

First Case study research (April, 2023)

Case Study: How Does a Bike-Share Navigate Speedy Success?

Introduction

This is the first case study among the three case study I will do in my capstone project as the requirement for completion of the Google Data Analytics Certificate. As a junior data analyst in this case study I will analyse data of the fictional company called “**Cyclistic**” provided by the Course. To answer a business task; Cyclistic’s historical trip data is used to analyse and identify trends of the previous twelve (12) Months from April 2022 to March 2023.

About the company

Business Task: How do annual members and casual riders use **Cyclistic** bikes differently?

Part one: Ask Phase

General Objective of the analysis

The general objective of this analysis is to provide insight on the difference between casual riders and annual members that will help marketing department design a marketing strategy that will convert casual riders to annual members

Expected Results of the analysis

Insight from this analysis will enable my team to design new marketing strategy to convert casual riders into annual members so as to guarantee Cyclistic company’s future success that is expected to depends on maximizing the number of annual memberships

Key Stakeholders

- The director of marketing and my manager (Lily Moreno)
- Cyclistic executive team
- Cyclistic marketing analytics team

Business task to tackle: To identify the difference between casual riders and annual members

Part two: Prepare Phase

Data used for this analysis is located at [Bucket loading... \(divvy-tripdata.s3.amazonaws.com\)](#)

The data used for this analysis data has been made available by Motivate International Inc. under the specified license at this link <https://www.divvybikes.com/data-license-agreement>.

Data is from the fictional company Cyclistic's database It is a credible data for its first-hand data collected by the company and is updated on a monthly basis.

Data in obtained from this source will be only used for analysis purposes.

The data that are used for analysis are ROCCC which means they are Reliable, Original, Comprehensive, Current, Cited. This is because data is **Reliable** and is not biased, Its **Original** because it's original public data, and its **Comprehensive** because not missing important information required for the analysis, it is also **Current** because its updated monthly and its **Cited**.

Data organization

This data is organized in monthly basis. This analysis is done using the data of the previous twelve (12) months from April 2022 to March 2023. File names are saved by the following format YYYYMM-divvy-tripdata such i.e (202303-divvy-tripdata). All files (Monthly) saved in Comma Delimited format(CSV) and in each sheet, There are total 13 columns containing ride information such as (ride_id, rideable_type, started_at, ended_at, start_station_name, start_station_id, end_station_name, end_station_id, start_lat,start_lng,end_lat,end_lng,member_casual) and number of rows varies monthly.

The data provided will be useful in answering the business questions.

Part three: Process Phase

To analyse the data I used Oracle SQL and Excel

Data processing for analysis

1. I downloaded the data from April 2022 to March 2023
2. Load twelve (12) months data
3. Created a table named **ZANALYSISR** in Oracle SQL
4. Imported the data from excel to ZANALYSISR table
- 5.

Prepare

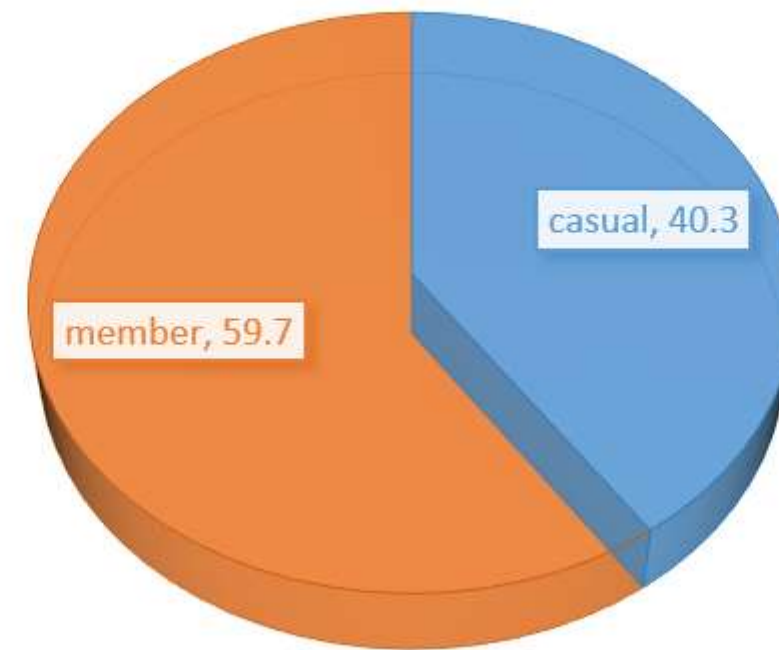
You will produce a report with the following deliverables:

1. A clear statement of the business task
2. A description of all data sources used
3. Documentation of any cleaning or manipulation of data
4. A summary of your analysis
5. Supporting visualizations and key findings
6. Your top three recommendations based on your analysis

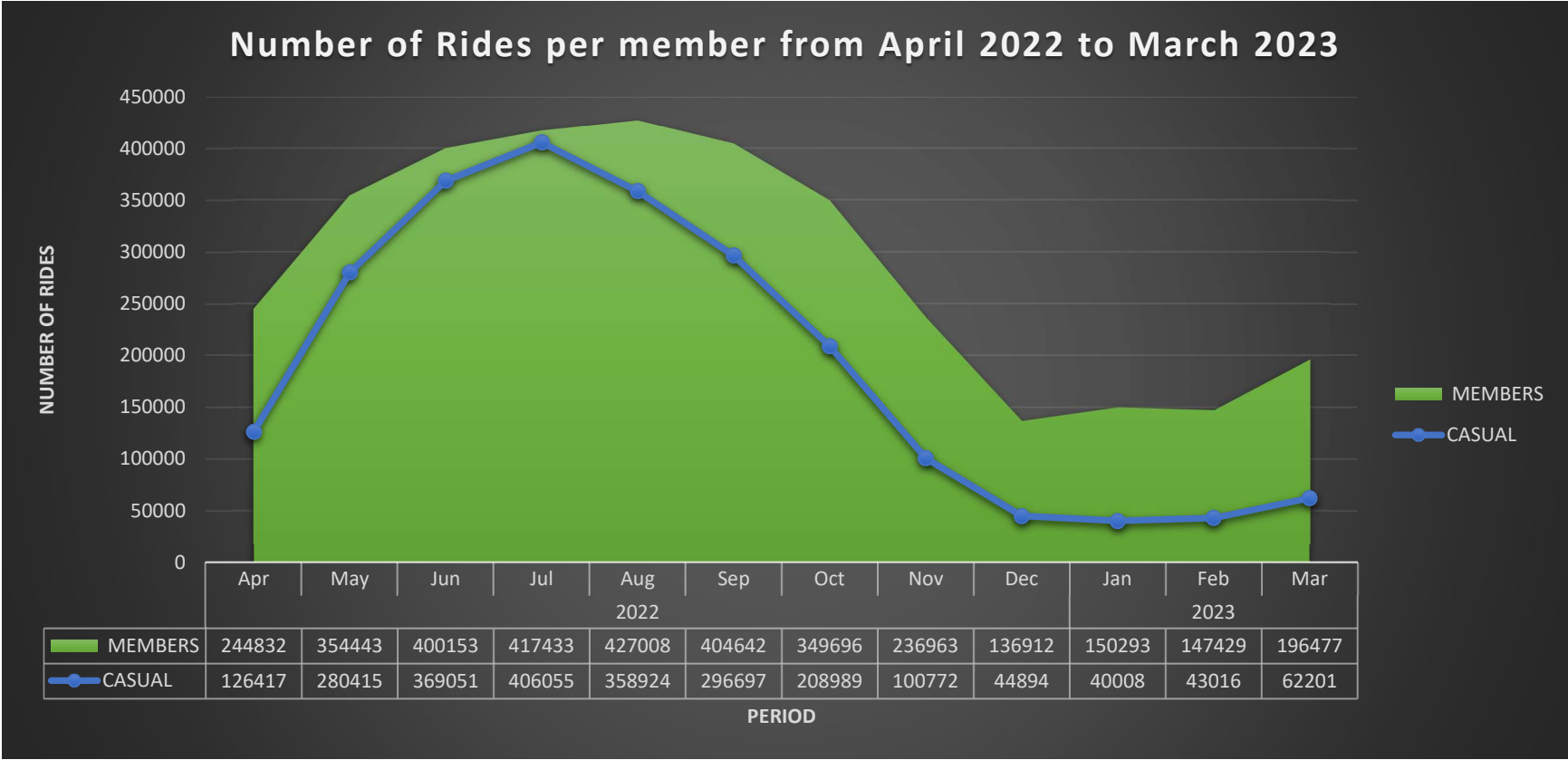
Phase 4- Data Analysis

1. Total Rides from April 2022 to March 2023

NUMBER OF RIDES IN PERCENT(%)

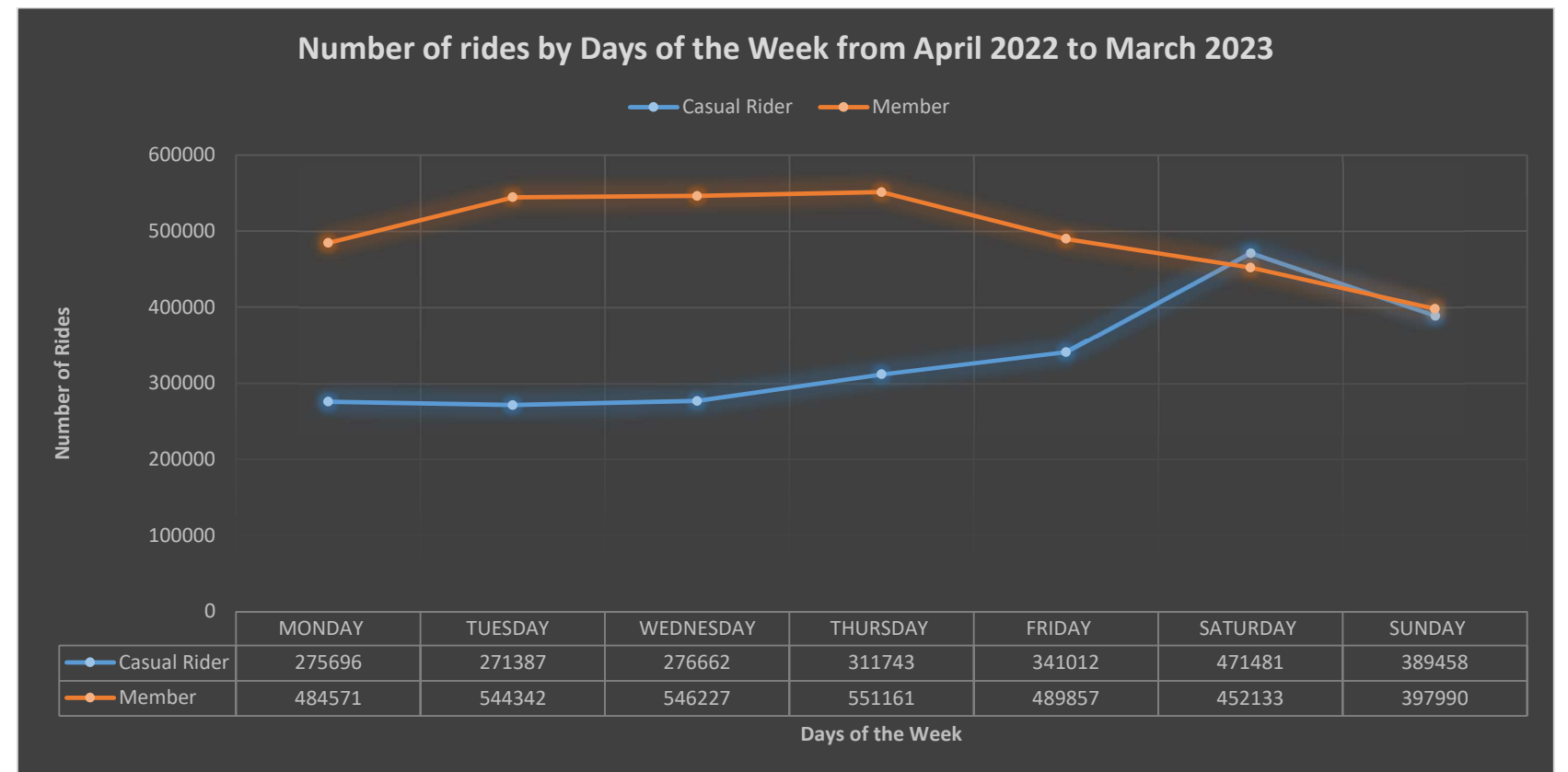


2. Number of Rides Monthly from April 2022 to March 2023



Casual riders ride. more during July, than any other period of the year thus more promotion should be done on July to gain more members. Number of member’s decline after October and begin to rise during January. December is the only month that casual riders exceed that of members Promotion should also be don during December to encourage more casual riders to buy annual membership

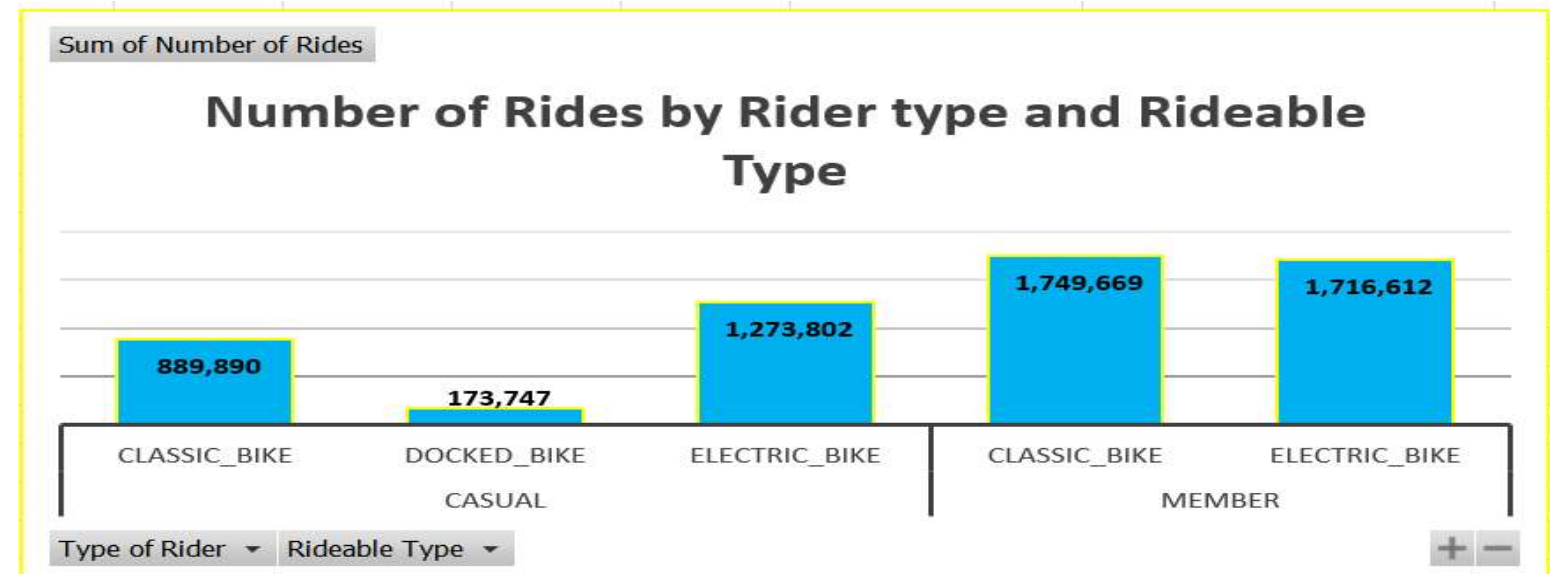
3. Number of rides by days of the week



Many Members rides on Tuesday, Wednesday and Thursday while on the other hand Casual riders rides more on Friday, Saturday and Sunday.

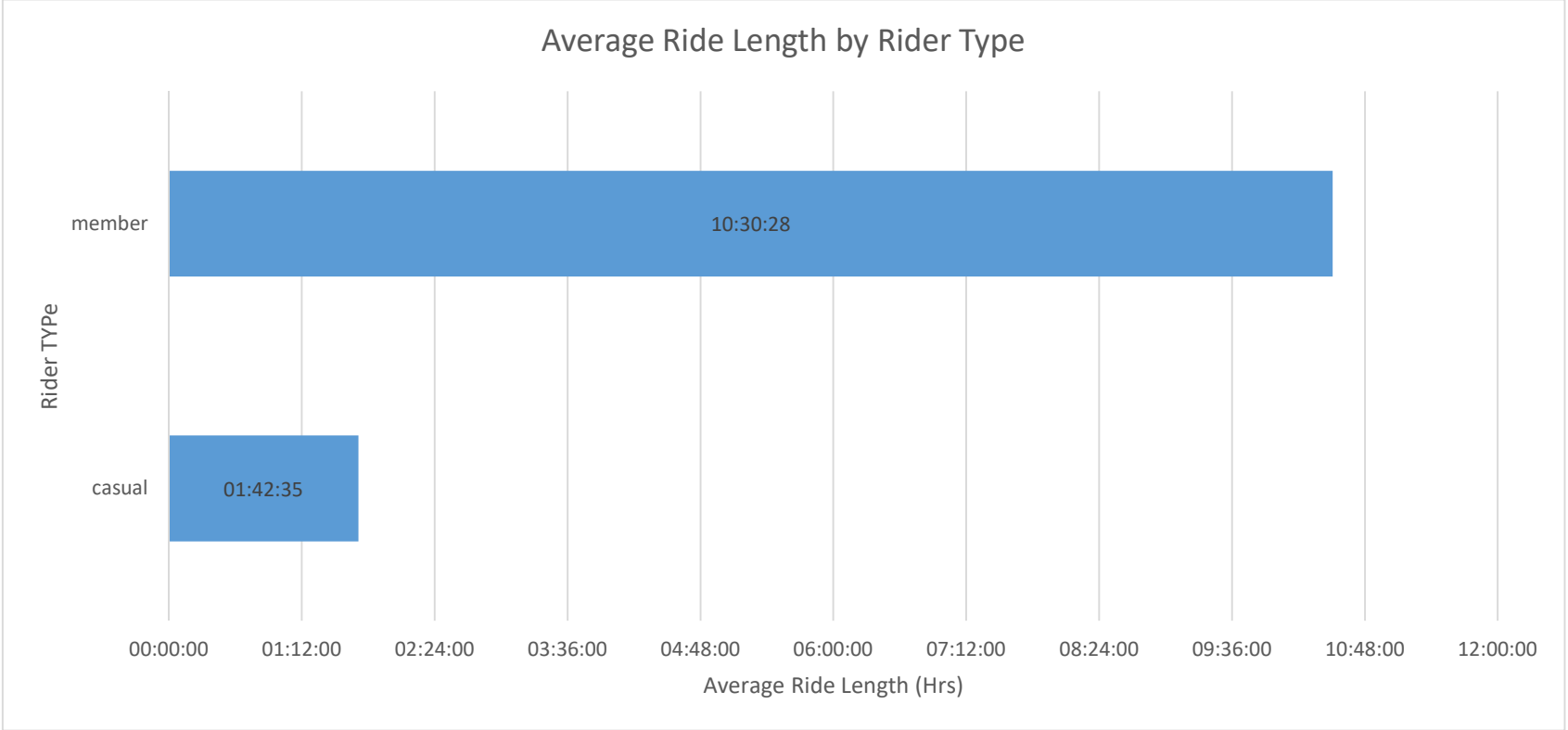
Casual riders ride more from Thursday to Sunday thus more promotion should be done on this day so as to convise casual riders to become members.

4. Ride Type Differences



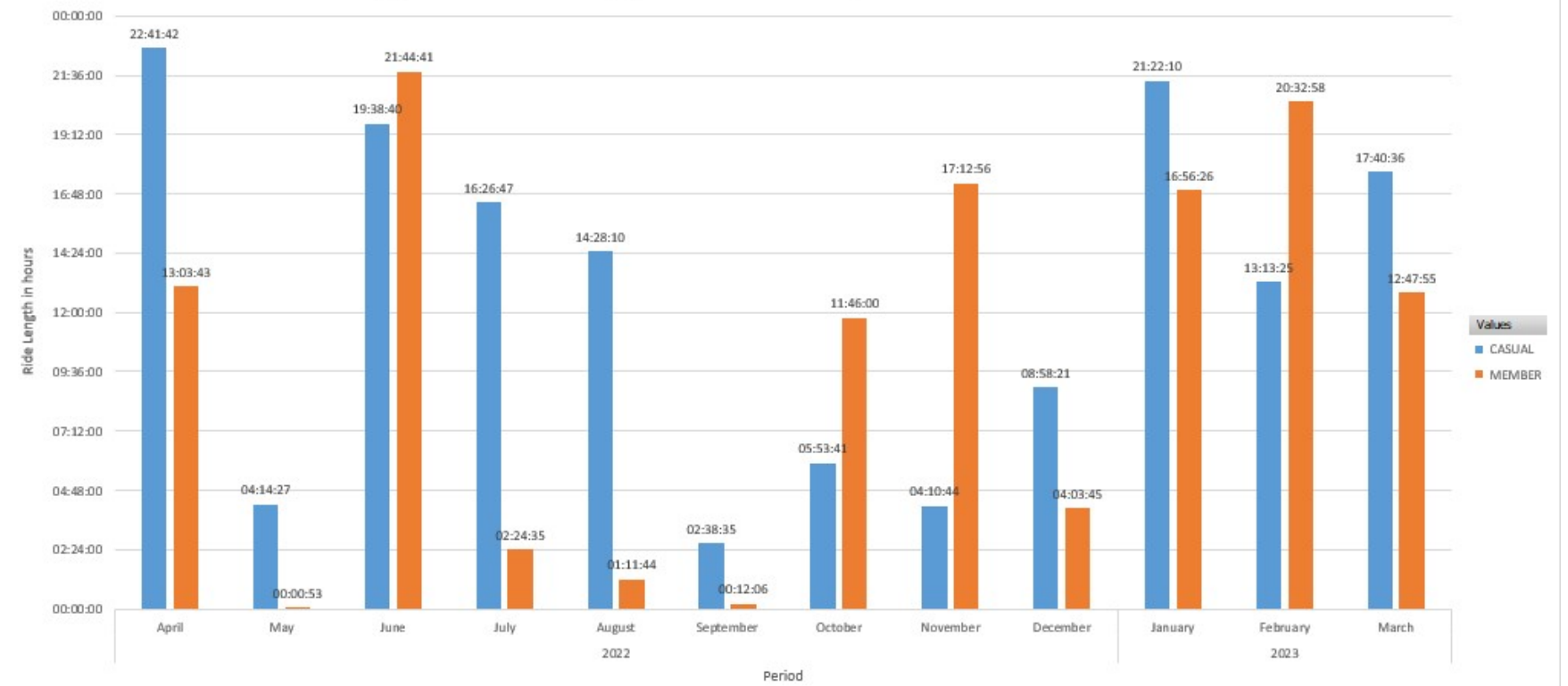
Most riders uses Classic bikes and electric bikes, Members do not use Docked Bike but few Casual riders uses Docked bikes

5. Average Ride Length for Member

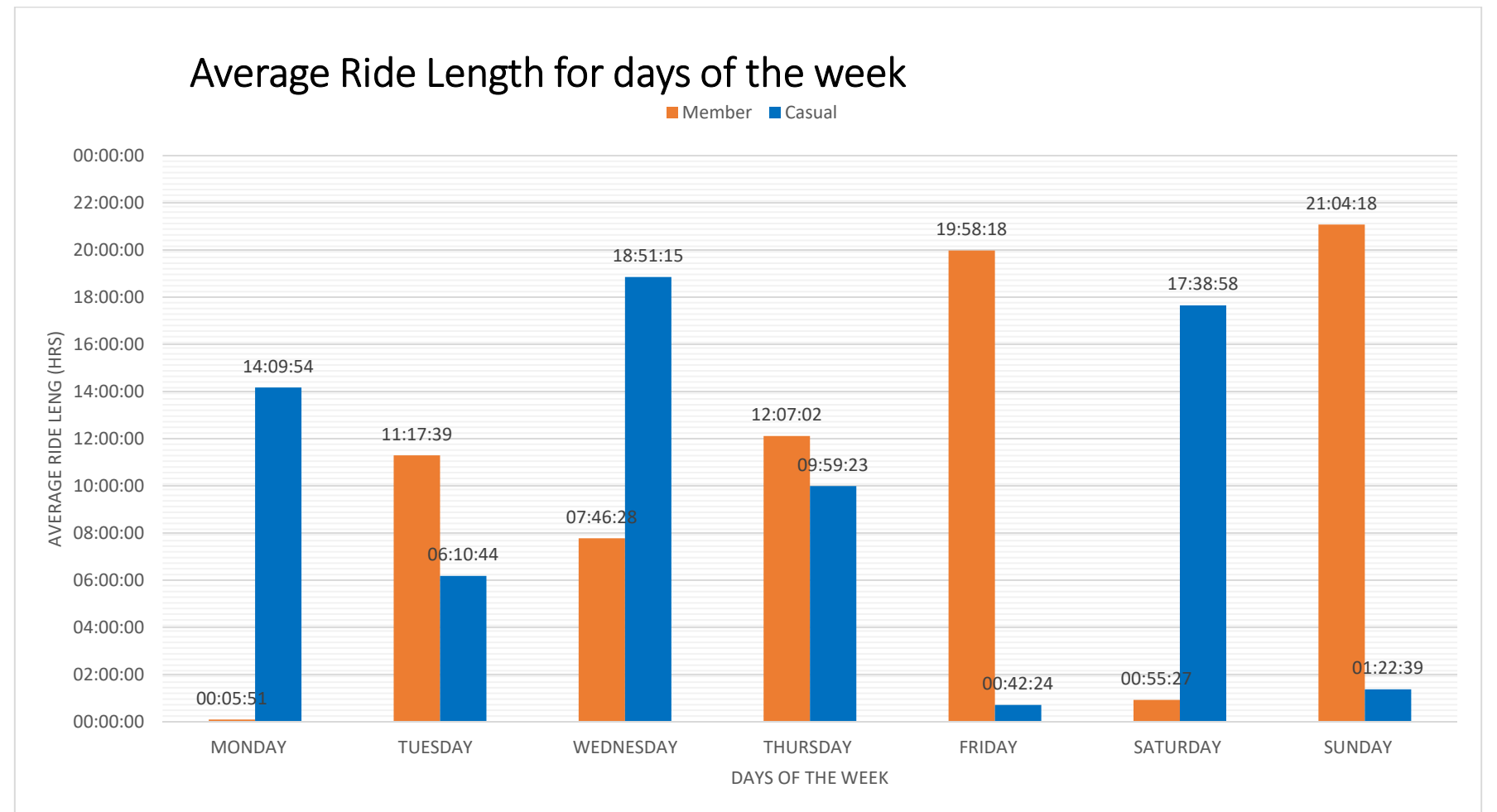


6. Average Length of a ride per period of April2022 to March2023

Average ride length from April 2022-March2023



7. Average Length of a ride per days of the week



Recommendations and Suggestions

- ❖ Members have many number of rides but few ride length, on the other hand Saturday is the peak day for casual members.
- ❖ Casual member should buy annual membership because they ride long than members. On the other hand company can maximize profit without convicting members to buy annual members ship, because casual members use it for leisure and they can maximize profit that way

- ❖ Digital promotion for casual riders should be done on
 - ✓ During Weekends (Saturday)
 - ✓ Weekdays (Wednesday, Monday)
 - ✓ Monthly (Based on peak months i.e June, July and August)