

# CYCLISTIC CASE STUDY

## HOW DOES A BIKE-SHARE NAVIGATE SPEEDY SUCCESS?

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### ABOUT THE COMPANY.

In 2016, Cyclistic launched a successful bike-share offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geotracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system anytime.

Until now, Cyclistic's marketing strategy relied on building general awareness and appealing to broad consumer segments. One approach that helped make these things possible was the flexibility of its pricing plans: 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.

Cyclistic's finance analysts have concluded that annual members are much more profitable than casual riders. Although the pricing flexibility helps Cyclistic attract more customers, Moreno believes that maximizing the number of annual members will be key to future growth. Rather than creating a marketing campaign that targets all-new customers, Moreno believes there is a very good chance to convert casual riders into members. She notes that casual riders are already aware of the Cyclistic program and have chosen Cyclistic for their mobility needs.

Moreno has set a clear goal: Design marketing strategies aimed at converting casual riders into annual members. 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. Moreno and her team are interested in analyzing the Cyclistic historical bike trip data to identify trends.

### CHARACTERS AND TEAMS

- **Cyclistic:** A bike-share program that features more than 5,800 bicycles and 600 docking stations. Cyclistic sets itself apart by also offering reclining bikes, hand tricycles, and cargo bikes, making bike-share more inclusive to people with disabilities and riders who can't use a standard two-wheeled bike. The majority of riders opt for traditional bikes; about 8% of riders use the

assistive options. Cyclistic users are more likely to ride for leisure, but about 30% use them to commute to work each day.

- **Lily Moreno:** The director of marketing and your manager. Moreno is responsible for the development of campaigns and initiatives to promote the bike-share program. These may include email, social media, and other channels.
- **Cyclistic marketing analytics team:** A team of data analysts who are responsible for collecting, analyzing, and reporting data that helps guide Cyclistic marketing strategy. You joined this team six months ago and have been busy learning about Cyclistic's mission and business goals — as well as how you, as a junior data analyst, can help Cyclistic achieve them.
- **Cyclistic executive team:** The notoriously detail-oriented executive team will decide whether to approve the recommended marketing program.

## BUSINESS TASK

Design marketing strategies aim at converting casual riders into annual members by identifying how casual and annual members take rides differently.

## PREPARING THE DATA.

The data is located at <https://divvy-tripdata.s3.amazonaws.com/index.html> and available by Motivate International Inc. under this <https://www.divvybikes.com/data-license-agreement>. The datasets have a different name because Cyclistic is a fictional company.

The last twelve (12) months were imported into the table created in MySQL from March, 2021 to Feb, 2022 which contains thirteen (13) columns which are;

- **ride\_id** : The identification of the ride
- **rideable\_type** : The type of ride whether it is electric\_bike, docked\_bike or
- **started\_at** : The time the ride started.
- **ended\_at** : The time the ride ended.
- **start\_station\_name**: The station the ride started at.
- **start\_station\_id** : The starting station id.
- **end\_station\_name** : The station the ride ended name.
- **end\_station\_id** : The ending station id.
- **start\_lat** : The starting latitude
- **start\_lng**: The starting longitude
- **end\_lat**: The ending latitude
- **end\_lng**: The ending longitude
- **member\_casual** : The type of the member ( casual or annual).

## PROCESS

The tools used were SQL and Tableau. SQL for cleaning and analyzing the datasets since it is huge and Tableau for the visualization. The data was cleaned by dropping the irrelevant columns such as ride\_id, start\_station\_name, start\_station\_id, end\_station\_name, end\_station\_id, start\_lng, end\_lng, start\_lat and end\_lat, then checking if nulls existed in the dataset.

There were period when bikes were taken out of docks and checked for quality by Divvy resulting in inconsistent length values which were accounted for during the analysis.

After cleaning, the dataset was verified by comparing the cleaned dataset with the raw dataset and saw that it was ready to be analyzed.

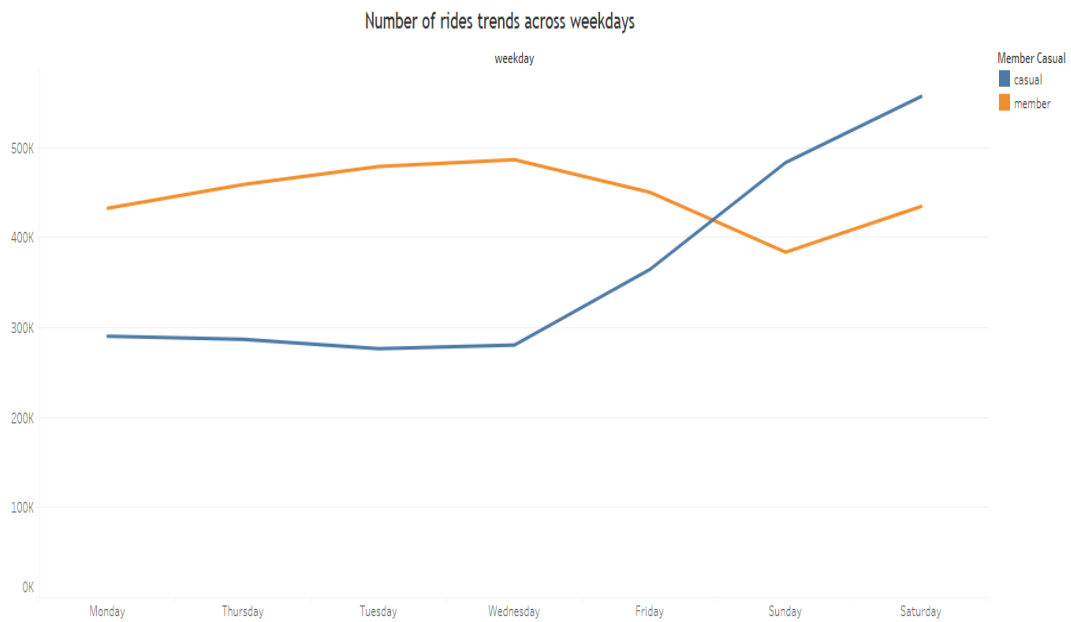
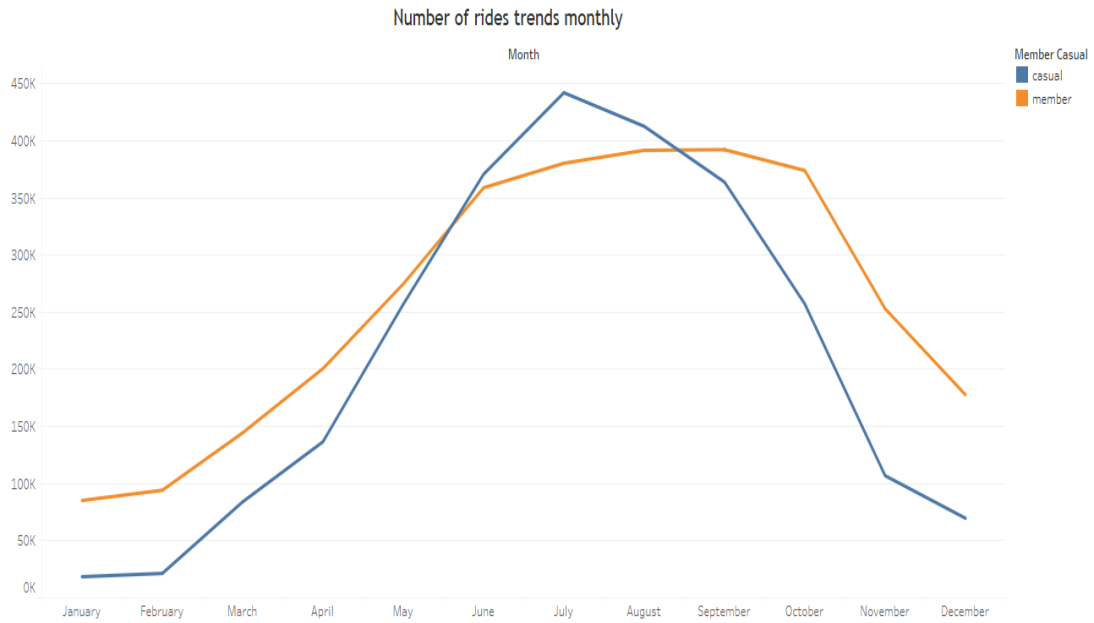
## ANALYSIS.

After the cleaning of the data, four (4) columns were left which were used for the analysis i.e rideable\_type, started\_at, ended\_at and member\_casual.

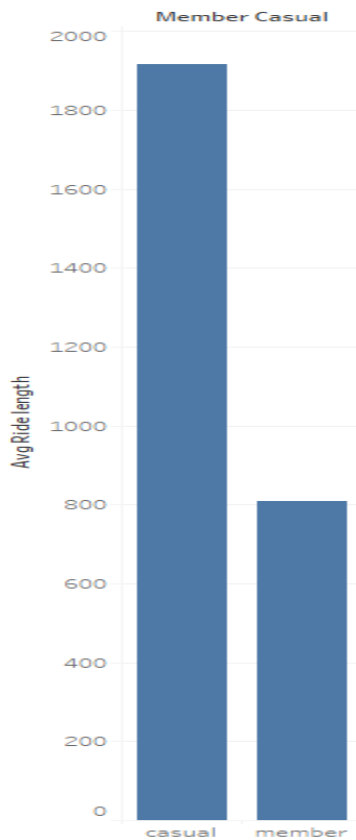
- The number of annual members is higher than the casual member.
- The annual members have not taken any docked bike rides for the past twelve months compared to the casual members with about 320000 of docked bike rides.

Rideable Type	Member Casual	
	casual	member
classic_bike	1,267,756	2,000,957
docked_bike	311,283	
electric_bike	961,595	1,126,250

- The casual members tend to take more rides between June – September and Saturdays/Sundays.



- The average ride length for the casual members is more than twice the average ride length for the annual members.



## RECOMMENDATIONS

- Since the casual members take docked bike rides, there can be a discount for docked rides in the annual membership.
- A discount program for rides between June - September for casual members is recommended since they take more rides that period.
- A discount program for Weekends (Saturday and Sunday) is recommended also.