CASE STUDY

Google Data Analytics

Prepared By:

Richa Saxena

What do we know about Cyclistic Bikes ?

Problem Statements

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

Preparing Data for Analysis :

- How do annual members and casual riders use Cyclistic bikes differently?
- Why would casual riders buy Cyclistic annual membership?
- How can Cyclistic use digital media to influence casual riders to become members?

Data Analysis has been collated and analyzed with the help of R Studio.
This is a first level analysis, and further analysis of the case study is in works and would be updated on completion..

Data Insights into Cyclistic Bikes – Dec'20 to Nov'21

Cyclistic Bikes Member's Data :

```
> table(all_trips$member_casual)

 casual  member
1250566 1578926
```

The data analysis shows that Cyclistic bikes have greater annual members than the casual riders in the past 12 months when accounted for in total

```
> aggregate(all_trips_v2$ride_length ~ all_trips_v2$member_casual, FUN = mean)
  all_trips_v2$member_casual all_trips_v2$ride_length
1                     casual                 525180.5
2                     member                 158343.0
```

Highest Average ride length by the casual riders

```
> aggregate(all_trips_v2$ride_length ~ all_trips_v2$member_casual, FUN = max)
  all_trips_v2$member_casual all_trips_v2$ride_length
1                     casual                852076800
2                     member                344563200
```

Highest ride length by the casual riders

Casual Riders > Annual Members

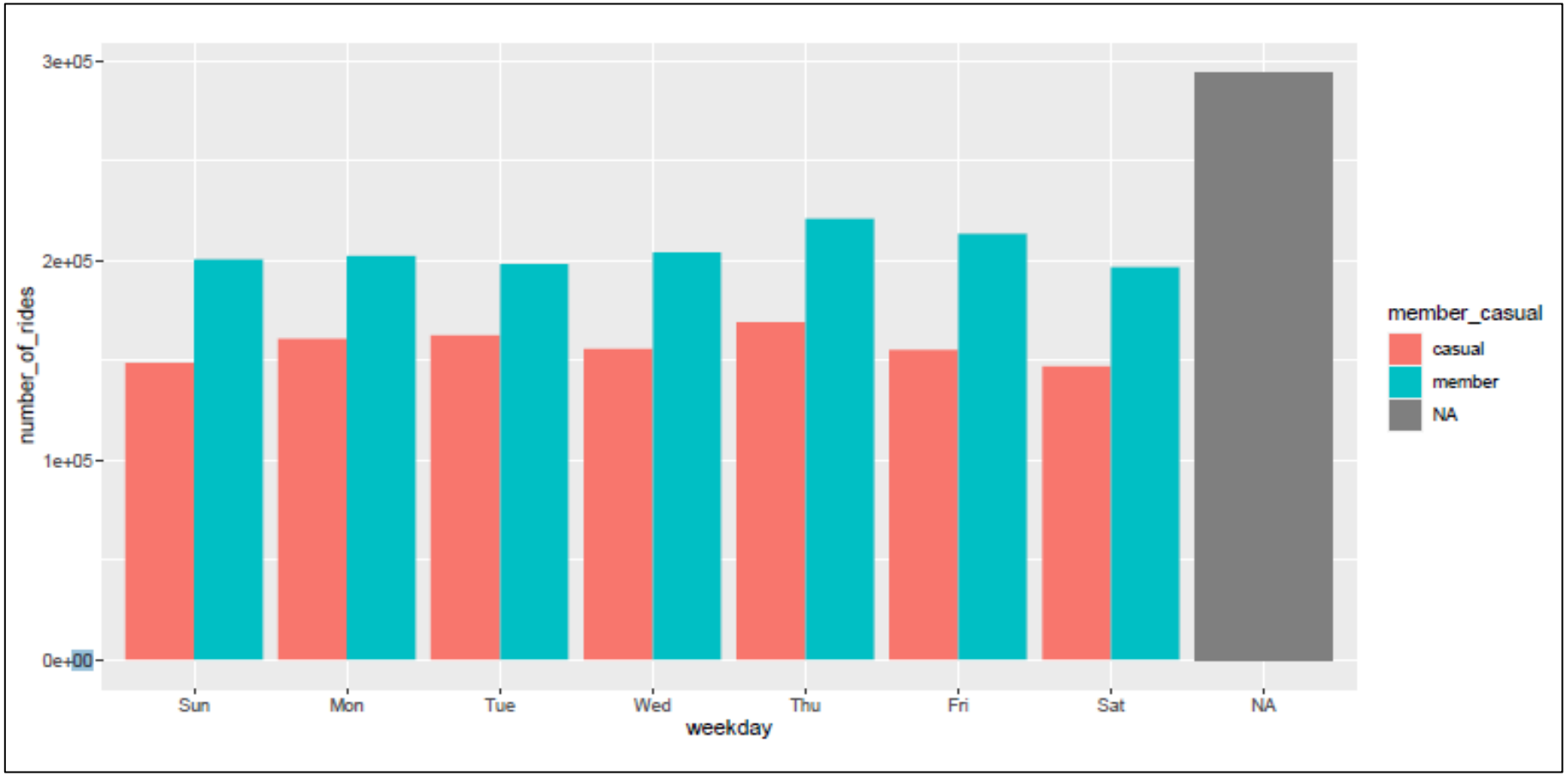
On analysis it was found, that casual members spend more time with Cyclistic Bikes than the annual members.

Casual Riders = Annual Members

Cyclistic need of the hour is to use digital media to influence casual riders to become members.

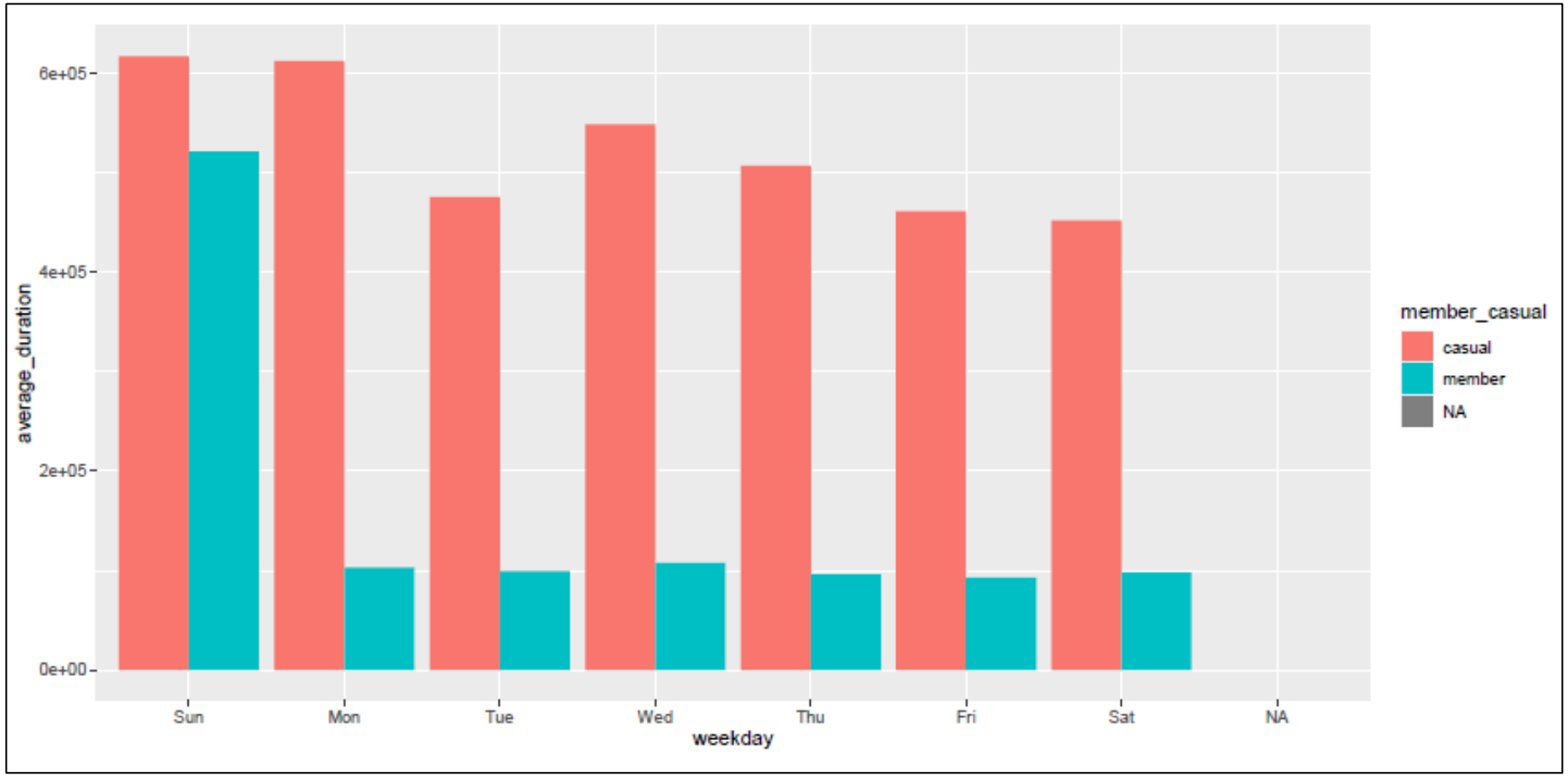
The above data has been worked upon the last 12 months i.e., Dec'20 – Nov'21 whereby, the data has been collated and analyzed with the help of R Studio. This is a first level analysis, and further analysis of the case study is in works and would be updated on completion.

Data Insights into Cyclistic Bikes – Dec'20 to Nov'21



The above graph shows the number of rides by rider type across the seven days of the week. In the past 12 months a maximum no. of rides haven't been accounted for i.e., NA while on a daily basis the number of rides by annual members remain the highest.

Data Insights into Cyclistic Bikes – Dec'20 to Nov'21



The above graph shows the average duration spent by the casual riders and the annual members with Cyclistic Bikes across seven days of the week. The graph clearly illustrates that the casual riders spent more time and thereby can be of great advantage if converted to annual members.

How can we help Cyclistic Bikes ?

- Data analysis shows that the annual members takes the maximum number of rides across the seven days of the week.
- Casual riders take less rides but spend a longer duration as compared to the annual members.
- Cyclistic Bikes have more annual members as compared to the casual riders.
- Casual riders spend longer duration on Sunday and Monday, thus can be targeted on the day for enrollment to membership.
- Any missing data related to the duration should be accounted for excluded to better understand the average duration and data analysis for Cyclistic Bikes.
- The Digital influence can be considered on the days when Casual riders take more rides and spend more duration i.e., Sunday, Monday, Thursday and Fridays.

Data Analysis has been collated and analyzed with the help of R Studio.
This is a first level analysis, and further analysis of the case study is in works and would be updated on completion..

THANK YOU!

Case Study Analysis By:
Richa Saxena
For feedback mailto: richa.saxena1604@outlook.com