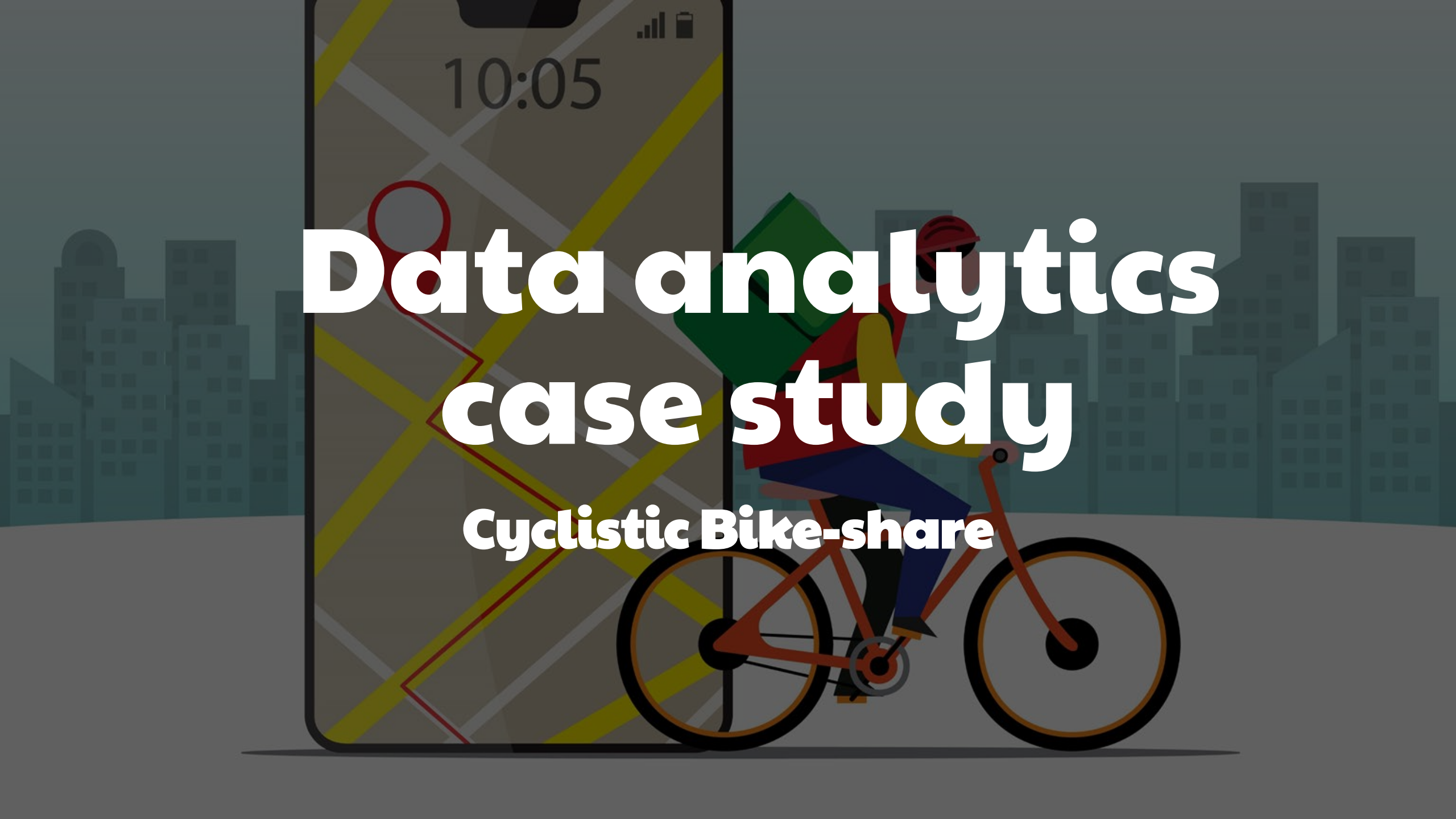

Data analytics case study

Cyclistic Bike-share

coursera | Grow with Google

Google Data Analytics Professional Certificate Capstone Project

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Hello!

I am Nguyen Minh Tri

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Scenario

Cyclistic

A bike-share program that features more than 5,800 bicycles and 600 docking stations

the company's future success depends on maximizing the number of annual memberships

use data-insights to understand how casual riders and annual members use Cyclistic bikes differently

design a new marketing strategy to convert casual riders into annual members

About the process

Step 1: Ask

define business objective

Step 2: Prepare

create a strategy for collecting and aggregating the data

Step 3: Process

get data ready for analysis

Step 5: Analyze

Analyze data to answer the question

Step 5: Share

share insights with stakeholders

Step 6: Act

recommendations based on the insights

Step 1: Ask

Annual subscribers

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

One-time purchasers

Business tasks

Identify **key differences** between annual members and casual riders. Then, answer the question of why casual riders choose the **one-time purchase**

Support the **data-driven decision** by conclusions that help design a **marketing strategy** to convert casual riders into annual members

Step 2: Prepare

Sources

- Data was obtained directly from company records available at

https://divvy-tripdata.s3.amazonaws.com/index.html

- License to use data is available at

https://www.divvybikes.com/data-license-agreement

- Data is collected from January 2021 to December 2021

Why the data is

R eliable

O riginal

C omprehensive

C urrent

C ited

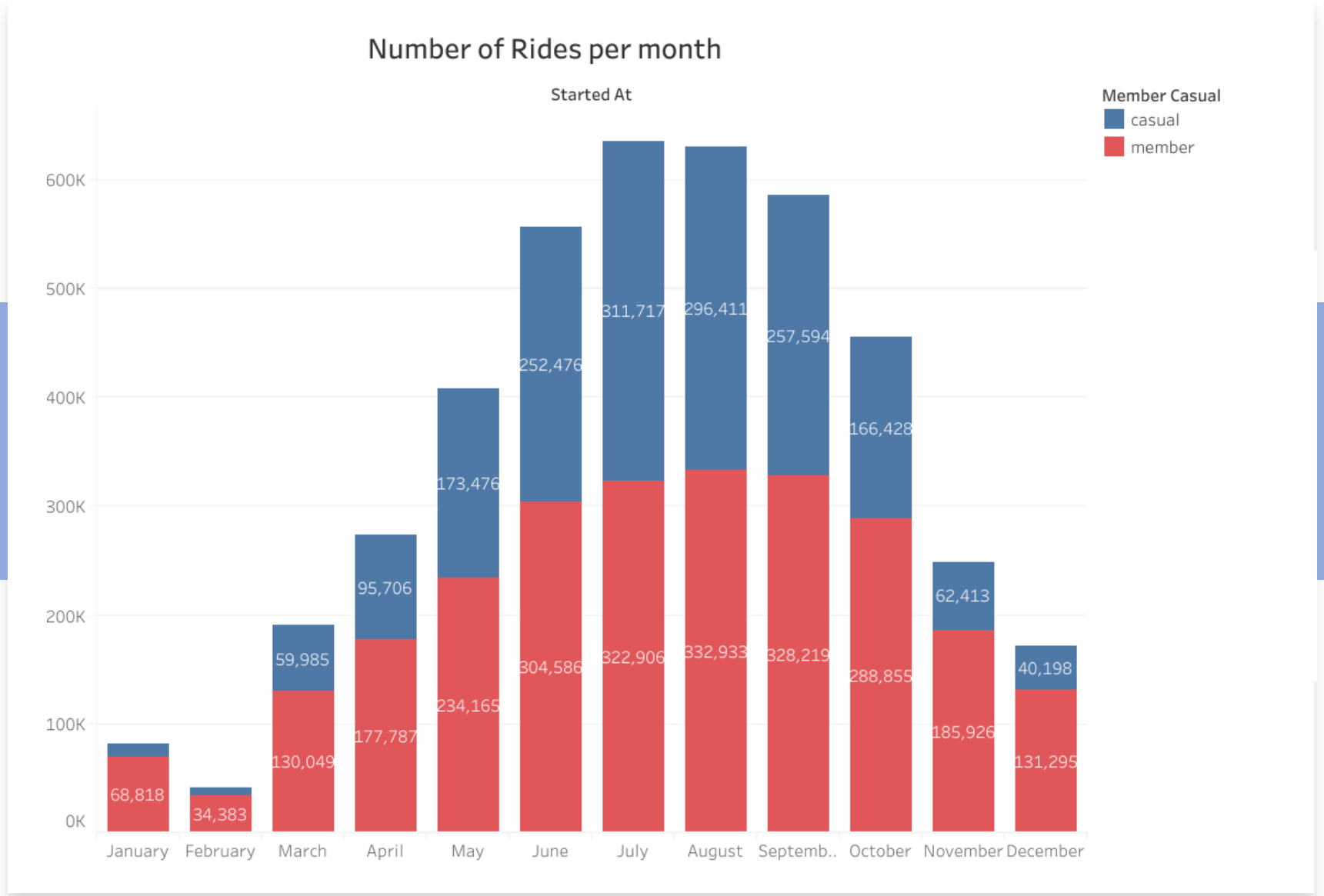
Step 3: Process

Tools used

Data cleaning and manipulation

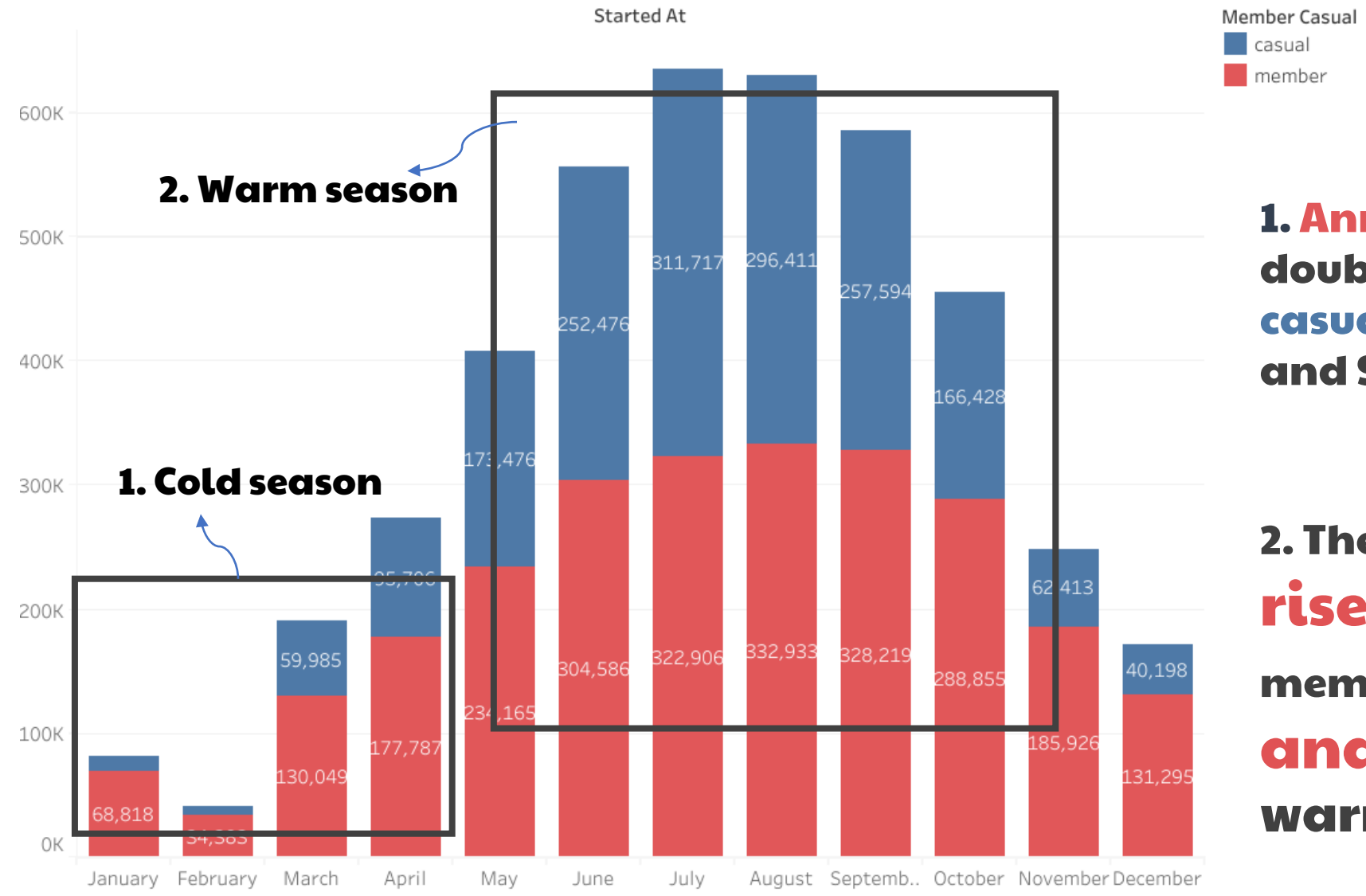
- Data was cleaned and manipulated using R and Tableau.
- Add ride length (=end time – start time) and day of week (of start day).
- Remove rows that have ride length less than 60 seconds and any missing values.

Step 4: Analyze



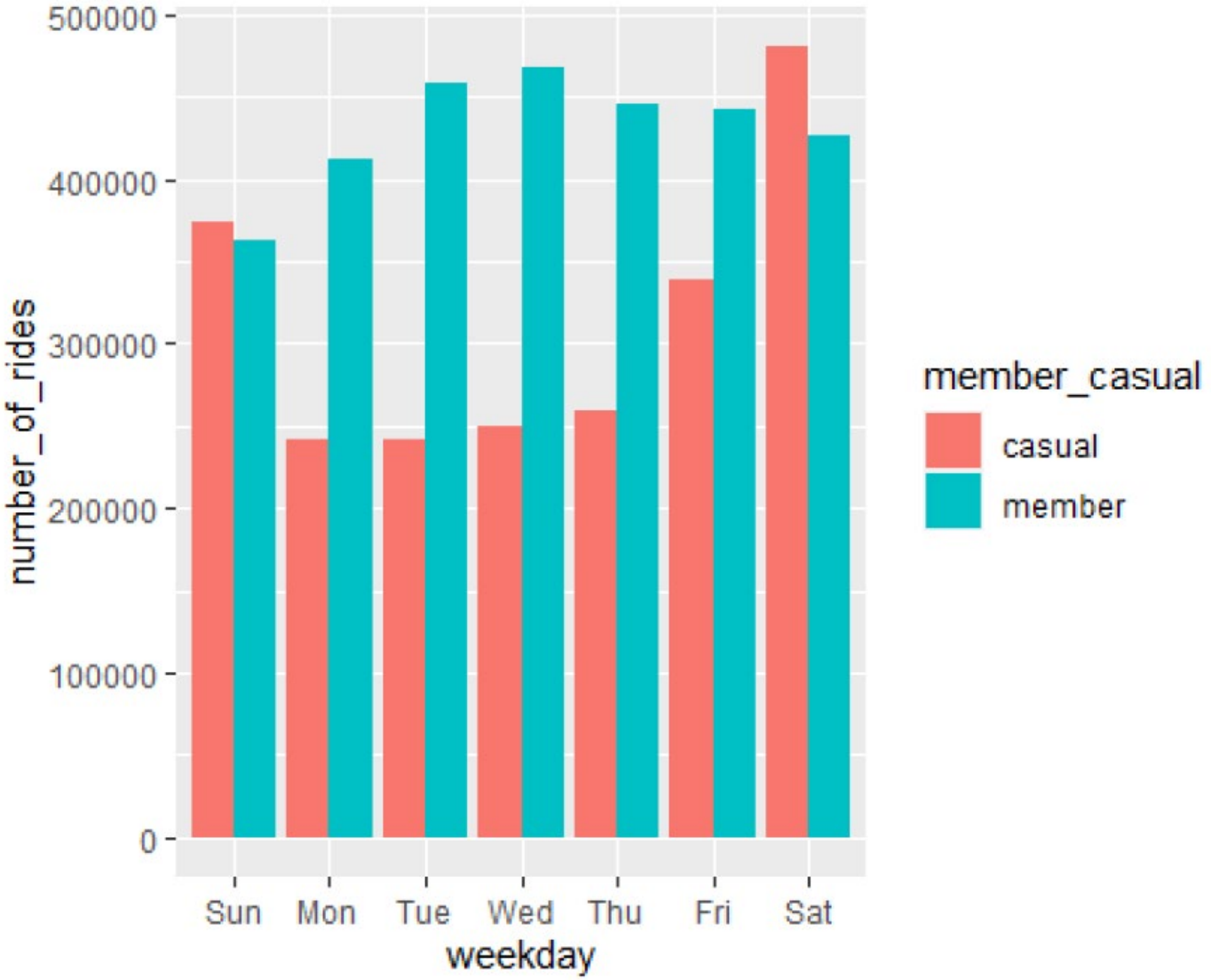
Number of Rides per month

Key finding 1: Number of Rides per month



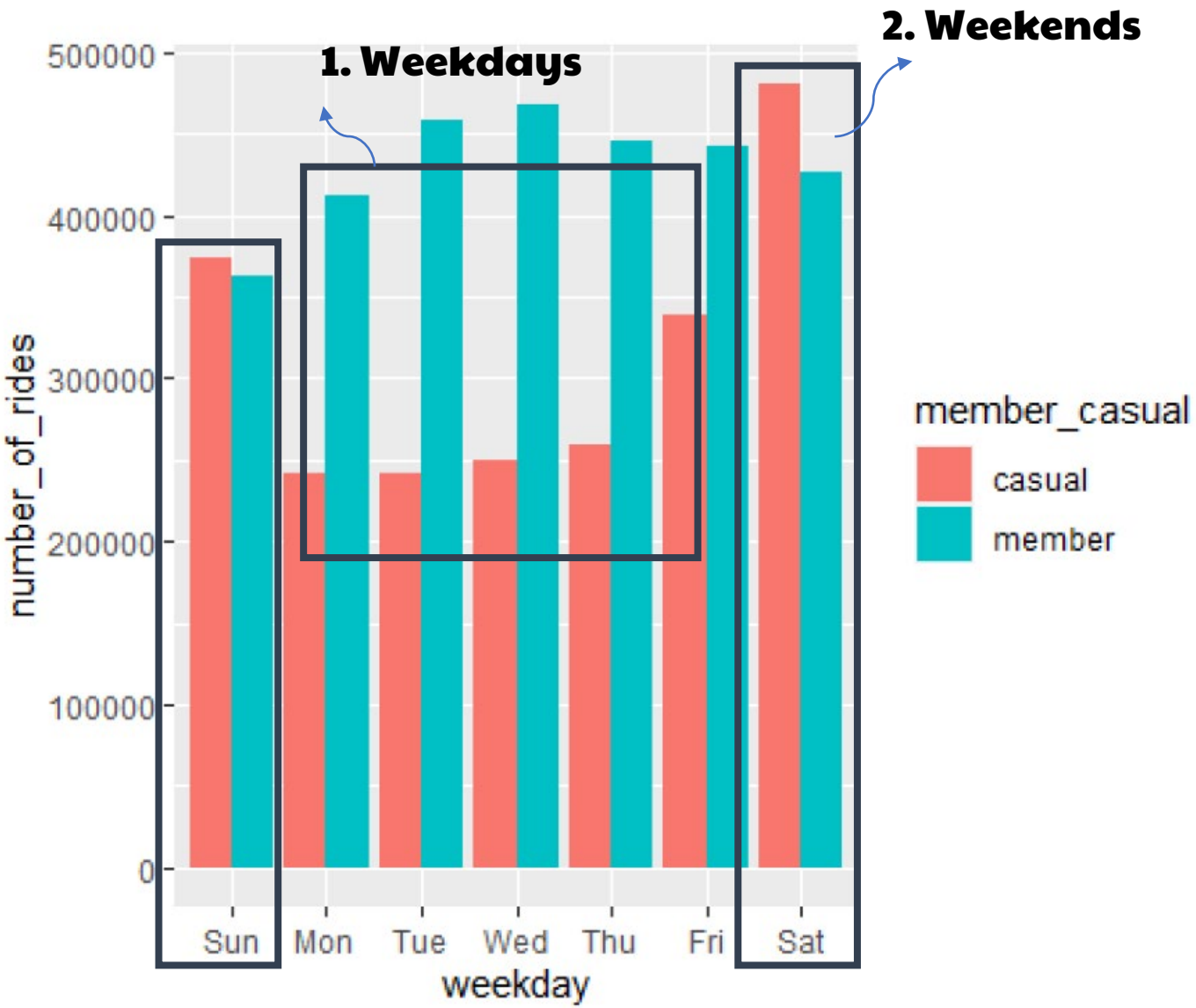
1. Annual members took nearly double rides than casual riders in Q1 and Q4 (Winter and Spring- cold season).

2. There was a significant rise in rides from both annual members and casual riders in Q2 and Q3 (Summer and Fall- warm season).



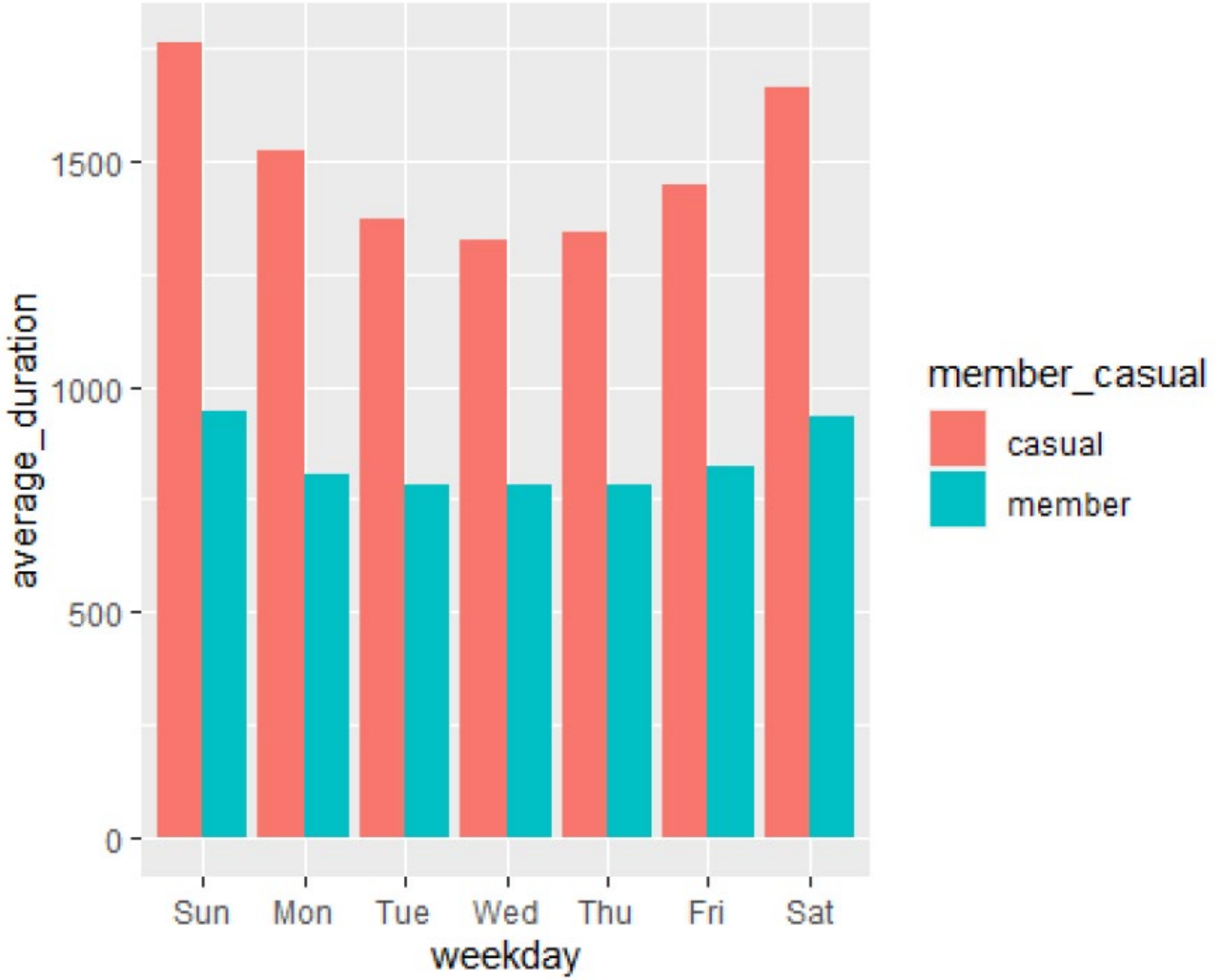
Number of Rides per day

Key finding 2:
Number of Rides per day



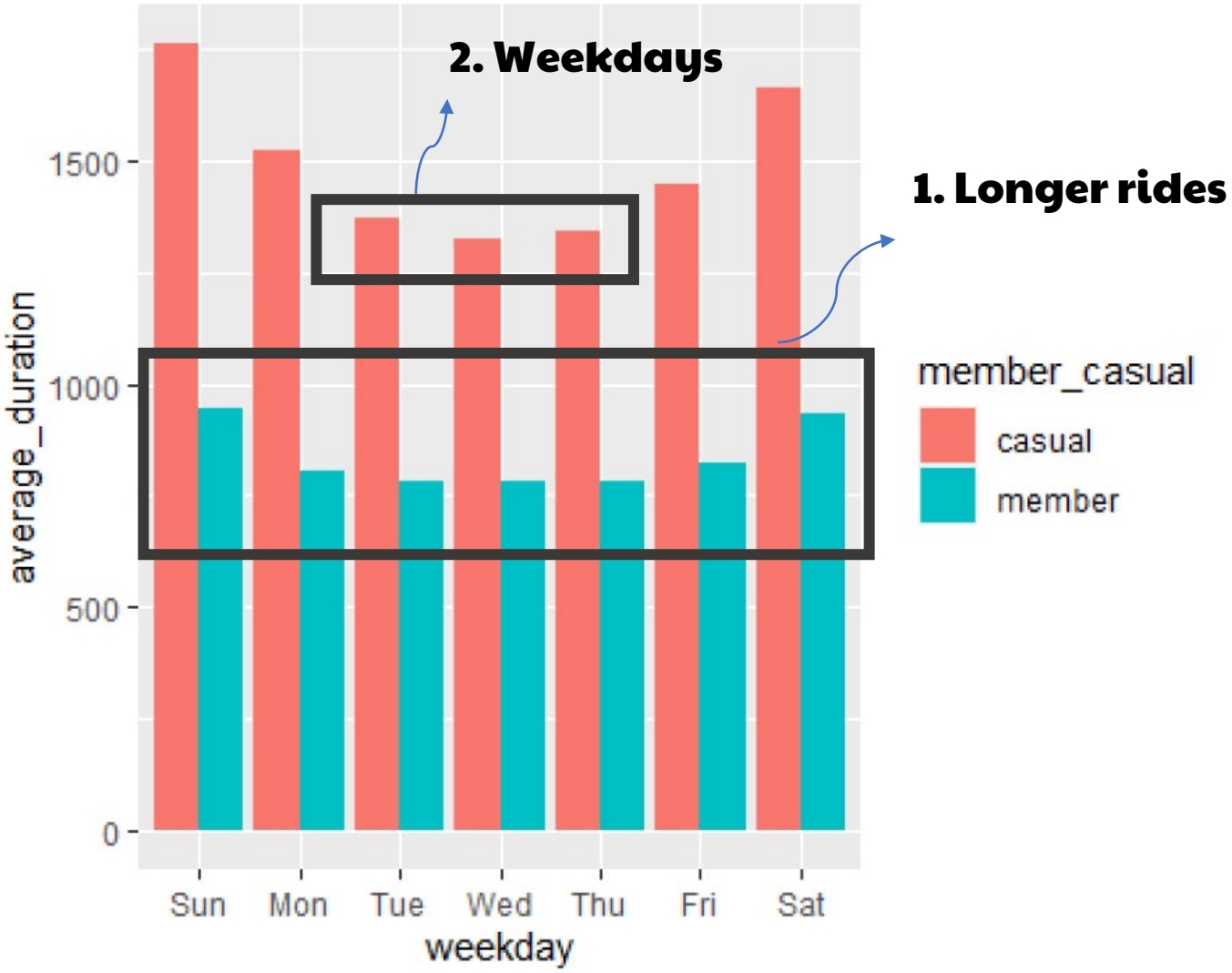
1. **Annual members** took nearly double rides than **casual riders** during weekdays.

2. There was **a significant rise** in rides from both annual members and casual riders **on the weekends**.



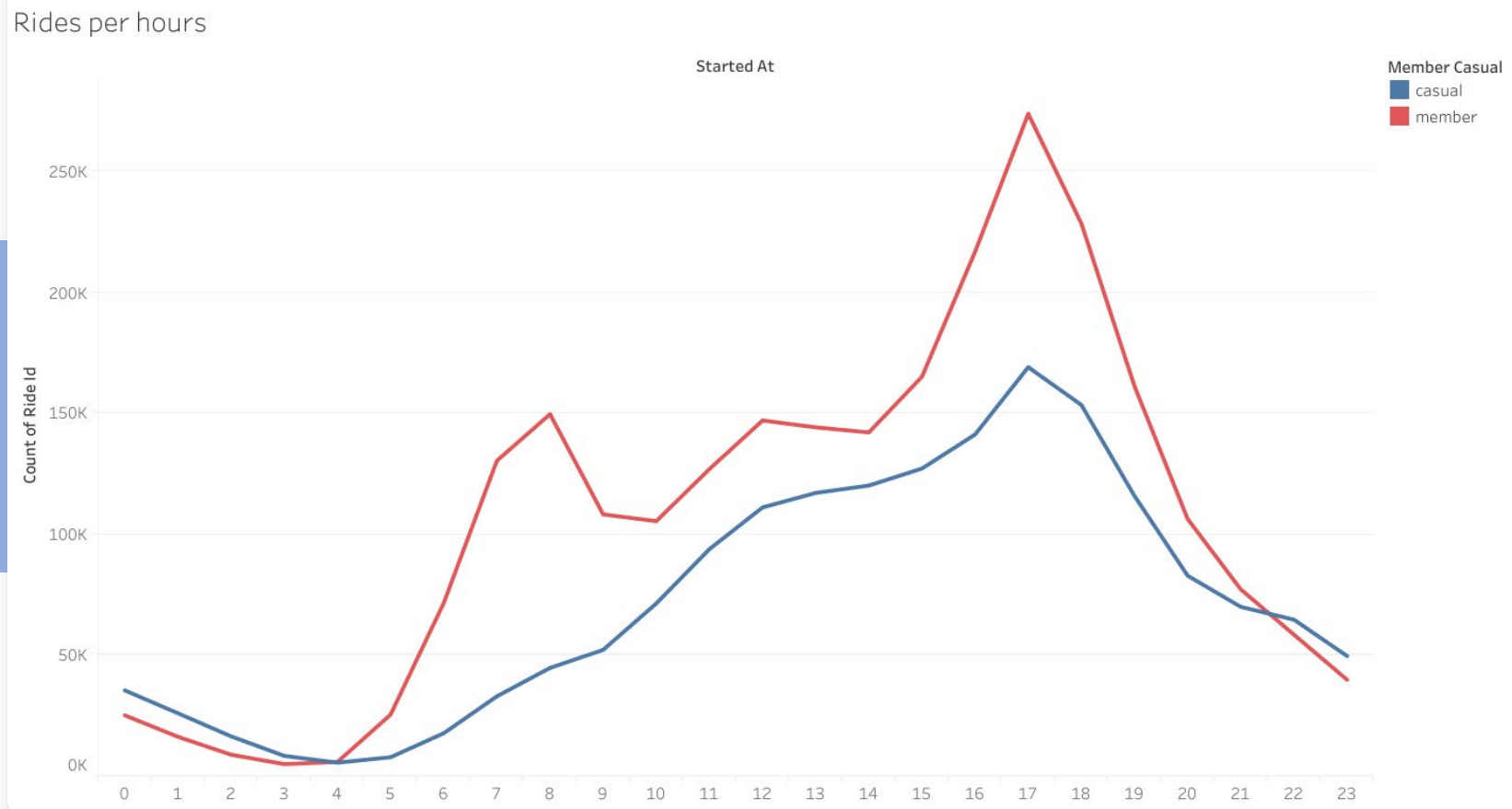
Average Ride duration per day

Key finding 3:
Average Ride duration per day



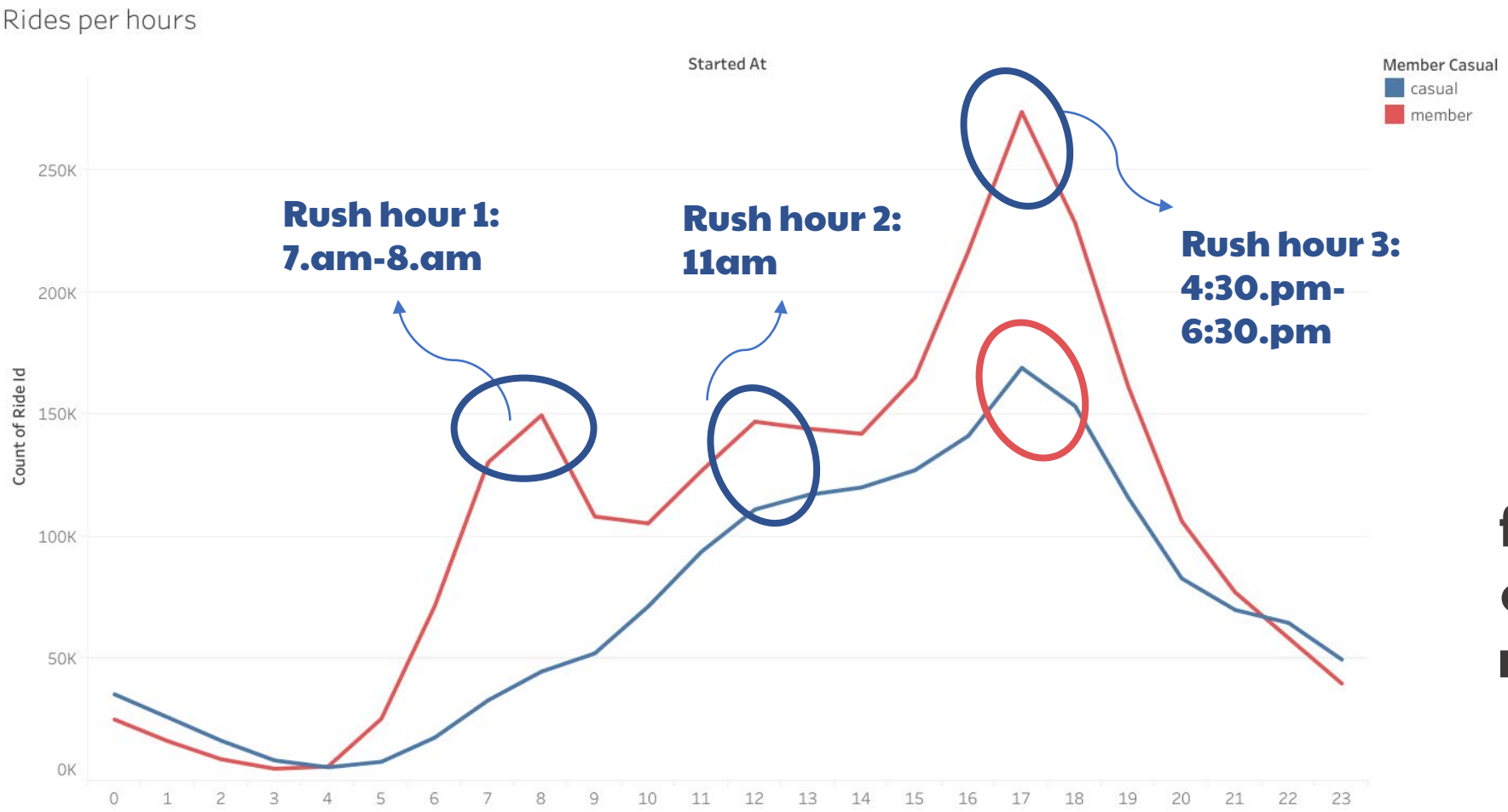
1. **Casual riders** took far longer rides than **annual members.**

2. Average duration was **shorter during weekdays** from both causual riders and annual members



Number of Ride per hour

Key finding 4: Number of Ride per hour

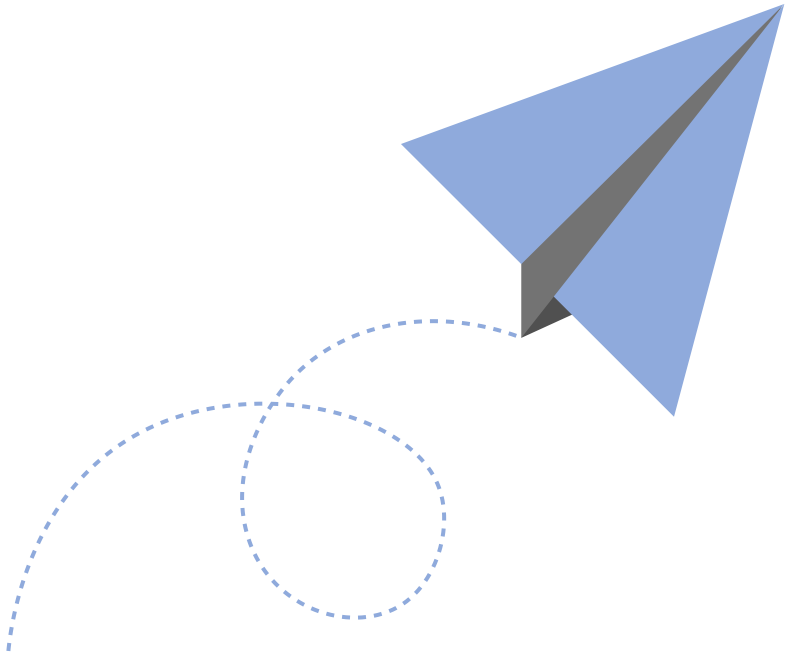


The number of rides from members peaks around the time that most people travel to and from work

Step 5: Share

Step 6: Act

Recommendations for the Marketing plan

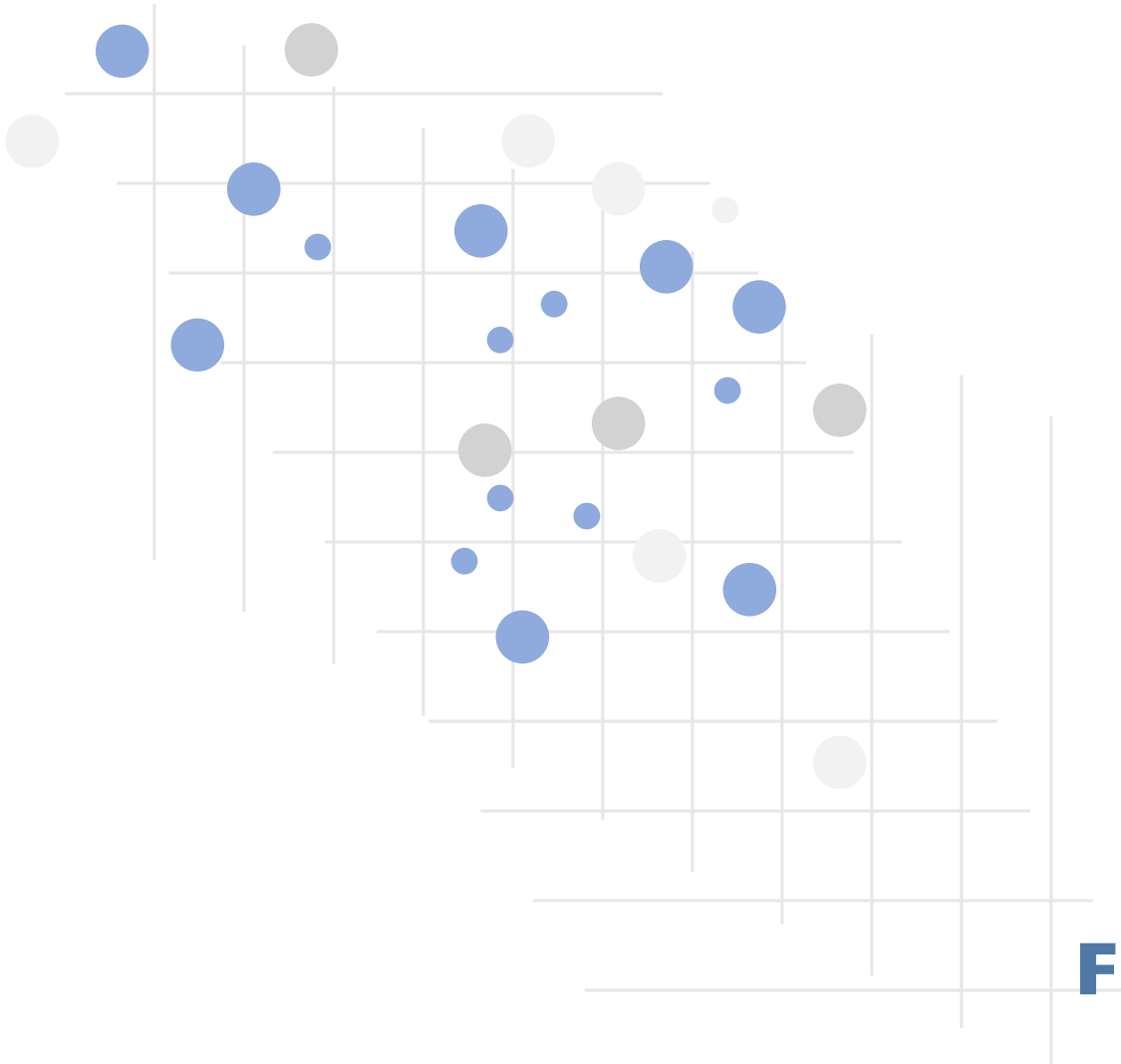


Recommendation 1:

Perform a **Discount and Promotion campaign** focused on **Q2 and Q3** of the year (Summer and Fall)

Recommendation 2:

MONDAY

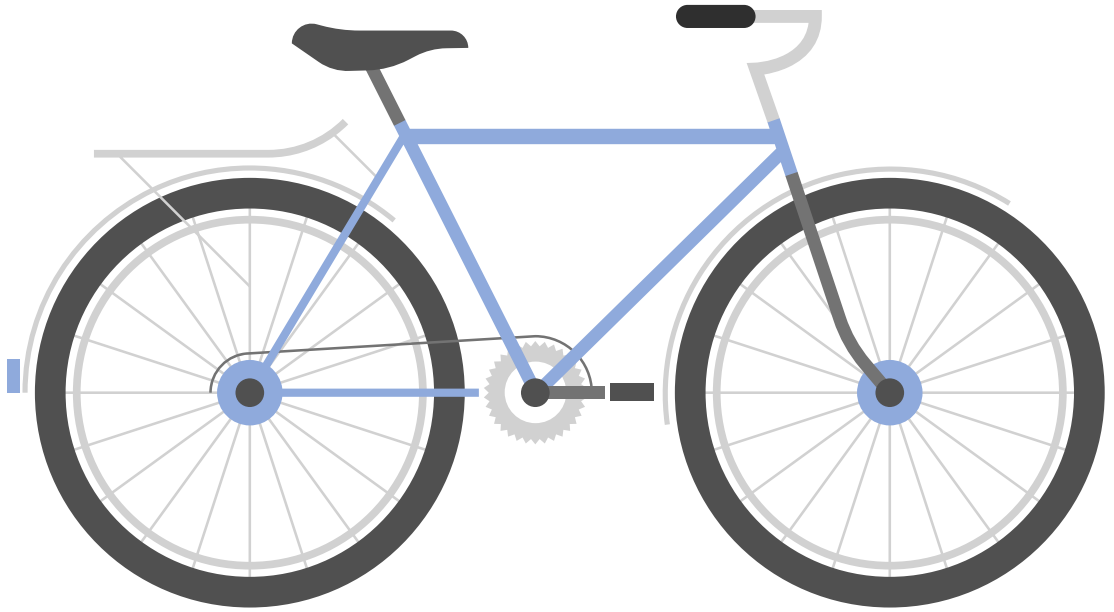


FRIDAY

Perform a plan that **casual riders** will have a **bonus of 30-40 minutes** in the next ride so that the company will have more rides during the **weekdays**

Recommendation 3:

Perform a **new member discount campaign** focused on casual riders who ride **longer than 20 minutes (1200 seconds)** over the week



Recommendation 4:

Perform a **Discount campaign** during the **Rush hour 3 (4:30.pm - 6:30.pm)** for casual riders that will probably increase the number of riders

Thanks for watching!

Appendix

If you want to view the R markdown file, please click here

If you want to access the Tableau Public visualization, please click here

If you have any further questions, please email me at ntri3274@gmail.com