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

I Google Data Analytics Capstone I

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- Insights from a 12-Month Look Back of the different classes of Cyclistic riders
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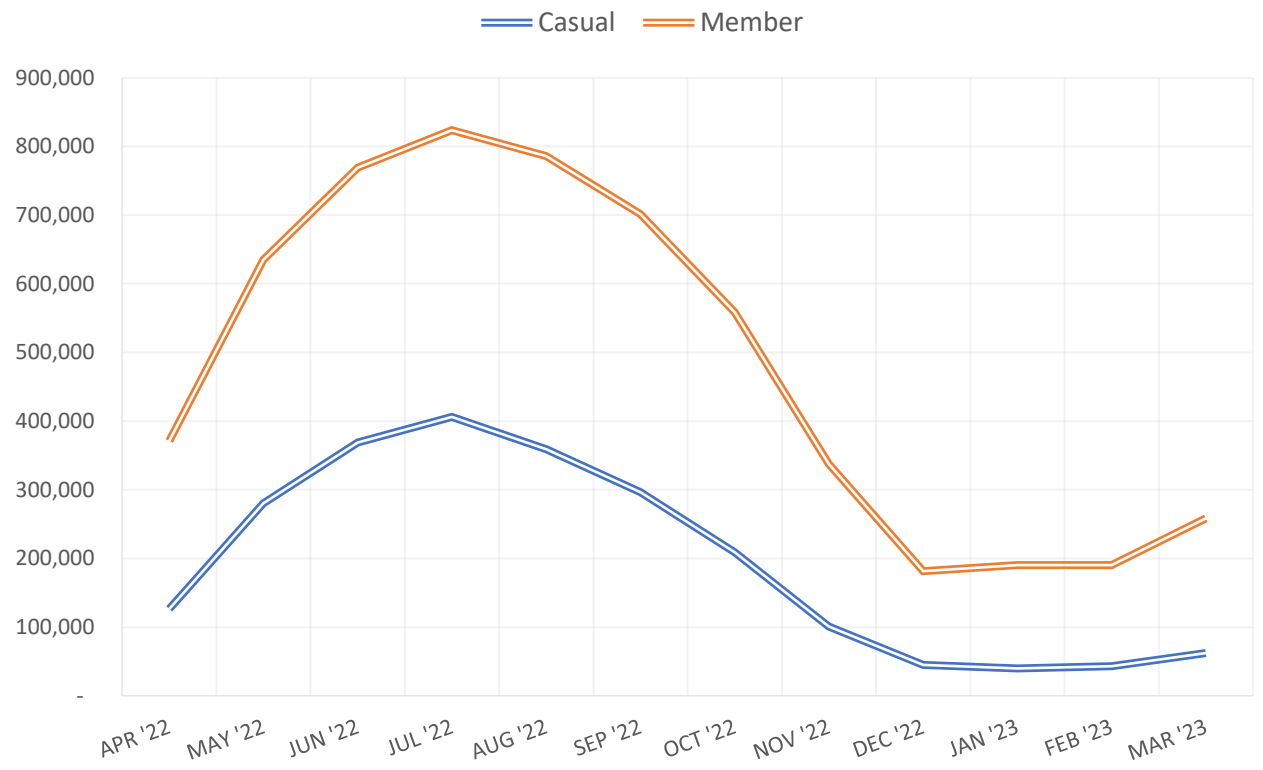
Objective

How do **annual members** and **casual riders** use Cyclistic bikes differently based on 12-month trailing data from Apr 2022 – Mar 2023?

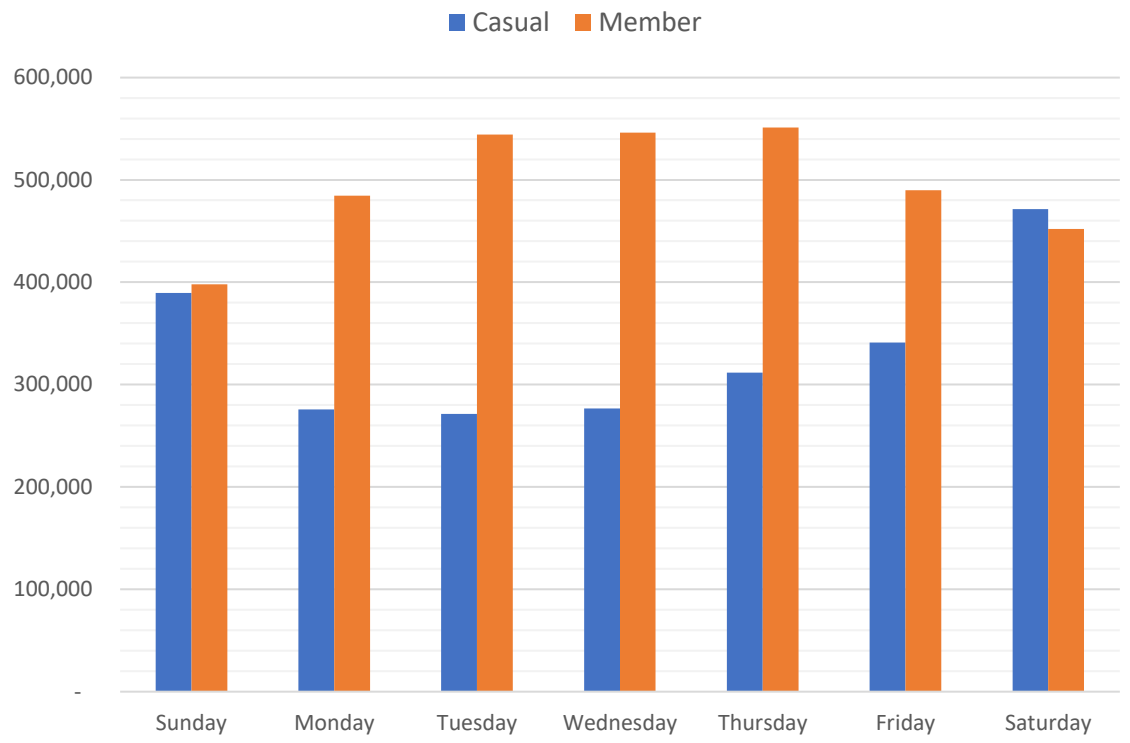
Rides by Month

- Casual rider utilization mirrors Member riders on a monthly basis.
- Total Member rides for the trailing 12-month period is 3.47M.
- Total potential conversion for Casual-to-Member rides for the same period is 2.34M.



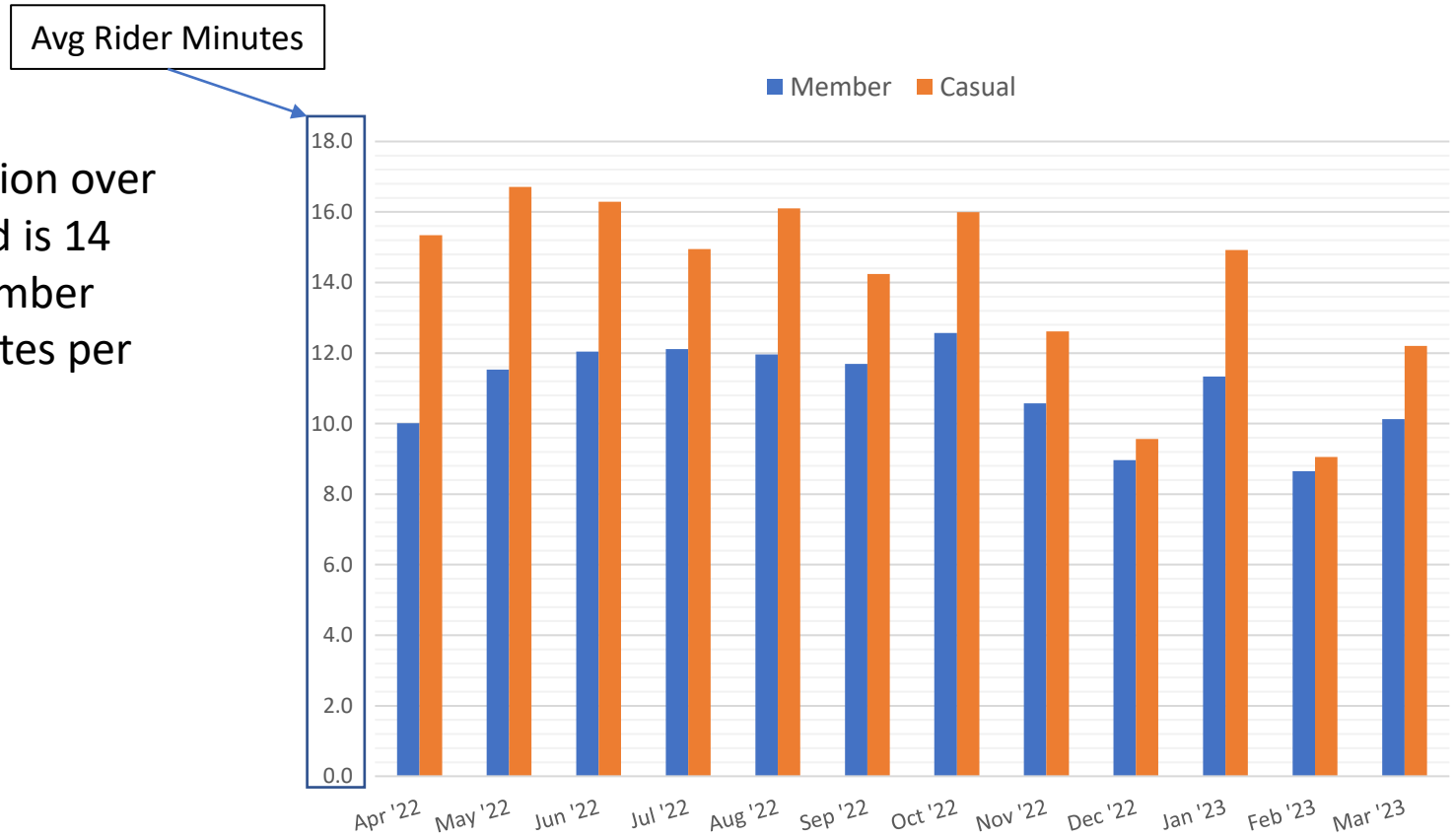
Rides by Day of Week

- Casual ridership for weekdays is 43% less than Member riders.



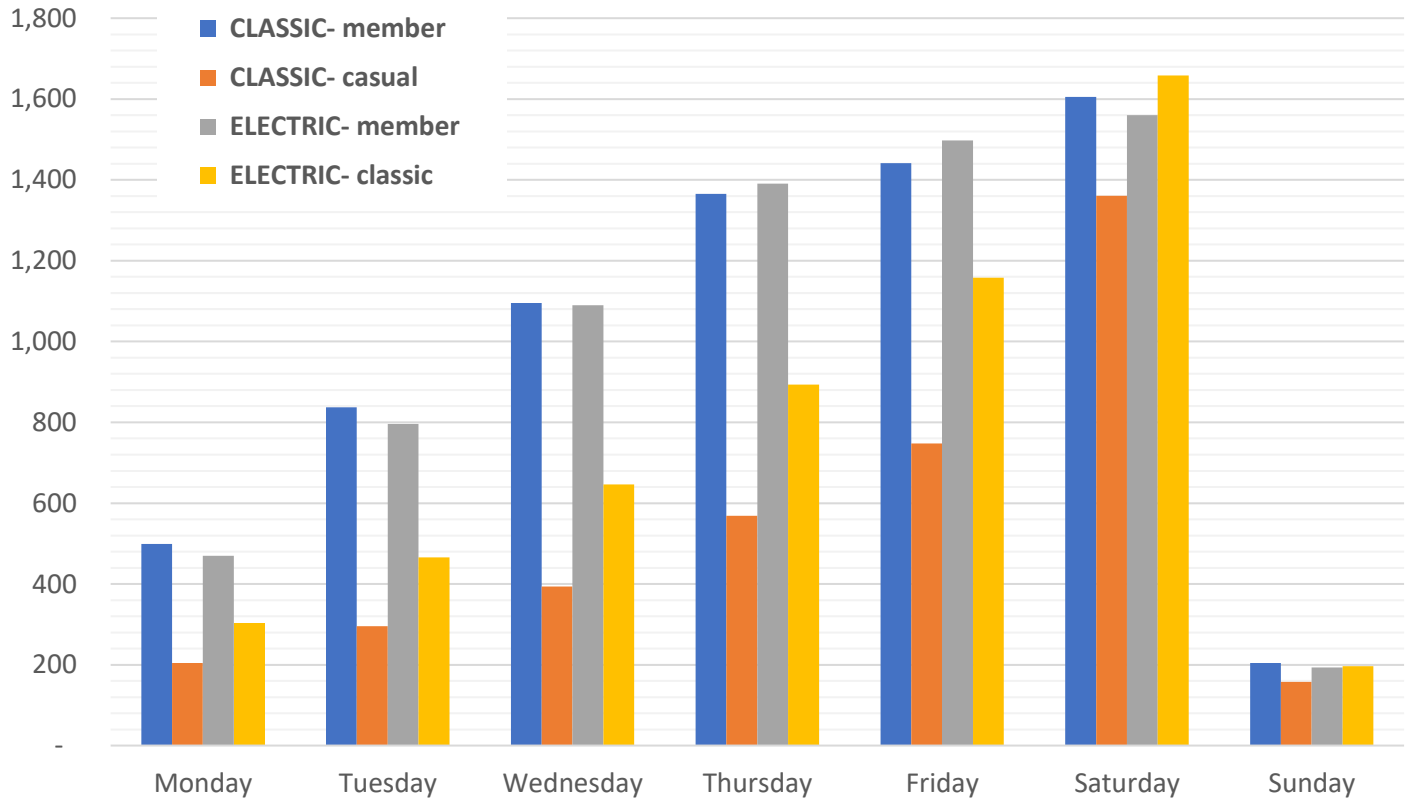
Average Ride Duration by Month

- Average Casual rider utilization over the trailing 12-month period is 14 minutes per ride versus Member riders who average 11 minutes per ride.



Average Users by Bike Type, by Day*

- Casual riders preferred electric bikes by a margin of 17% over classic and docked bikes combined on a weekly basis.
- Member riders had an average variance of 1%, favoring the Classic style over Electric on a weekly basis.
- Precipitous drop of 88% in ridership from all Riders Saturdays to Sundays with Thursdays – Saturdays accounting 66% of total weekly utilization.



Note: Docked Bikes were not considered for majority of this analysis as they are only available for Casual riders and consist of ~3% of total bike utilization on an average weekly basis..

*In Thousands

Recommendations

- Inform Casual riders of the potential cost savings they could be experiencing based on what they are currently spending versus what a membership could provide.
- Inform Casual riders of the potential increased flexibility in bike styles they could be experiencing with a membership.
- Inform Casual riders of the benefits a membership could provide to encourage greater utilization on weekdays.

Appendix

- Cyclistic is a fictional company for purposes of the case study. The data has been made available by Motivate International Inc. under the licenses of Lyft Bikes and Scooters, LLC (“Bikeshare”) who operate the City of Chicago’s (“City”) Divvy bicycle sharing service.

- Google BigQuery cloud-based data analytics platform was used to query, transform, clean, validate, and analyze all data. Microsoft Excel was utilized for all data viz charts.

- Due to privacy concerns, the data made available only provided a general model of Cyclistic riders including type of rider, member or casual, the type of bike utilized for each ride, starting and ending points by date, time, name and geo location.

- Had more specific data been made available such as tying ID’s to individual riders, and more specific information about the services and pricing available to both Member and Casual riders, further detailed analysis and recommendations could have been presented, including: the ability to target heavy Casual riders to inform them of the additional benefits Members receive for the same or perhaps decreased cost, in addition to increasing their weekday utilization.