

Google Data Analytics Capstone



Bike Share

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Contact info:




Background:

About The Company:

The company offers 5,824 bicycles that are geotracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system anytime.

Data Source:

- I used Cyclistic's historical trip data to analyze and identify trends. I downloaded the data from the following link:

- The data has been made available by Motivate International Inc. under this [license](#).) , **note that** data-privacy issues prohibit you from using riders' personally identifiable information. This means that you won't be able to connect pass purchases to credit card numbers to determine if casual riders live in the Cyclistic service area or if they have purchased multiple single passes.
- The data were collected during the year **2023, for the first quarter of the year**, which consists of **13 variables**: geolocation data (start&end longitude and latitude), rider type, date of riding(start&end), type of the bike being used, station name(start&end), rider_id and station name_id(start&end)

Objective:



Design marketing strategies aimed at converting casual riders into annual members.

Subject-matter:

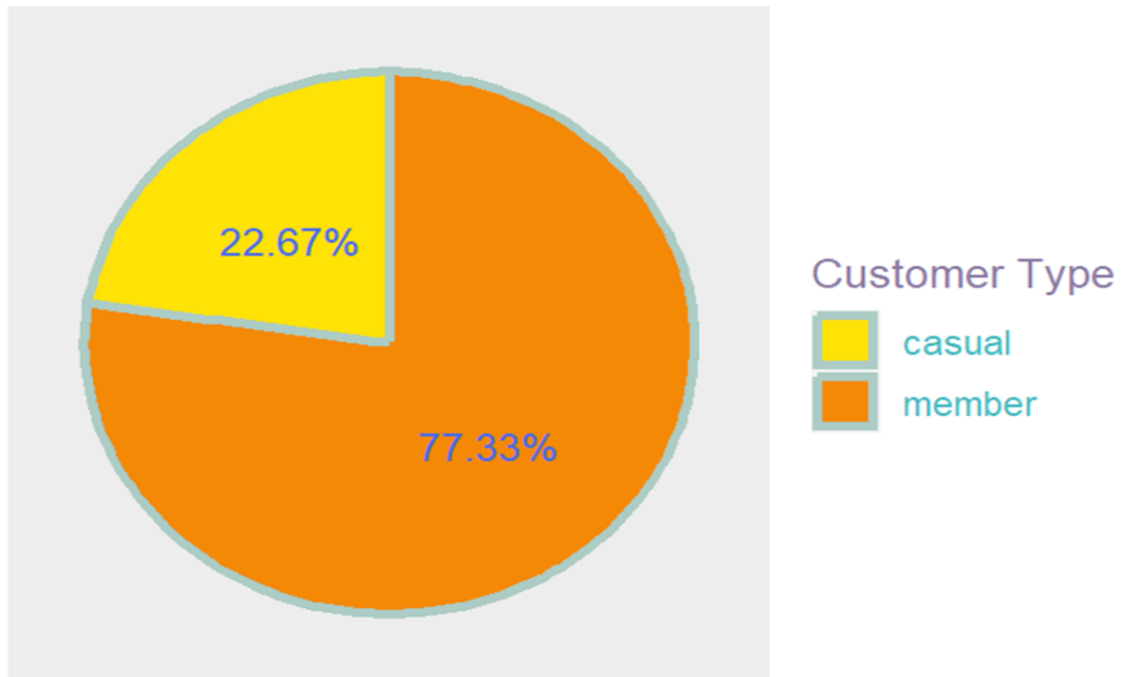
How do annual members and casual riders use Cyclistic bikes differently?

Talking Points:



- 1 customer segmentation
- 2 Bicycle types depend on the customer type.
- 3 The time we have achieved during the date of study
- 4 Trips duration have done by customers
- 5 Bike Demand During weekdays/Time of day
- 6 Popular Streets

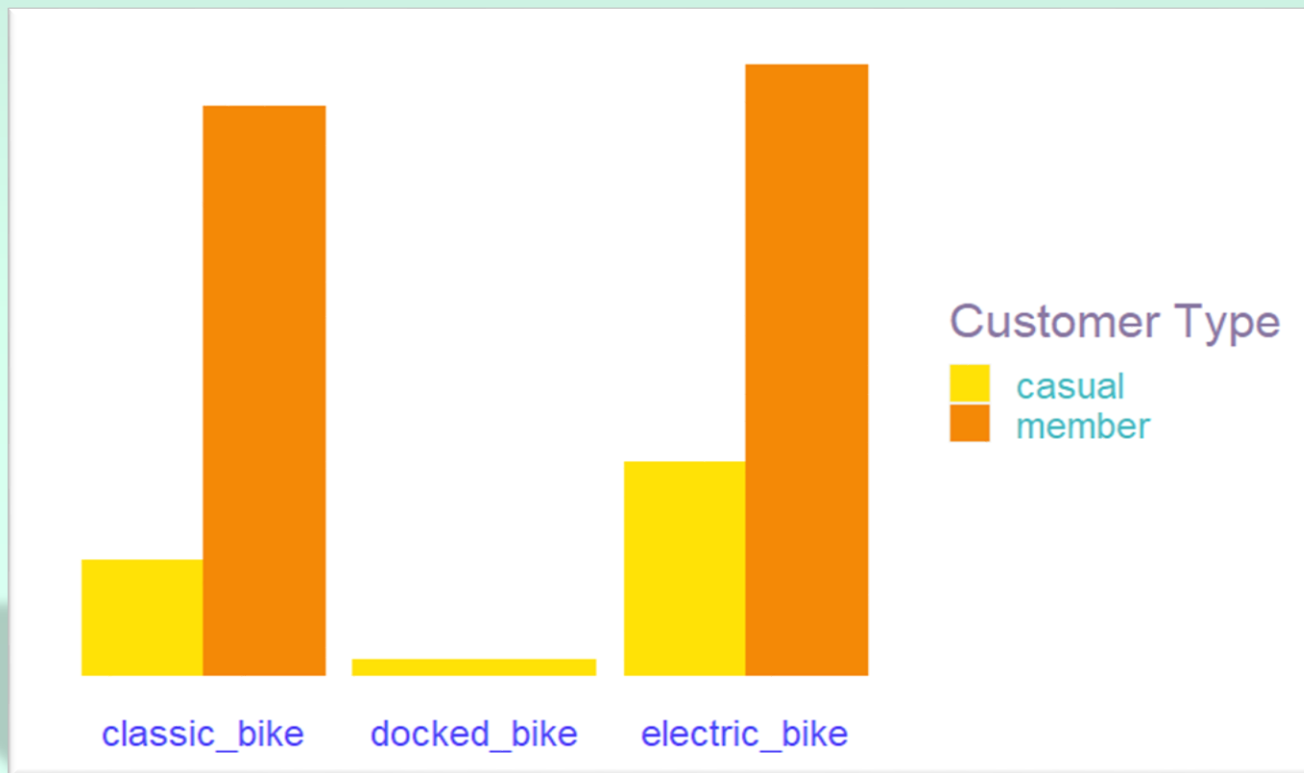
The Proportion of Customers



- Member customers are annual subscribers, while casual customers are single pass purchasers
- The portion of member customers is significantly higher than that of casual customers.

Type of bicycles

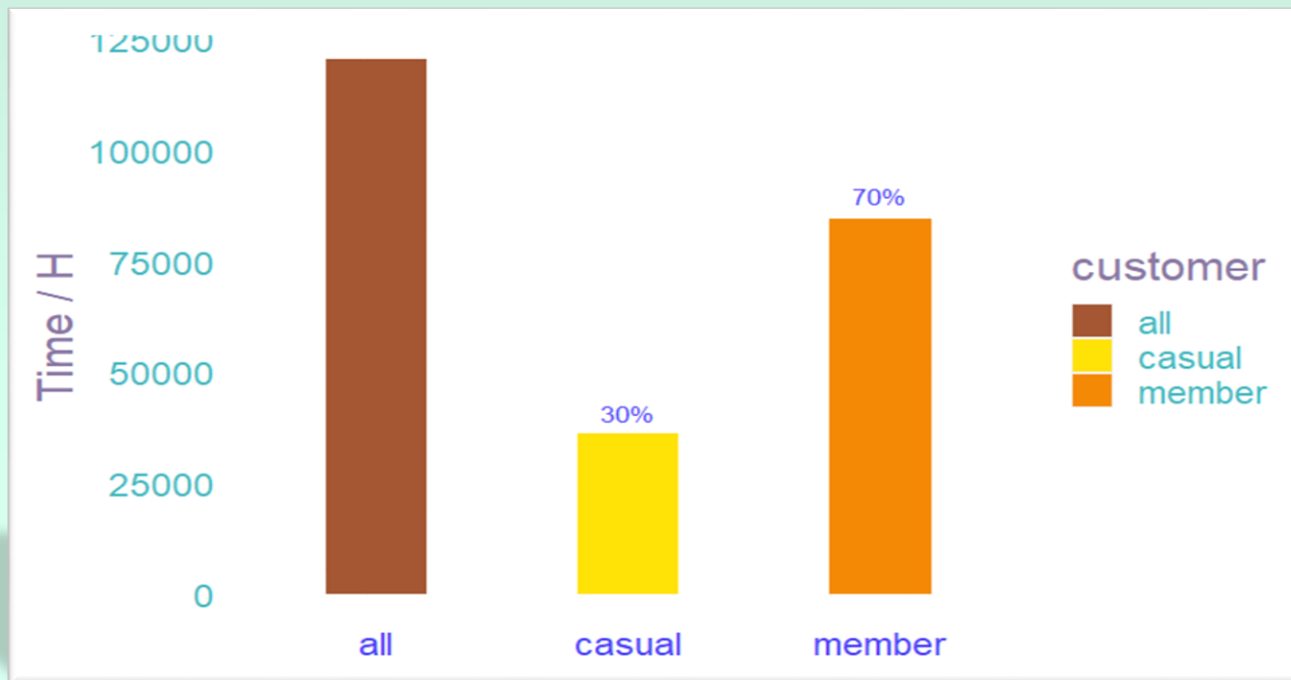
By each type of customer



- The **electric bike** is the most popular bike among customers, while the **docked bike** being the least used.
- The **docked bike** is only used by the **casual customers**

Hours Consumed During the 3 months

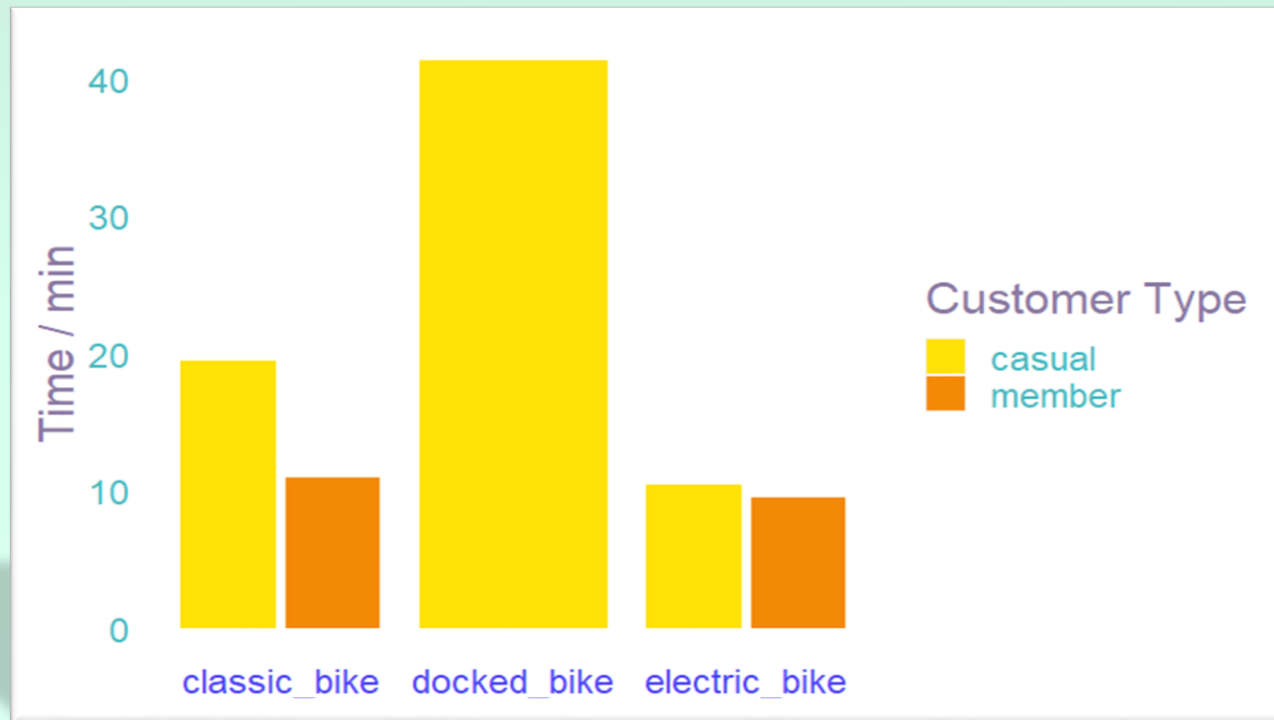
By each type of customer



- All customers have consumed 120655.35 hours during the three months.
- The casual customers have contributed 30% while the members have contributed 70%

Average Duration of Trips

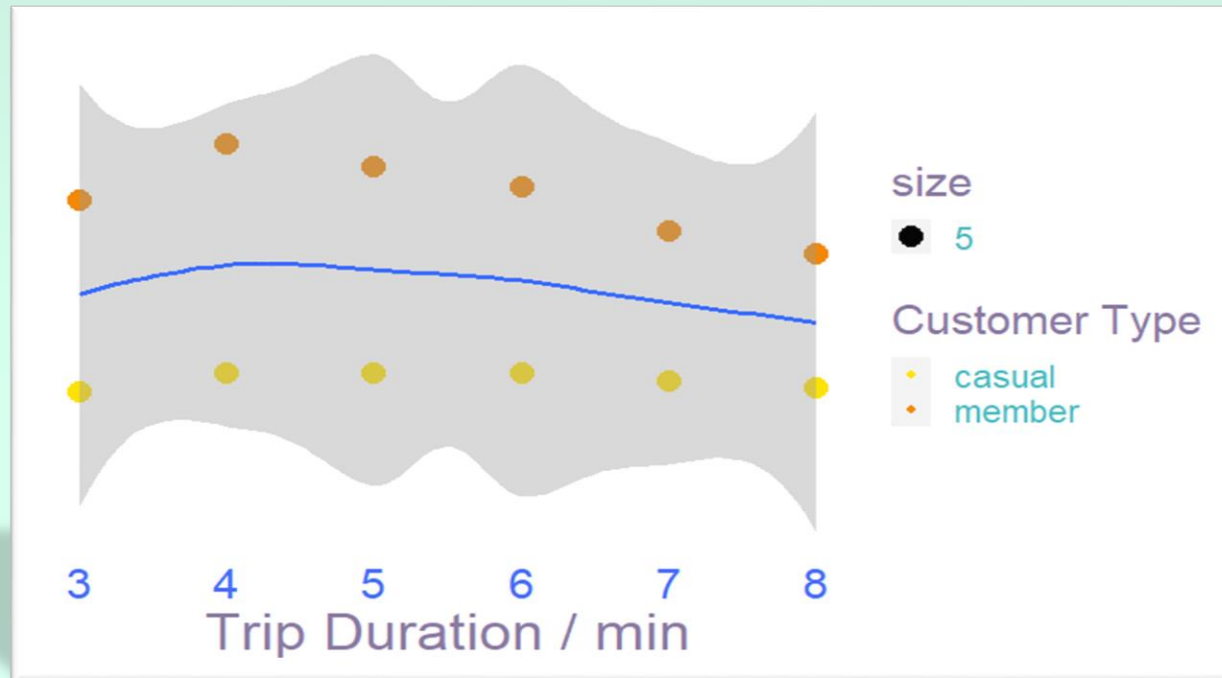
By each type of bicycle



- The **casual customers** have made the highest durations in all types of bicycles
- The **docked bike** has achieved the highest duration significantly compared to other types.

Most Commonly Trips Duration

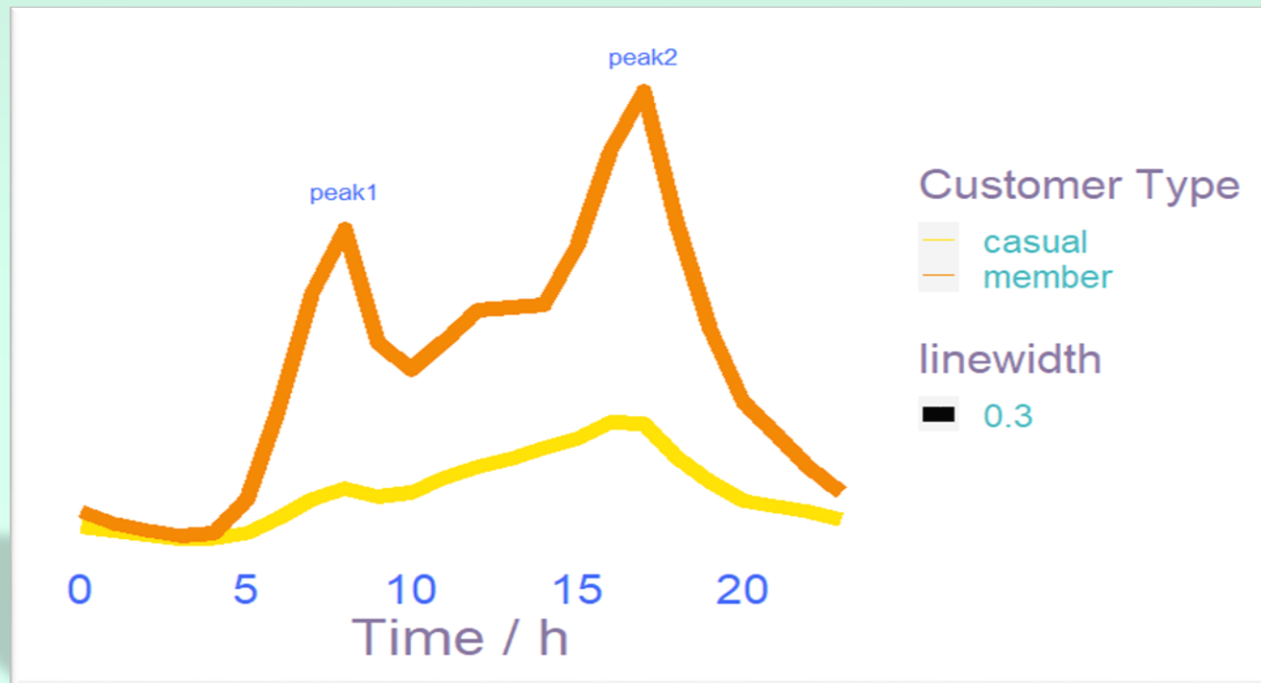
By each type of customers



- The durations frequently consumed by **casual** and **member** customers are almost the same.
- 5 and 4 minutes are the popular durations for both.

Bike Demand by hour

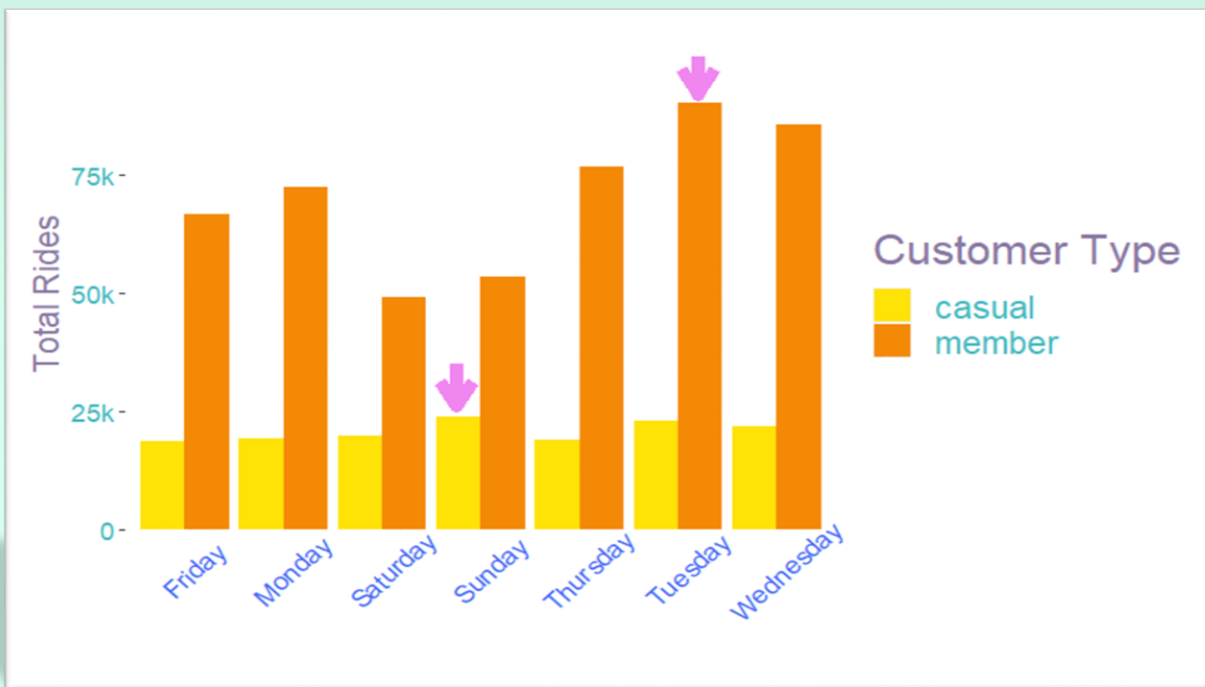
By each type of customers



- The morning rush starts at around 8 AM.
- After that point, customers' behavior is completely different.
- The casual customers keep going upward smoothly, while the member customers descend steeply during working time until they both start rushing again between 15 PM and 17 P.M

Bike demand by days of week

By each type of customers



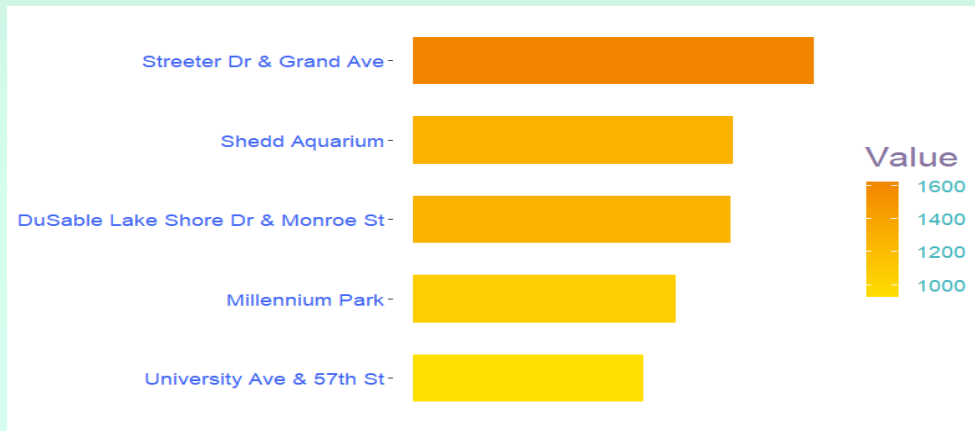
- Tuesday is the most popular day for member customers, while Sunday is the popular one for casual customers.
- The member customers have used the service more on weekdays than on weekends. However, for casual customers there is no significant variation in their behavior within days of the week

Most popular street

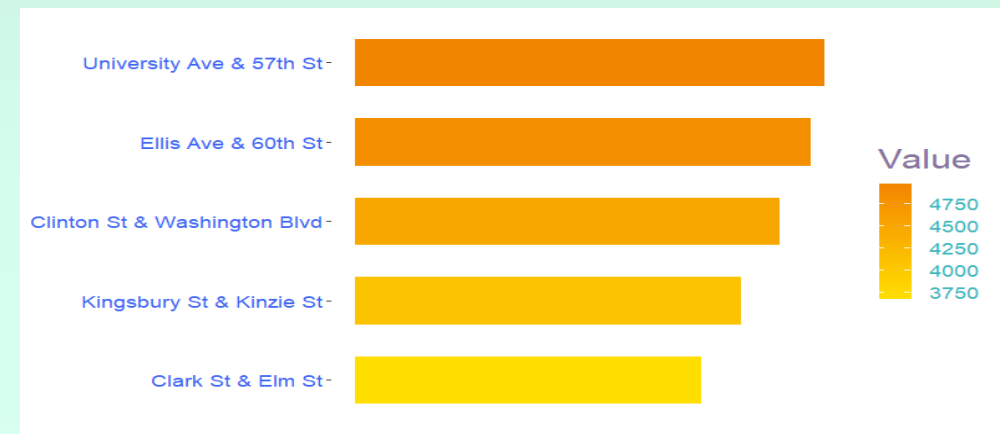
By each type of customers



Casual



Member



- The popular destinations for **casual customers** almost centered around parks, beaches, or harbors.

- The popular destinations for **member customers** almost centered around universities and colleges.

Conclusion

Uncommon points

Casual

- Have used all type of bikes.
- Have spent lot longer time per ride .
- Demand bike increase smoothly during day
- There is no obvious attitude during week (a bit increase within weekend)
- Street located around parks or beach

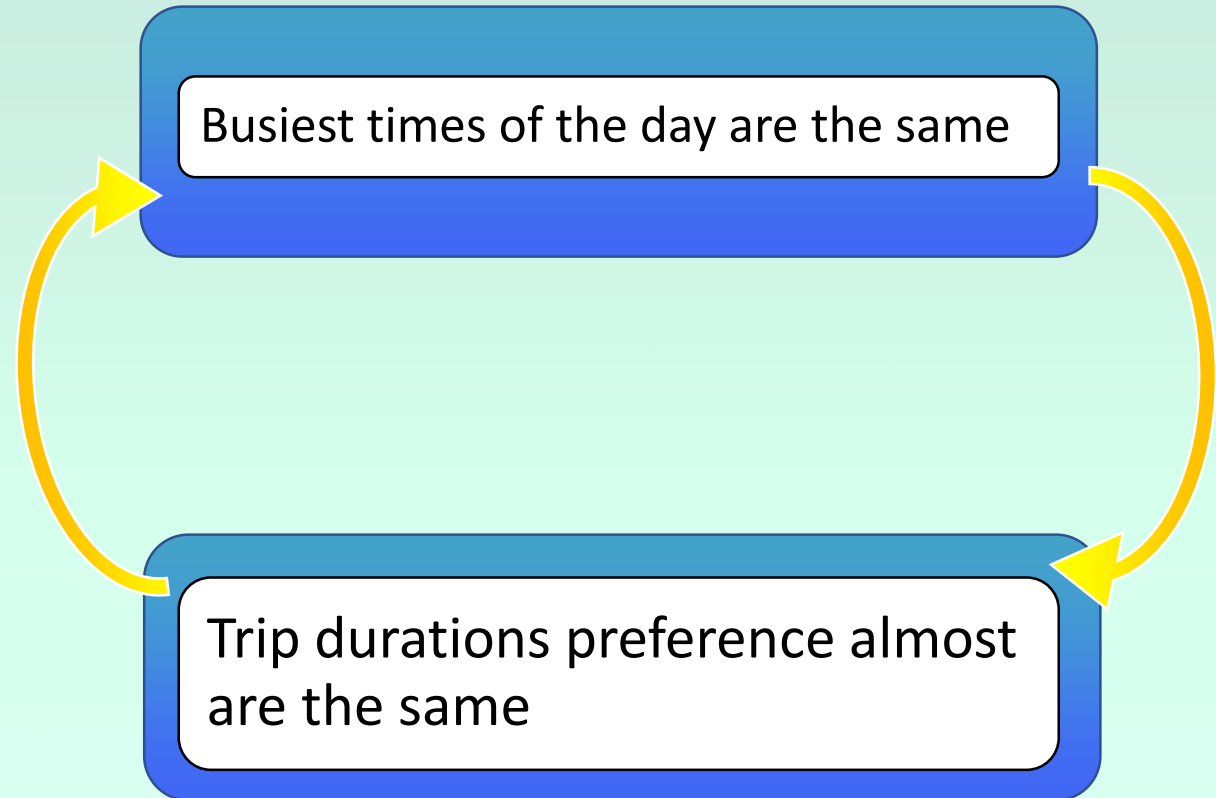
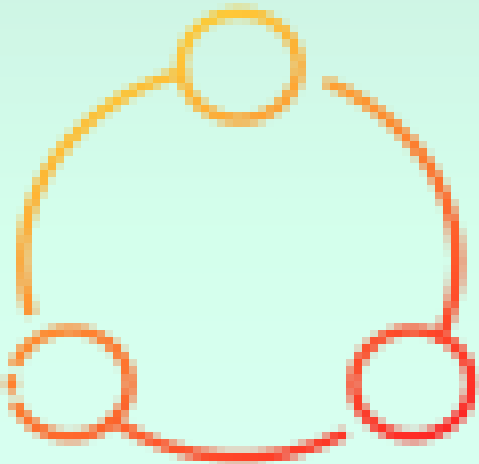


Member

- Have the greatest portion
- Made the greatest hours consumed during the three months.
- Demand bike decrease sharply during work time.
- Using service during weekdays more than weekend
- Streets located around campuses

Conclusion

Common points



Recommendations

According to my analysis that they obviously use our services in a different ways.

Despite being the lowest percentage, the casual customers provide the company with the diversity it needs. They have used all types of bicycles that we have and spent on average a lot longer time per ride than their long-term counterparts.

The member customer uses the services as transit, while the casual it seems they have used them as a hobby or for some fun.

If there is an opportunity to increase our members, We should focus on the issue of traffic jams in our campaign to encourage people to use our bikes and provide them with more promotions.

More data is needed like age and Financial data. Re analysis the data to involve all months of the year to emphasize how they act during seasons