



Google Data Analytics  
Professional Certificate



# The Cyclistic Case Study

Google Data Analytics Capstone

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# Cyclistic bike-share



## About Cyclistic

- Cyclistic is a bike-share company in Chicago, founded in 2016 that features more than 5,800 bicycles and 600 docking stations.
- It sets itself apart by making bike-share more inclusive to people with disabilities
- There are two types of customers: annual members and casual customers.
- They have a flexibility pricing plans: single-ride passes, full-day passes, and annual memberships.
- Cyclistic's finance analysts have concluded that annual members are much more profitable than casual riders.

## Scenario

The Cyclistic Case Study is one of the capstone projects of Google Data Analytics, a professional certificate program offered on Coursera.

I roleplayed as a data analyst working on the marketing analyst team at Cyclistic.

Lily Moreno, The director of marketing and my manager assigned me to explore the behaviour of casual riders and annual members. The aim is to understand the difference in their Cyclistic service bike usage.

# 03 Business task

How do annual members and casual riders use Cyclistic bikes differently?

## stakeholders

- **Primary stakeholders**

**Cyclistic executive team:** The notoriously detail-oriented executive team will decide whether to approve the recommended marketing program.

**Lily Moreno:** The director of marketing and your manager.

- **Secondary stakeholders**

Cyclistic marketing analytics team

## Data

- Public Data, dataset made available through Motivate International Inc. under a license from [divvybikes.com](https://divvybikes.com).
- Cyclistic is a fictional company. For the purposes of this case study, the datasets are appropriate and will enable to answer the business questions.
- The data we are working on is first-party type: data collected and used by Cyclistic.
- The data integrity was checked and deemed unbiased.
- The Cyclistic's dataset has the historical trip data from 2022

# Questions

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## How do annual members and casual riders use Cyclistic bikes differently?

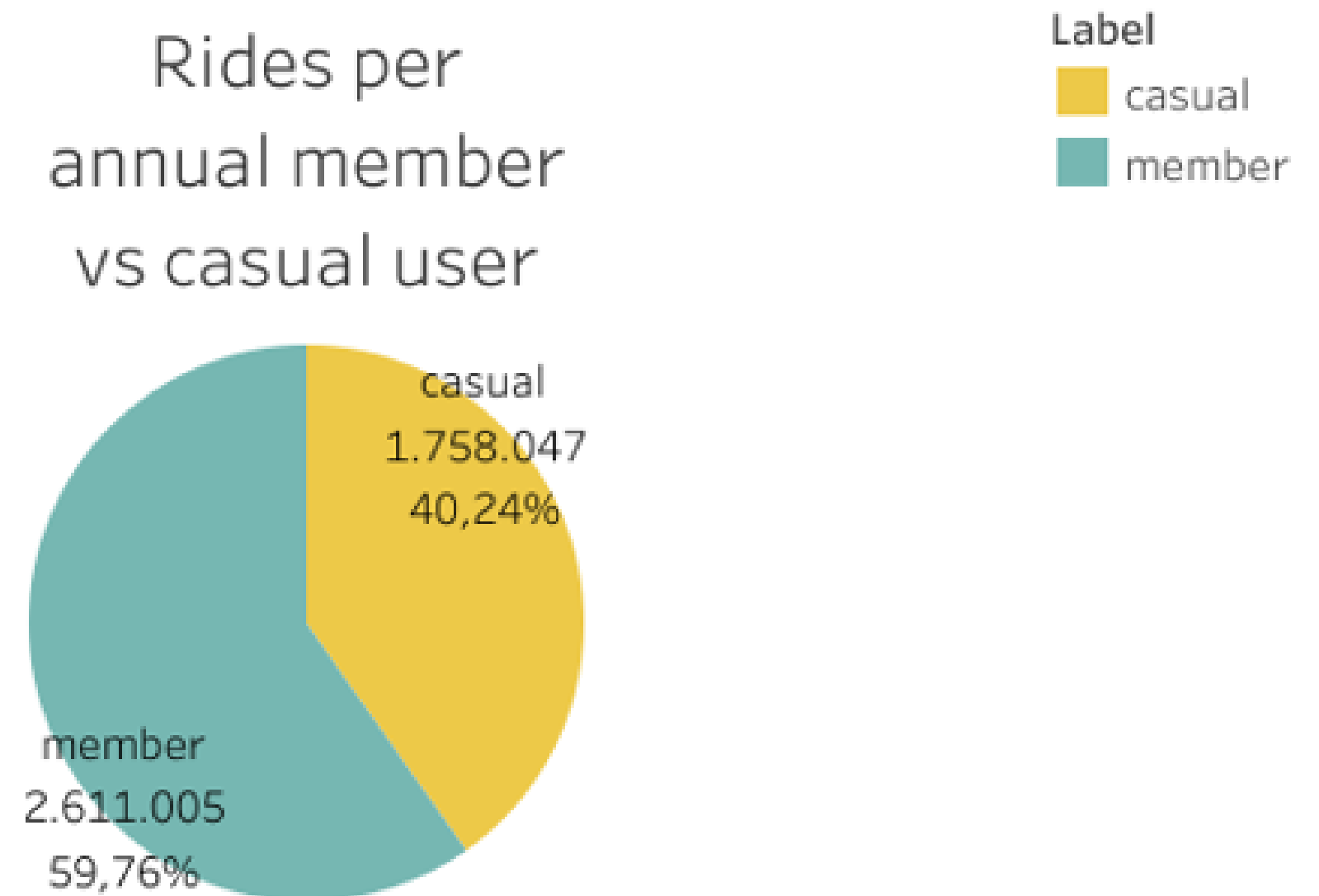
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- How many casual vs membership rides take place?
- Is the number of rides seasonable?
- When do different users ride throughout the day? and Week?
- What is the duration of each user type rides? Does it vary per week day or month?
- Do members and casual users have different bike type preferences?
- Where does each type of user start and end their trip?



# How many casual vs membership rides take place?

- More than half (59,76%) of rides are made by Cyclistic annual members
- We still have considerable activity from casual users

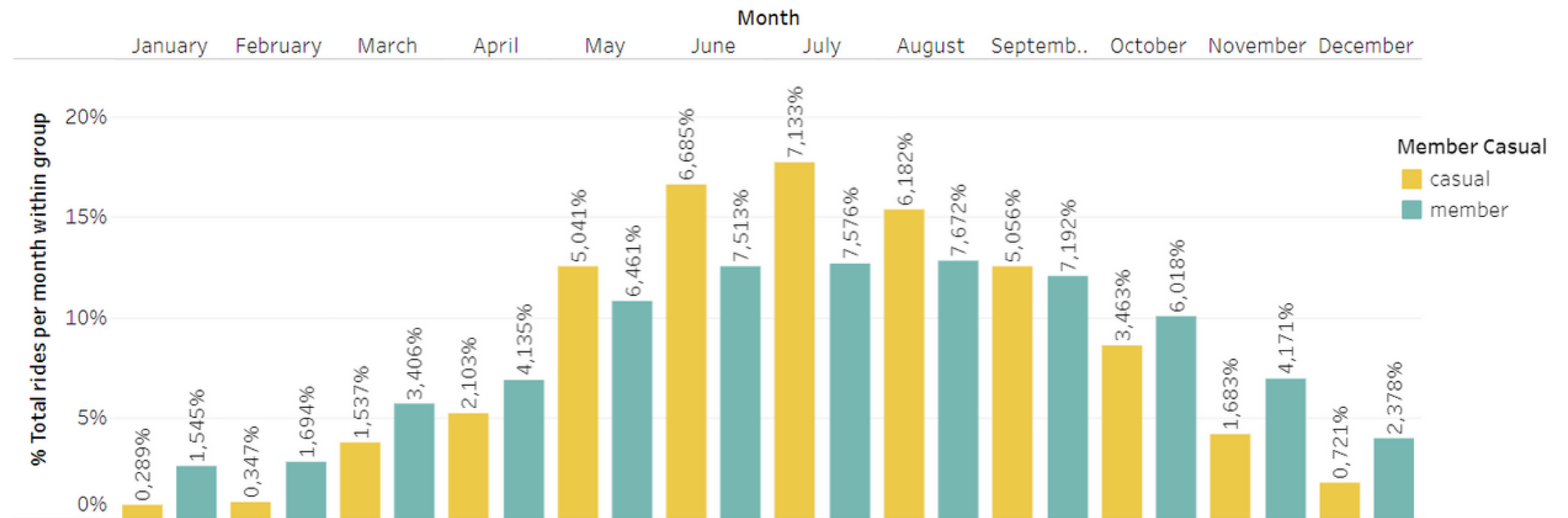




# Is the number of rides seasonable?

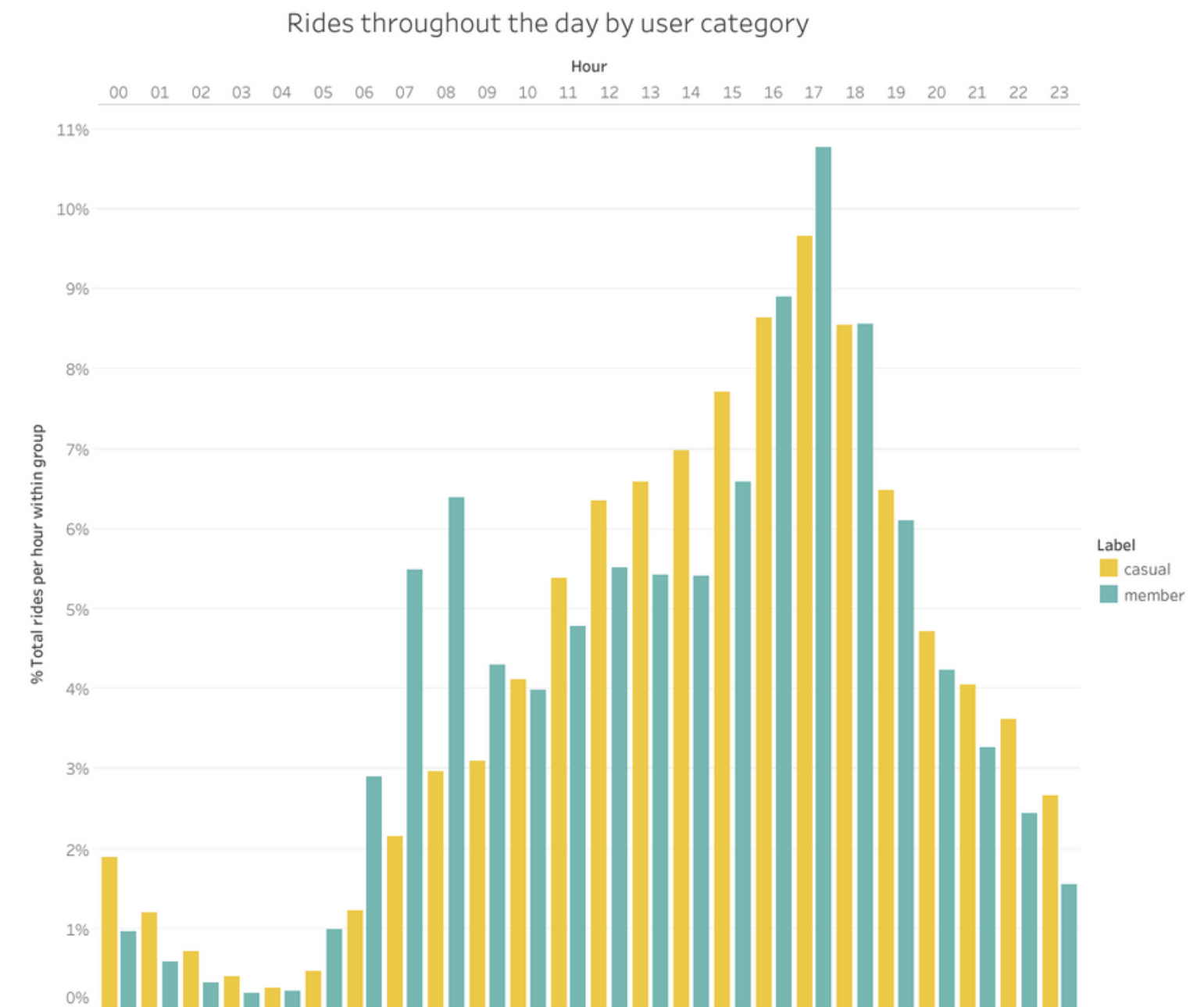
- Both type of customers are more active during the warmer month
- Seasons affect membership
- Casual users ride more than members during spring/summer

Compare the number of trips for annual members and casual users, monthly



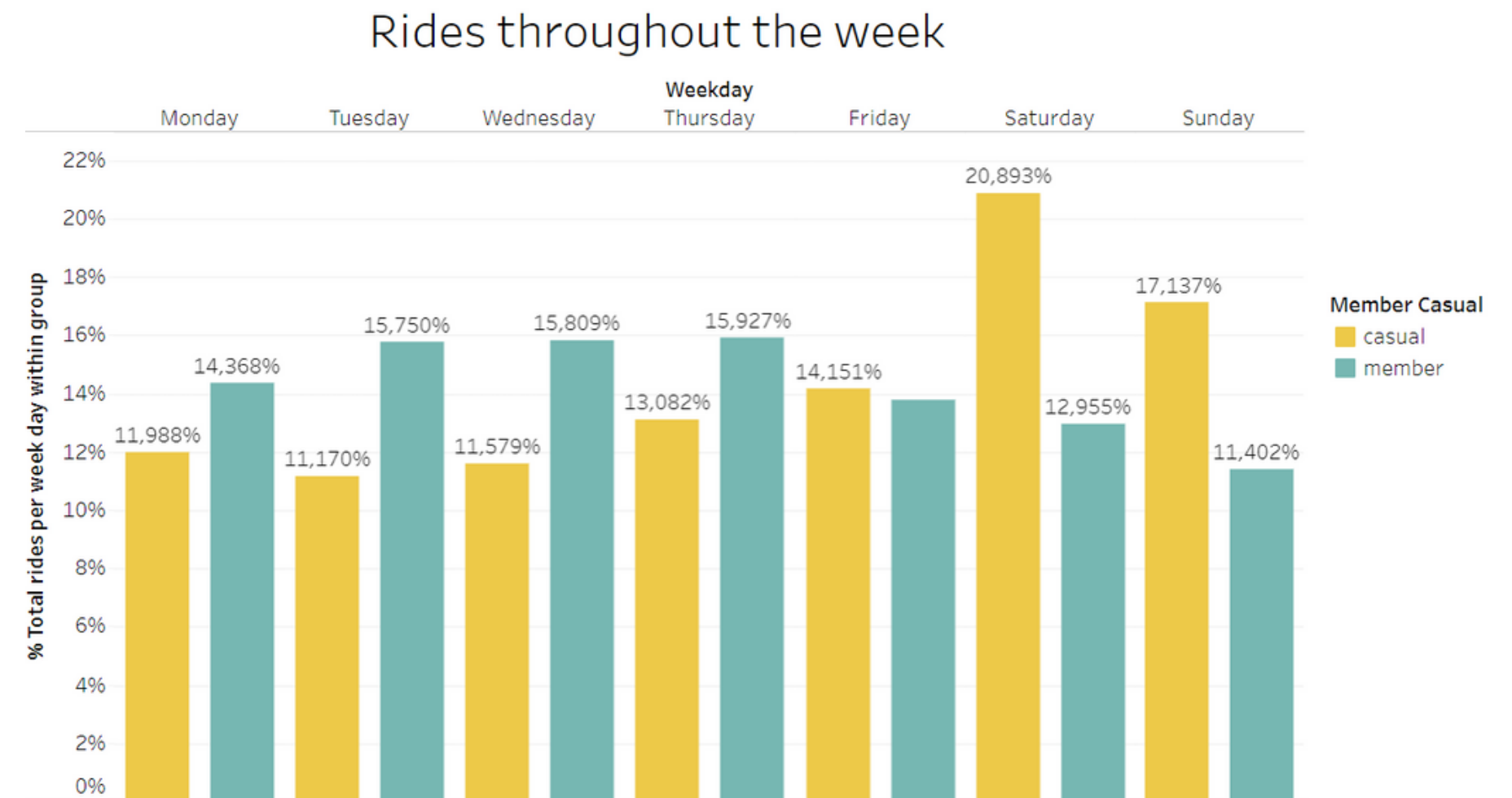
# When do different users ride throughout the day?

- Annual members use Cyclistic mostly to commute to work or during rush hours
- Casual users ride more freely throughout the day. But they prefer to ride from 10 to 19 hours.



# When do different users ride throughout the week?

- Annual members use Cyclistic mostly to commute to work from monday to friday.
- Casual users ride are more active during the weekend.
- During saturday rides almost double for casual users, compared to their monday to friday activity.



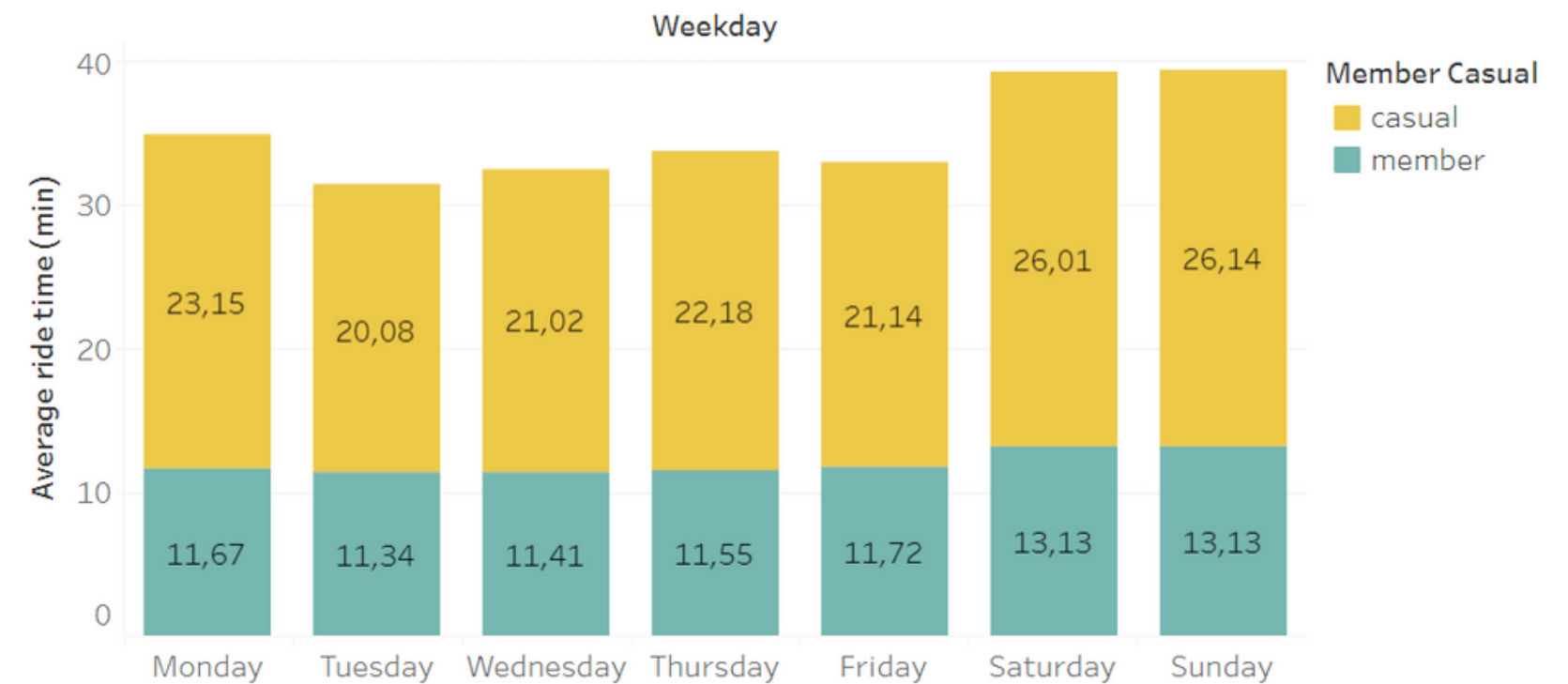


# What is the duration of each user type rides?

## Does it vary per week day?

- **Casual users ride longer than members.**
- **Members have less variation in their ride duration throughout the week, slightly longer rides during the weekend. This implies that members may be commuting to work**

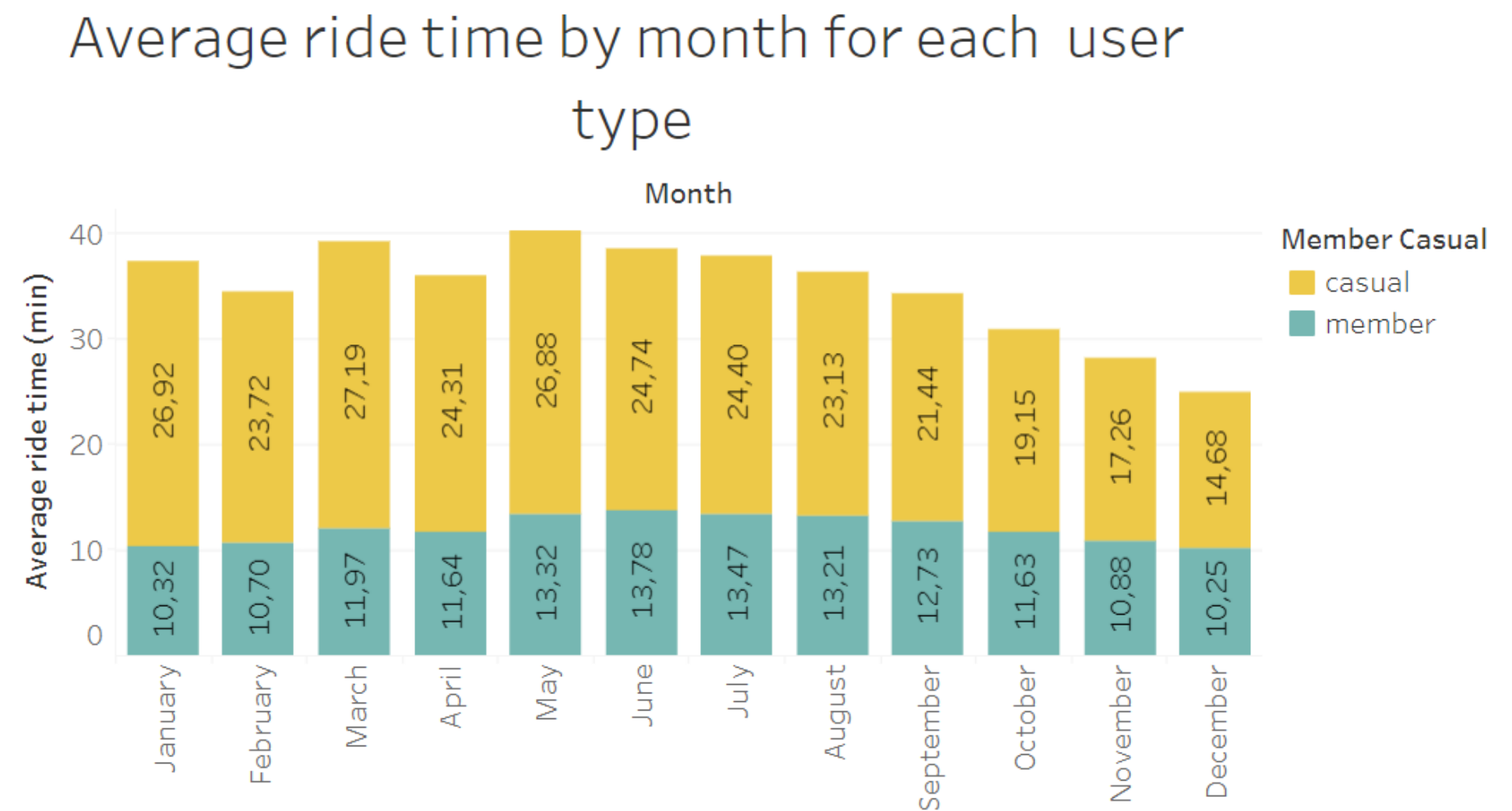
Average ride time by weekday for each user type



# What is the duration of each user type rides?

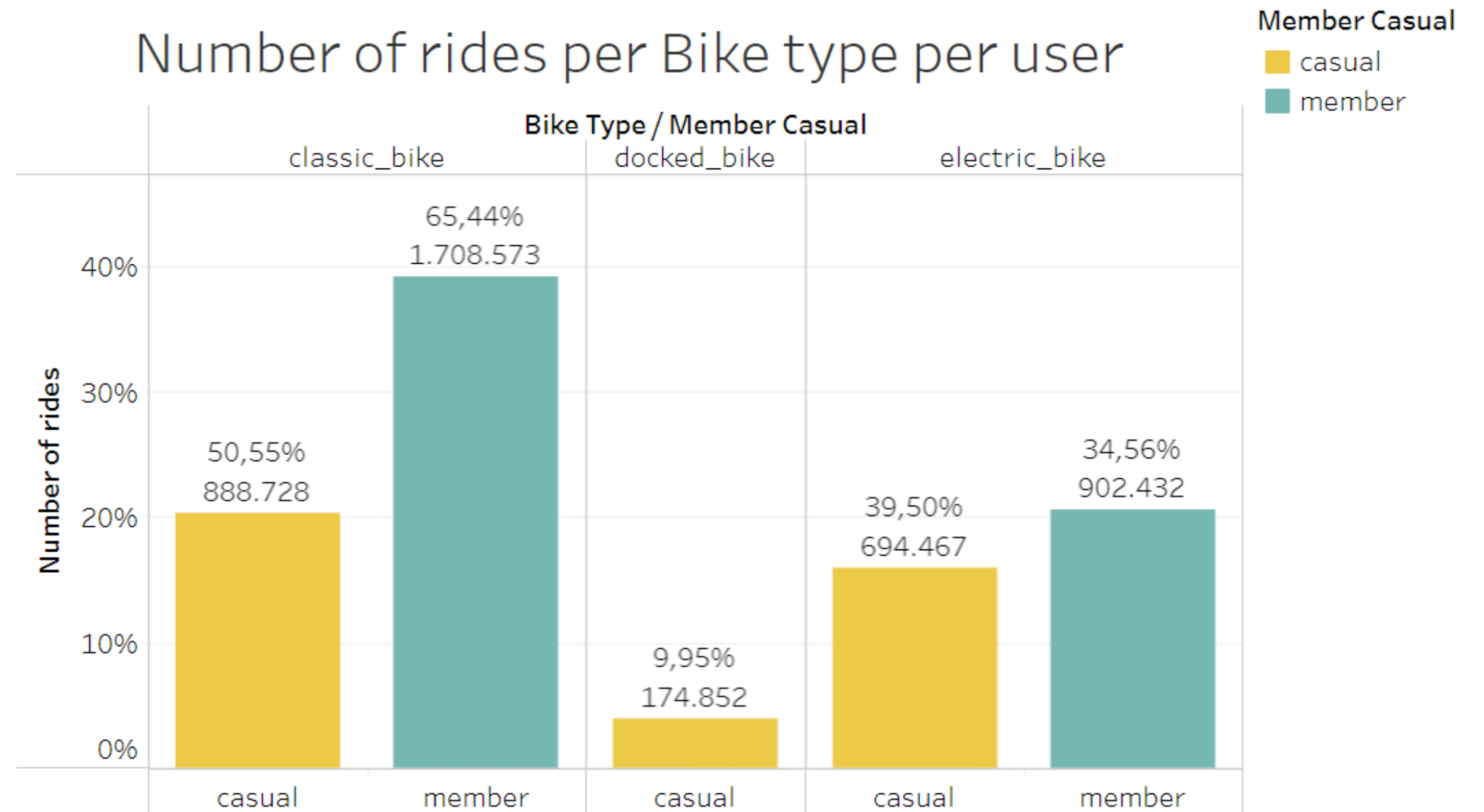
## Does it vary per month ?

- Very similar to the weekday findings
- This can mean that there is no time limit for casual customers or they have more money to spend.
- Cyclistic doesn't have a pricing limit per casual ride duration. Having full-day passes might be hindering the amount of annual memberships



# Do members and casual users have different bike type preference?

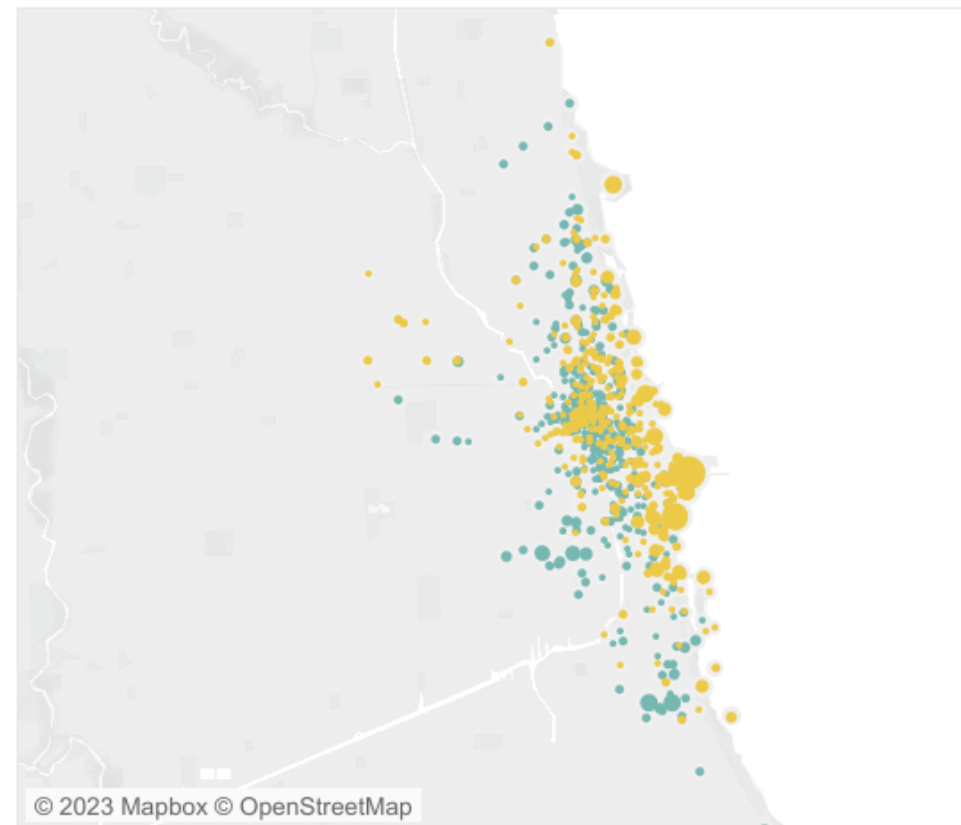
- Both groups prefer to ride in classic bikes
- Only casual riders use docked bikes
- Members don't go for docked bikes because they want the freedom to park their bikes.
- Casual customers might be tourists that don't mind the start and end point of the ride



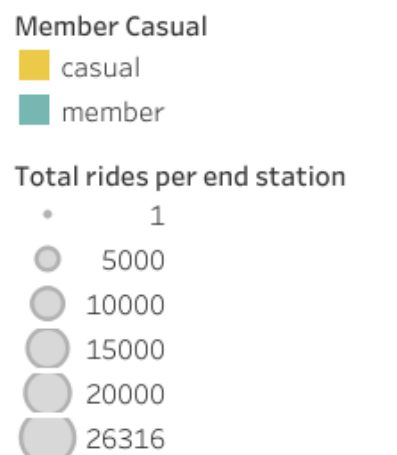
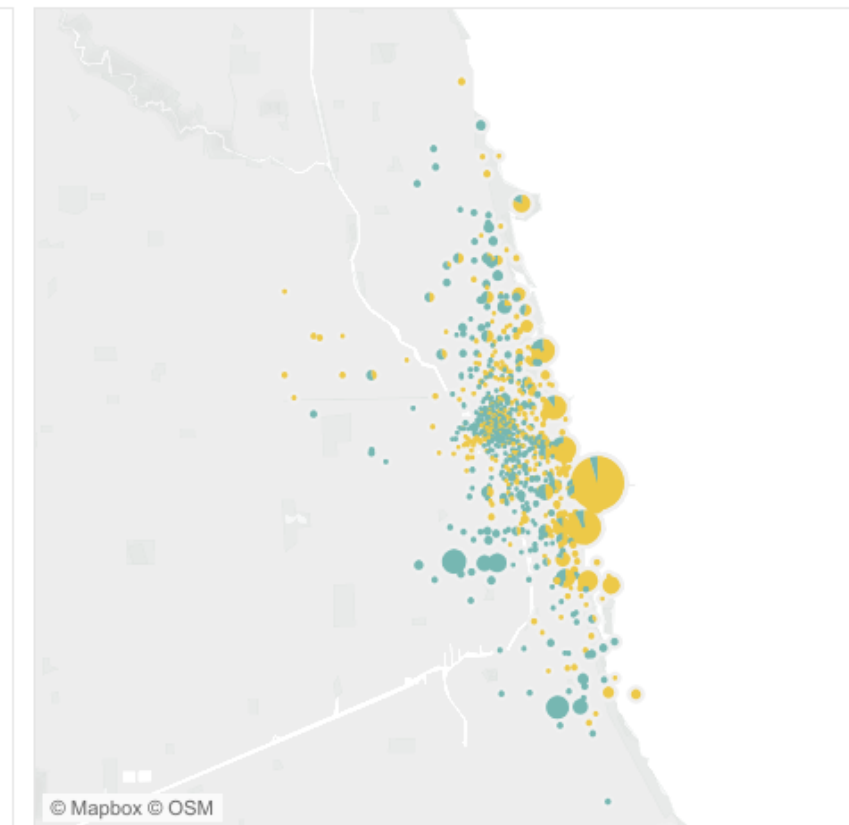
# Where does each type of user ride?

blabla

Ride starting station per  
user type



Ride ending station per  
user type



# Conclusion

12

- The analysis results seem to show that annual members and casual users are two different customer groups.
- More than half (59,76%) of rides are made by Cyclistic annual members.
- The average ride time for members is considerably lower than casual riders, which seems to indicate that members use Cyclistic bikes for different purposes comparing to casual riders
- The members are probably locals who use the bikes daily to commute to and from their workplaces, while casual customers are most likely tourists and use the bikes for leisure and sightseeing around Chicago.
- Cyclistic can try to build a campaign to turn casual customers to members, especially during spring and summer but it will most likely be difficult, since they have such different purposes.
- The amount of casual rides (more than 1.7 million) is still considerable, and we might have some opportunities to convert them to members

# Suggestions and recommendations

## Change pricing plans

Cyclistic doesn't have a pricing limit per ride duration. they might be losing new annual memberships because of the full-day passes.

Maybe creating a weekend membership can allow casual riders to become members to allow Cyclistic getting more value from them

## Membership Referral campaign

To increase the membership base the company might consider a campaign giving additional benefits or discounts to the existing members with a referral program. Specially during spring and summer.



# Reference

## Google Data Analytics Professional Certificate

- 01 Cyclistic's Data: <https://divvytripdata.s3.amazonaws.com/index.html>
- 02 Data license: <https://ride.divvybikes.com/data-license-agreement>
- 03 Link da analise numa plataforma de partilha
- 04
- 05
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**Thank you**