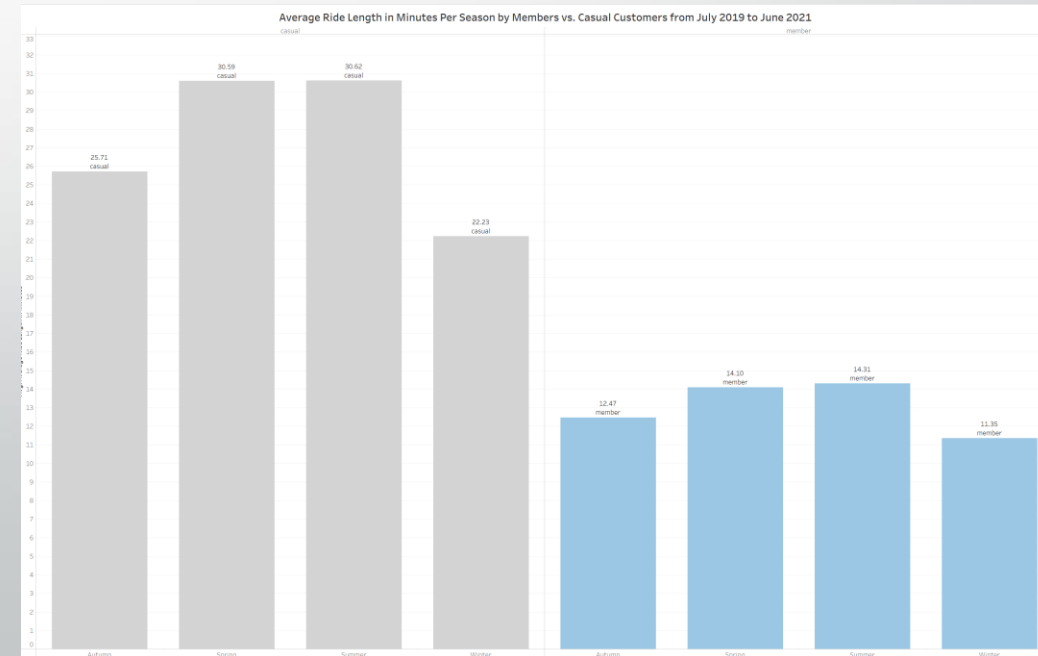
Season Trips

- Season trips Ranking(Member vs Casual)
 - Summer
 - Autumn
 - Spring
 - Winter
- Warmer the weather the more people out enjoying the weather
- Advertise membership, deals, etc., during warmer Summer



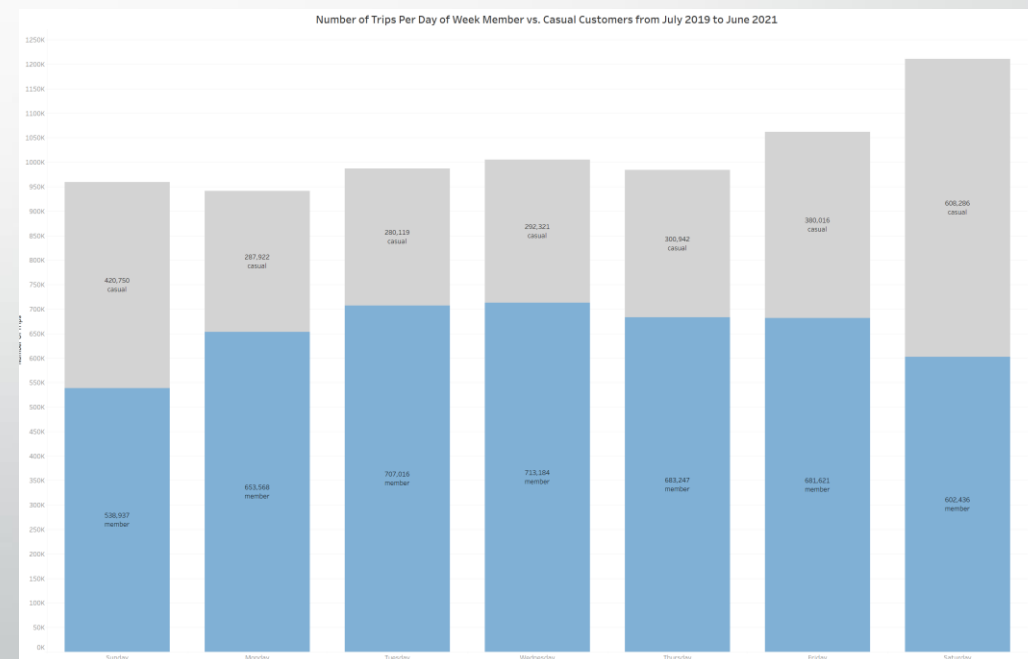
Total Ride Length and Average Ride Length

- Highest average ride length:
 - Member: 14.31 minutes during Summer
 - Casual Customer: 30.62 minutes during Summer
- Casual customers have a much higher average ride length
- Primary reason of using bike
 - Member: Commute to work
 - Casual Customer: Travel for enjoyment



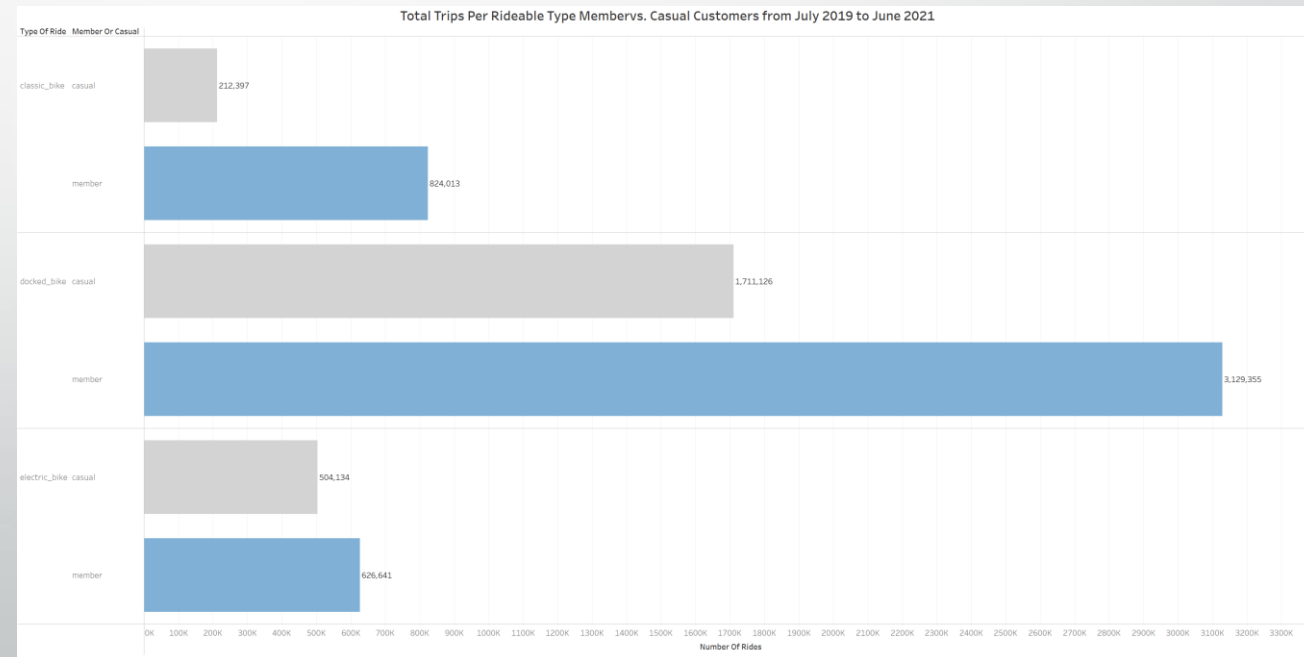
Busiest Weekday

- Member:
 - Busiest day: Wednesday
 - Almost over 60,000 rides per day
 - Commute to work
- Casual Customer:
 - Busiest day: Saturday
 - Only Saturday has over 60,000 rides
 - Traveling for fun during weekend



Rideable Type Preference

- Bike Type Rank:
 - Docked
 - Electric
 - Classical.



Recommendation for business task

1. Advertising during the weekend will be better than weekdays due to the high number of trips of casual customers
2. Warmer season such as Summer will be the best time to advertise, not only there are more casual customer out enjoying the weather
3. Physical advertisement should be implemented at the Top 5 casual customers' start and end stations
4. Focus on advertising and improving the usage of docked and electric bike

Recommendation on data collecting

1. Assign unique id to both members and casual customers, help to identify the casual riders' pattern
2. Adding the ride cost to the data, allow the company to see what kind of promotion they can do
3. Adding how much the bike is moving and stop