Data Analysis for Bike-share Business

How does a bike-share navigate speedy success?

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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.

We would like to understand how Casual riders and Annual members use Cyclistic bikes differently.

Therefore, our team will design a new marketing strategy to convert casual riders into annual members.

Business Task

1. How do annual members and casual riders use Cyclistic bikes differently?

2. Why would casual riders Cyclistic annual memberships?

3. How can Cyclistic use digital media to influence casual riders to become memberships?

About our data

We used Cyclistic's historical trip data to analyze and identify trends. (2019-Q2, 2019-Q3, 2019-Q4, 2020-Q1) Basically, the data include information below.

- Station names (Start/End)
- Date & Time
- Gender
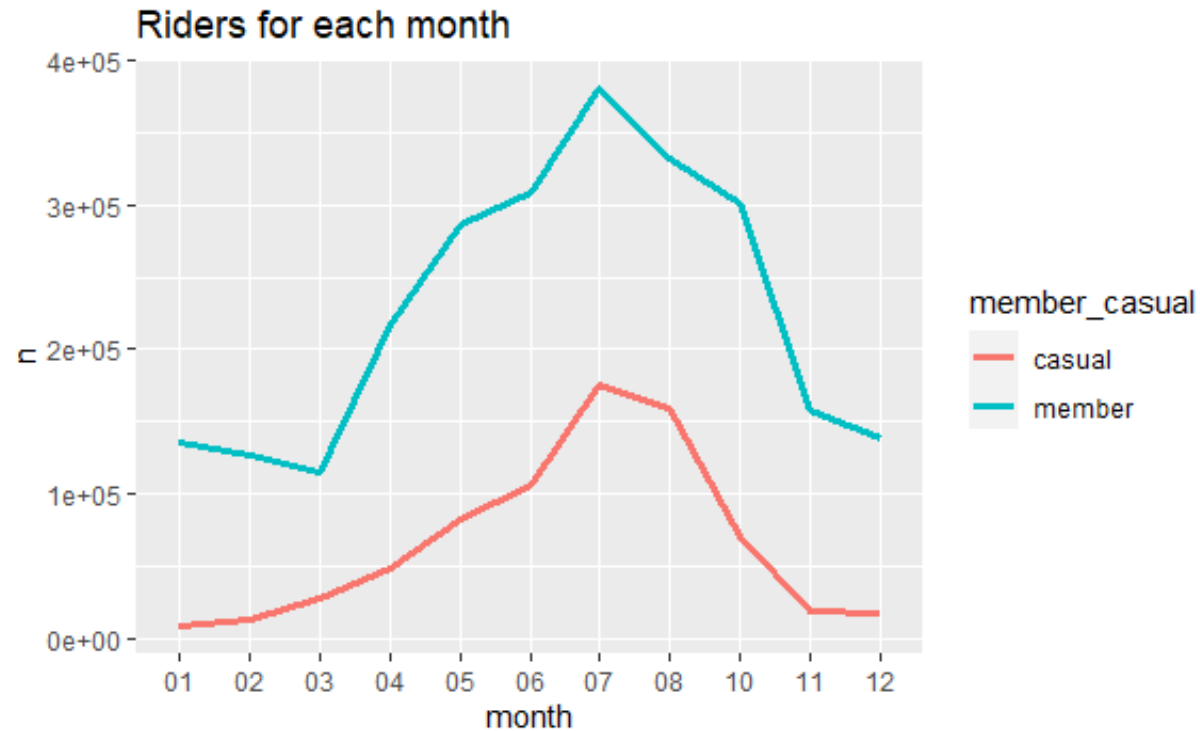- Birthyear
- User's type (Member/Casual)

*The data has been made available by Motivate International Inc. under this license

Number of riders for week of the day

- Number of Member riders is relatively high during weekday.

- Number of Casual riders is high on weekend (Saturday and Sunday)

Riders for day of the week
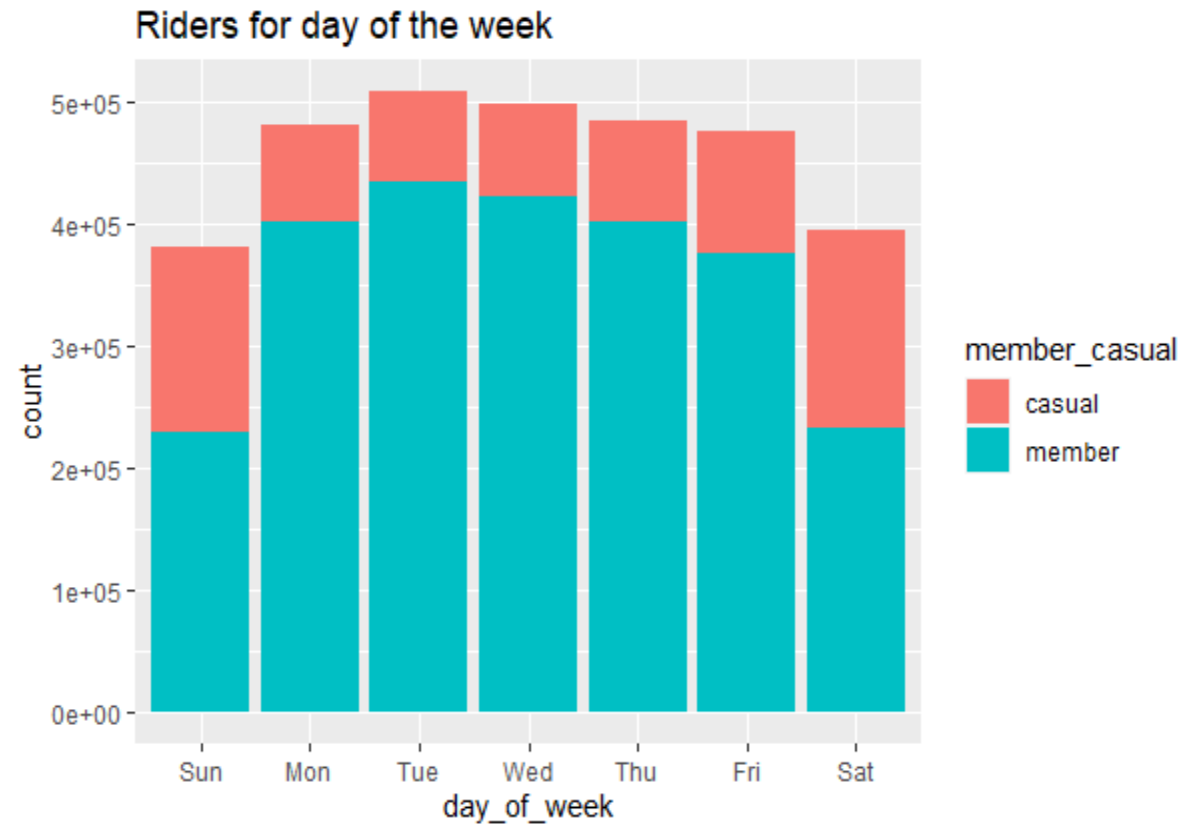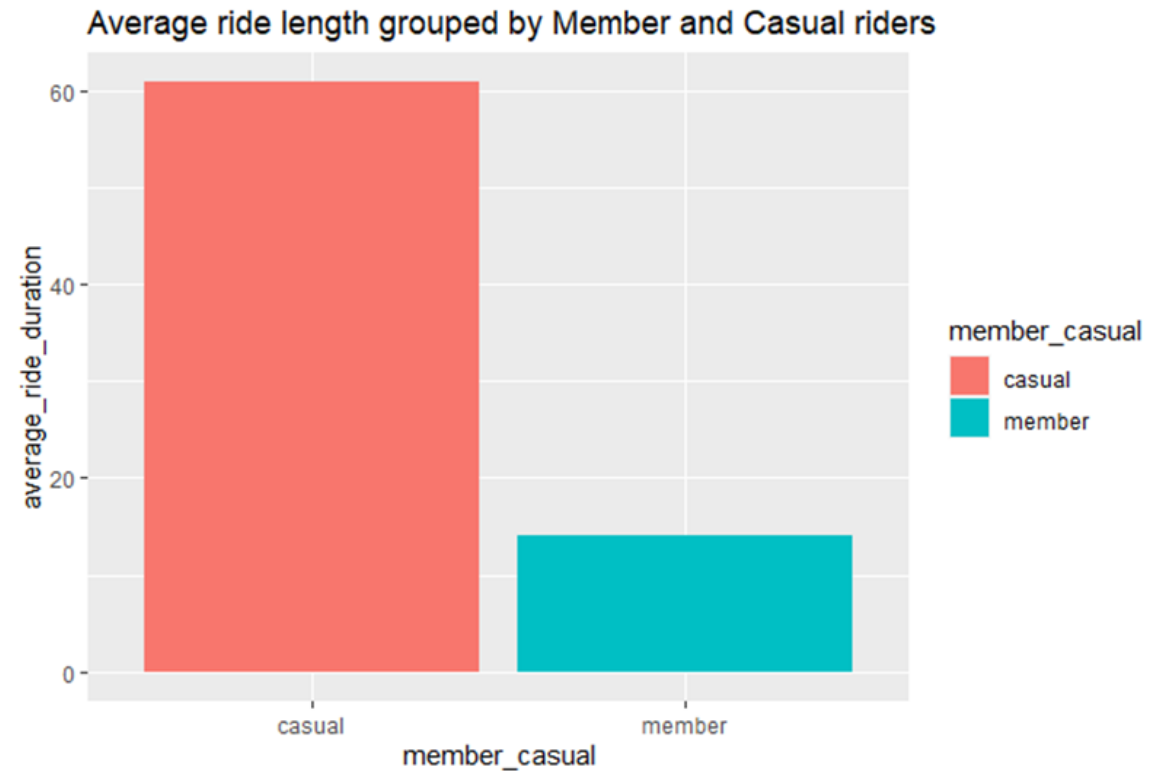
Number of riders for each month

- Both number of riders are high during summer.
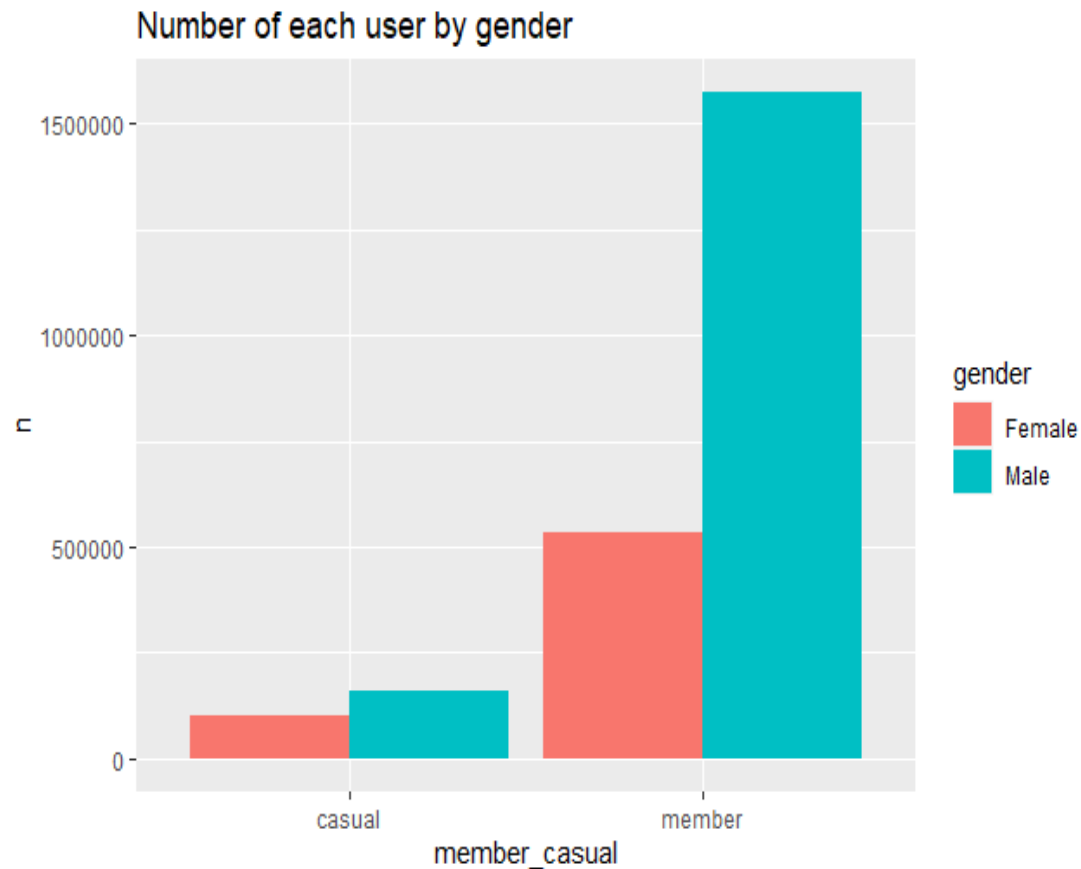
- Number of Casual riders increase during summer vacation.

Average ride length

Member/Casual	Average ride length
casual	60. 8 minutes
member	14. 1 minutes

- Casual riders ride bikes almost **four times longer** than Member riders.

Average ride length grouped by Member and Casual riders

Number of riders by gender

Number of each user by gender

Member/Casual	gender	number
casual	Female	101820
casual	male	160652
member	Female	534752
member	male	1572865

- For the Member riders, Male user has much higher number comparing to the Female user.

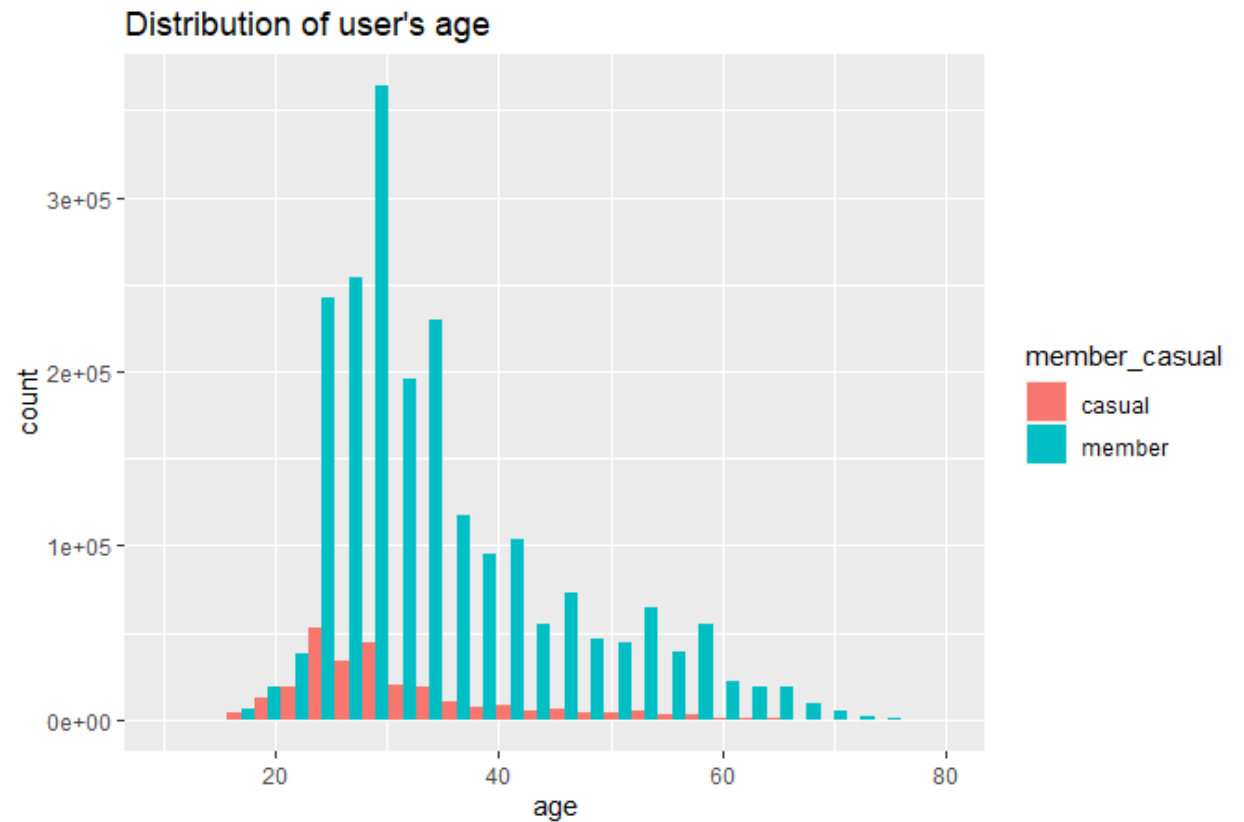- For the Casual riders, there is not big difference between gender.

Distribution of user's age

\<Member\>

• Wide age range of people are member.

• Especially age between 25 – 40 is high.

\<Casual\>

• Casual users are younger.

• Age between 20 – 30 is high.

Top 5 Destinations for Member riders

End Station Name	Member/casual	Number
Canal St & Adams St	member	42280
Clinton St & Washington Blvd	member	40654
Clinton St & Madison St	member	37875
Kingsbury St & Kinzie St	member	25935
Daley Center Plaza	member	25729

Top 5 destinations for Member
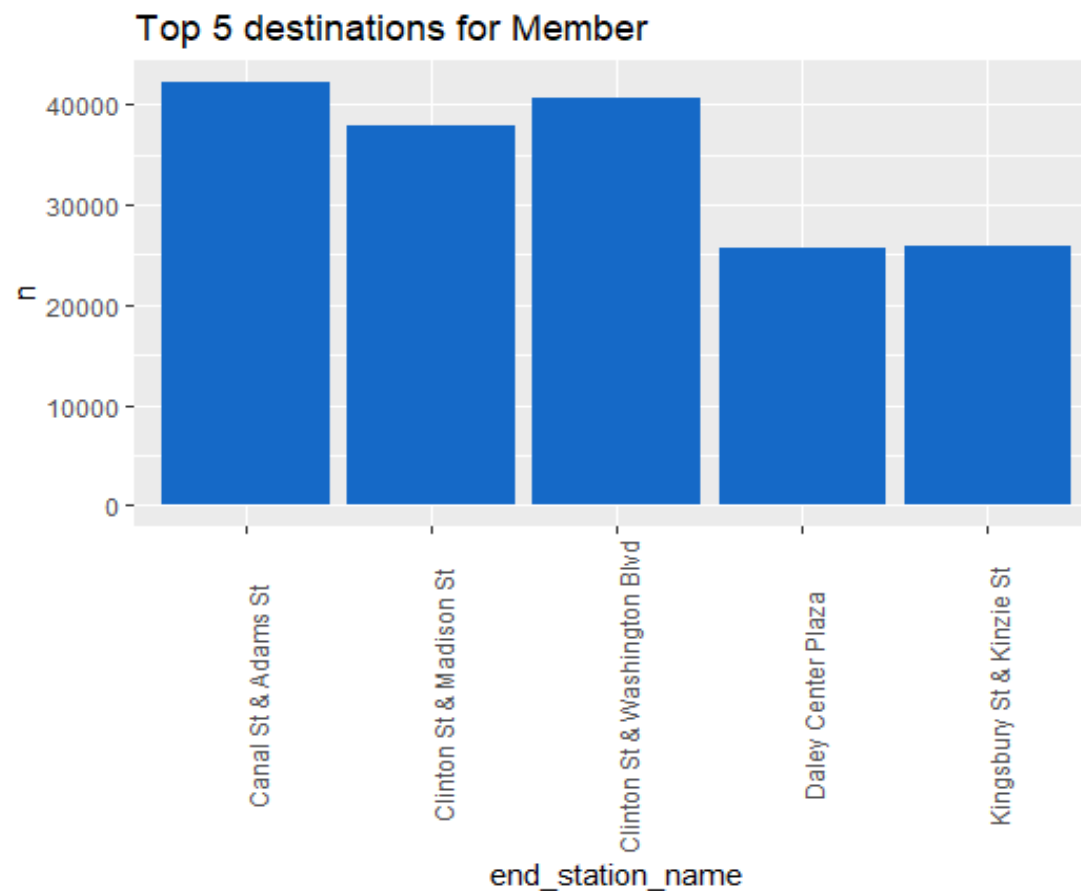
Top 5 Destinations for Casual riders

End Station Name	Member/Casual	Number
Streeter Dr & Grand Ave	casual	53719
Lake Shore Dr & Monroe St	casual	25596
Millennium Park	casual	20266
Michigan Ave & Oak St	casual	19121
Lake Shore Dr & North Blvd	casual	19008

Top 5 destinations for Casual
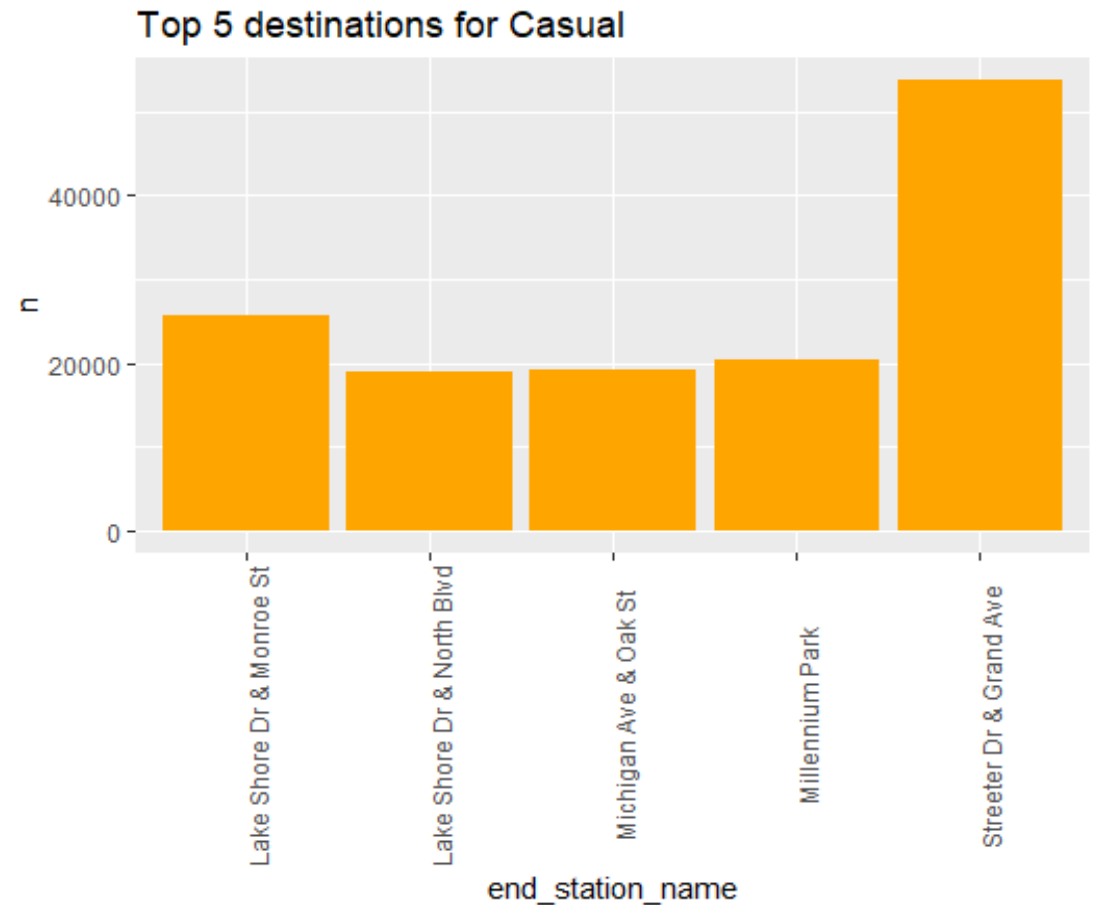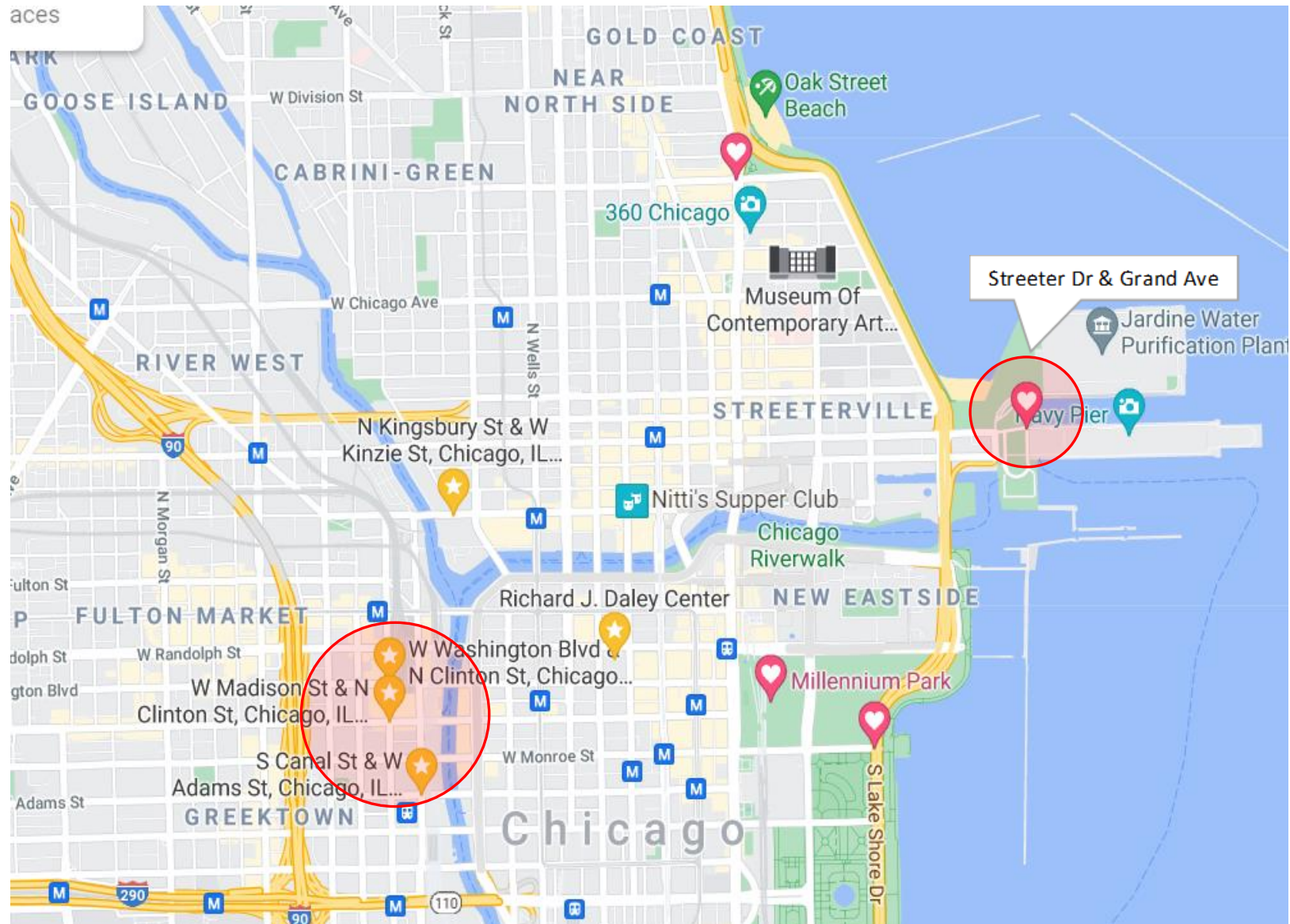
Destination Map

<Member>

• Users use Cyclistic for commute.

• Top 3 destinations are close to office buildings.

<Casual>

• Users use Cyclistic for leisure.

• Destinations are close to tourist spots.

• "Streeter Dr & Grand Ave" has extremely high number of use.

Summary of Data Analysis

Member riders and Casual riders utilize our bikes quite differently.

<Member riders>

1. Use Cyclistic for commute.
2. A lot of users ride our bikes during weekdays (Mon-Fri).
3. High number of male users.
4. Wide range of age users(25-40)
5. Stations are close to office buildings.

<Casual riders>

1. Use Cyclistic for leisure.
2. A lot of users ride our bikes during weekends (Sat-Sun).
3. Not big difference between gender.
4. Relatively younger age (25 – 30)
5. Stations are close to tourist spots.

Top 3 Recommendations

1. Create an app for members which offers :

   - Information around the place (Tourism spots, Food...etc)

   - Discount (Tickets, Food, Drink...etc)

2. Invest on ads around tourism spots. Focus on "Streeter Dr & Grand Ave"

3. Add different type of bikes to widen age group

   - Bikes with a safe child seat for family

   - Electric bikes for elderly people

Thank you!