

Google Data Analytics : Case Study : How Does A Bike –Share Navigate Speedy Success?(How do annual member and casual riders use Cyclistic bikes differently

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Overview

In 2016, Cyclitic launched a successful bike-share offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geo-tracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system anytime.

Cyclitic sets itself apart by also offering reclining bikes, hand tricycles, and cargo bikes, making bike-share more inclusive to people with disabilities and riders who can't use a standard two-wheeled bike. The pricing plans offered are: Single-ride passes, full-day passes, and annual memberships, wherein single –ride or full-day ride passes are referred to as casual riders and the ones with annual memberships are Cylistic members .



Objective

- Compare how different are annual riders to casual riders
- How to market a strategy to convince the casual riders to move to annual membership
- Data Source : It a indigenous data, accessible through :-
- <https://divvy-tripdata.s3.amazonaws.com/index.html>
- The data has been made available by Motivate International Inc. under the license :- <https://www.divvybikes.com/data-license-agreement>
- Data under analysis is for a period of one year ranging form February 2022 up till January 2023.
- Tools used for Analysis : Microsoft Excel, RStudio and Microsoft PowerPoint.



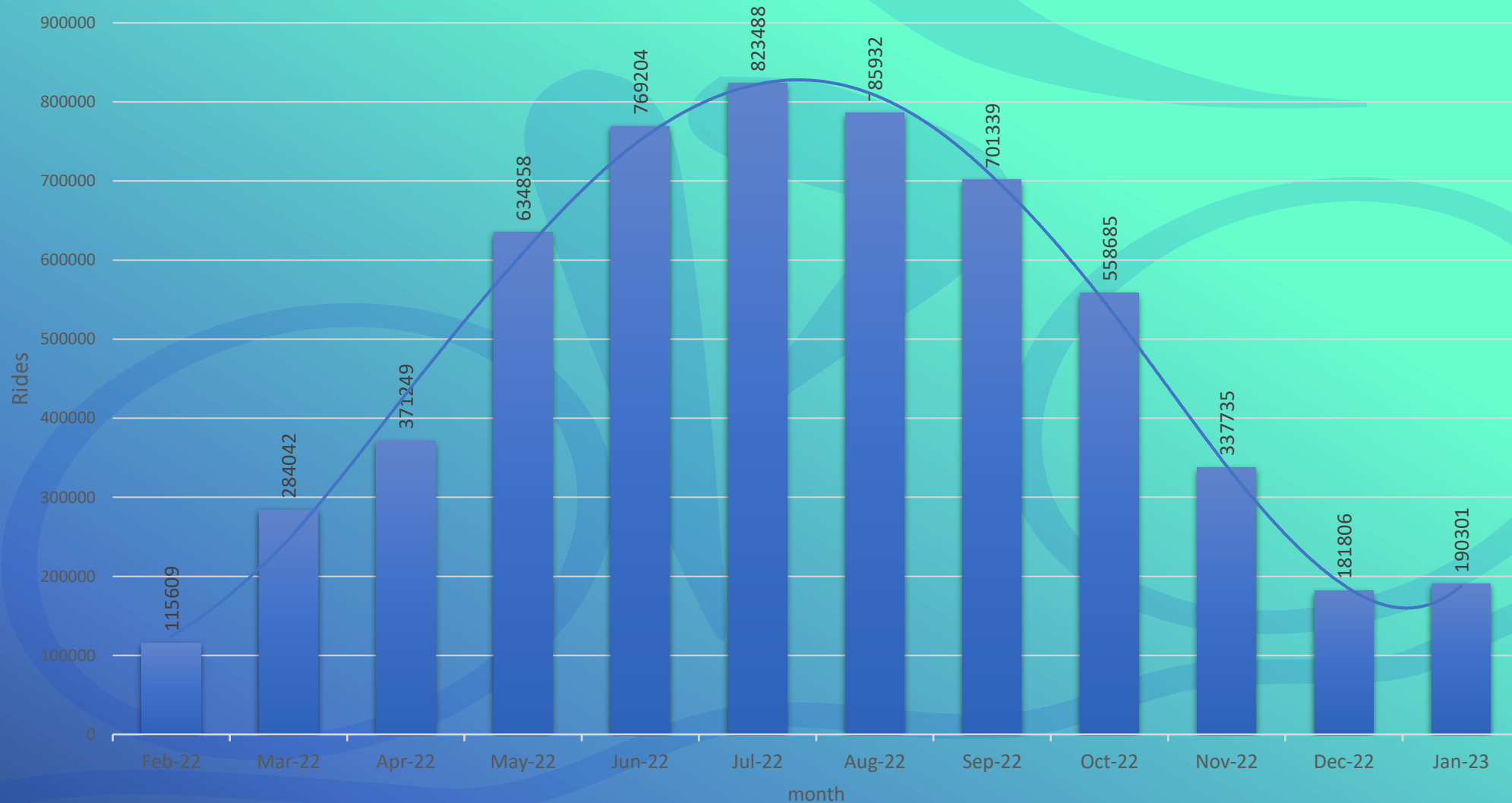
Data Cleaning & Manipulation

- The data was cleaned and manipulated in Microsoft Excel.
- Formatting changes were made to form constituency within the files,.
- Two new columns were added in the each of the 12 excel file for determining ride length and the day of the week.
- Further analysis was conducted based on the Rscript provided within the worksheet using the csv files form the original data source with Rstudio.
- The 12 dataset files were combined into a single file with 9 variable observations with count of :- 5754248.
- Random Sampling was done for the month of January 2023 to determine the difference between the ride share between the two types of riders and average ride duration



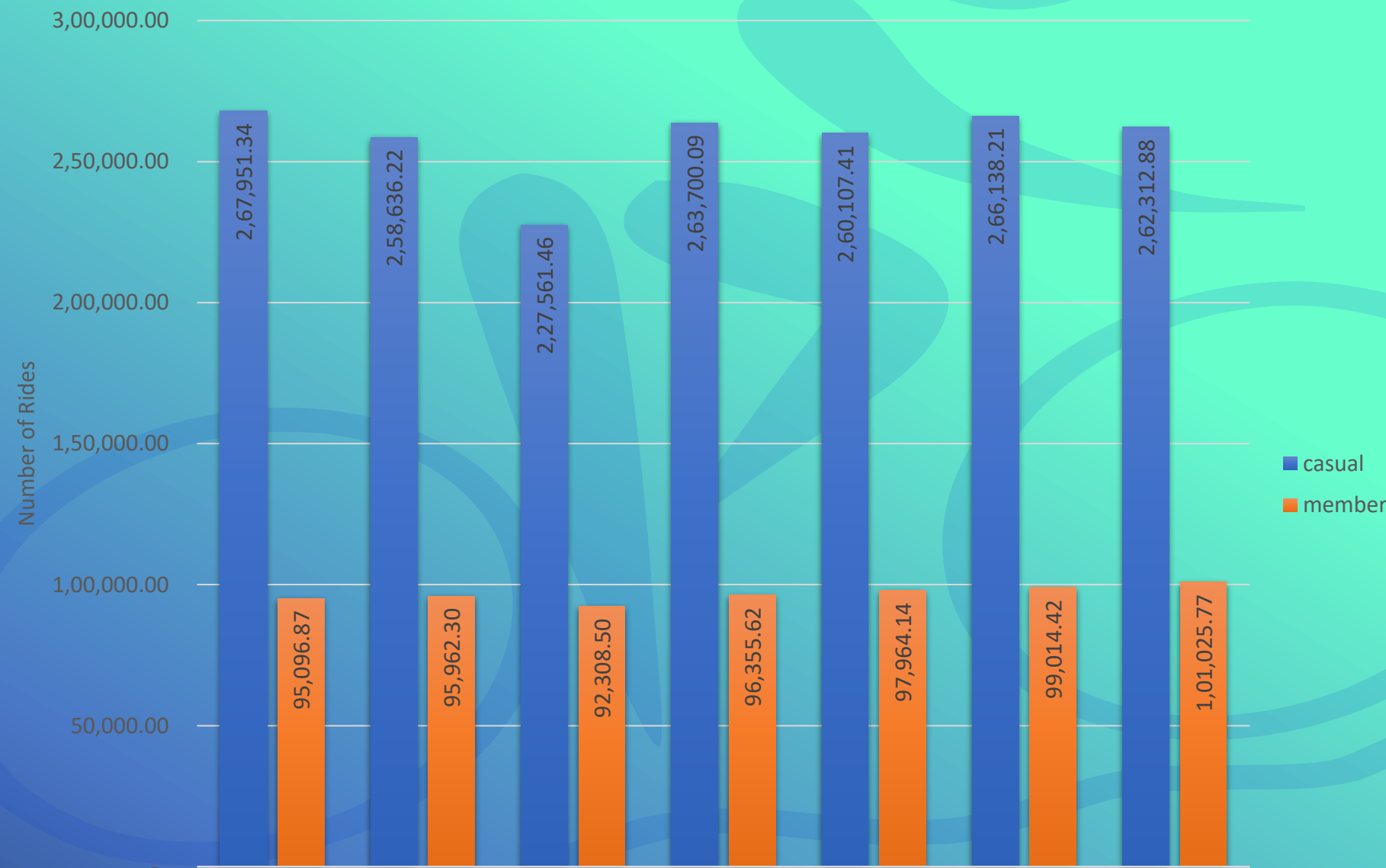
Total Rides taken in a year

Rides in each month of a given year



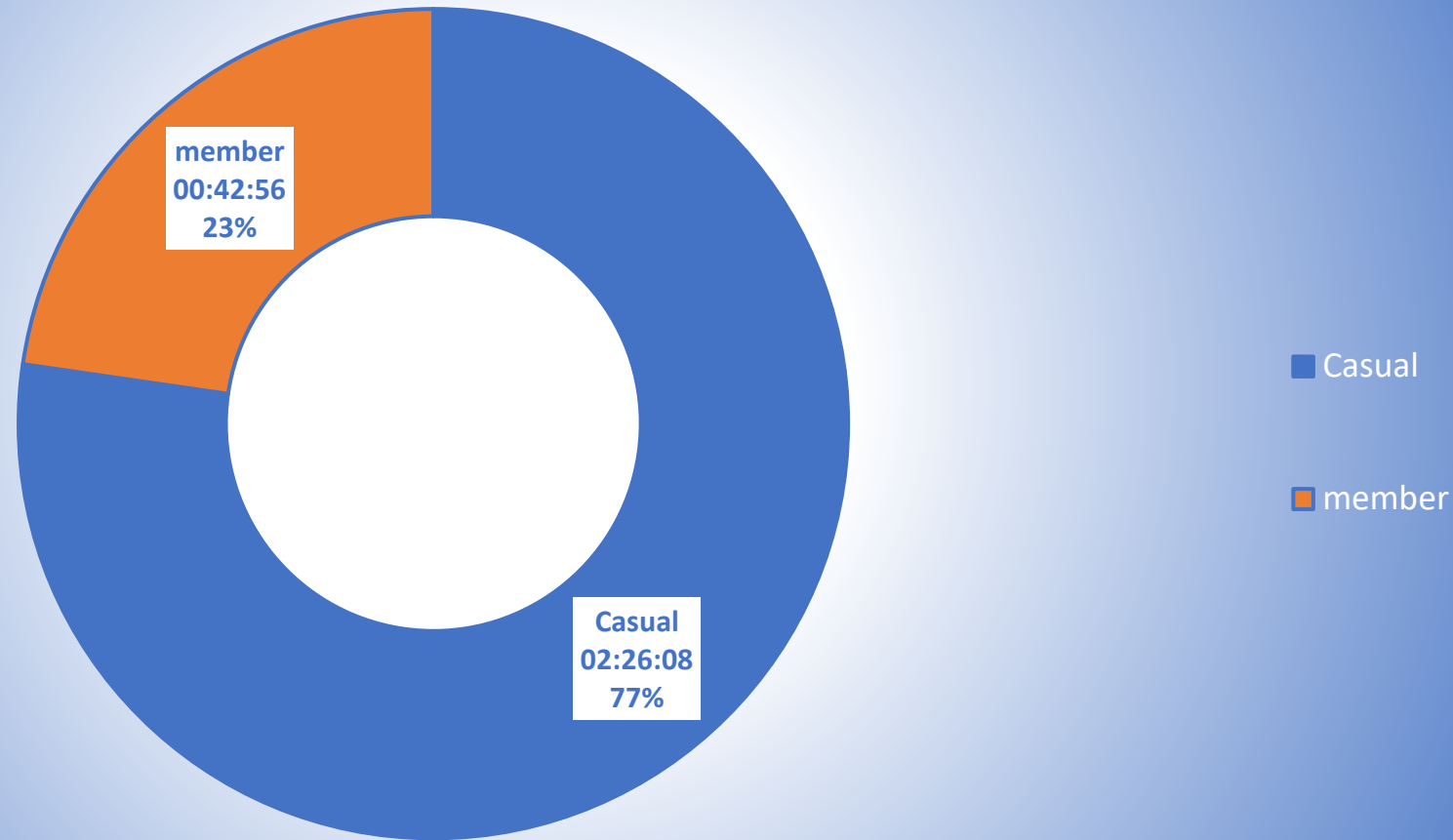
Random sample :Ride taken in a week in Jan 2023

Sum of all trip length in a week



Random sample : Average Ride share per month in January 2023

AVERAGE RIDE LENGTH SHARE BETWEEN DIFFERENT RIDERS



Observations

- The number of casual as well as member riders through out the week is similar.
- The usage of casual riders increases during the weekends :- Saturday and Sunday.
- The dataset at hand has its limitations namely missing values, black spaces , which make the dataset insufficient for accurate analysis.
- The frequency of rides decreases in the month of December, January and February because of winters.
- The Casual rides usually take long trips whereas the annual members have a shorter travel time.



Recommendations

- A new annual pass exclusive to week should be issued to attract the casual riders.
- Any joining bonuses for the ride can attract casual riders.
- A reward system for the higher number of kilometers covered with Cyclistic, will thus help grab interest of casual riders to switch.



Any Questions



Thank you

