Data Analysis For Bike-share business

How does a bike-share navigate speedy success?

NiYa Wang November 02, 2021

Table of content

- 1. Introduction
- 2. Business Task
- 3. Description of data sources used
- 4. Visualizations and key findings
- 5. Top three recommendations based on the analysis

1.INTRODUCTION

Cyclistic is a bike-share company in Chicago.

The director of marketing believes the company's future success depends **on maximizing the number of annual memberships**.

Therefore, we want to understand how **casual riders** and **annual member riders** use Cyclistic bikes differently.

2.BUSINESS TASK

- 1. How do annual members and casual riders use Cyclistic bikes differently?
- 2. Why would casual riders buy Cyclistic annual memberships?
- 3. How can Cyclistic use digital media to influence casual riders to become members?

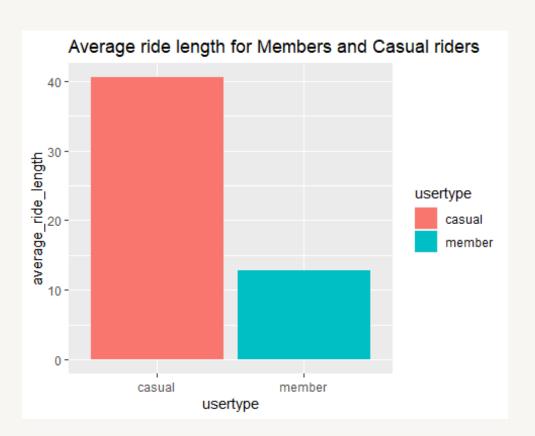
3. DESCRIPTION OF DATA SOURCES USED

Use Cylistic's historical trip data to analyze and identify trends.

(2019_Q1, 2019_Q2, 2019_Q3, 2019_Q4, 2020_Q1) Data include information below.

- User type (Member/ Casual)
- Day of week
- Ride length
- Station name (From/To)
- Birthyear
- * The data has been made available by Motivate International Inc. Under this license.
- * Data is restored with a html file.

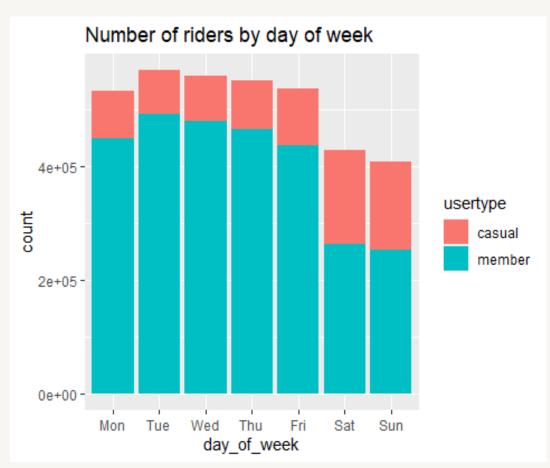
Average of ride length for members and casual riders



^	usertype	average_ride_length
1	casual	40.56643
2	member	12.76086

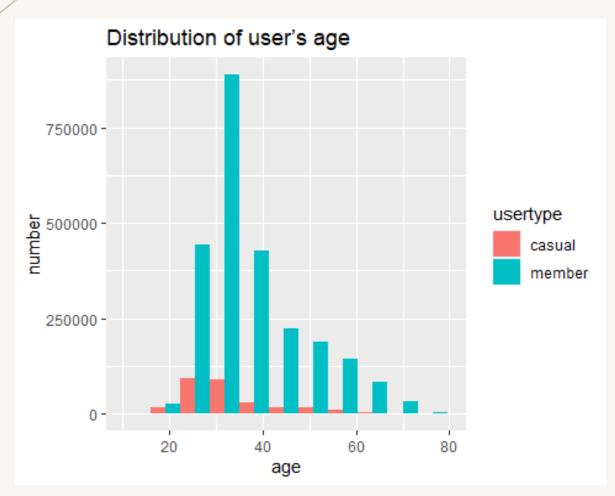
• Casual riders' average of ride length is much longer than that of member riders.

Number of riders in a week



- Number of member riders is relatively higher during weekdays.
- Number of casual riders is relatively higher during weekends.

Distribution of rider's age



Member

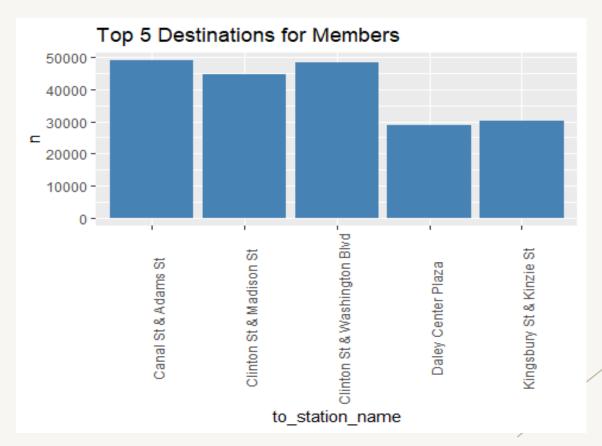
- Age between 25-40 is highest.
- Distributed in a wider age group.

Casual

- Age between 25-30 is highest.
- Casual rider's age is younger than member.

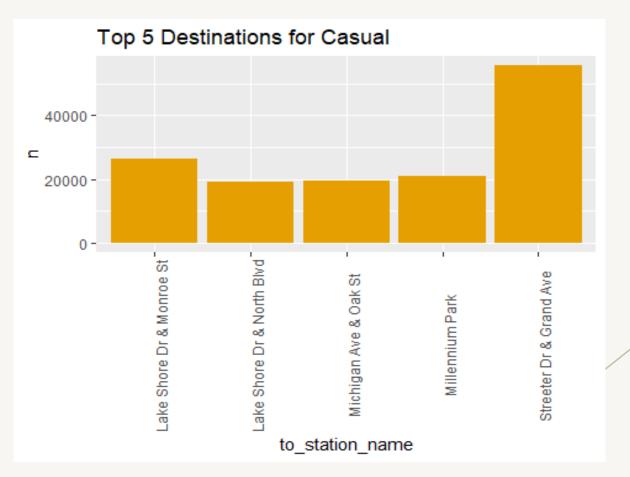
Top 5 Destinations for Members

•	to_station_name	usertype [‡]	n [‡]
1	Canal St & Adams St	member	48929
2	Clinton St & Washington Blvd	member	48224
3	Clinton St & Madison St	member	44541
4	Kingsbury St & Kinzie St	member	30238
5	Daley Center Plaza	member	28772

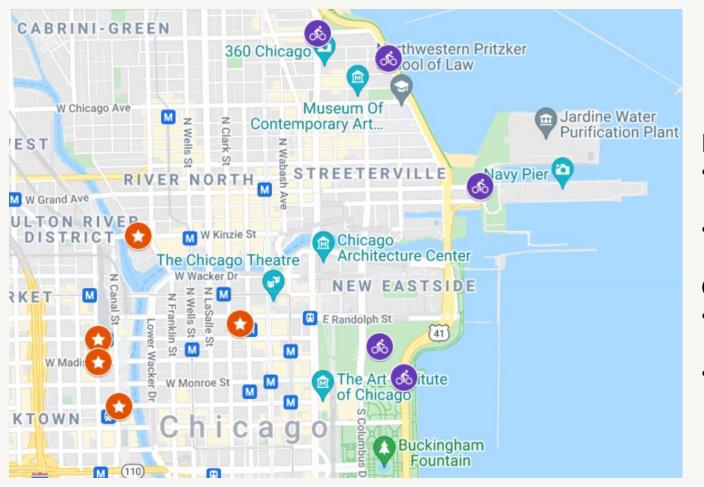


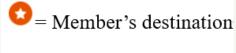
Top 5 Destinations for Causal

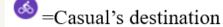
^	to_station_name	usertype [‡]	n [‡]
1	Streeter Dr & Grand Ave	casual	55653
2	Lake Shore Dr & Monroe St	casual	26487
3	Millennium Park	casual	21086
4	Michigan Ave & Oak St	casual	19568
5	Lake Shore Dr & North Blvd	casual	19294



Top 5 Destinations on map







Member

- Top 5 destinations are close to office buildings.
- Members use Cyclistic for commute.

Casual

- Top 5 destinations are close to leisure spots.
 Such as park, beach, pier and museum.
- Casual use Cylistic for leisure.

5.SUMMARY OF ANALYSIS

Members and Causals use Cyclistic in very different way.

Member

- Relatively longer ride length during weekday.
- Destinations are close to office buildings.
- Use Cyclistic for commute.
- Distributed in a wider age group (25-40).

Casual

- Relatively longer ride length on weekend.
- Use Cylistic for leisure.
- Much longer ride length than members.
- Relatively younger age (25-30).

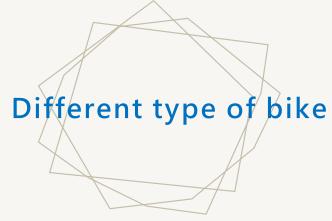
TOP THREE RECOMMENDATIONS



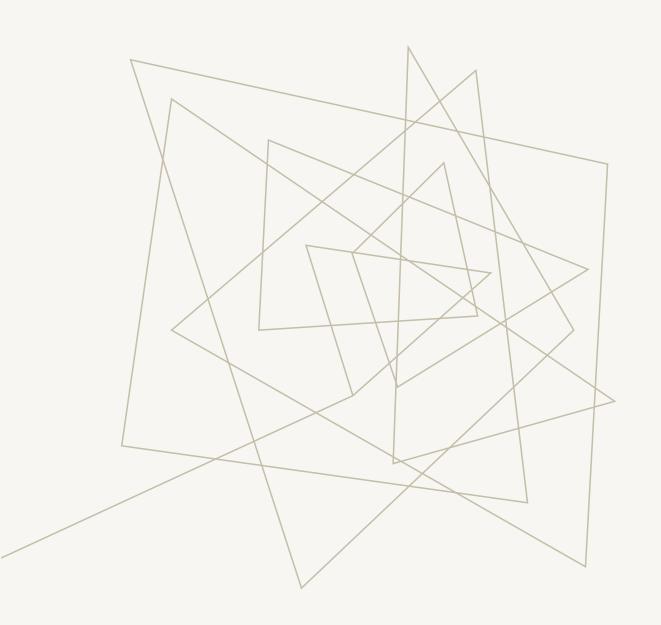
- The member's pricing remains unchanged.
- Casual rider's pricing is calculated based on the distance of the ride.



• Discounts for tickets, food and beverage are for leisure use members only during holidays.



- Bike with child or baby seats for family with child(s).
- Adding the option of electric bikes to target more customers.



Thank You