

CASE STUDY:

How Does a Bike-Share Navigate Speedy Success?

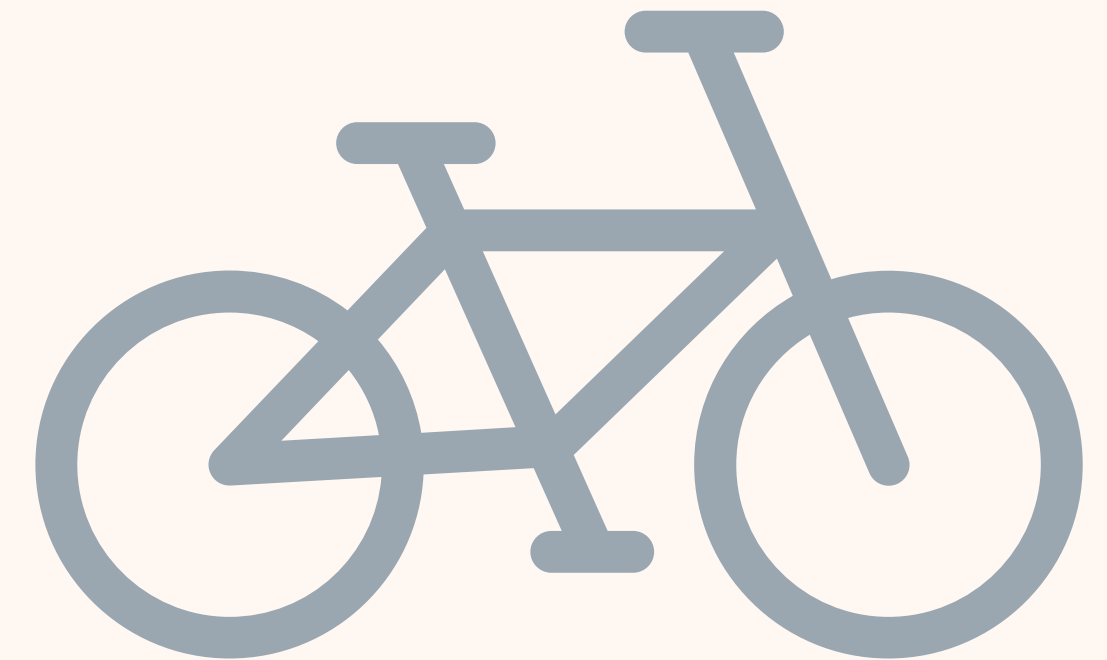


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INTRODUCTION

Cyclistic is a bike-share company in Chicago. The director of marketing believes the company's future success depends on maximizing the number of annual memberships.



ABOUT THE COMPANY

- Until now, their marketing strategy relied on appealing to broad consumer segments, with the flexibility of its pricing plans: single-ride passes, full-day passes, and annual memberships.
- Customers who purchase single-ride or full-day passes are referred to as casual riders. Customers who purchase annual memberships are Cyclistic members.
- Moreno, the marketing director, believes that rather than creating a marketing campaign to target all-new customers, there is a very good chance to convert casual riders into members.
- The goal of this project is to design marketing strategies aimed at converting casual riders into annual members.



OBJECTIVE

Identify and analyze key differences between casual riders and annual members to create an effective marketing campaign that will convert casual riders into annual members



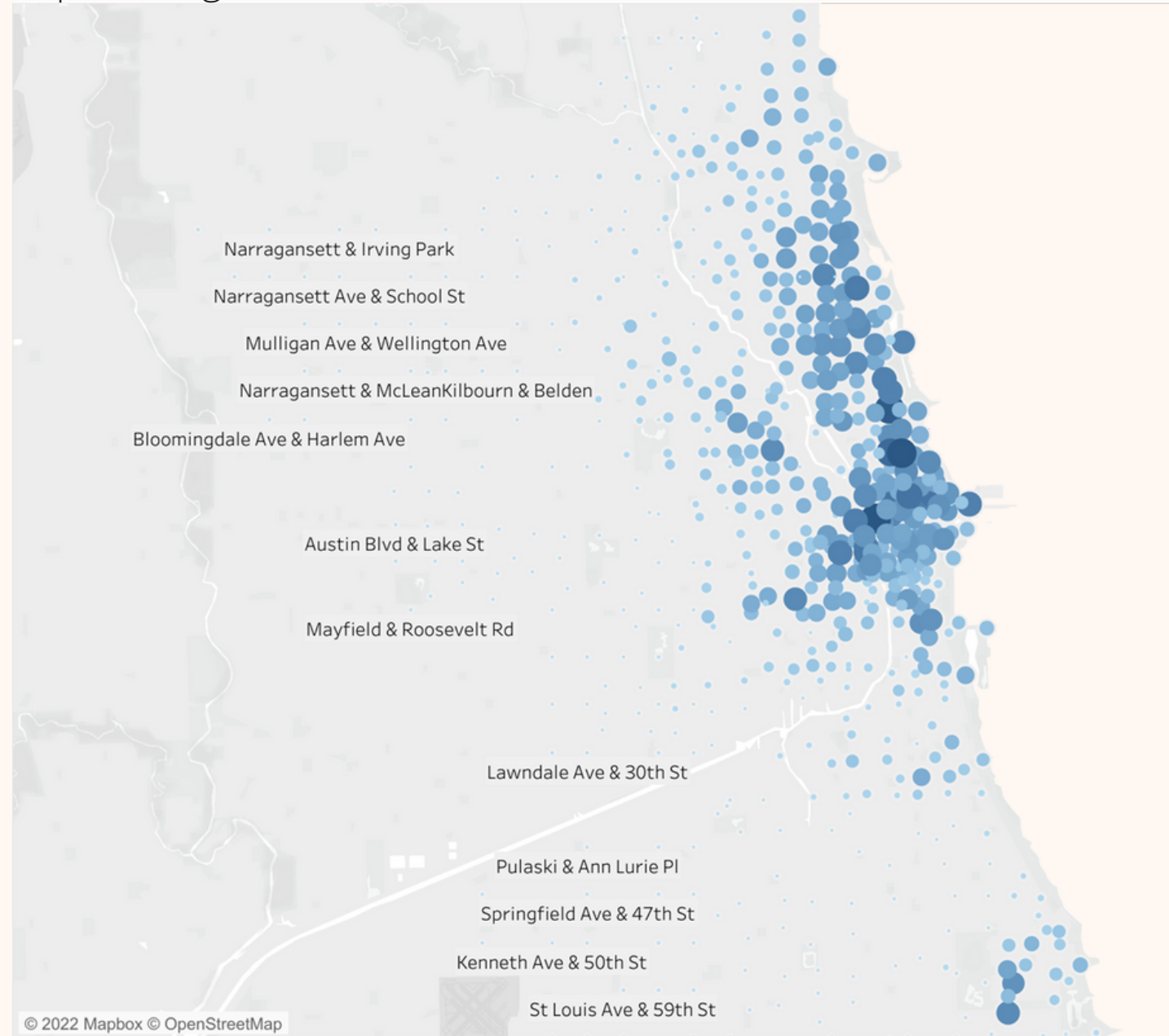
FINDINGS

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

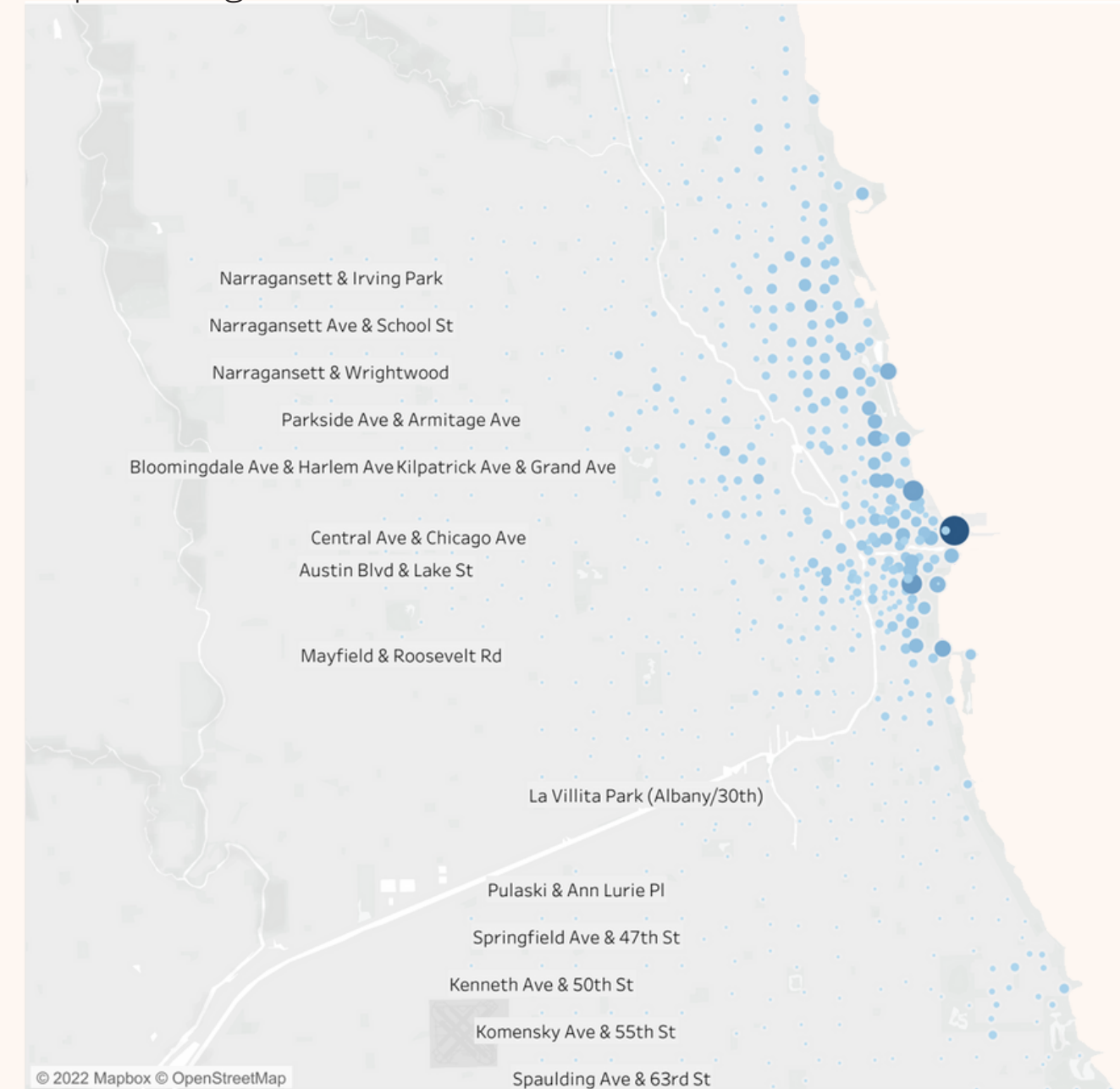


RIDE STATIONS

Top starting stations of members



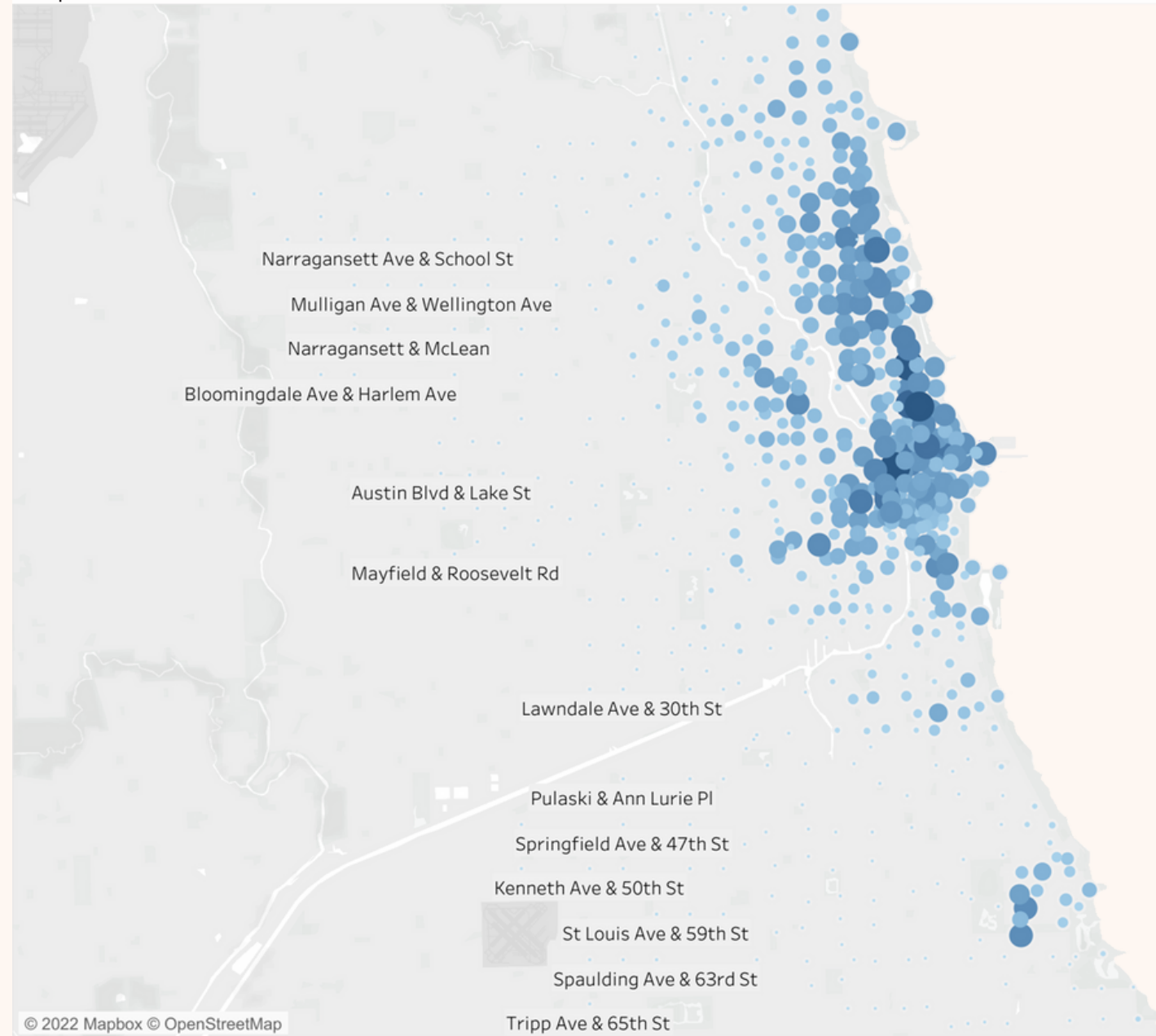
Top starting stations of casual users



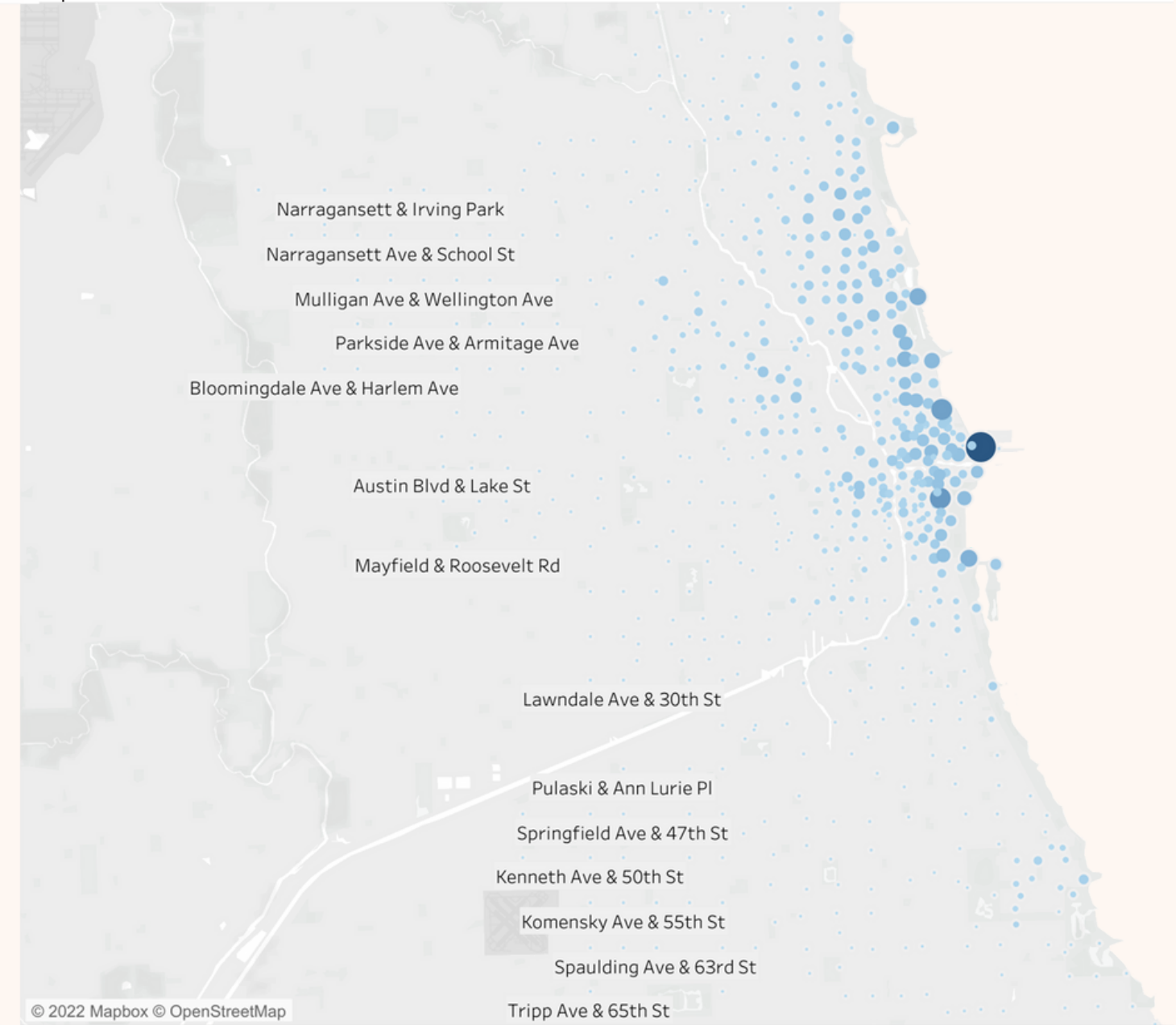
The top stations for members to start riding a bike is spread out, compared to casual users who clustered closer to the center of the city

RIDE STATIONS

Top destination stations of members



Top destination stations of casual users

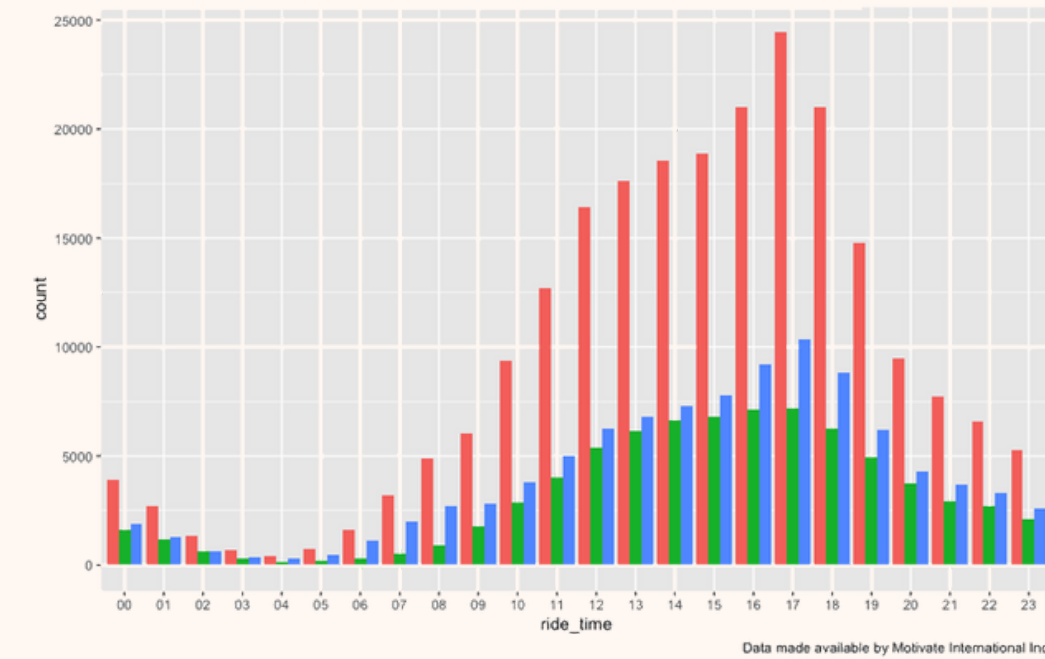


A similar trend can be observed for the destinations of each user type, with casual users ending their ride closer to the city core.

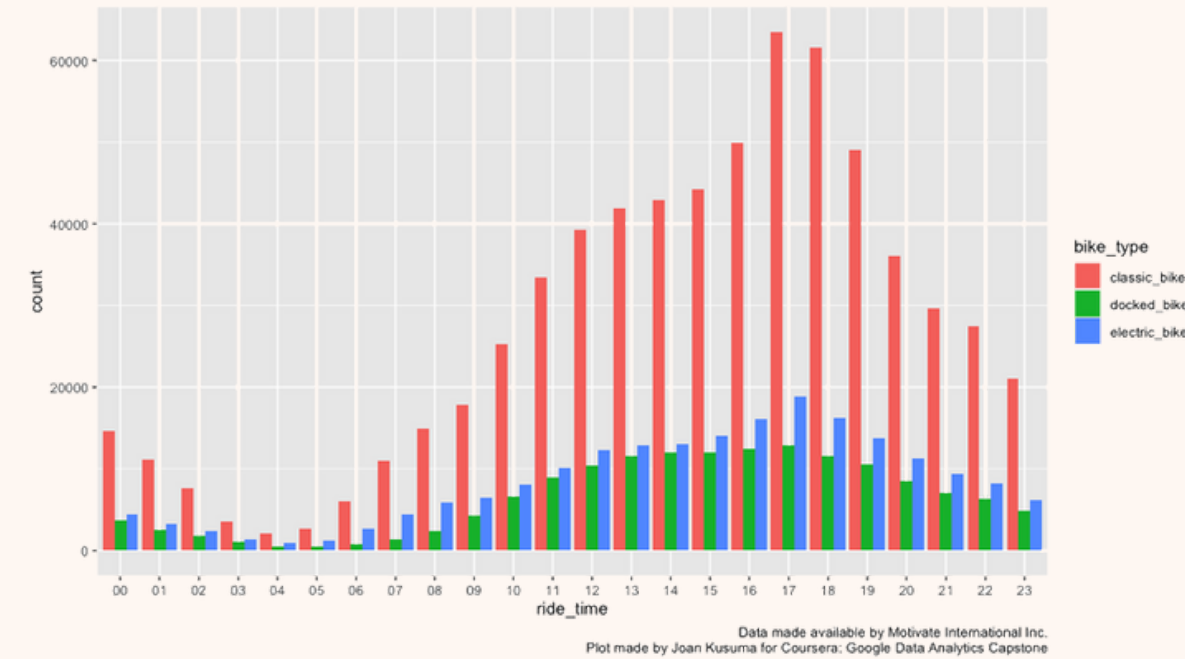
RIDING HABITS

Bike type and ride time of casual users throughout seasons

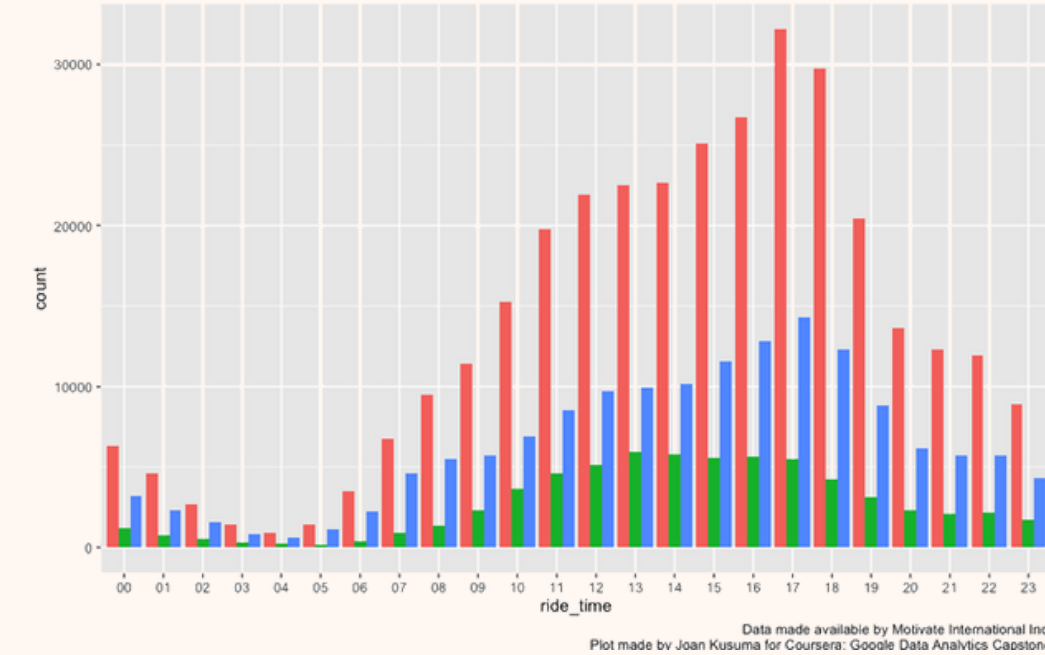
Spring



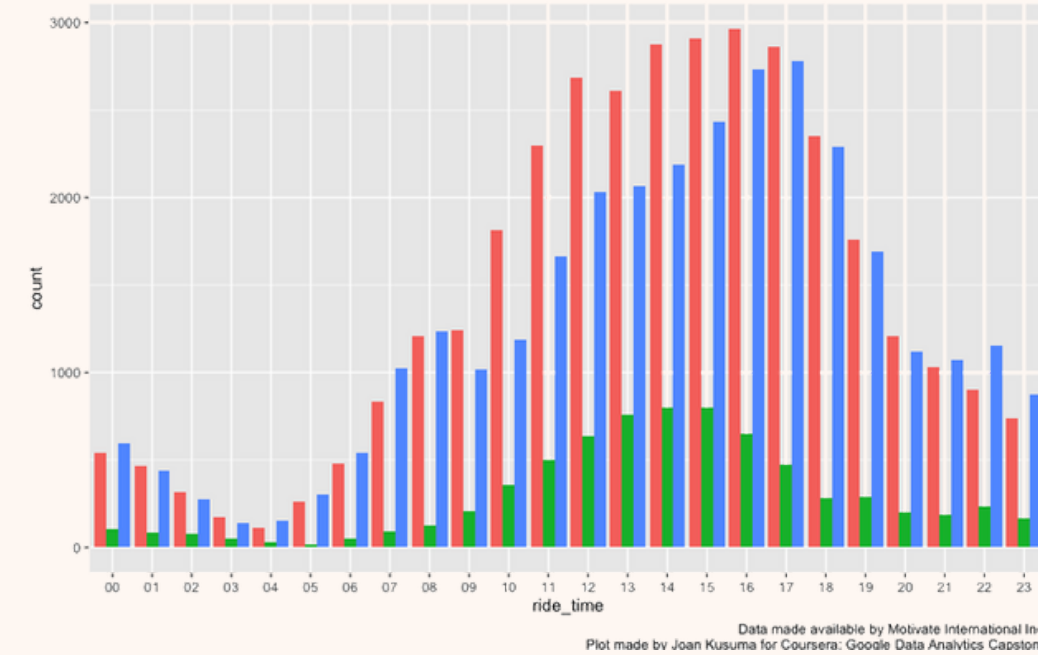
Summer



Fall



Winter

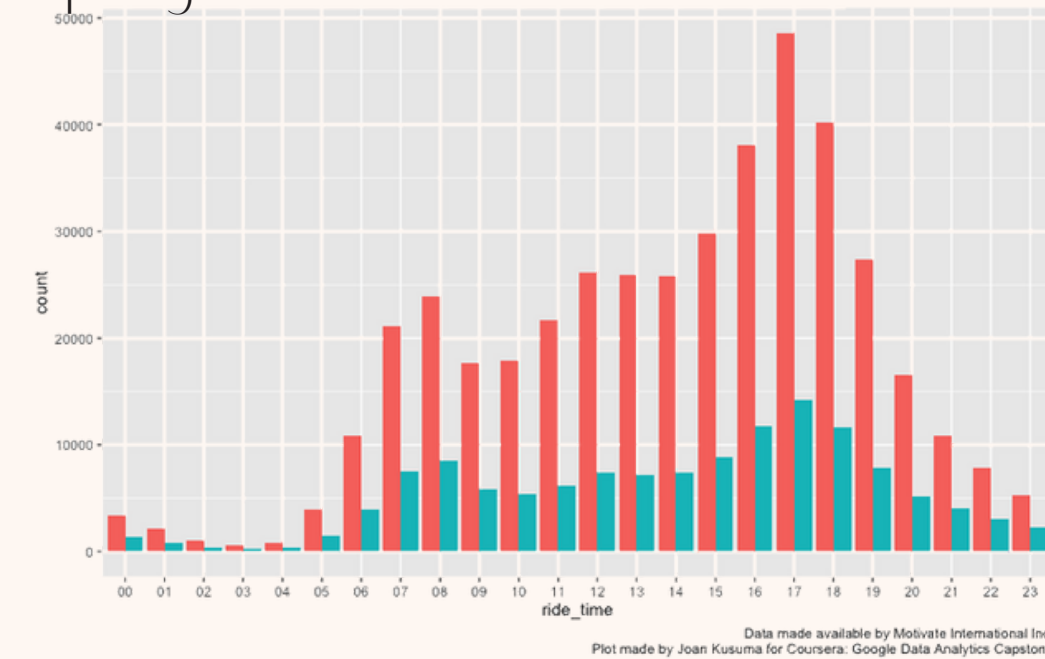


- Peak time to ride a bike for casual users are 5 PM throughout seasons, except in the winter, when peak time moved an hour earlier to 4 PM.
- Winter bike ride remains consistently low throughout the day
- Summer is the most popular season to ride a bike for casual users
- Classic bike is the most popular choice throughout seasons, but an increase in the use electric bike can be seen in the winter

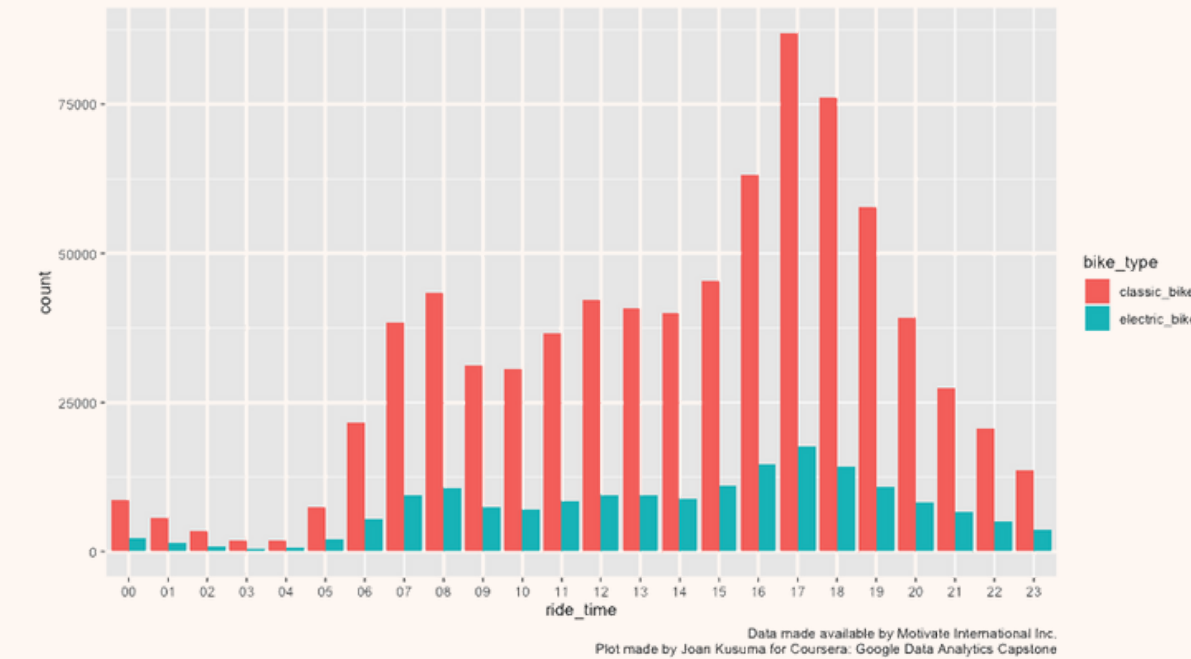
RIDING HABITS

Bike type and ride time of members throughout seasons

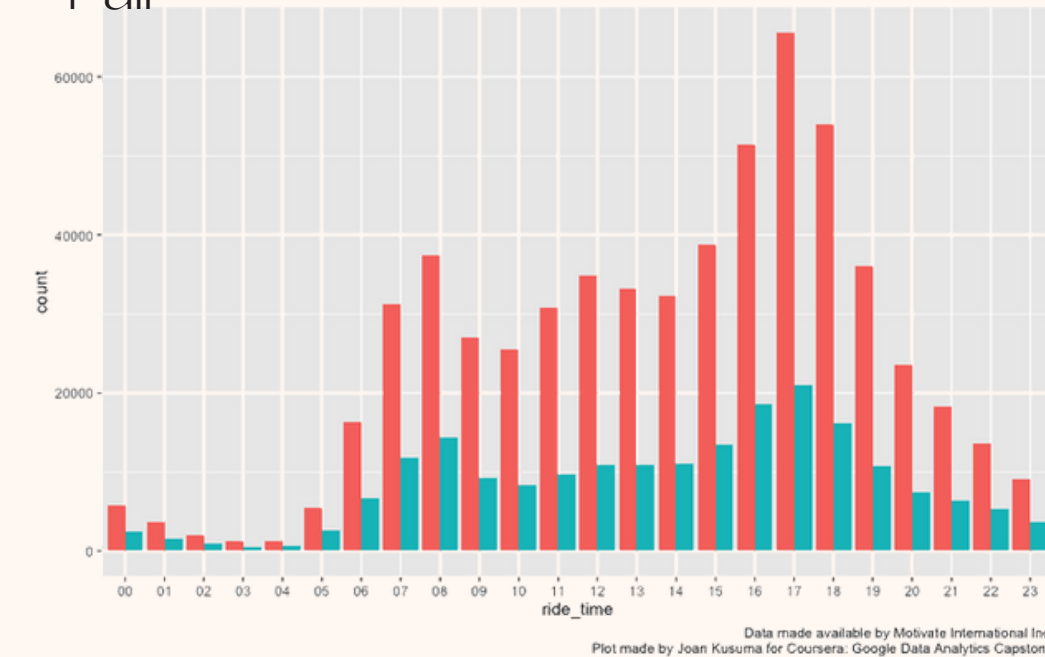
Spring



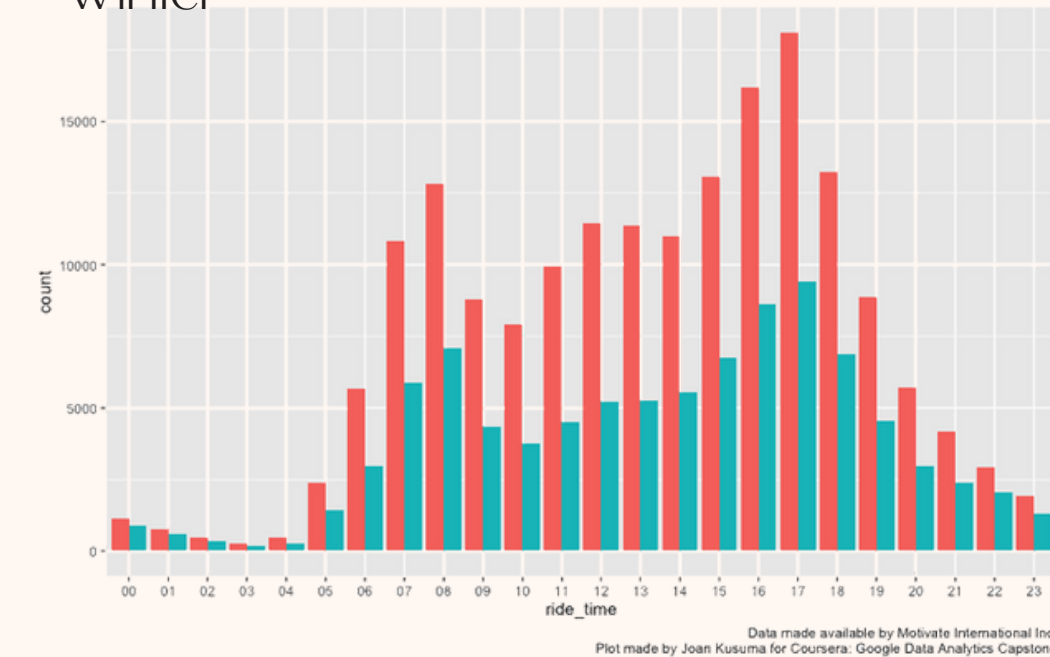
Summer



Fall



Winter

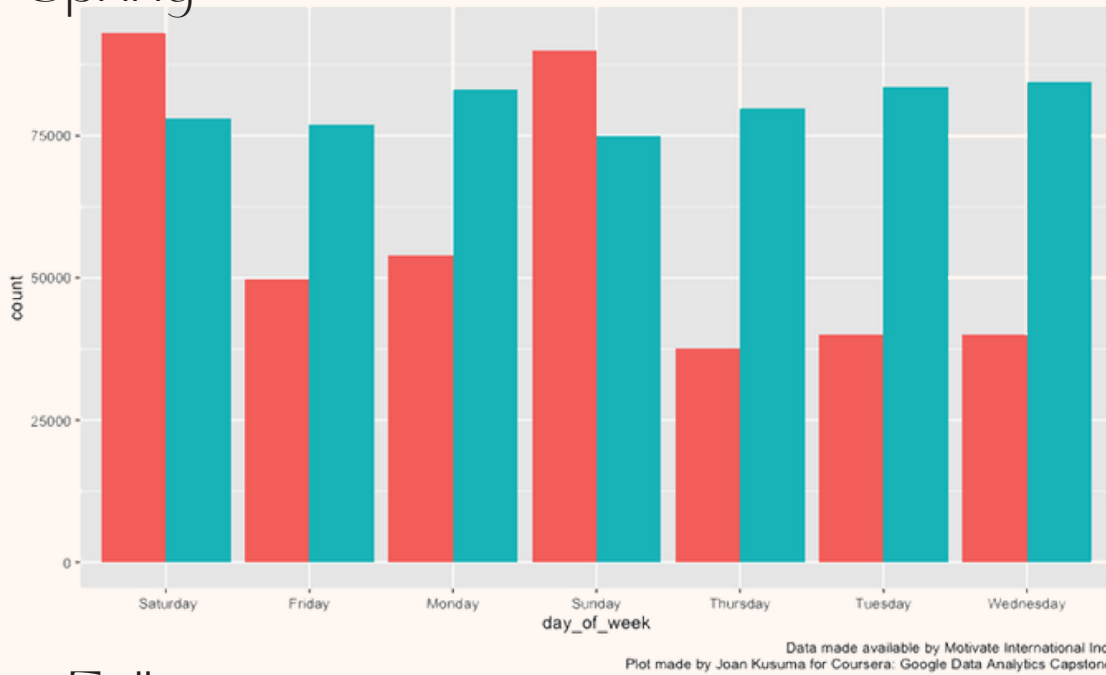


- peak times for members are 8 AM and 5 PM throughout seasons, this may signify that members mainly use bikes to commute for work.
- A similar trend with casual users with the type of bikes preferred can be seen, with classic bike being the most popular choice, while an increase in electric bike is observed in the winter.
- Docked bike are not used at all by members, this may signify data error, or members don't have the option to use docked bike at all. Further inquiry would be needed regarding this issue.

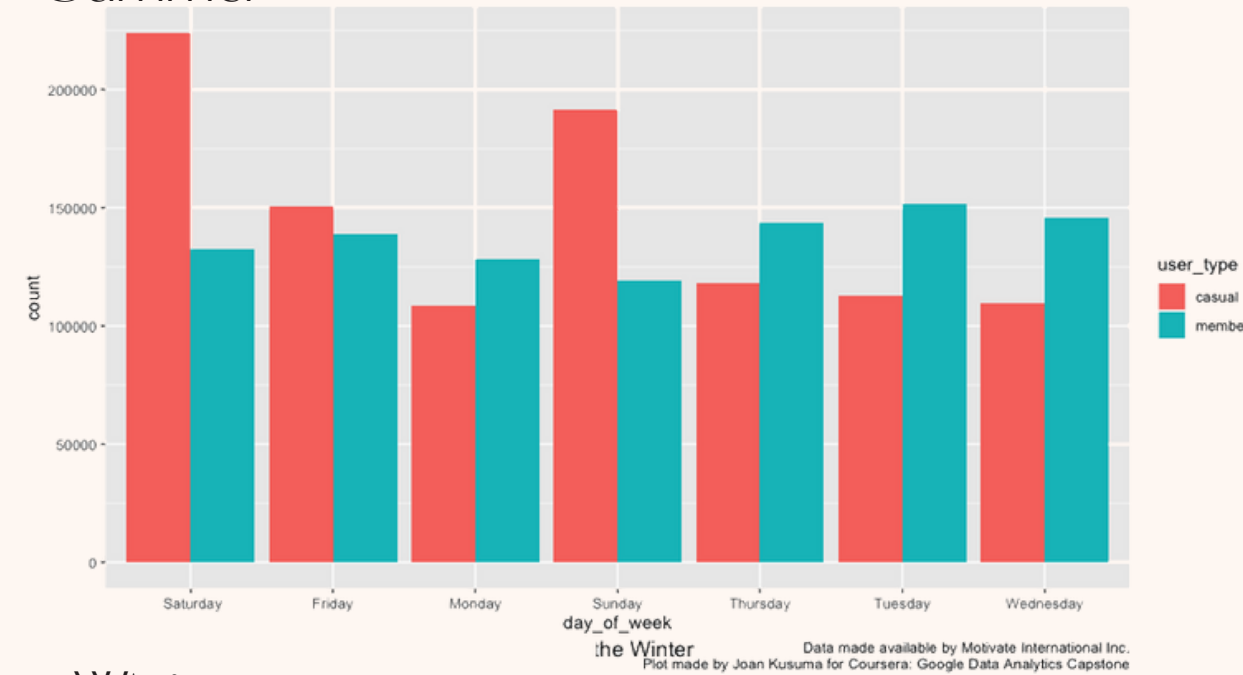
RIDING HABITS

Most popular days to ride a bike by user type

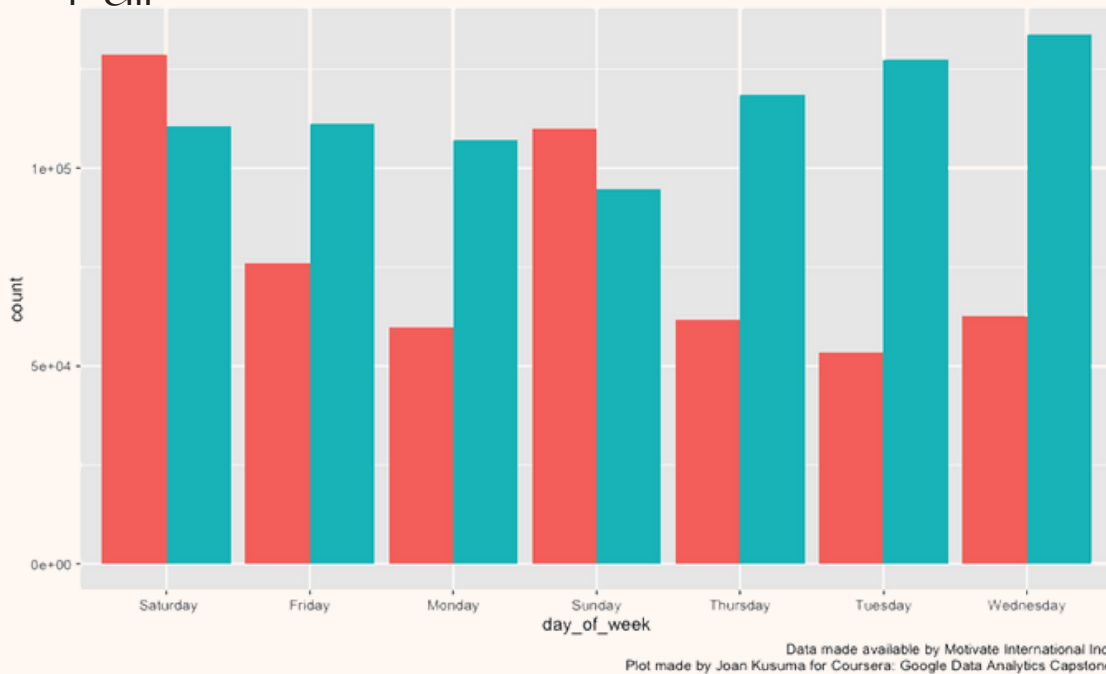
Spring



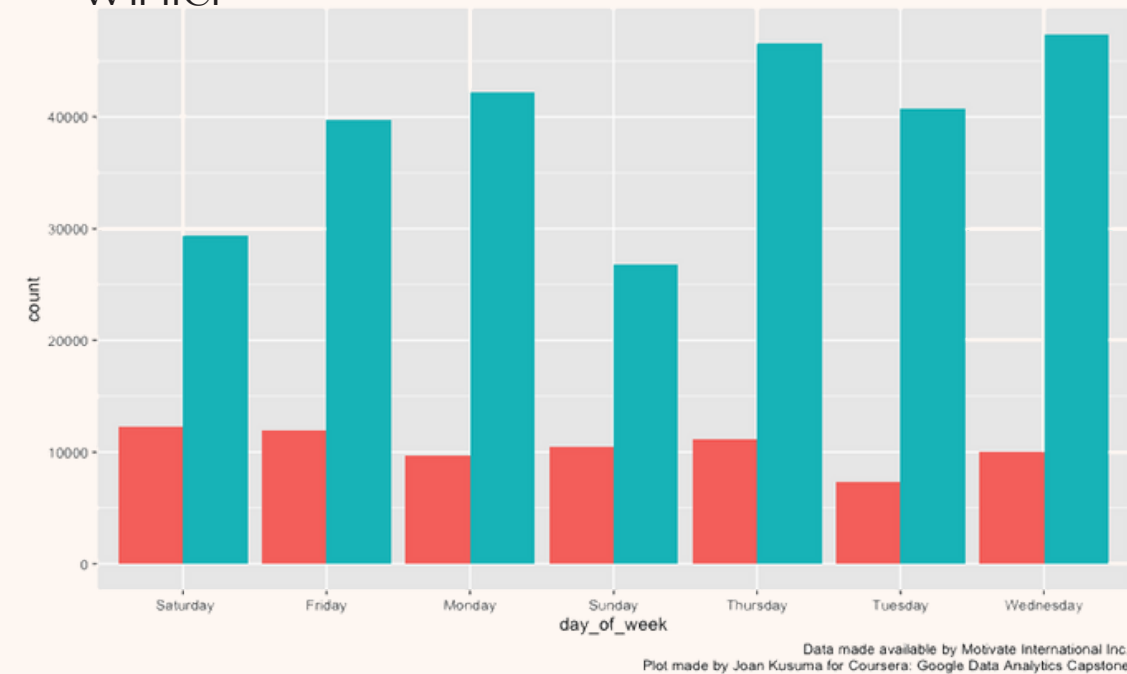
Summer



Fall



Winter



- Casual users tend to use bikes on the weekend throughout seasons, though bike ride remain relatively low throughout the week for them on the winter.
- Members remain consistent throughout seasons, with weekdays being the most popular days to ride a bike.

RIDING HABITS

Analysis throughout seasons of both user type

Spring

	user_type	average Ride Length	mode Day of Week	mode Ride Time	total
1	casual	32M 14.3775529128479S	Saturday	17	404391
2	member	13M 37.3113059668879S	Wednesday	17	560757

Summer

	user_type	average Ride Length	mode Day of Week	mode Ride Time	total
1	casual	29M 1.46691388055365S	Saturday	17	1015048
2	member	13M 48.7094529796249S	Tuesday	17	960385

Fall

	user_type	average Ride Length	mode Day of Week	mode Ride Time	total
1	casual	25M 1.49724543694515S	Saturday	17	551993
2	member	12M 13.1732127939439S	Wednesday	17	802943

Winter

	user_type	average Ride Length	mode Day of Week	mode Ride Time	total
1	casual	20M 37.6416840602108S	Saturday	16	72824
2	member	10M 30.9798568428167S	Wednesday	17	272847

- The average ride length for casual users is longer than members, with casual users riding for over 20 minutes for every ride, while members riding between 10-20 minutes for each ride.
- Summer is the peak season for casual users, with winter being the least favorable season to ride a bike.
- Bike ride stays somewhat consistent throughout seasons for members, but winter remains the least favorable time to ride a bike.
- As observed in an earlier slide, casual users peak ride time in winter moved an hour earlier, from 5 PM to 4 PM. This may be due to shorter day light hours, and users wanting to ride before the day turns dark.

CONCLUSION

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

casual users

- Casual users tend to bike within city center vicinity
- Casual users bike for a longer time with an annual average bike ride of 28 minutes per ride
- Peak days to ride a bike is on the weekend
- They prefer classic bike over other bike type, but increased their demand for electric bikes in the winter
- Peak time to ride a bike is consistently around 5 PM, except in the winter when they start riding a bike most at 4 PM, this may be due to riders not wanting to ride a bike at night as it gets darker earlier in the winter
- Peak season to ride a bike is in the summer, with the least number of bike rides in the winter

members

- Members are more spread out when it comes to their bike rides, extending to the suburbs and less concentrated to the city when compared to casual riders
- Member ride for a shorter time with an annual average bike ride of 12 minutes and 56 seconds per ride
- Members ride consistently on weekdays and ride less on weekends
- They prefer classic bike over other bike type, but increased their demand for electric bikes in the winter as well
- Peak time to ride a bike is consistent, at both 8 AM and 5 PM throughout seasons
- Peak season to ride a bike is in the summer, with the least number of bike rides in the winter



RECOMMENDATIONS



RECOMMENDATIONS

- Because Moreno wanted to convert existing customers into more loyal users, I recommend using in-app and email promotions, along with social media for current followers
- Based on the findings, casual users seem to use the bike for the experience/sightseeing purposes, as opposed to members who used them for commute
- Create in-app promotion during peak season and offer a limited time discounted price for annual ride passes
- Offer a limited time promotion with a longer daily ride length with annual passes during peak season
- Seeing an increase of demand on electric bikes during winter, create a promotion during that season for discounted rates on electric bikes with annual pass
- To increase demand for bike experience during winter for casual riders, create a campaign showcasing top sightseeing destinations for winter, such as winter or holiday lines
- Create short stories or guided posts on sightseeing recommendation throughout season to keep users inspired and engaged

Thank you!

APPENDIX

- Raw data for this project is available through this link <<https://divvy-tripdata.s3.amazonaws.com/index.html>>
- Geographical chart created with Tableau Public, available through this link <<https://public.tableau.com/app/profile/joan.kusuma/viz/topstationsbyusertype/Sheet1>>
- Bar chart created with RStudio, for complete R markdown, visit my GitHub page through this link <https://github.com/eyereece/google-data-analytics-capstone-1/blob/main/cyclistic_data_analysis_1.pdf>