

Google Data Analytics Project: Cyclistic

Tulio de la Cruz

2024-02-26

Description

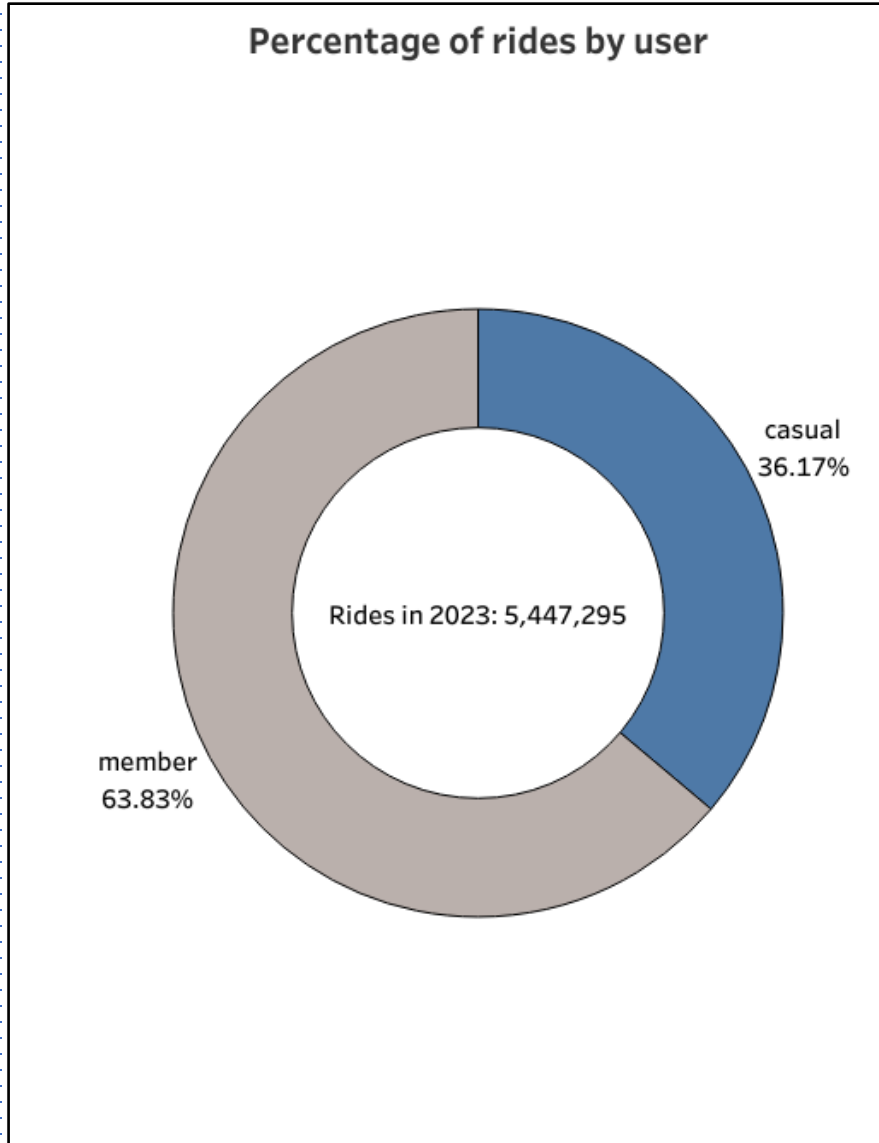
According to the first case study in the final project of the Google Data Analytics Certificate. Cyclistic is a fictitious Chicago-based bike-sharing company whose marketing director believes that the future success of the company depends on maximizing the number of annual memberships.

It was concluded the necessity to design a new marketing strategy to convert casual riders into annual members. To do so, it is essential to know, among other things, the following: **How do annual members and casual riders differ in their use of Cyclistic bikes?**



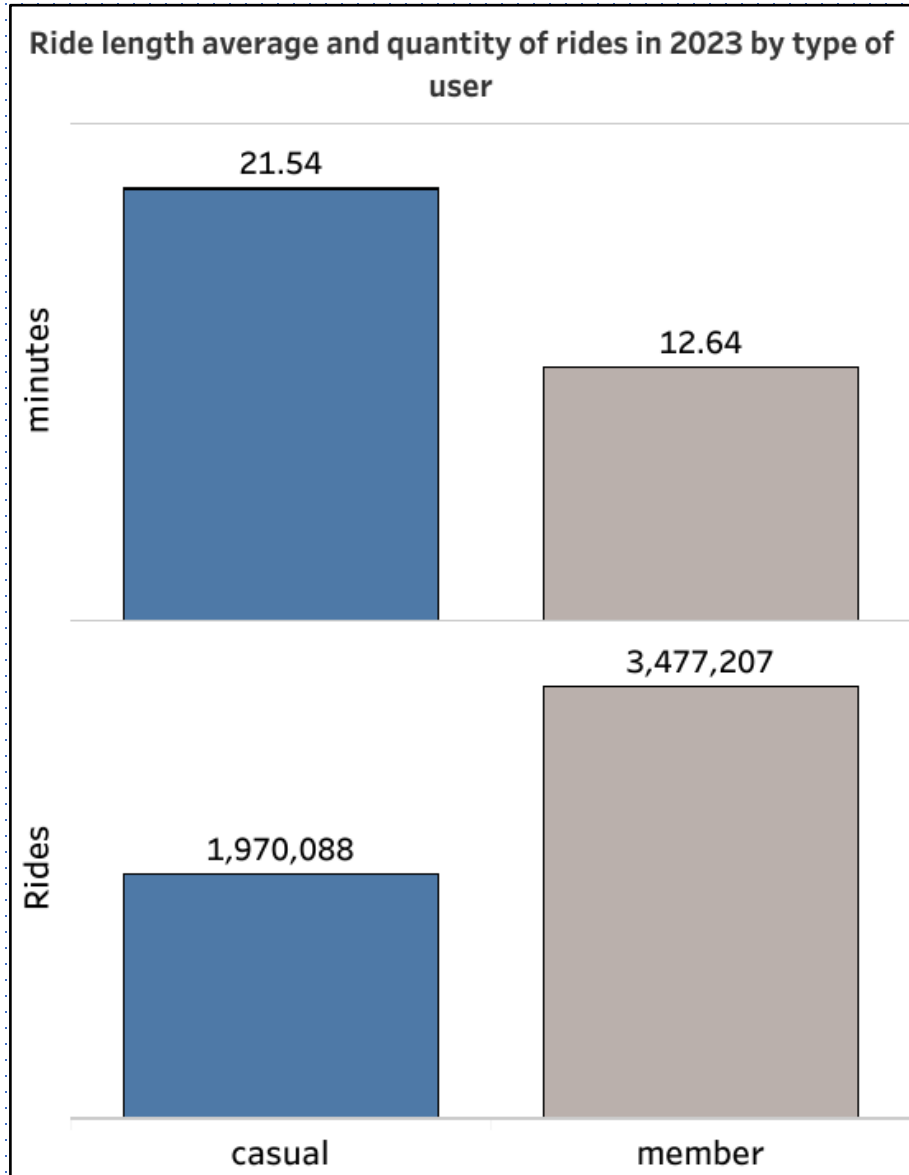
Overall behavior

Overall behavior: casual vs members



- Out of 5,447,295 rides 63.83% were made by member users. This confirms that this type of user makes more than half of the rides in the Cyclistic program.

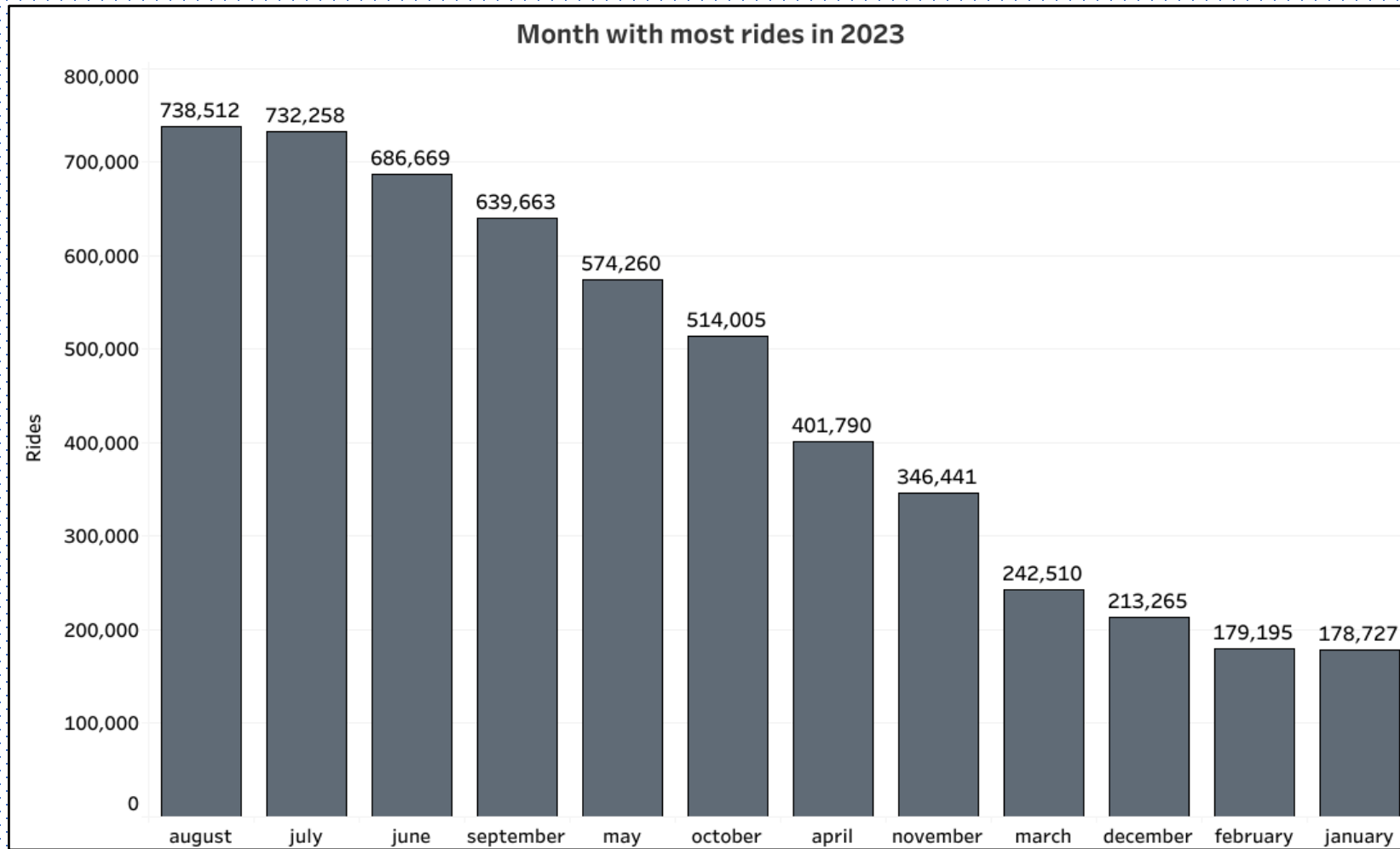
Overall behavior: ride duration vs ride quantity



- member users have, on average, fewer minutes per ride than casual users, meaning they take shorter rides. However, the lower bar chart shows that member users take more rides than casual users.
- The overall ride length average is 15.85 minutes

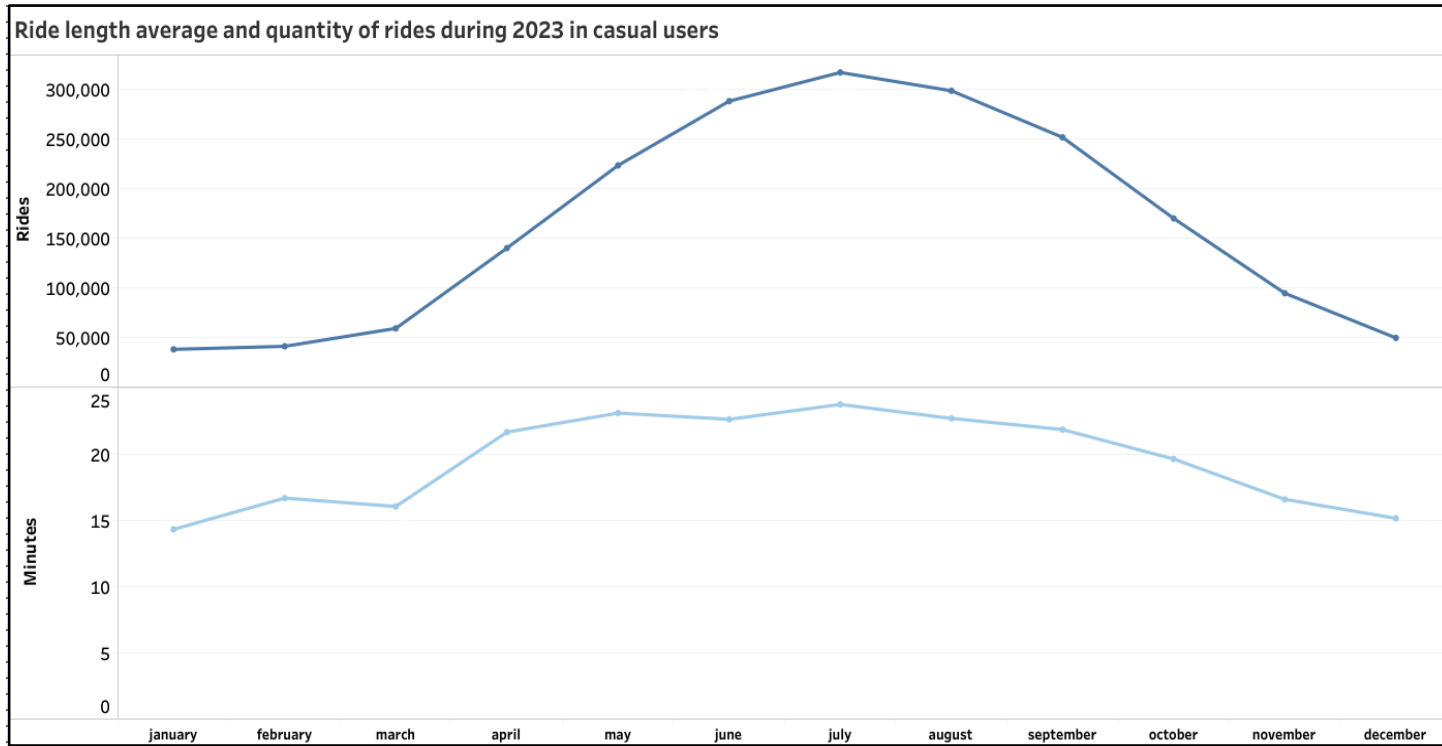
Monthly behavior

Monthly behavior: months comparison



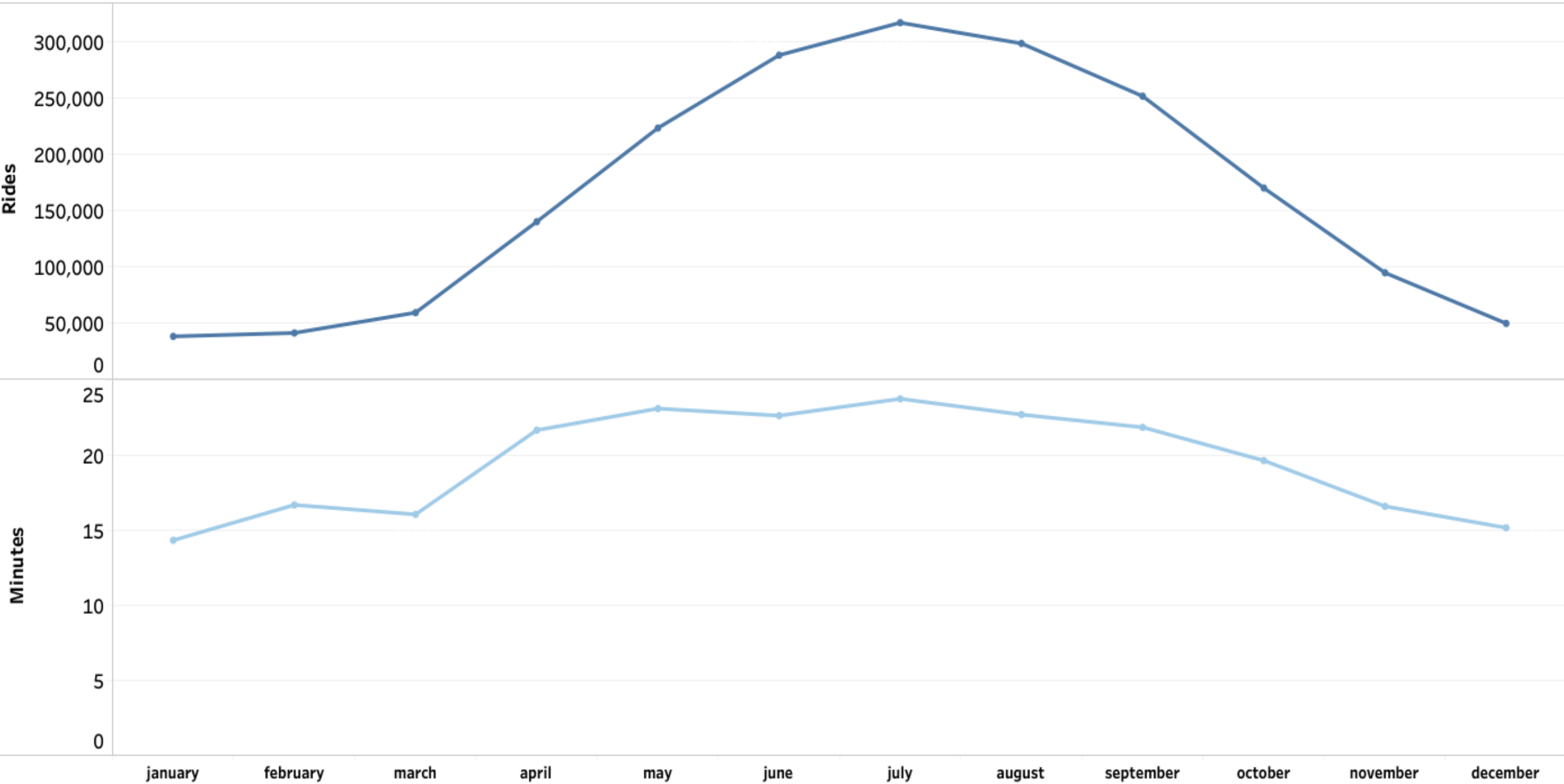
- August is the month with the most rides followed by July and June, coincidentally with the summer months in Chicago.

Monthly behavior: casual users

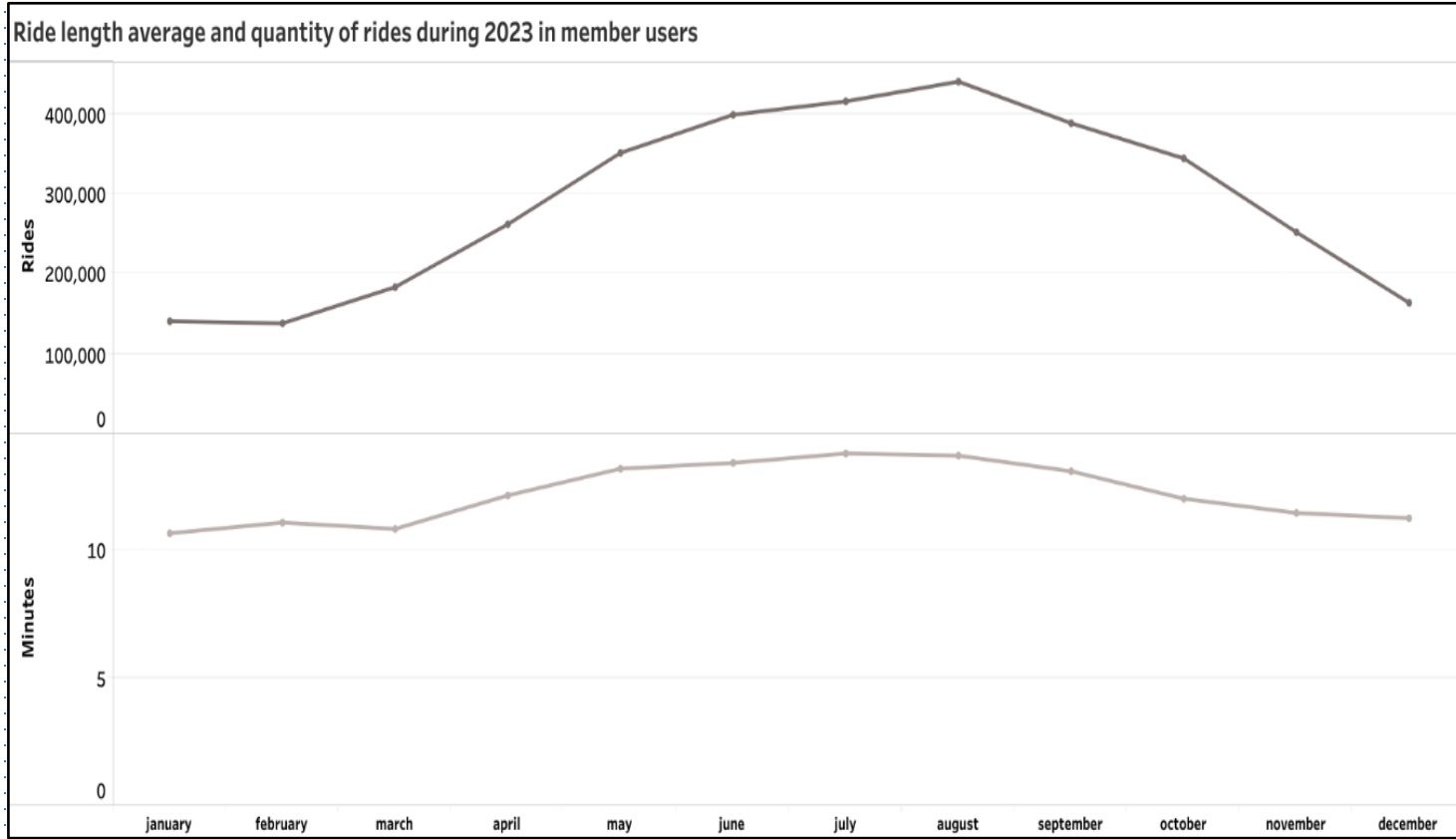


- casual users indeed increase the number of rides as the summer in Chicago approaches and decrease their activity in the colder times. Although the length of their rides follows this same pattern, it is also possible to say that it takes some stability in the spring and summer seasons.

Ride length average and quantity of rides during 2023 in casual users

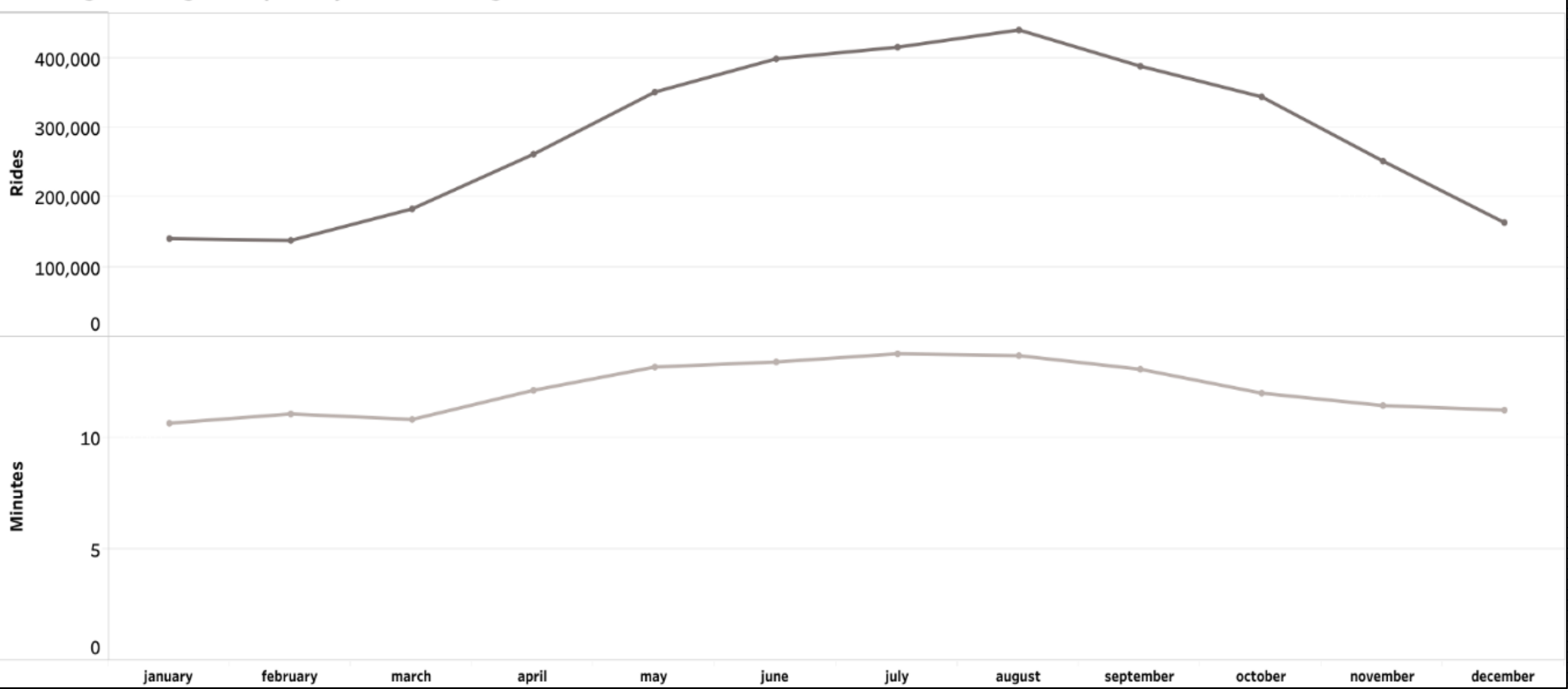


Monthly behavior: member users

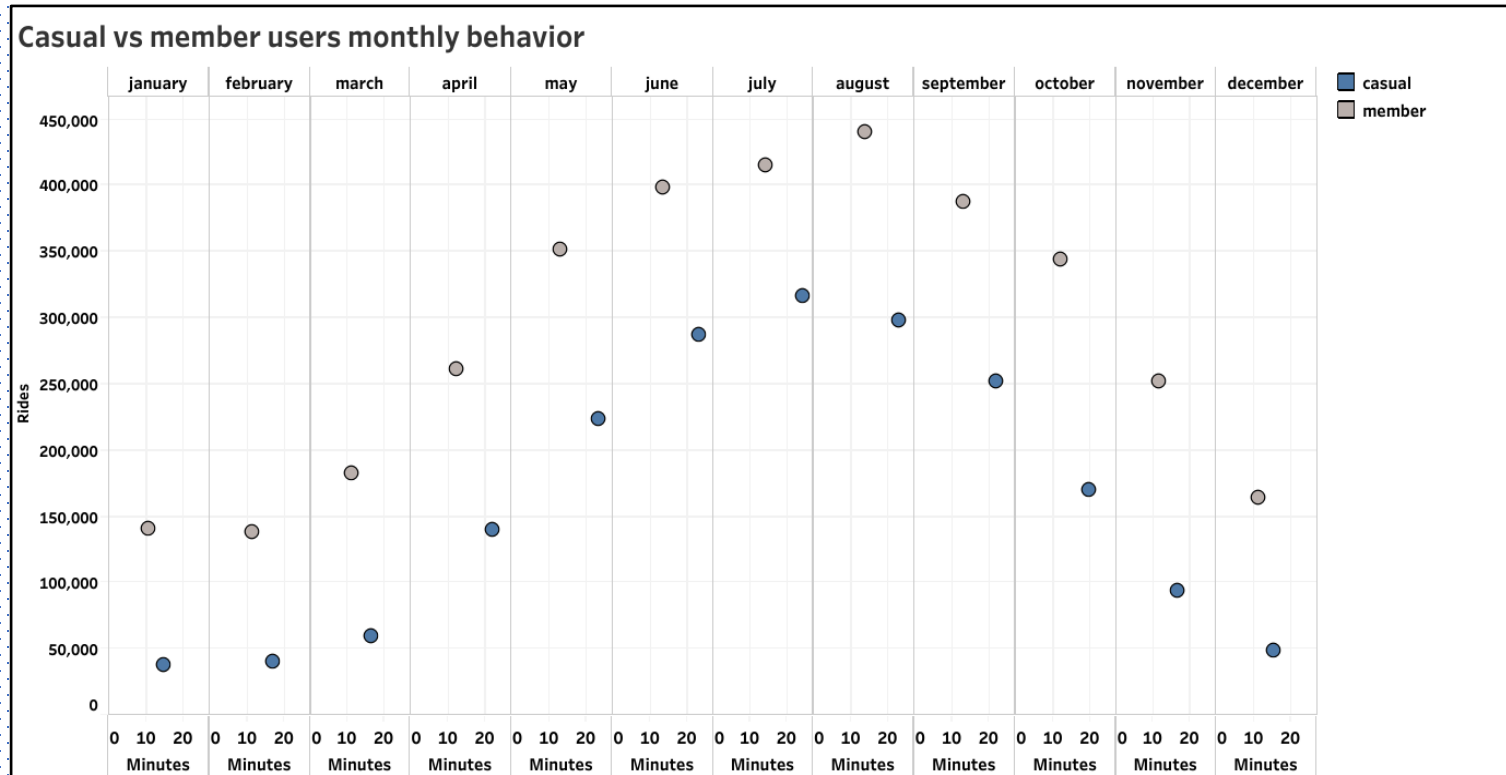


- For member users, the number of rides made is higher than that of casual users, but their average ride duration is lower. It is also possible to affirm that their behavior follows the same pattern as casual users, which is an increase in rides in warmer seasons and consistent duration during that period.

Ride length average and quantity of rides during 2023 in member users

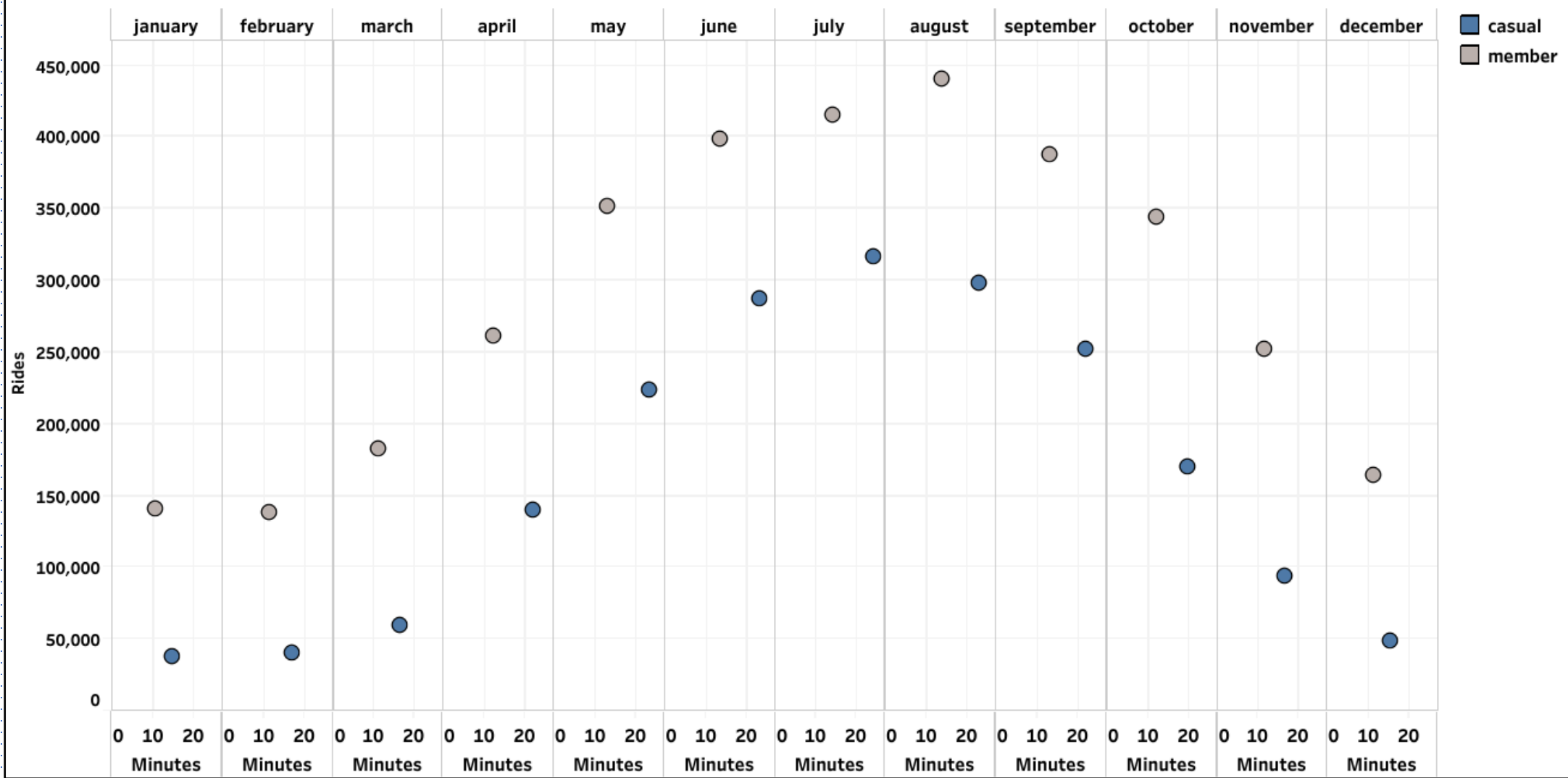


Monthly behavior: casual vs member



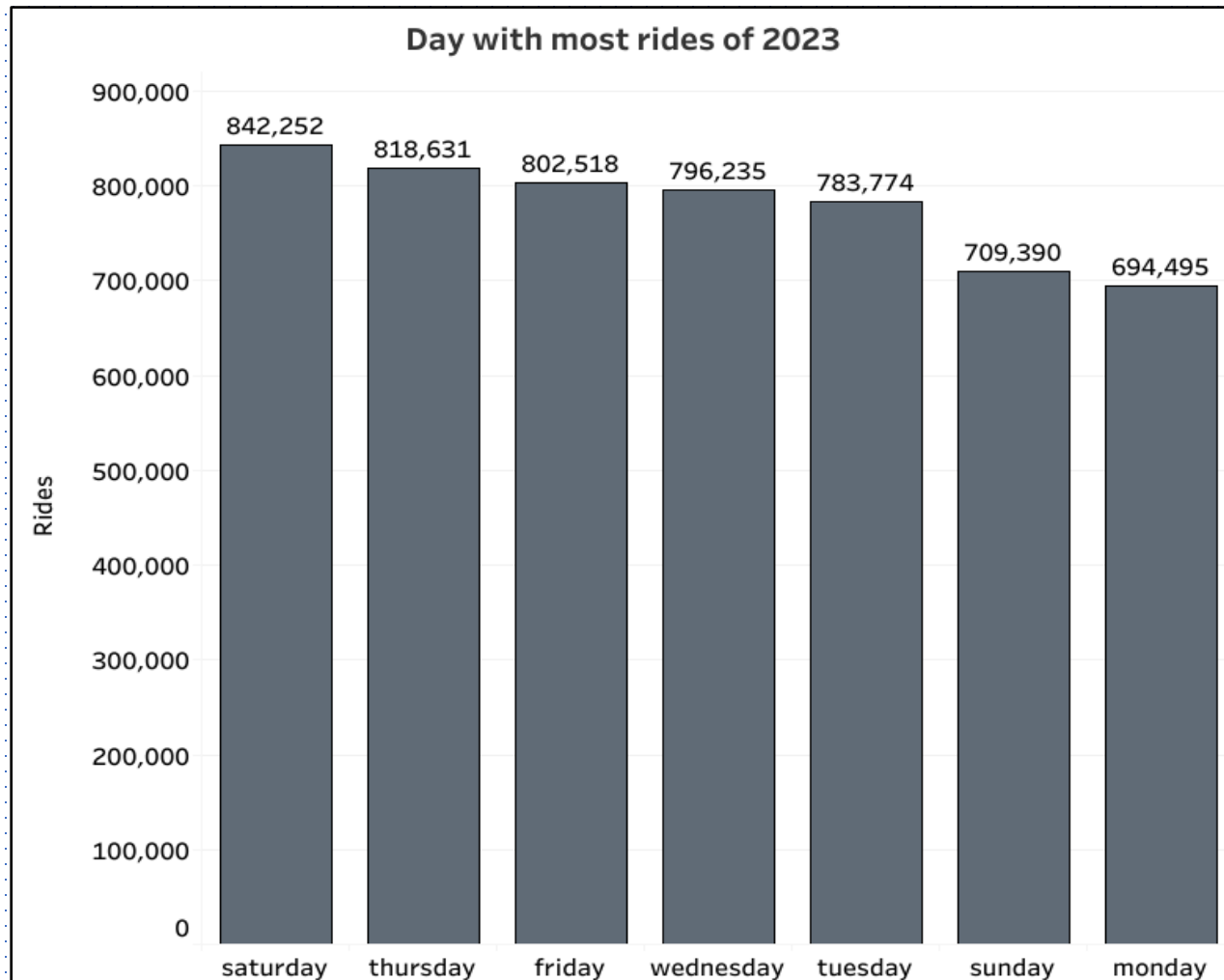
- The behavior of both types of users is observed simultaneously, considering their average ride duration per month as well as the number of rides made. For example, member users made more rides in July, so their position is above casual users. However, casual users made longer rides, so their position is more oriented to the right side.

Casual vs member users monthly behavior



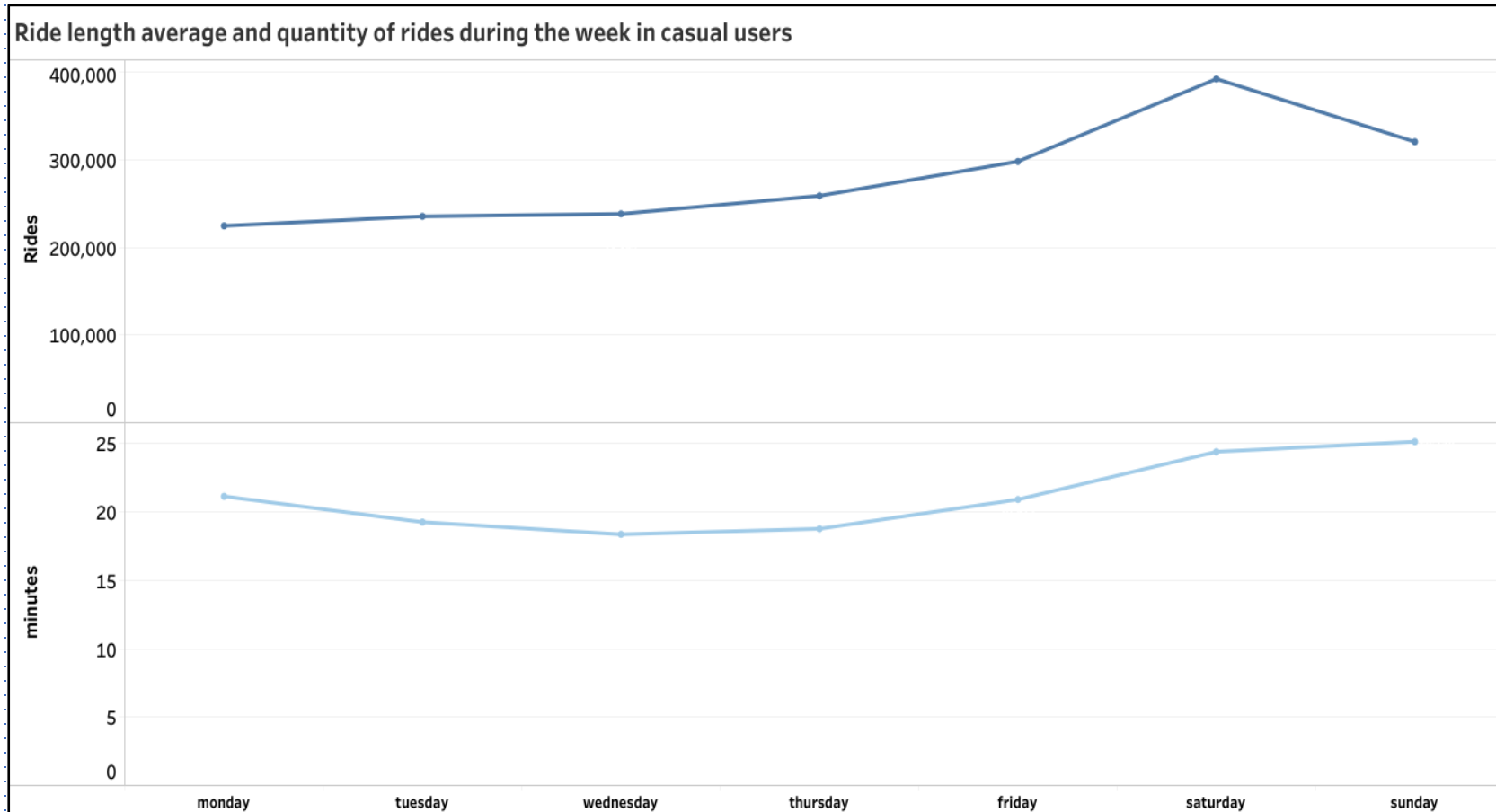
Weekly behavior

Weekly behavior: days comparison



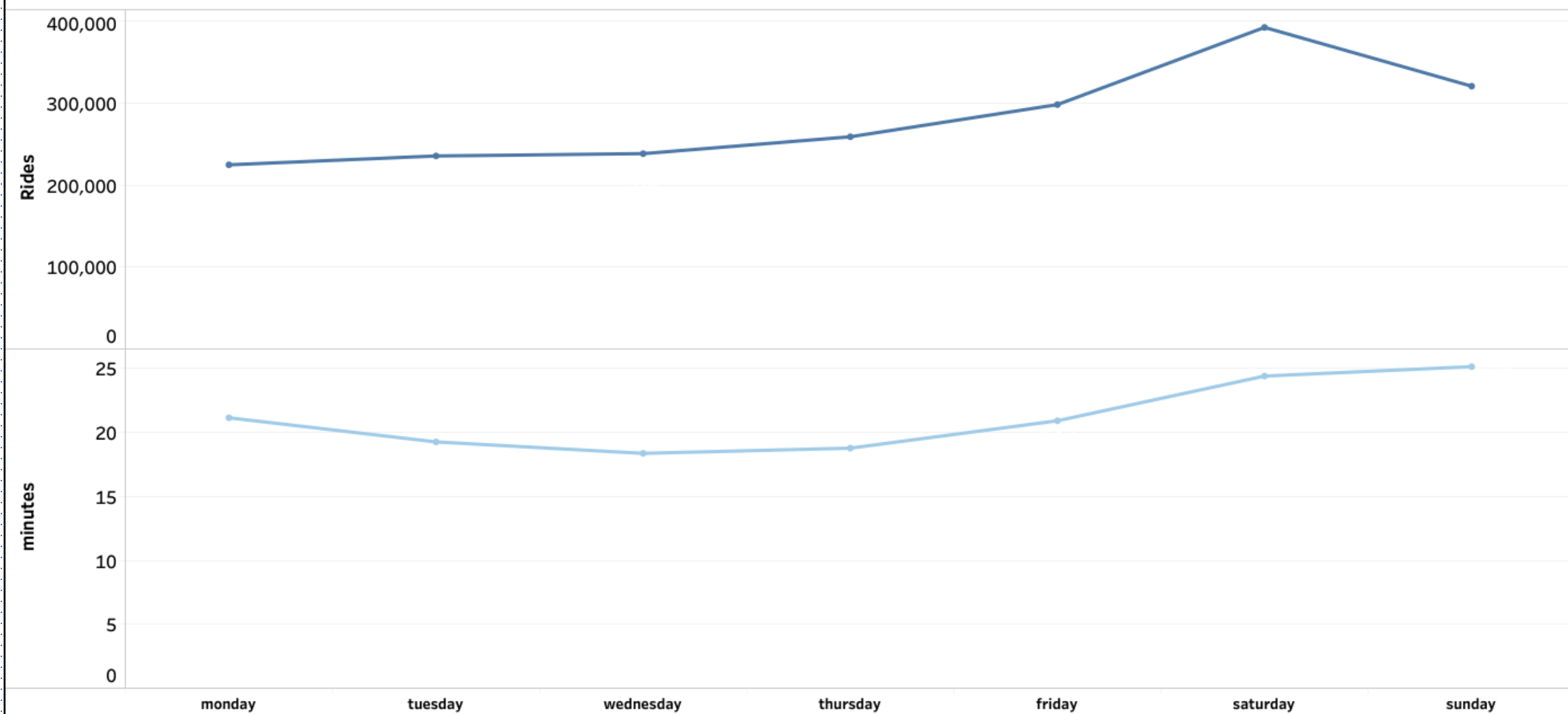
- The day of the week with the most rides in 2023 is Saturday, followed by Thursday and Friday. This indicates that users increase the use of the service as Saturday approaches.

Weekly behavior: casual users



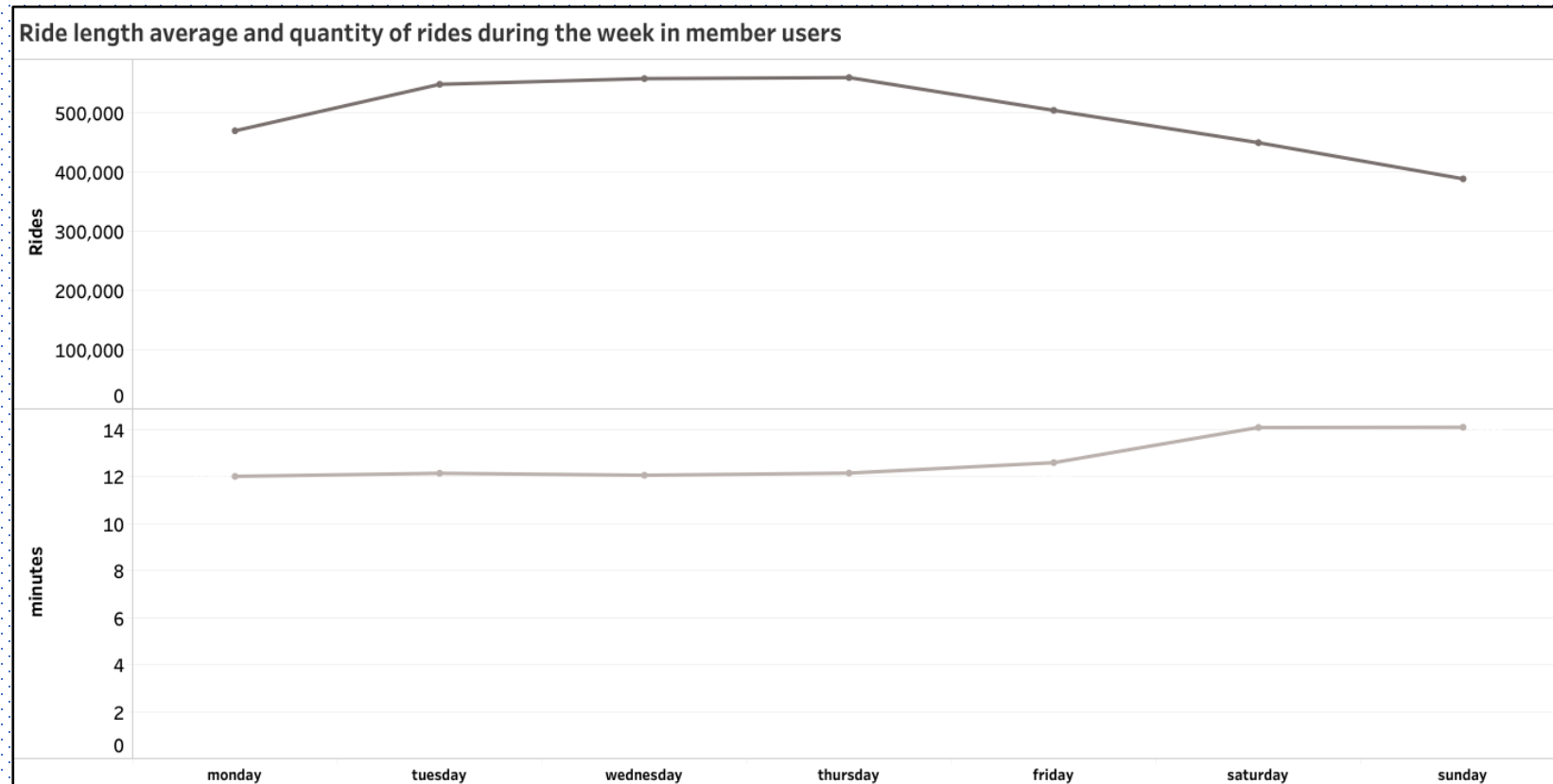
- the behavior of casual users shows that the number of rides, as well as the average duration, increases as the weekend approaches. This also suggests that casual users may prefer to use the service recreationally.

Ride length average and quantity of rides during the week in casual users

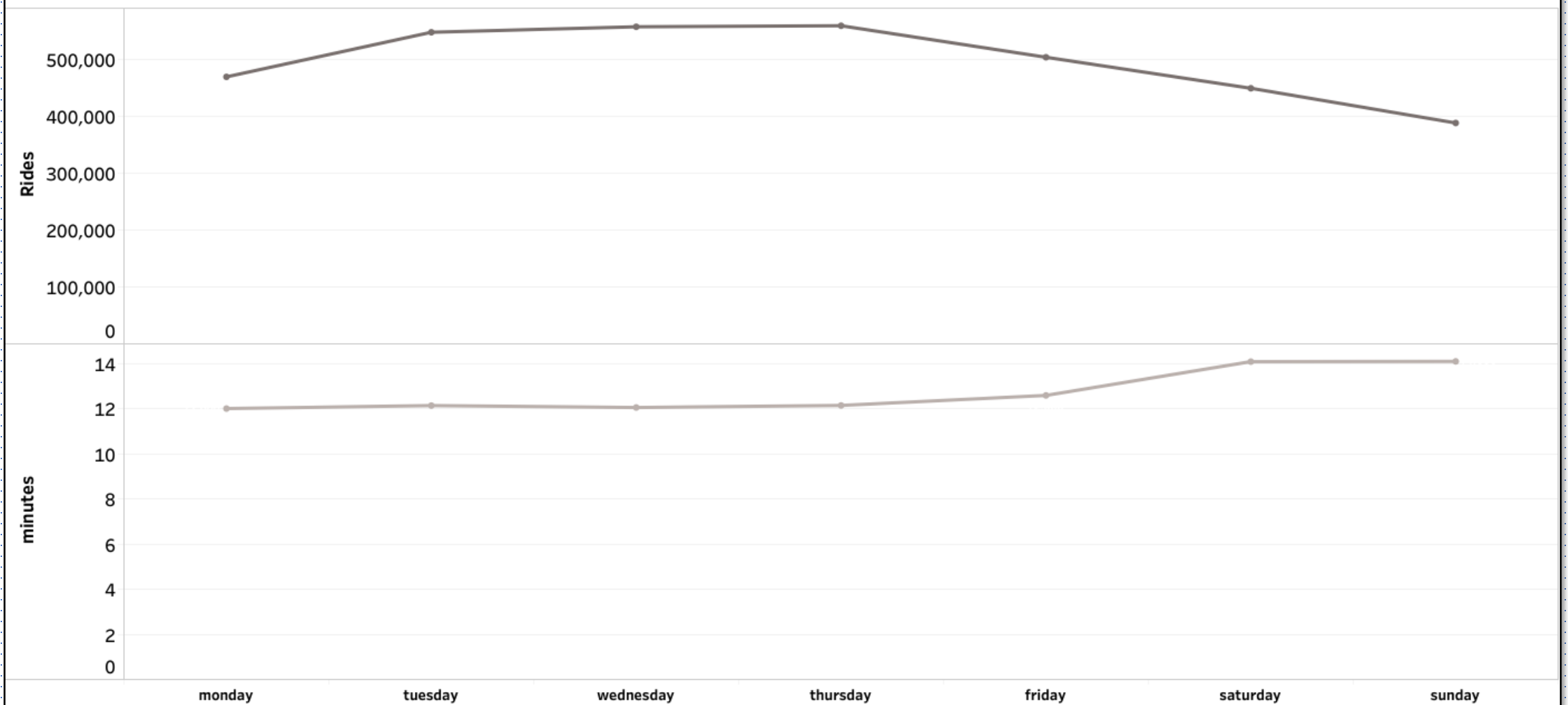


Weekly behavior: member users

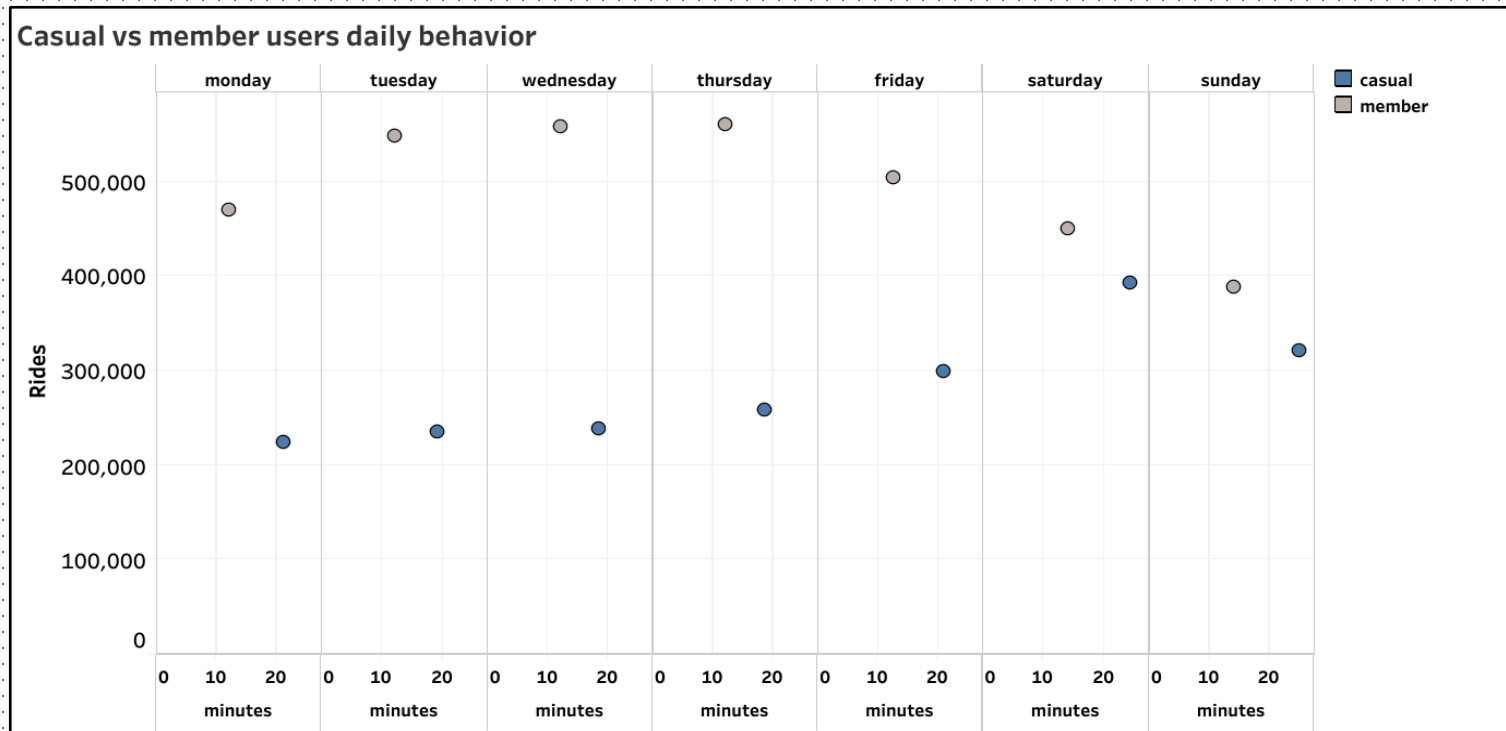
- Member users decrease their rides as the weekend approaches; however, the duration of these rides increases. possibly indicating that users transition from using the service to cover daily needs to using it recreationally.



Ride length average and quantity of rides during the week in member users

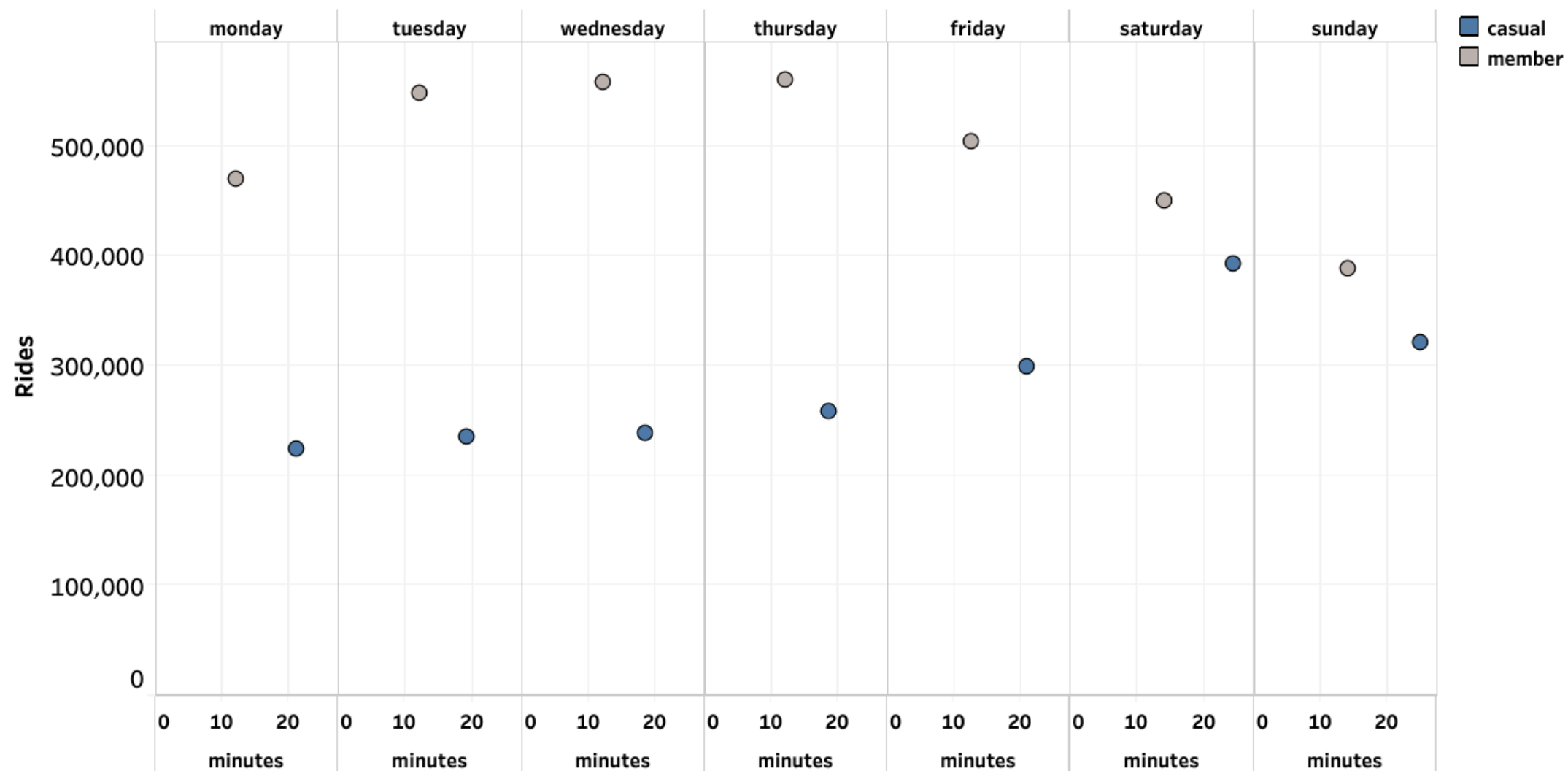


Weekly behavior: casual vs member



- Once again, the behavior of the two types of users is observed considering their average ride duration and the number of rides made, now shown on a weekly basis. It is interesting to note that Sunday, being the day with the least activity for member users, is comparable to Saturday, which is the day with the most rides for casual users.

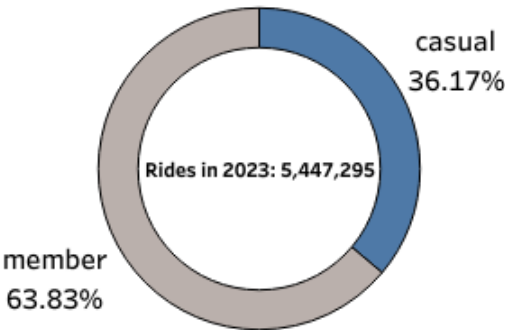
Casual vs member users daily behavior



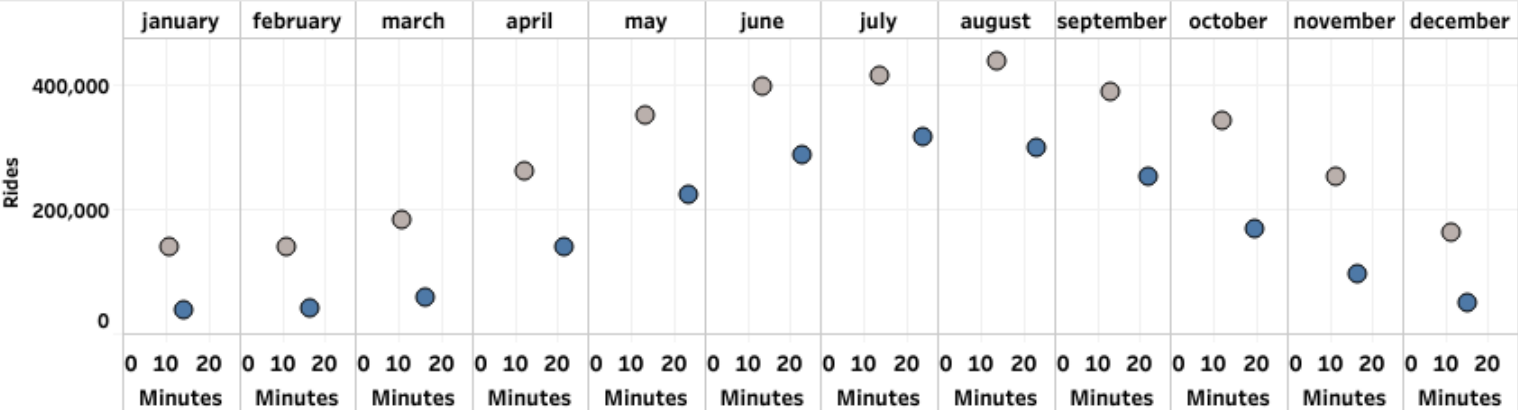
Dashboard

Difference in the use of Cyclistic bikes during 2023 between annual members and casual riders

Percentage of rides by user



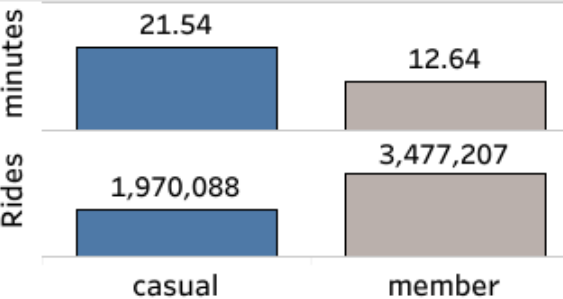
Casual vs member users monthly behavior



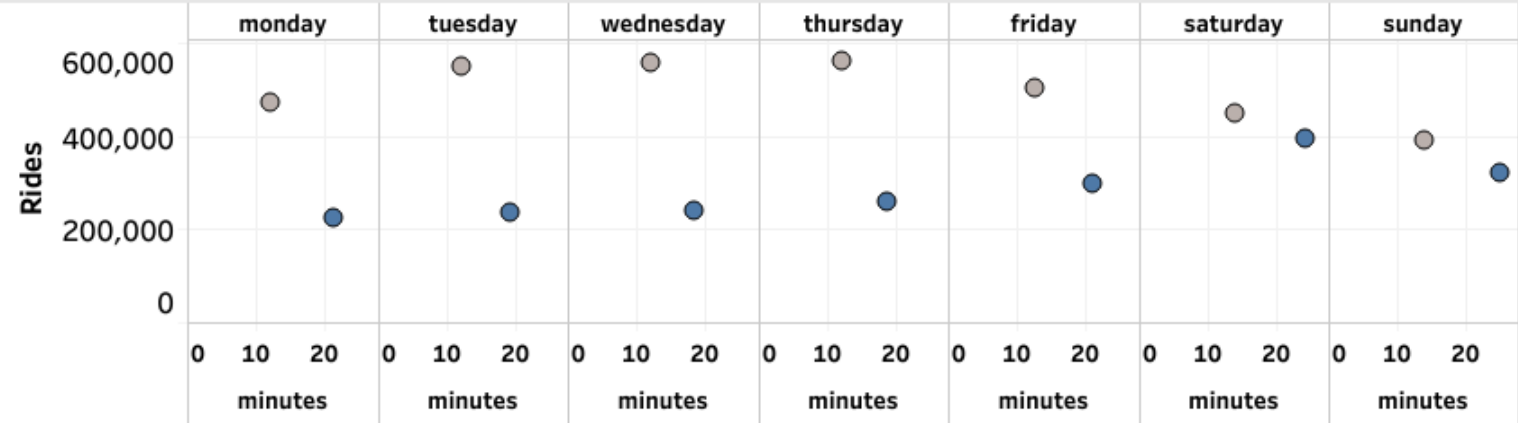
Overall ride length average

15.856553 Minutes

Ride length average and quantity of rides in 2023 by type of user



Casual vs member users daily behavior



conclusions

Looking at the data and addressing the question, **“How do annual members and casual riders differ in their use of Cyclistic bikes?”** The answer is as follows:

- There is an average ride duration of 15 minutes overall, suggesting that the destinations for both types of users may not be far from their starting point.
- Of all the rides made in the Cyclistic program in 2023, more than half of these rides are made by members, confirming that these users are the most frequent users of the program.
- Casual users make fewer rides, but they are long rides, and member users make more rides, but they are short rides.
- The months with the most rides are June, July, and August, indicating that users prefer to use the program during warmer months.

- Both casual users and members increase the number and duration of their rides in warmer months. However, during these periods, the duration of their rides shows a period of stability by neither increasing nor decreasing significantly.
- The days with the most rides are Thursday, Friday, and Saturday, indicating that users prefer to use the service as the weekend approaches.
- Casual users notably increase both the number and duration of their rides on Thursdays, Fridays, and Saturdays, indicating a preference for recreational use of the service. Member users decrease the number of their rides on these days, and the duration of rides changes from being stable during the week to increasing on the mentioned days. This suggests that members may use the service for daily needs during the week and switch to recreational use on weekends.

Recommendations

- Establish agreements with selected businesses within a 15-minute radius of each Cyclistic station. These agreements should offer slight benefits to member users. This will create a symbiotic relationship between member users and their preferred local businesses, reinforcing the idea of conversion for casual users.
- Highlight the cost-benefit ratio of an annual subscription to casual users through digital advertising via email or social media. Additionally, create loyalty programs and incentives for member users to encourage continued service usage.
- Since casual users tend to take longer rides, incentives can be created for them to reach a certain mileage threshold to earn their first membership discount.
- Launch generous membership change promotions and discounts to casual users during peak rides seasons. By targeting promotions during periods of high program activity, more casual users will be aware of these offers and may consider making the change.

- During the summer months when rides volume increases and rides duration stabilizes, it is possible to offer member users exclusive rewards or contests for consistency by reaching a specified number of rides or distances. This incentivizes casual users to consider a membership to access these benefits.
- Increase the frequency of notifications about the benefits of annual membership and upcoming promotions on days when casual users increase their rides volume. This ensures more users are informed and creates a sense of urgency if promotions are already in effect.
- Utilize printed and digital advertising to promote various city landmarks strategically selected to serve as tourist attractions and meeting points for both types of users, especially on Saturdays and Sundays when longer rides are common. This encourages casual users to spend more time exploring the service and interacting with member users, creating a sense of community and potentially motivating them to convert.

The end