

How Does A Bike-Share Navigate Speedy Success

Google Data Analytics Capstone Case Study

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Bike-Share Cyclistic

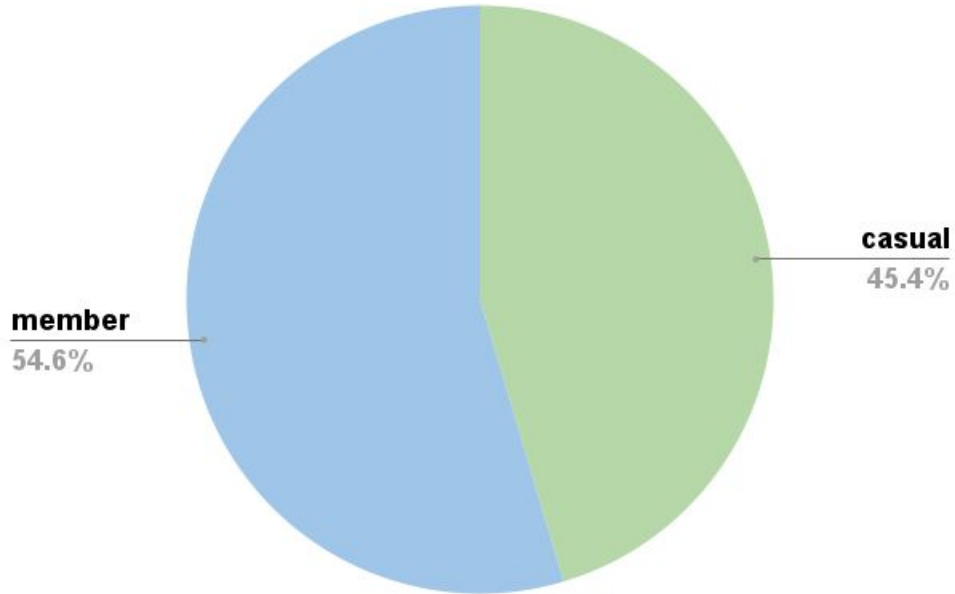
Virtual Company in Chicago



Logo Designed by: Taher Amjed

Business Task

- The director of marketing believes the company's future success depends on maximizing the number of annual memberships so our business task will be:
- Understand how casual riders and annual members use Cyclistic's bikes differently by analyzing 12 months to design a new marketing strategy to convert casual riders into annual members.



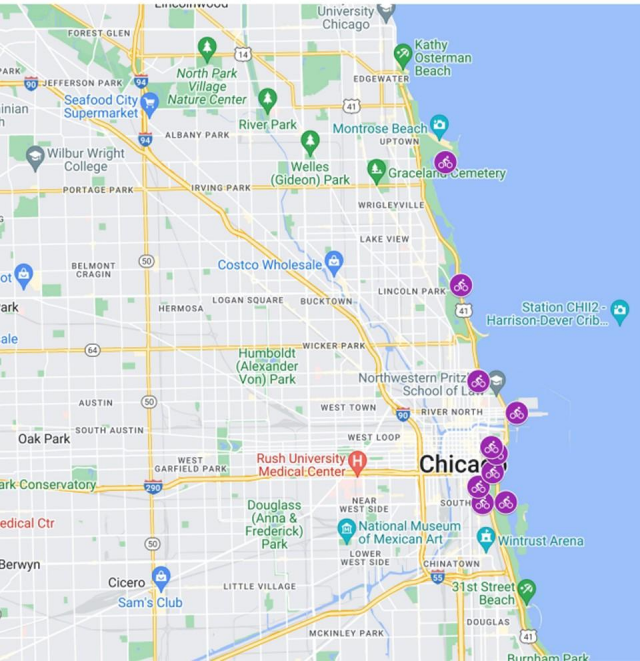
Executive Summary

- The large percentage of the annual member are **students, employees and workers** who use bicycles for **transportation** so they use the **annual membership**, but casual riders use bicycles for their rest time and leisure time and to enjoy.
- A few key metrics from December 2020 to November 2021:
 - ❑ The most used stations for the casual riders are the stations on the **coastline**, while about 90% of the most used stations for the annual member are the stations located **next to universities, institutes, vocational institutes, and schools**.
 - ❑ **During school seasons, members' trips** are more than casual trips **at 0.45% and up to 350%**, but **at the end of the school season** at the beginning of summer, **casual riders' trips become more than** members' trips.
 - ❑ For **casual riders**, the **weekend** is the most two days with the number of trips, while the weekdays are much less, as for **members**, it is very close on **all days** and the weekdays are more than the weekend except the Monday.
 - ❑ **The first members' summit of the number of trips** was formed at **08:00 AM**, which is the time when students go to their schools and employees and workers go to work. **As for casual riders**, it was **moving upward** as we approached the noon and afternoon times which is a suitable time to spend leisure time.
 - ❑ **85.7% of members' trips** were **from one station to another station**, meaning they use it for transportation, while **78.6% of casual riders' trips** were **from and to the same station**, meaning they use it for spending their leisure time.

Stations Most Used by Annual Members-Casual riders

- ❑ The top 10 used stations for casual riders are the stations on the coastline, while about 90% of the most used stations for members are the stations located next to universities, institutes, vocational institutes, and schools(detail in next slide).

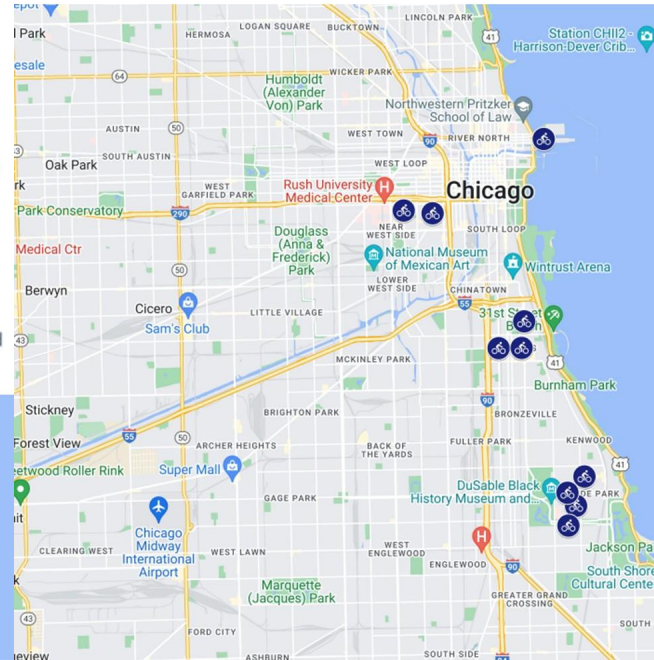
The Stations Most Used by Casual



Stations

- Streeter Dr & Grand Ave
- Millennium Park
- Michigan Ave & Oak St
- Lake Shore Dr & Monroe St
- Buckingham Fountain
- Theater on the Lake
- Montrose Harbor
- Shedd Aquarium
- Indiana Ave & Roosevelt Rd
- Michigan Ave & 8th St

The Stations Most Used by Member



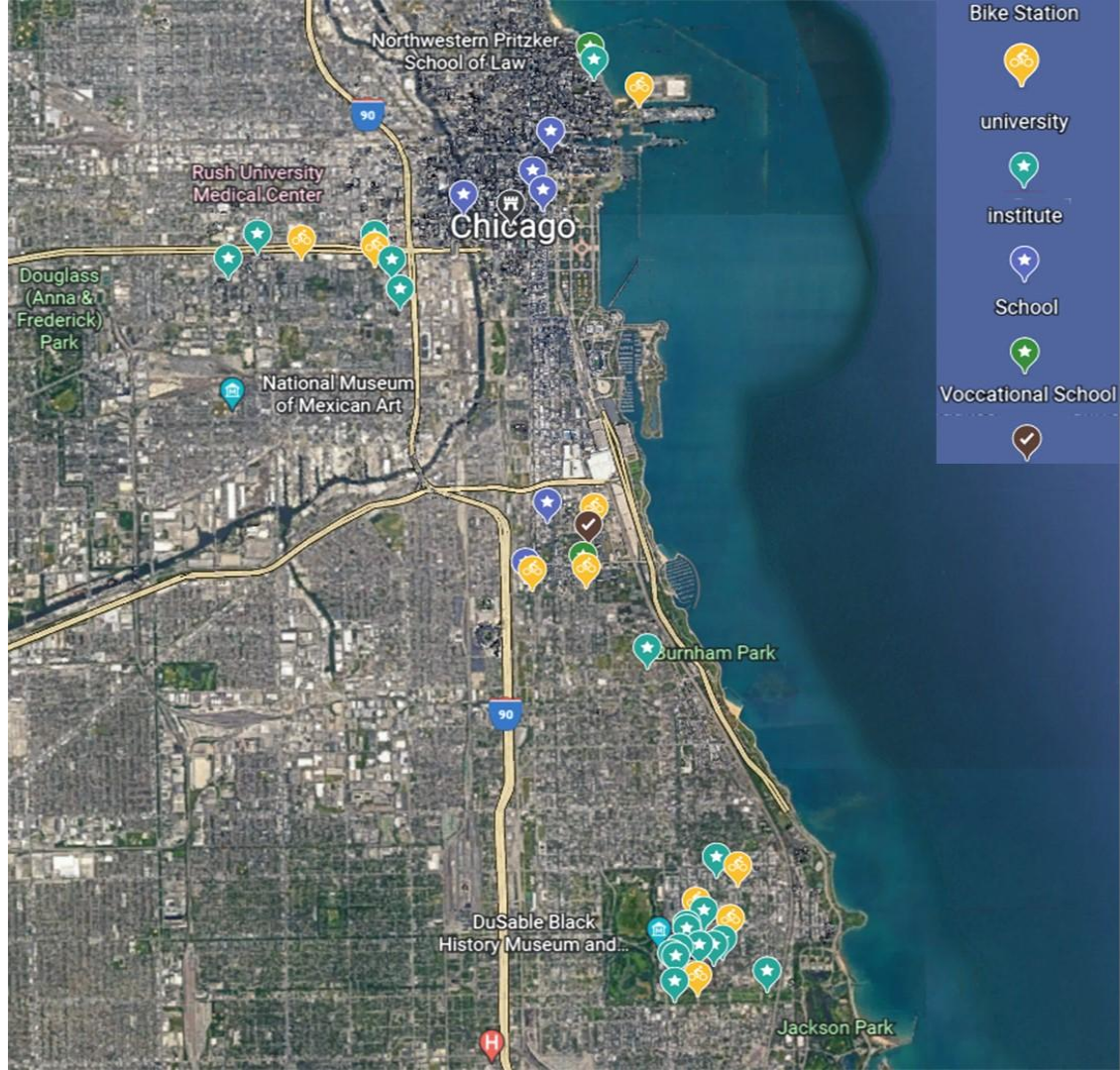
Stations

- Ellis Ave & 60th St
- Ellis Ave & 55th St
- University Ave & 57th St
- Calumet Ave & 33rd St
- Loomis St & Lexington St
- MLK Jr Dr & 29th St
- Streeter Dr & Grand Ave
- Kimbark Ave & 53rd St
- Morgan St & Polk St
- State St & 33rd St

Members-Stations

Yellow mark

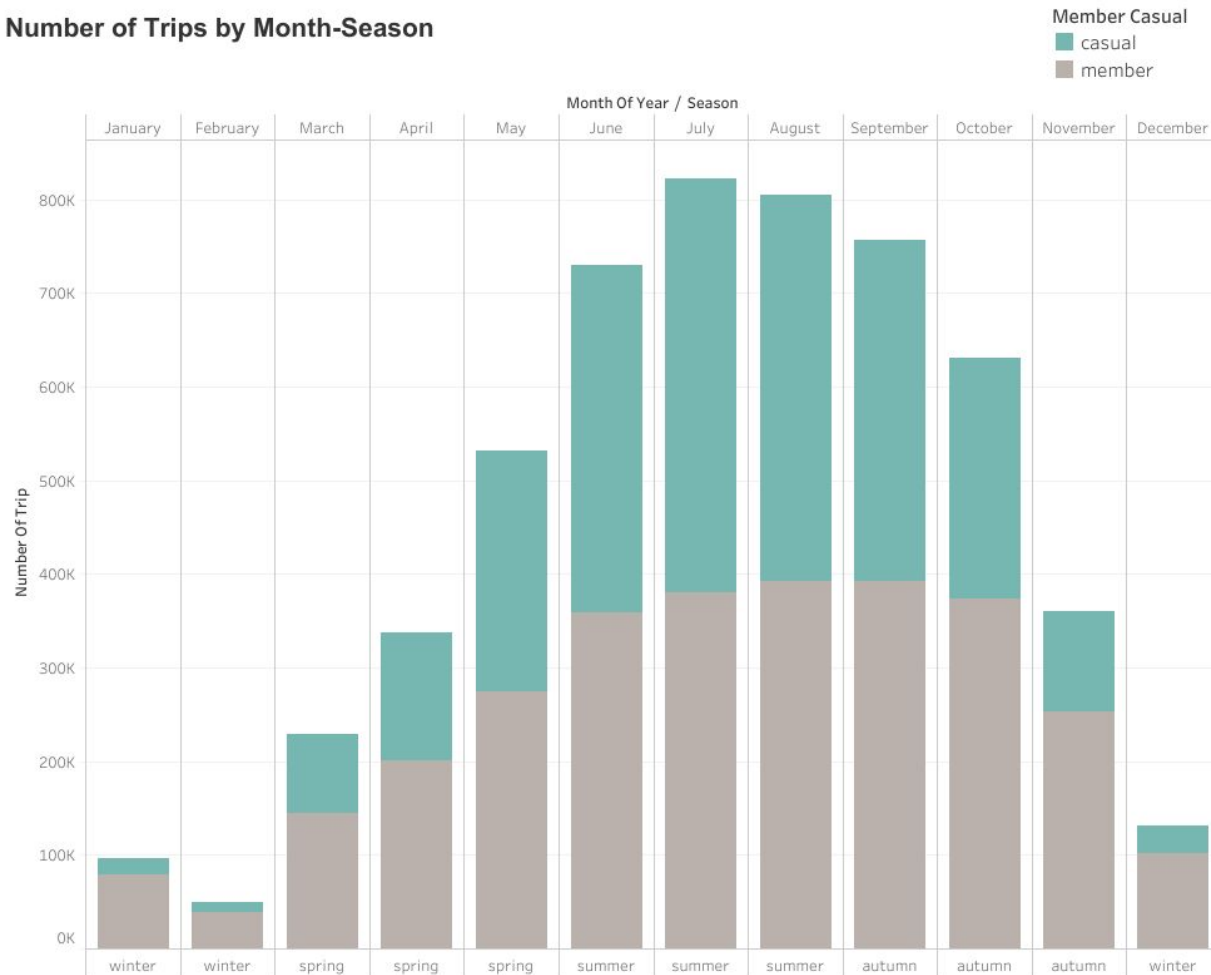
- ❑ Yellow mark is for members' stations, while the rest of marks are for universities, institutes, vocational institutes, and schools.



Number of Trips By Season-Month

- ❑ The noticeable rise in casual riders' trips begins with the beginning of spring and increases greatly in summer and becomes more than members' trips, which are the two seasons suitable for picnics, rest times and tourism.
- ❑ Members' trips during school seasons are more than casual riders' trips at 0.45% - 350%.

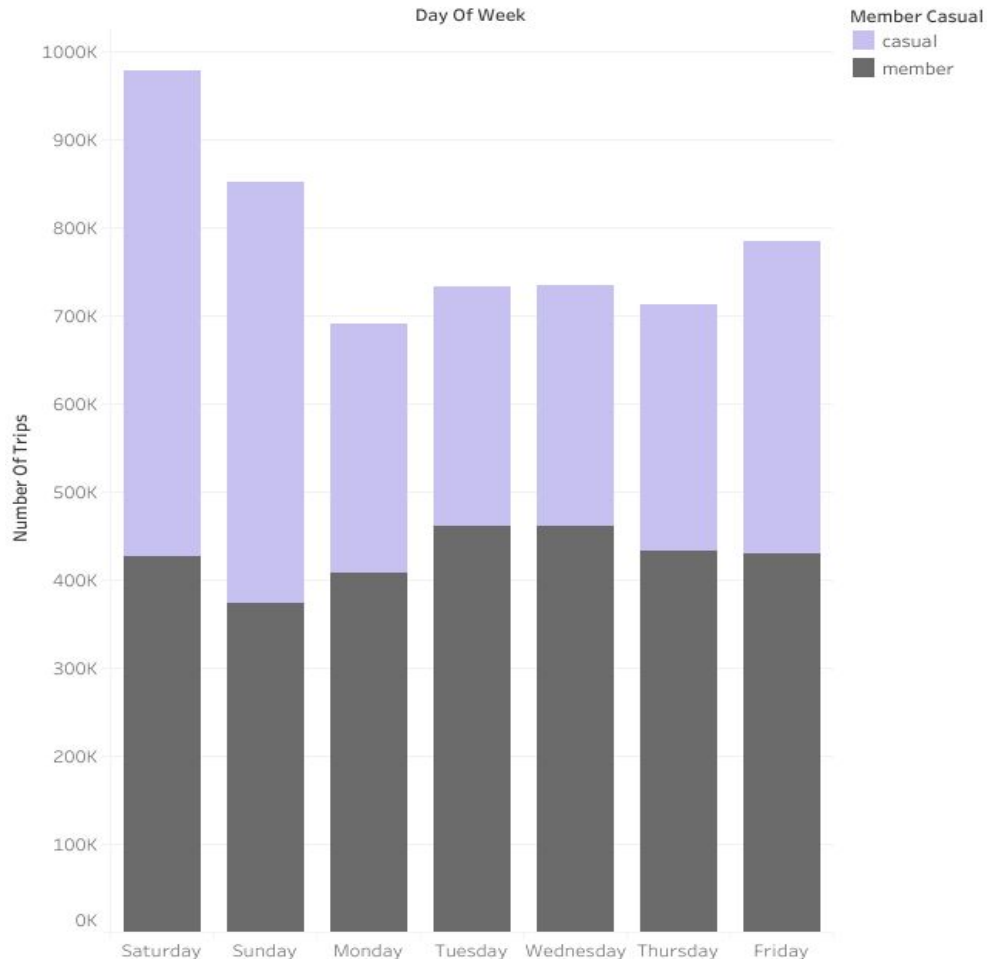
Number of Trips by Month-Season



Day of Week by Trips

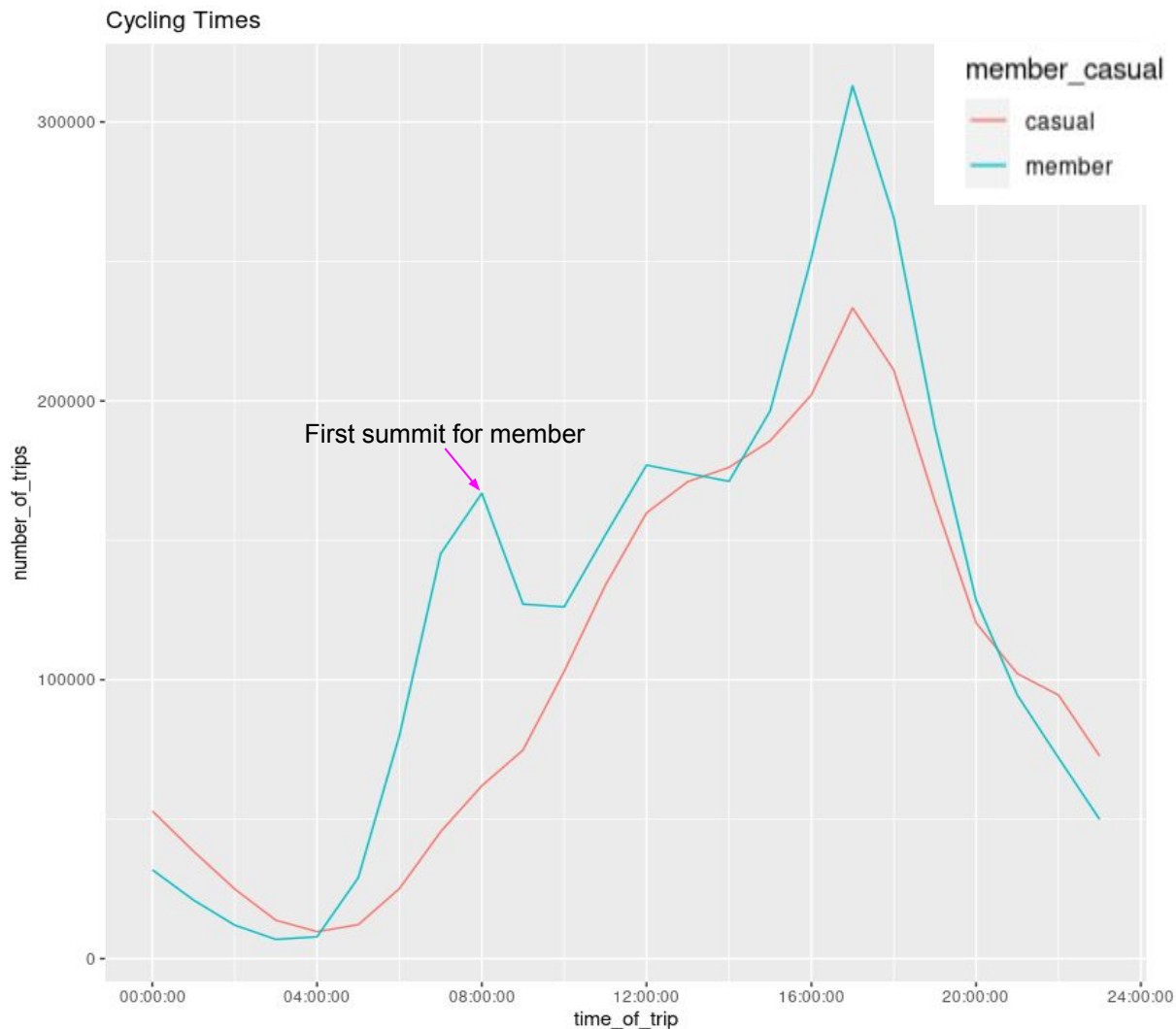
- ❑ The weekend is the most two days with the number of trips for casual riders, while the weekdays are much less.
- ❑ As for annual members, it is very close on all days and the weekdays are more than the weekend except Monday which is more than Sunday, but less than Saturday.

Day of Week by Trips



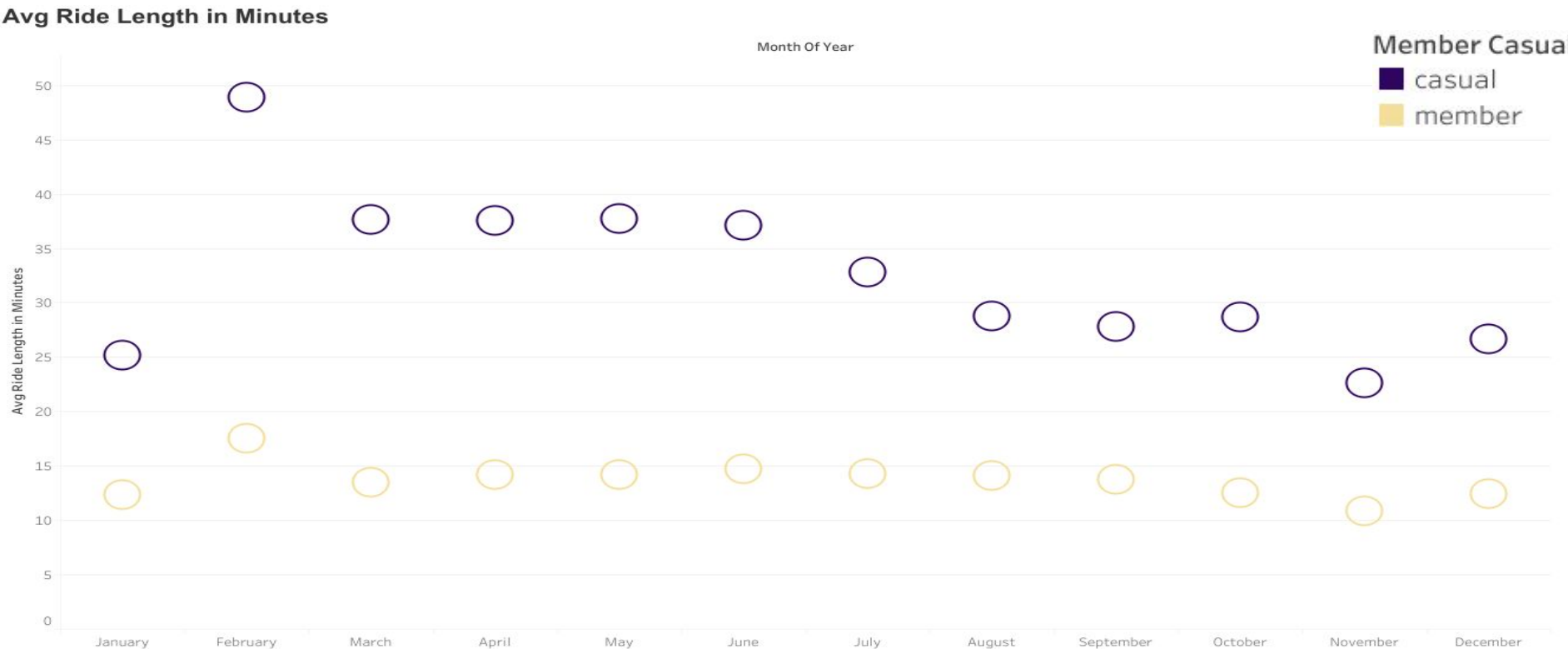
Cycling Times

- ❑ Number of trips for casual riders was moving upward as we approached the noon and afternoon times which is a suitable time to spend leisure time.
- ❑ The first members' summit of the number of trips was formed at 08:00 AM, which is the time when students go to their schools and employees and workers go to work.



Average Ride Length in Minutes

- ❑ The average ride length for member riders is less than the average ride length for casual riders. This may be caused by the fact that the member riders uses the bicycle only to arrive as a means of transport, but casual riders uses it for spend leisure time, so in general the maximum possible duration will be used.

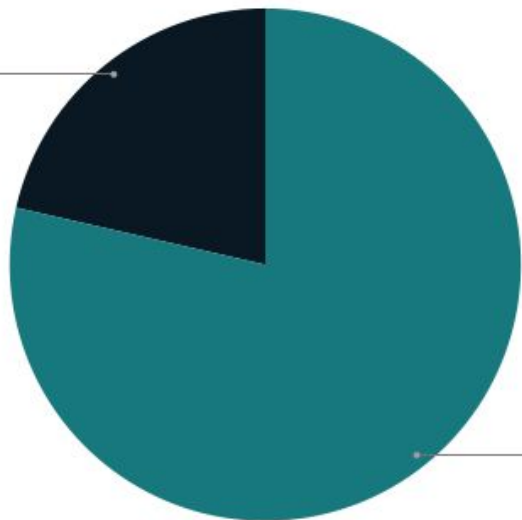


Trips Started-Ended in The Same Place

- ❑ **78.6% of casual riders' trips were from and to the same station**, meaning they use it for spending their leisure time.
- ❑ **85.7% of members' trips were from one station to another station**, meaning they use it for transportation.

Casual

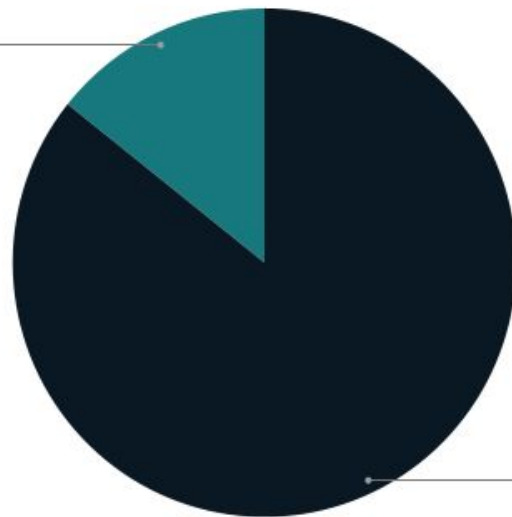
FALSE
21.4%



TRUE
78.6%

Member

TRUE
14.3%



FALSE
85.7%

Recommendations

- 1) Focus on providing marketing offers targeting the top 10 stations used by casual riders, stations located on the coastline. Marketing offers are easy-to-obtain rewards, because consumers prefer to get more, rather than pay less.
- 2) Providing special membership that has the advantage of earning points, where you earn points if:
 - You drive the bike from one station to another station, because this feature will encourage the casual riders to move between stations, therefore the casual riders will gradually begin to use bicycles as a means of transportation, and this is the behavior of the annual members.
 - You ride the bike between 7-9 AM, because this is the time when students go to their schools, or employees and workers go to work, so this feature will encourage casual riders to use the bikes as a means of transportation to go to school or to work and this is the behavior of the annual members.

With these strategies that help convert casual riders into annual members in future, Bike-Share Cyclistic will have a better chance of ensuring the company's future success.

Appendix

- ❖ **Dataset:** December 2020 - November 2021 <https://divvy-tripdata.s3.amazonaws.com/index.html>
- ❖ **Contact:** pfdata9@gmail.com