Cyclistic Bike Ride

Google Data Analytics: Case Study

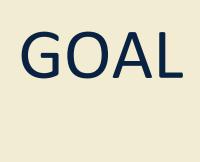
By Gunjan Basra



About Cyclistic

- > Cyclistic, Chicago based company was launched in 2016 with a successful bikeshare offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geotracked and locked into a network of 692 stations across the city.
- > They offer different types of bike like classic, electric and docked. The bikes can be unlocked from one station and returned to any other station in the system anytime.
- > They also offer flexibility of its pricing plans:
 - > single-ride passes
 - > full-day passes
 - > annual memberships





The director of marketing aims to design marketing strategies to convert casual riders into annual members. Also, to better understand how annual members and casual riders differ, why casual riders would buy a membership, and how digital media could affect their marketing tactics.

Ask Phase

To achieve the goal, our team with discussion with all stakeholders come with the following questions to the guide the project:

- How do annual members and casual riders use Cyclistic bikes differently
- why would casual riders buy Cyclistic annual memberships?
- How can we influence casual riders to become members through digital platform?



Data

- The data was taken from <u>here</u>.
- The data was made available by Motivate International Inc. under this license. I used 12 months data occurred between May 2022 until April 2023
- Each month has a separate csv file and contains 13 rows.
- In total the whole dataset have around 5.8 million records.

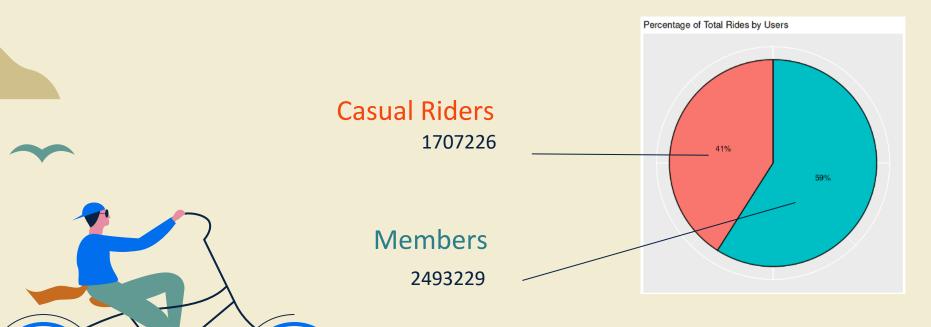


Preparing & Cleaning the Data

- I used R programming language to aggregate and clean the data for analysis
- I merged all month's data into a single table.
- Removed the missing, incorrect and duplicate records.
- Added new columns month, day of week and trip duration for analysis
- Also removed the columns that were to required for analysis.
- After the above steps the data was reduce approx. 4 million records.

The number of Riders





The number of Riders by Bike type



Most of the riders are members and they only prefer classic and electric bikes

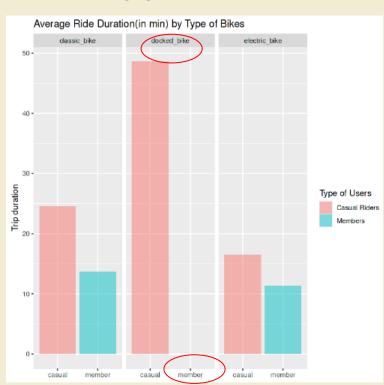




Ride Duration by Bike type

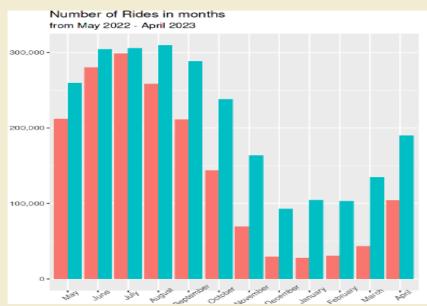
Casual riders spend the most time riding docked bikes







Riders Analysis



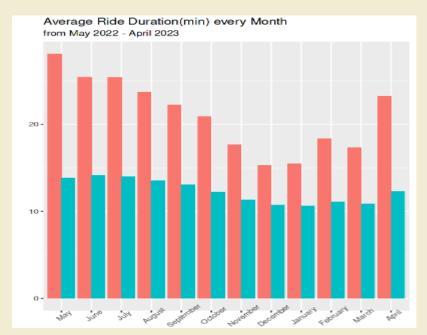
Monthly more member riders



Only on weekends there are more causal ride



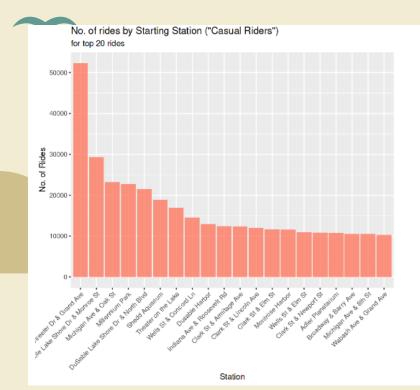
Riders Time Duration Analysis

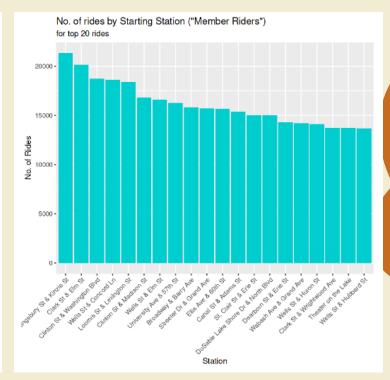




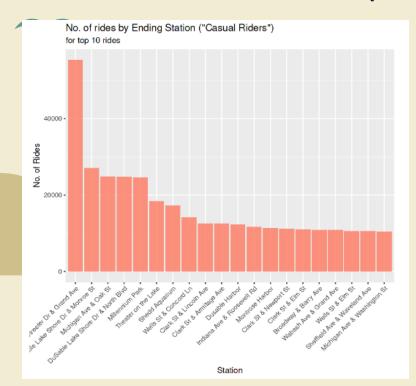
causal riders spent more time riding the bicycles

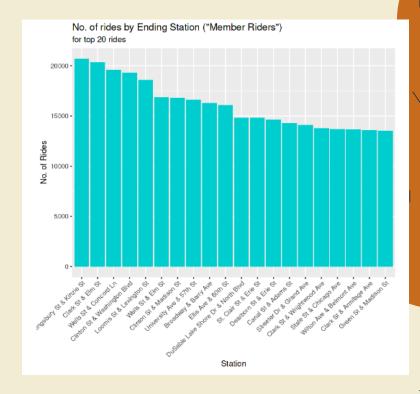
Most Popular Start Station





Most Popular End Station





Recommendations



Casual riders mainly use Cyclistic bikes for leisure purposes. Therefore, they do not use Cyclistic bikes as often, which would make annual memberships seem expensive. One of the solutions is to launch "monthly memberships" that are exclusively for peak riding months.

Adversitment

Using posters and flyers at and around the most popular starting and ending stations areas regarding the benefits for membership and how they can become a member

Discounts/Deals

Offering discounts/deals and advertising on radio/tv during the peak seasons to become a member.

Bike Ride by Gunjan Basra Sheet 1 | Sheet 2 | Sheet 3 | Sheet 4 | Sheet 5 | Sheet 6 | Dashboard 3 Member Casual 10 Most popular stations where Cyclistic Bide Ride casual the trip 'START' member May 2022-April 2023 Start Station Name = Streeter Dr & Grand Ave 68 021 Day Of Week Month DuSable Lake Shore Dr & . 37.794 (All) (AII) 36.508 Michigan Ave & Oak St DuSable Lake Shore Dr & .. 36,459 Number of Riders by Rideablility 33,091 Wells St & Concord Ln Number of Riders by Clark St & Flm St 31.697 Rideable Type membership Millennium Park 31,310 classic bike docked_ electric bike Theater on the Lake 30.549 1,608,197 Kingsbury St & Kinzie St 29,347 2M RidersCount 27,467 Wells St & Elm St 885,032 1M-851,510 691.089 10 Most popular stations where 1M the trip 'ENDS' 164,627 ΩМ End Station Name Clark St & Elm St 31.259 Day Of Week DuSable Lake Shore Dr & Mo.. 36.690 Thursday Sunday Monday Tuesday Wednesday Friday Saturday DuSable Lake Shore Dr & Nor.. 39,478 9,125,571 Trip Duration Minutes 15M ,806,928 Kingsbury St & Kinzie St 27.748 Michigan Ave & Oak St 37.523 4,810,774 116,778, 4,290,103 Millennium Park 32,261 Streeter Dr & Grand Ave 69.508 Theater on the Lake 31.132 Wells St & Concord Ln 33,669 Wells St & Elm St 27.371 Month August September October November December January February Mav March April June **Prip Duration Minutes** 6,130,783 4,690,656 4,196,969 4,300,759 2,424,295 1,464,137 ,219,226 1,110,335 52,304 121,626

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Tableau Dashboard



Thank you!