Members vs casual riders usage of Cyclistic bikes

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Goal of the analysis

- How do annual members and casual riders use Cyclistic bikes differently?
- How can we use the insights gained in order to convert casual riders into members?
- Present ways that Cyclistic can achieve this task.

Data sources used

- For the purposes of our fictional company named “Cyclistic” we used third-party data.
- All the data used were provided by a real company named “Divvy” under this licence.
- The data range is from the 2nd quarter of 2019 to the 1st quarter of 2020, covering the span of 12 months

Data cleaning

- All the csv data files were imported into R for cleaning and manipulation and an R Markdown file is available to showcase the code that was written.
- Rides that had a negative value in ride length were removed.
- Rides that were at the station "HQ QR" were removed.
- Visualisation were made using Tableau.

Data manipulation

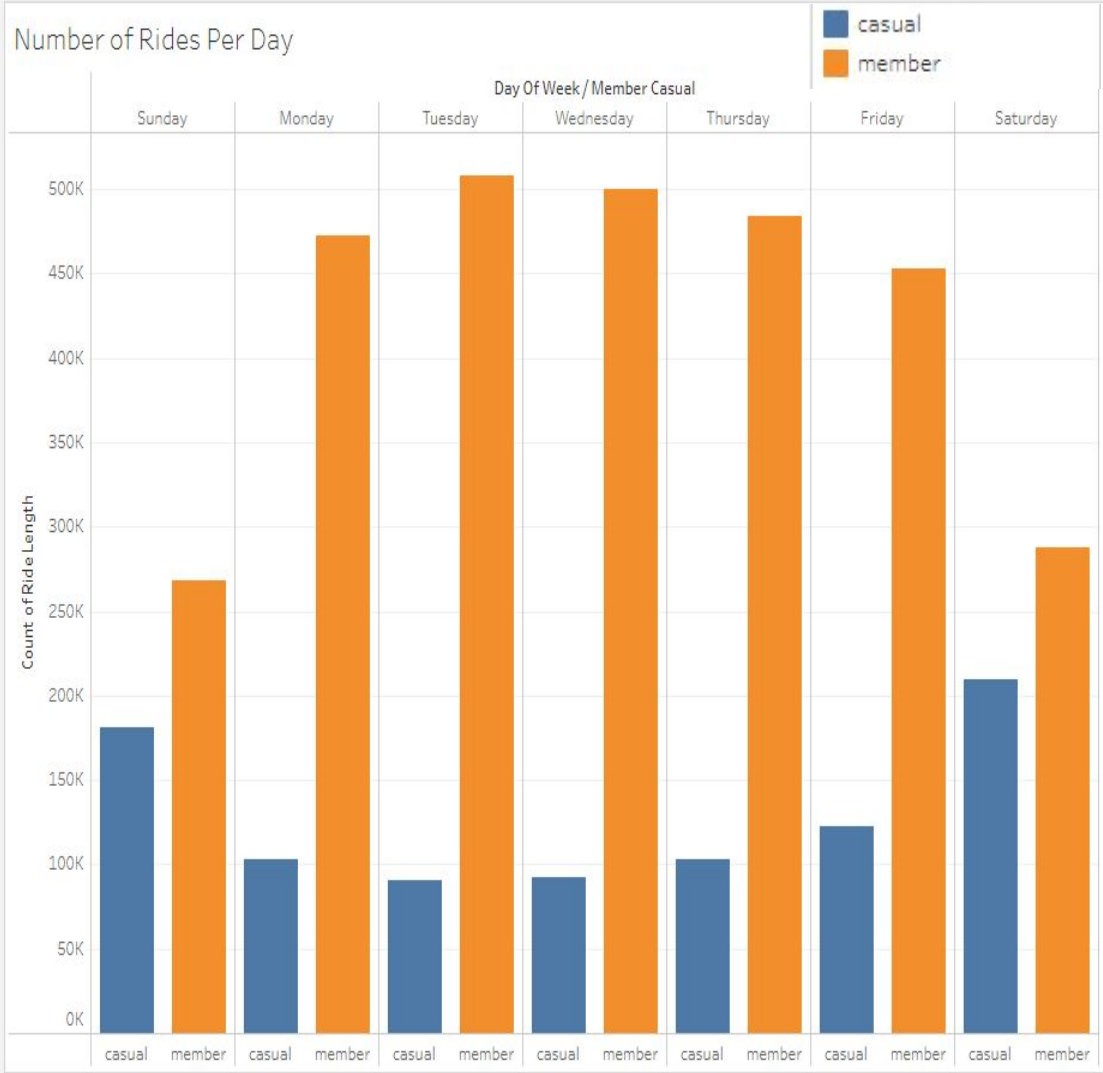
- Columns in each quarter were renamed and their structure was altered in order to be aggregated properly.
- New columns were created using the “started_at” column because days and months were required for the analysis.
- New column was created to show the ride length using the “started_at” and “ended_at” columns.

Summary of analysis

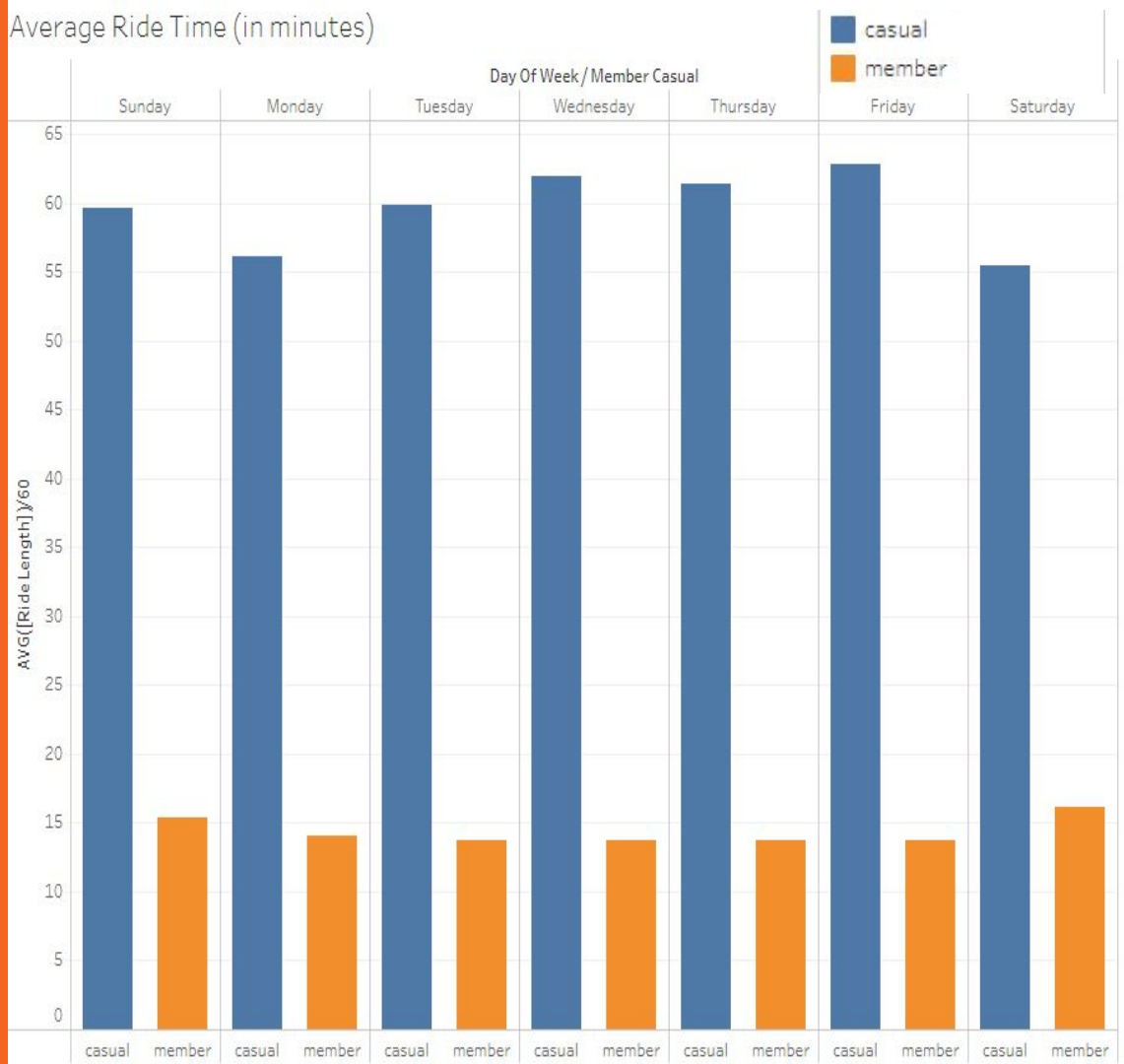
Key differences in bike usage were shown between members and casual riders in:

- Number of rides daily
- Average ride time per day.
- Number of rides per month.

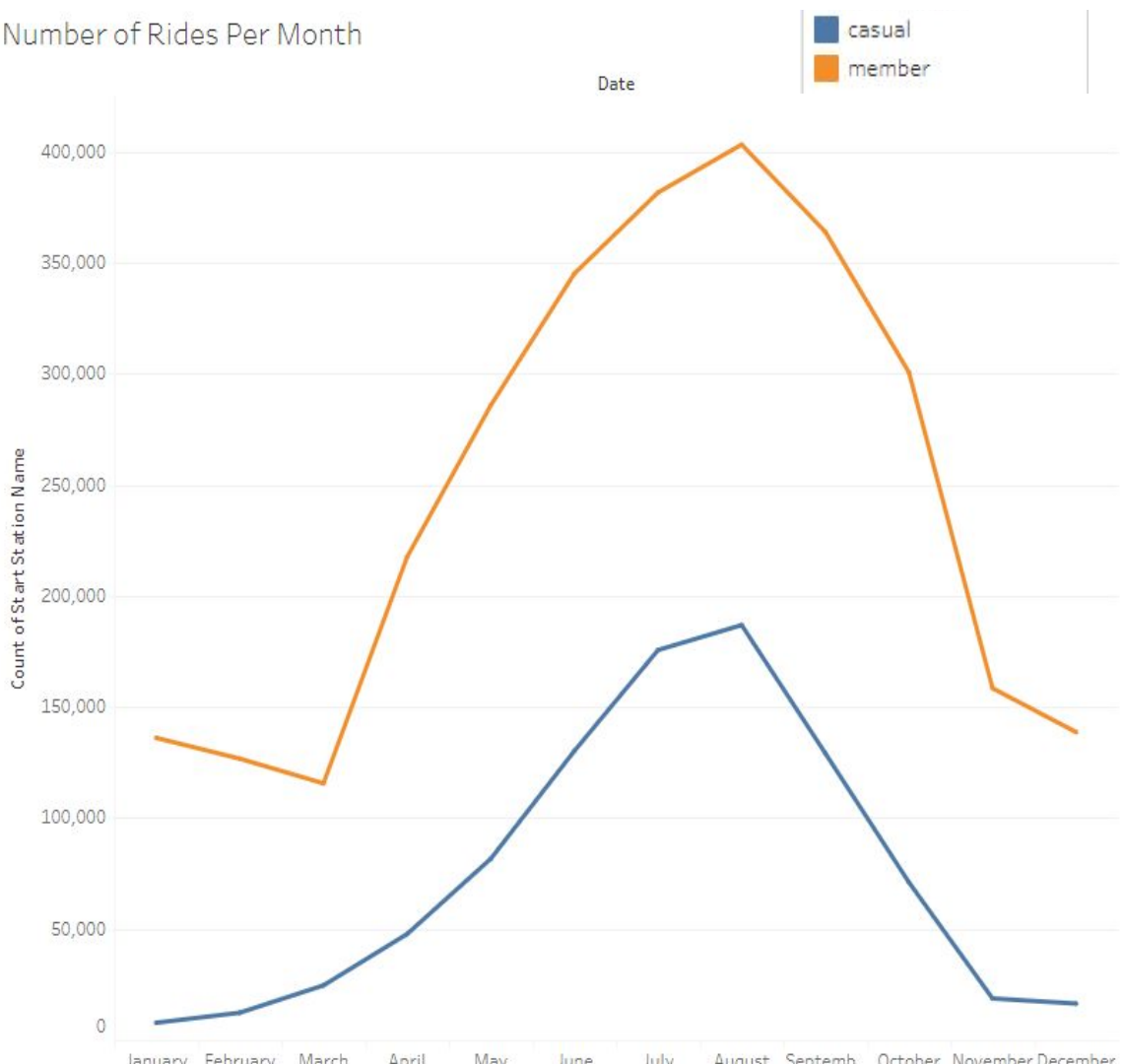
- Members used the bikes much more than casual riders.
- Spikes in usage are noticed in the casual riders during Friday and the weekend and decline during weekdays.
- Spikes in usage are noticed in the members section during weekdays and decline in the weekends.
- Possible explanation is that members use the bikes to commute to work, while casual riders use the bikes at their leisure time. Further analysis required.



- Members on average used the bikes in shorter spans than casual riders.
- High bike usage is noticed in the casual riders column. They use the bike approximately 4x more than members.
- Possible explanation is that members need ~15-20 minutes to commute to work while casual riders use the bike for exercise and leisure potentially. Further analysis required.



- Ride numbers are ascending rapidly during spring for both types of users
- Ride numbers peak during the end of July and start of August in both types of users.
- Ride numbers start descending rapidly during the start of autumn and plummet during December and January.
- Possible explanation for these numbers is that the weather is a huge factor for when users use the bikes.



Recommendations based on these findings.

- Offer discounts for the annual plan during the end of the winter season.
- An alternative would be a six-month plan just for the months with the highest bike usage.
- Promote the annual plan as a means of transport for short distances (e.g. work, school, etc).
- More analysis needed in order to find out the specific target group, timeframe and means to promote the annual plan.