



Cyclistic Customer Analysis

A Google Capstone Project

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WHO is Cyclistic

- Cyclistic is a fictional bike-share platform based in Chicago.
 - They launched in 2016 and have since amassed a fleet of over 5,800 bicycles and 600 docking stations.
 - They provide their users with the option to have single-ride passes, full-day passes, and annual memberships.
 - Customers who purchase single-ride or full-day passes are referred to as casual riders.
 - Customers who purchase annual memberships are Cyclistic members.
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WHAT is the challenge

- Cyclistic's finance analysts have concluded that annual members are much more profitable than casual riders.
- The director of marketing believes that maximizing the number of annual members will be key to future growth.
- In order to do that, however, the marketing analyst team needs to better understand how annual members and casual riders differ, why casual riders would buy a membership, and how digital media could affect their marketing tactics.

DESIGN MARKETING STRATEGIES AIMED AT CONVERTING CASUAL RIDERS INTO ANNUAL MEMBERS.

HOW to solve the problem

- Using the historical data of the past 2 years, I will identify the differences in the riding behaviors of casual riders and the annual members.
 - The differences need to be presented in an easy-to-understand visual.
 - Using the analysis, I can propose new strategies for the marketing team.
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Data Used

- Cyclistic ride data from Jan 2022 to November 2023 is used,
 - The data contains the following points-
 - Ride ID
 - Start Station Name
 - End Station Name
 - Start Station Latitude
 - End Station Latitude
 - Start Station Longitude
 - End Station Longitude
 - Start of Ride Time
 - End of Ride Time
 - Member Type
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Cyclistic Riders at a Glance

10,799,402

Total Number of Rides

6,569,005

Number of Rides by Members

4,230,397

Number of Rides by
Casual Riders

5,016,218

Number of Classik Bike
Rides



255,755

Number of Docked
Bike Rides

19 minutes

Average bike ride duration

12.7 minutes

Average member bike ride
duration

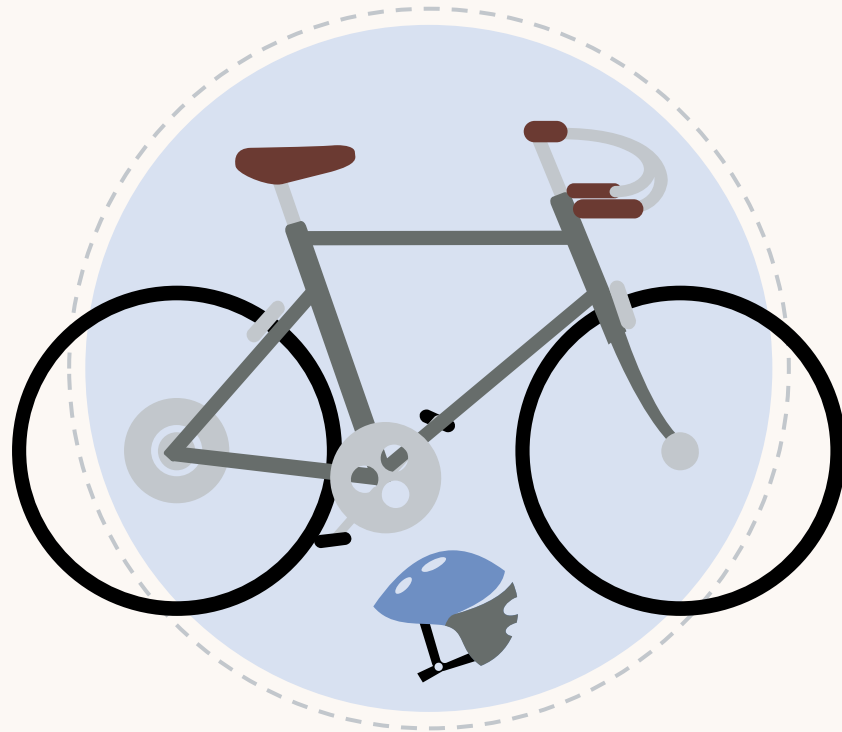
29 minutes

Average casual rider bike
ride duration

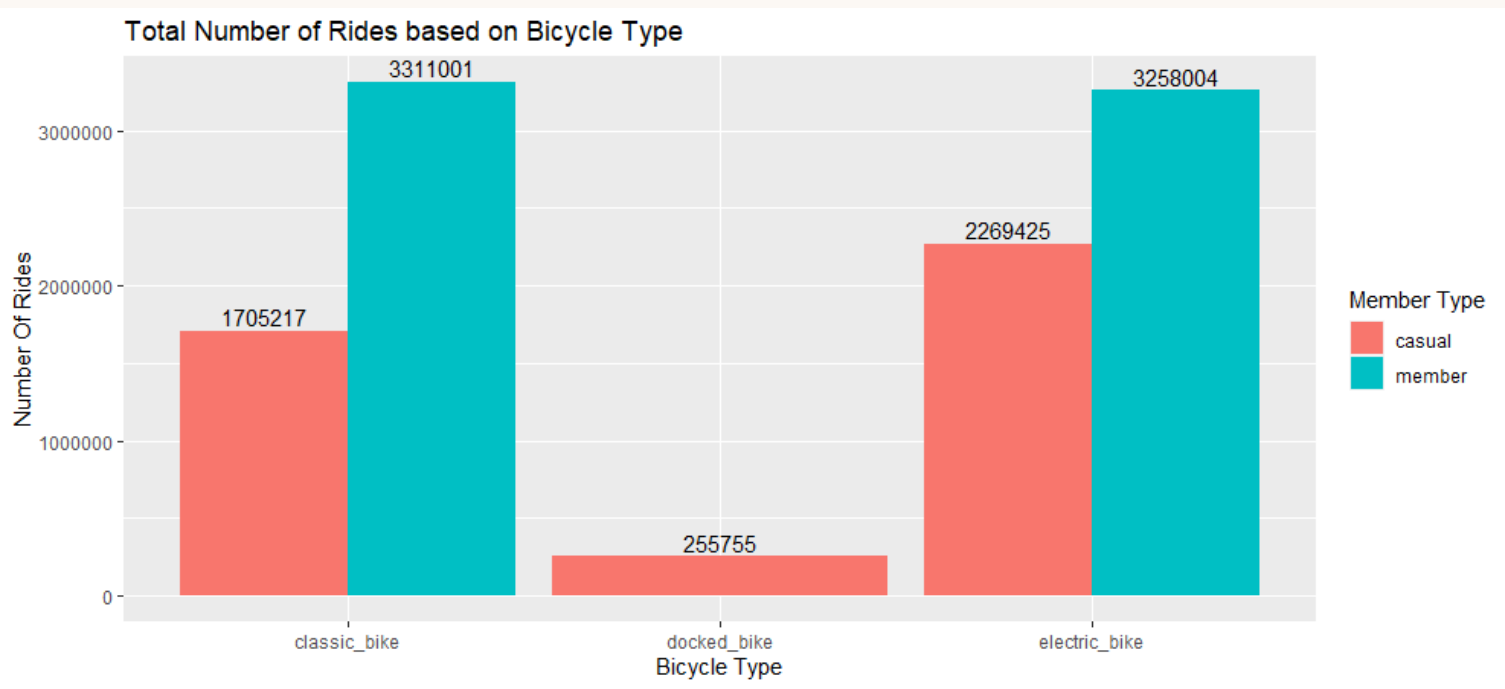
5,527,429

Number of Electric Bike
Rides

GRAPHS AND PLOTS

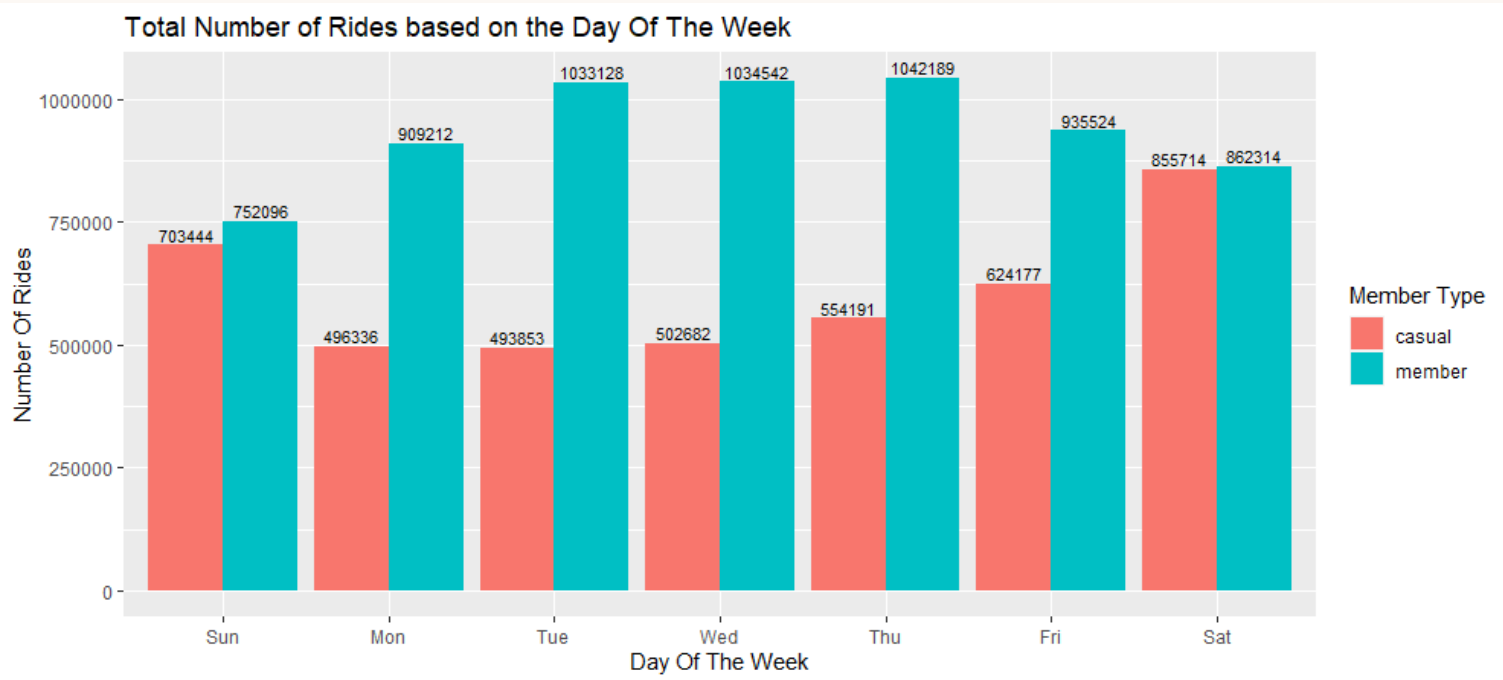


Number of Rides Based on Cycle Type



As can be clearly seen from the chart, only casual members are using the docked cycles. The number of those rides is also much lower compared to classic and electric bikes.

Number of Rides Based on the day of the week

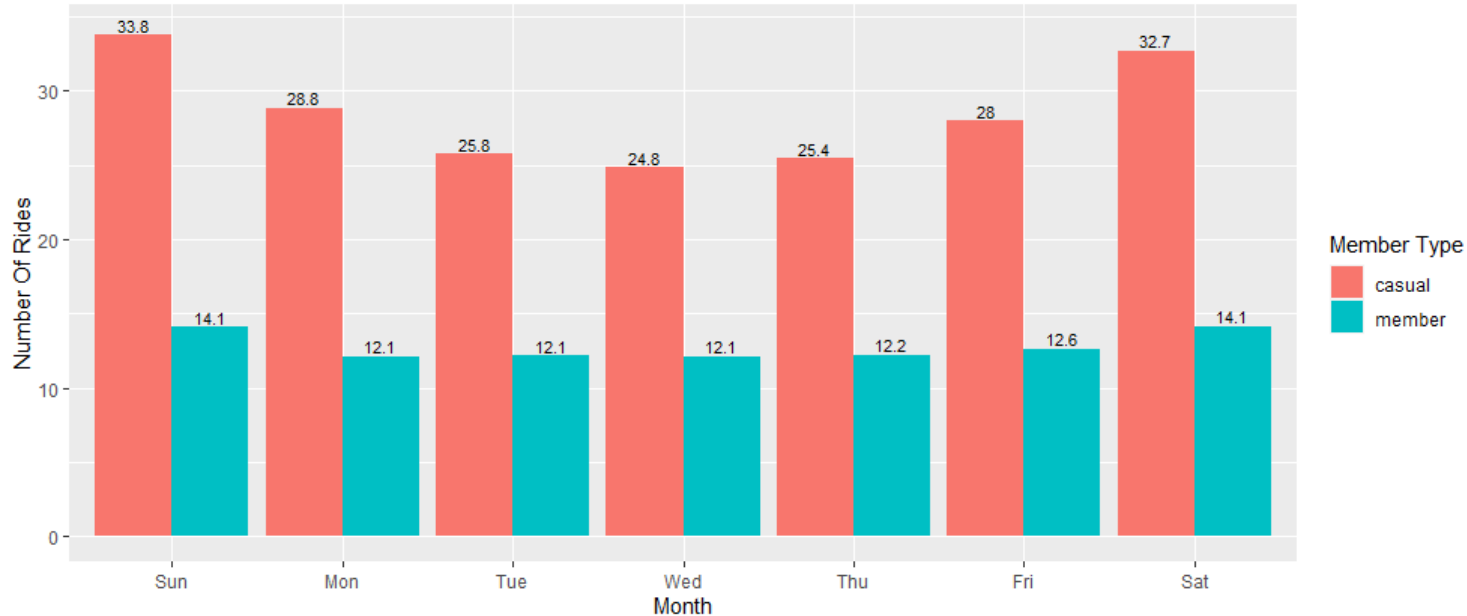


Annual Members seem to be taking more bike rides during the week as opposed to casual riders who tend to take more rides on the weekend.

This supports the theory that annual riders are using Cyclistic more for their daily commute while casual riders use it more for weekend fun and possibly for tourism

Avg. Ride Length Based on the day of the week

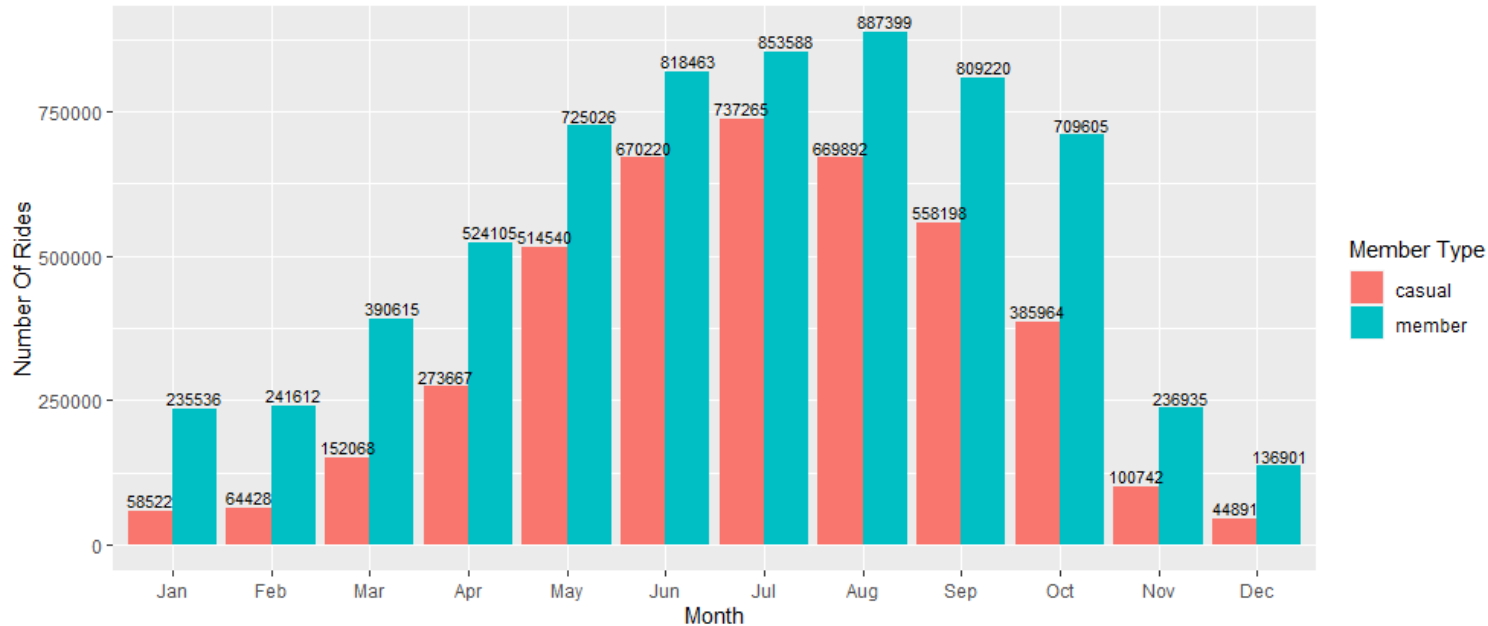
Average Length of Rides based on the Day of The Week



Annual Members seem to be more or less renting the bikes for the same length of time throughout the week. While Casual riders take longer rides than members. These rides again become even longer on the weekend.

Number of Rides Based on the month

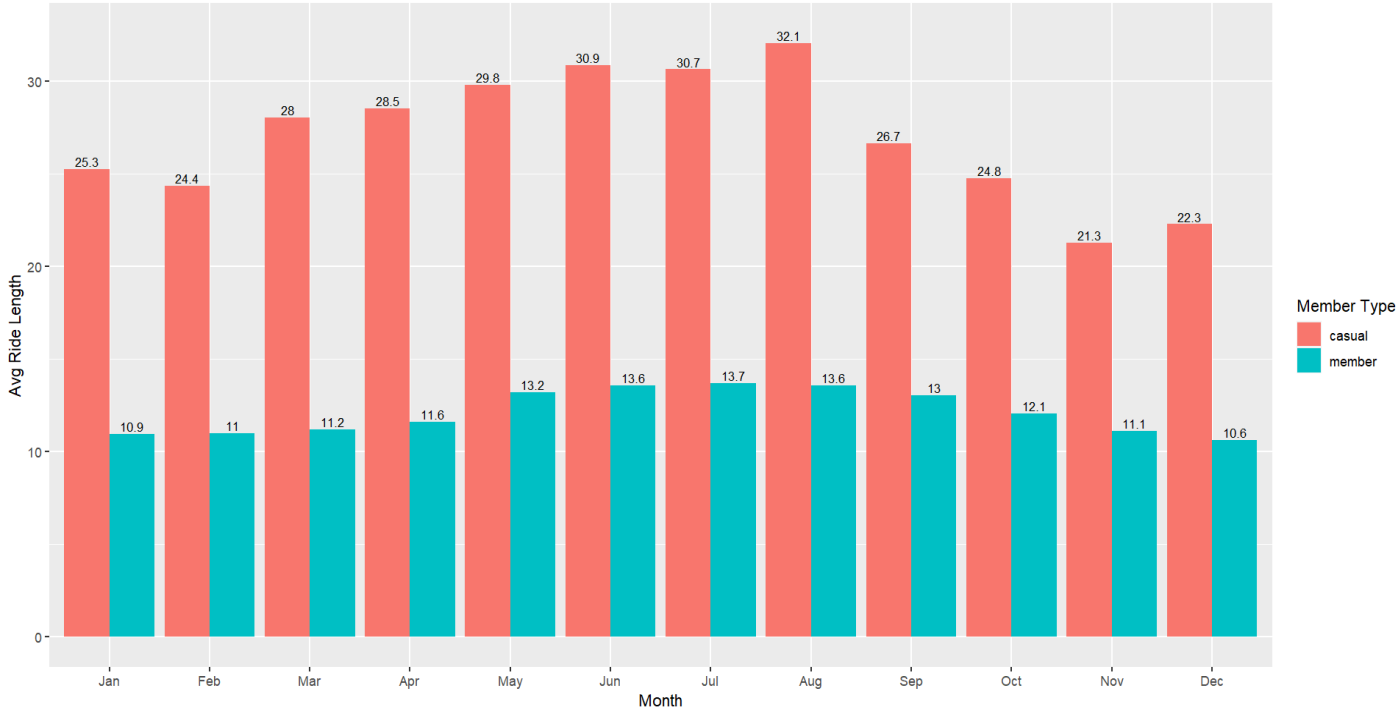
Total Number of Rides based on the Month



The trend in this case seems to be pretty similar for both annual and casual members. Most likely due to weather conditions, more people rode bikes in Spring and Summer months as compared to the winter months.

Avg Ride Length Based on the month

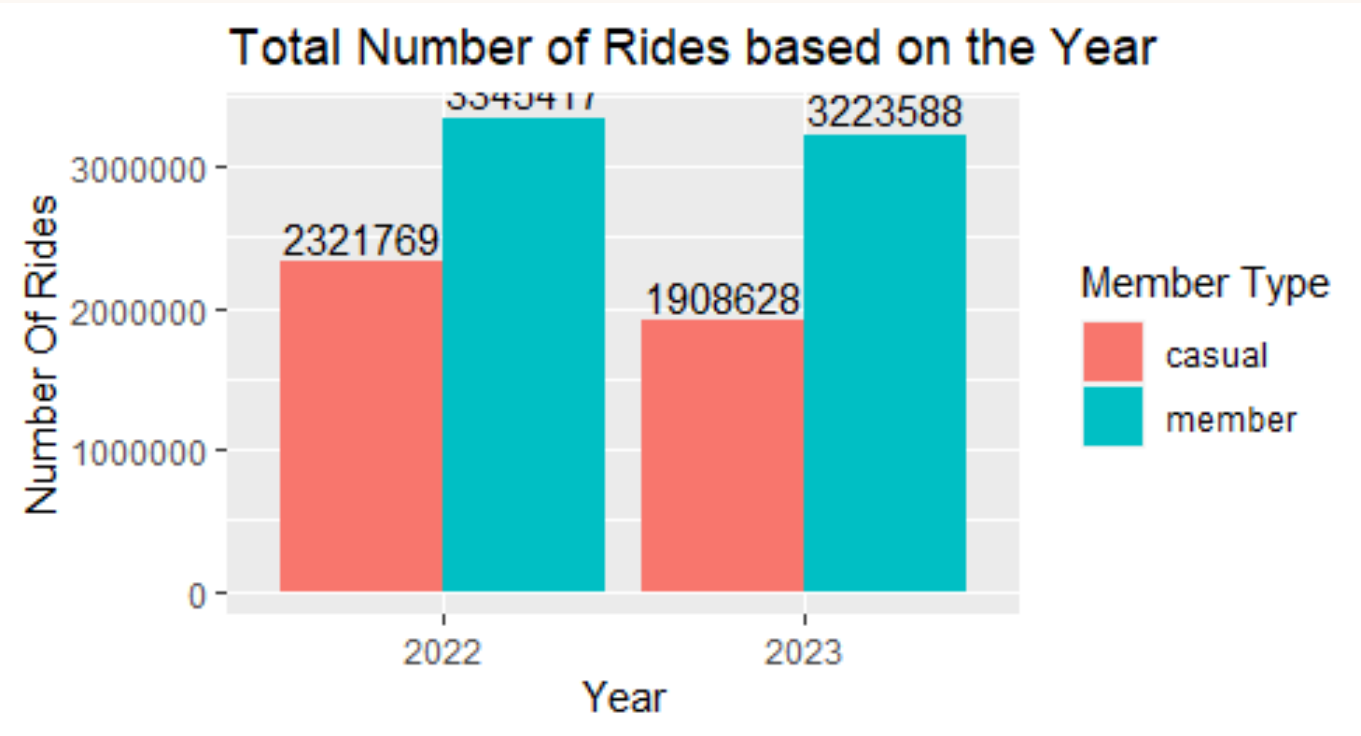
Average Length of Rides based on the Month



Annual Members seem to be renting the cycles for about the same amount of time throughout the year. They are most likely renting the cycles for the same purposes throughout.

Casual members on the other hand seem to have a more varied duration for renting length with the longest times being in the summer months.

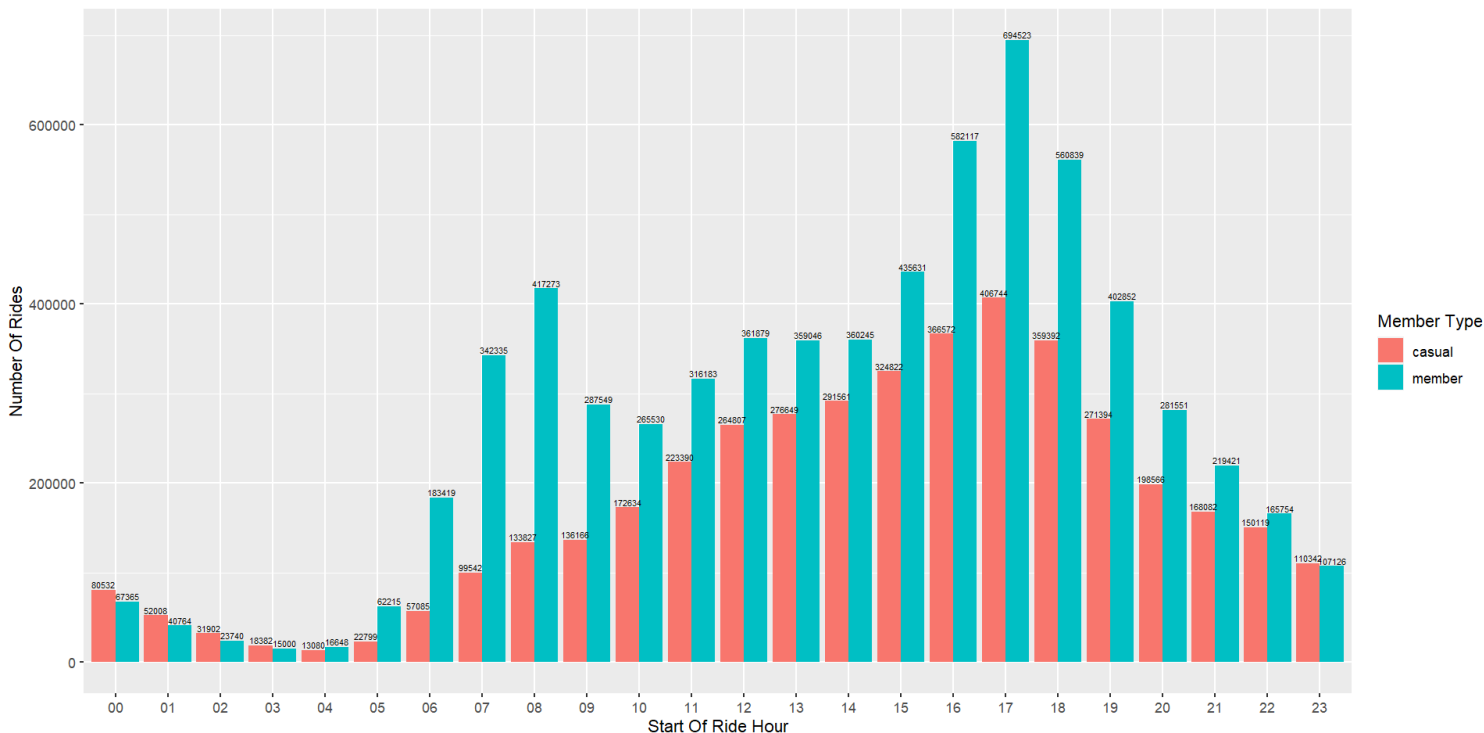
Number of Rides Based on the year



It seems that the number of rides for annual members to casual members ratio has increased from 2022 to 2023. Note: Although it may seem that the total number of rides has reduced, the data does not contain rides from Dec 2023.

Number of Rides Based on the hour

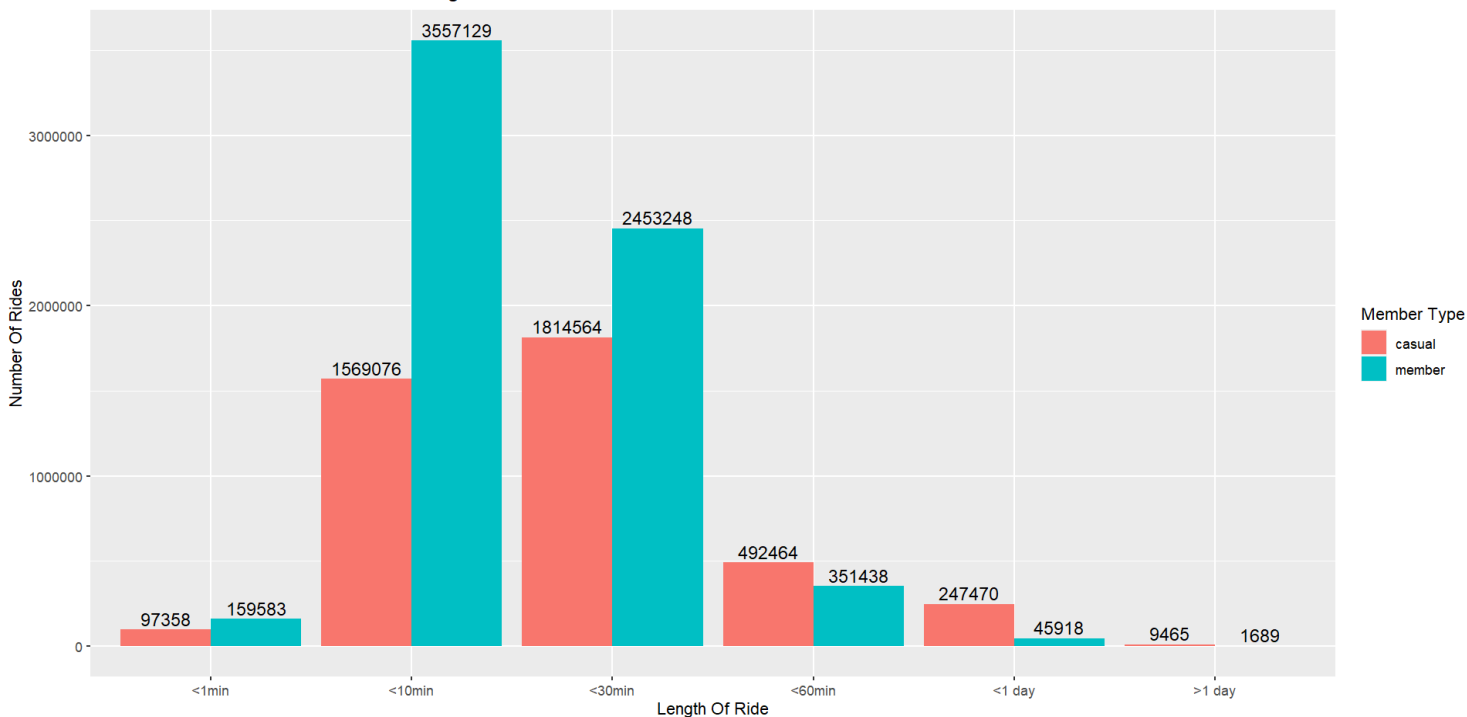
Total Number of Rides based on the Start Of Ride Hour



As seen from the data, most members start their trips around 4-6pm (after office hours) and there is also an uptick between 7-8am which might be members going to work. Casual riders on the other hand seem to have a steady increase in riders peaking at around 5pm before reducing again.

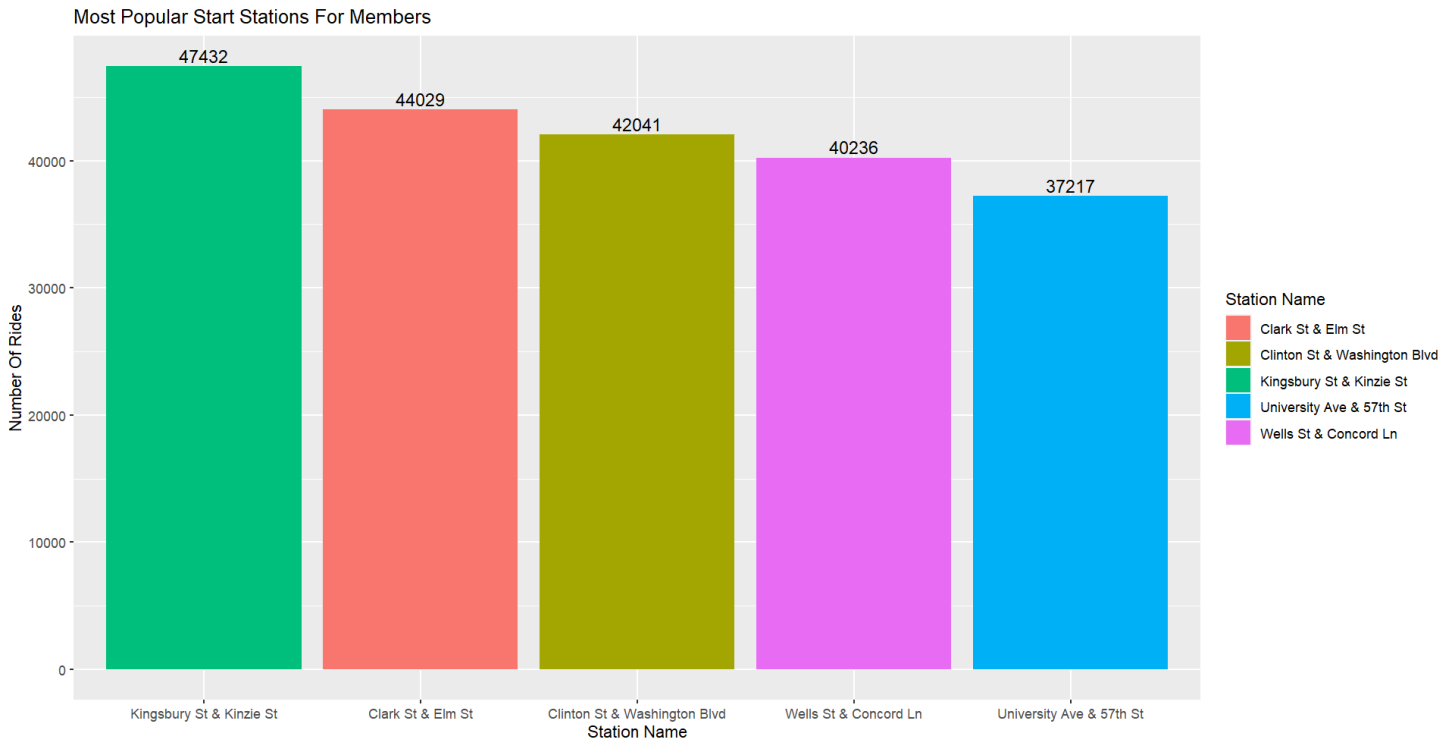
Number of Rides Based on how long they rent

Total Number of Rides based on the Length Of The Ride



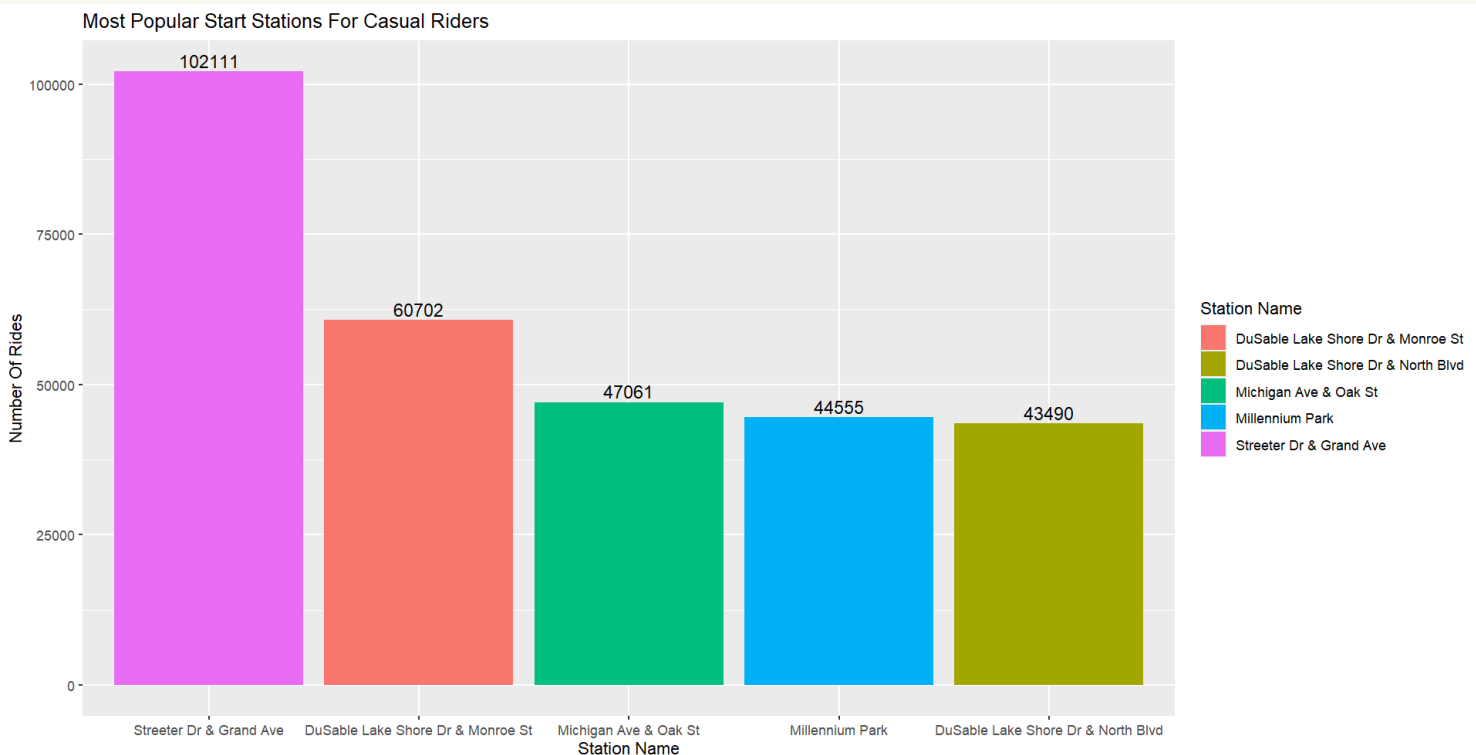
Most of the Annual members rent the bikes for a duration between 1 and 10 minutes. While most of the Casual members tend to rent for between 10-30 minutes.

Most Popular Stations For Annual Members



These are the most popular start stations for annual members along with the number of rides taken at each station.

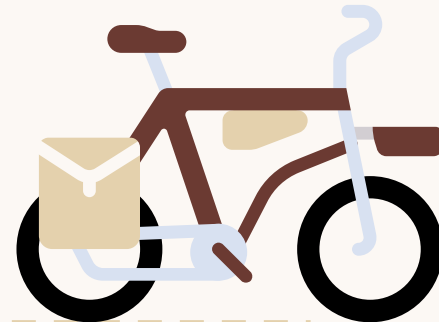
Most Popular Stations For Casual Members



These are the most popular start stations for casual members along with the number of rides taken at each station.

KEY INSIGHTS from the data

- The number of docked cycle rides is much lower compared to that of electric and classic bikes.
- Annual members are using the services more for going to and from work and other such daily tasks as compared to casual riders who use it more for fun and tourism
- Annual members use bikes for a shorter period on average
- The number of bike rentals is much higher from May to Oct as compared to the winter months
- There are a few riders who have the cycles with them for over a day

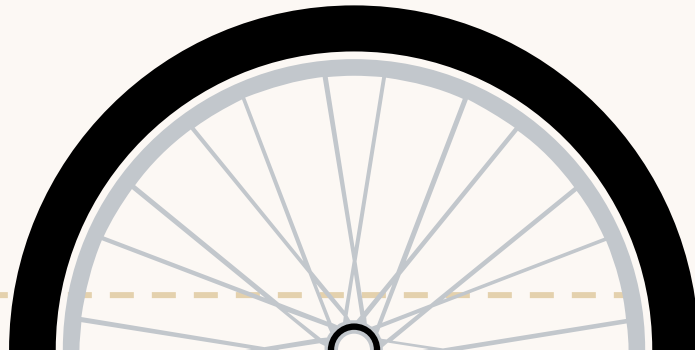


STRATEGIES to convert casual riders

- Marketing can be geared towards showing casual riders how they can use the cycles for their daily uses and not just for leisure
 - Casual riders who seem to be renting for over a month can be given some incentives in the form of a discount to purchase an annual pass
 - Marketing campaigns can be targeted toward the most popular casual rider stations for maximum visibility
 - Cyclistic should conduct research with various employers to see how many of their employees live within a 'rideable' distance and provide partnerships with them
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STRATEGIES to convert casual riders

- Marketing campaign encouraging existing annual members to share their experiences on their socials. This would work best to increase their perceived value and would encourage more people to sign up.
- Casual riders who use the service regularly can be shown how much they have spent on the service vs how much they could save by switching to an annual pass



OTHER PROFITABLE ideas

- Docked cycles can be phased out as not enough people use them
 - The number of cycles available can be reduced in the winter months as not many riders are available and leaving them out would result in higher maintenance costs
 - Increase marketing during the end of winter (late May and March) to attract newer customers
 - There should be a limit to how long a bike can be rented before incurring additional costs. This would prevent riders from renting cycles for longer periods (Over 24 hours)
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