



CYCLISTIC BIKE SHARE DATA ANALYSIS

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10/04/2023

Dataset Source:

Click Here →



BUSINESS QUESTION



How do Annual Members and Casual Riders use Cyclistic bikes differently?

OUTLINE



- **Executive Summary**
- **Introduction**
- **Methodology**
- **Results**
 - Visualizations – Charts
 - Findings
 - Dashboard
- **Conclusion**
- **Appendix**

EXECUTIVE SUMMARY



- **Contextualization of data and the goal of the analysis**
- **Methodology Description**
- **Capturing Yearly Usage of Bike Share Service For 2022**
 - Average Minutes spend by weekly, monthly , and quarterly
 - Percentage of Annual Members and Casual Riders
 - Percentage of service used by Annual Members and Casual Riders
- **Classification on dataset in terms of Usage**
 - Annual Members
 - Casual Riders

INTRODUCTION



- **Cyclistic Bike Share Data** is a hypothetical dataset which contains data about ride sharing of the organization
- The data collected represent all of the people (Annual Members / Casual Riders) who used the service during 2022
- Analyzing the current usages and trends in terms of services taken from Jan 2022 to Dec 2022
- **Purpose of Analysis**
 - Analyzing usage of the services weekly, monthly, and quarterly
 - Determining the usage analytics of bike ride service
- **Target Audience**
 - Marketing Managers
 - Operations Department

METHODOLOGY



- **DATA COLLECTION**

- Cyclistic Bike Share 2022 (January to December)
- Collecting and Merging Datasets

- **DATA EXPLORATION**

- Seeing Trends Through Data

- **EXPLORATORY DATA ANALYSIS(EDA)**

- Basic Statistical Analysis
- Data Distribution
- Finding Outliers

- **DATA VISUALIZATION**

- Descriptive Analysis
- Tableau Desktop

- **DATA PRESENTATION**

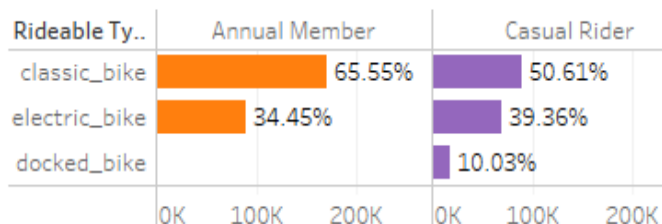
- Microsoft PowerPoint

RESULTS

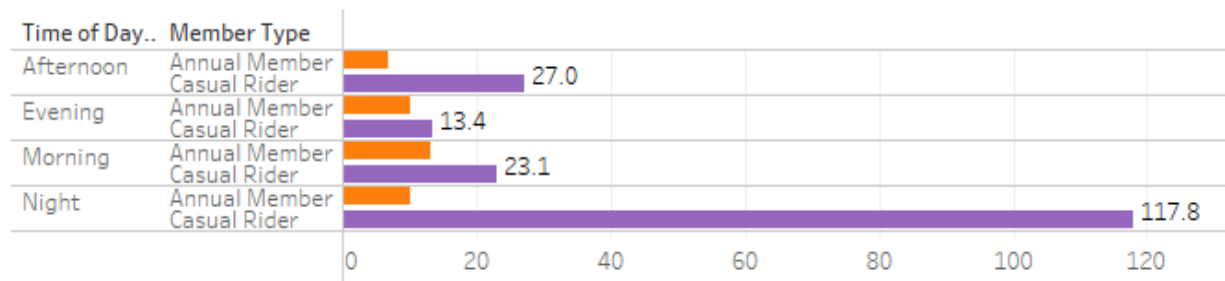
Percentage of Members



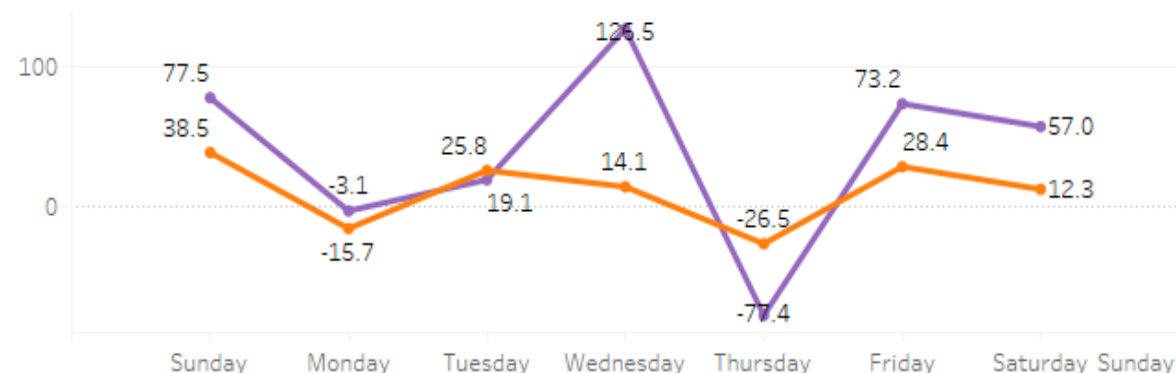
Percentage of bike type



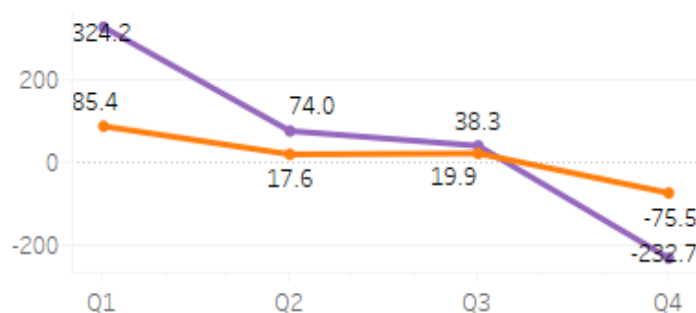
Average riding time throuout the day



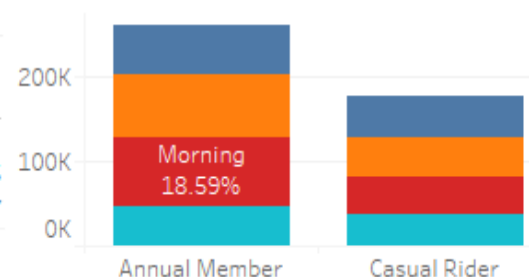
Avg Ride Lengths by weekdays



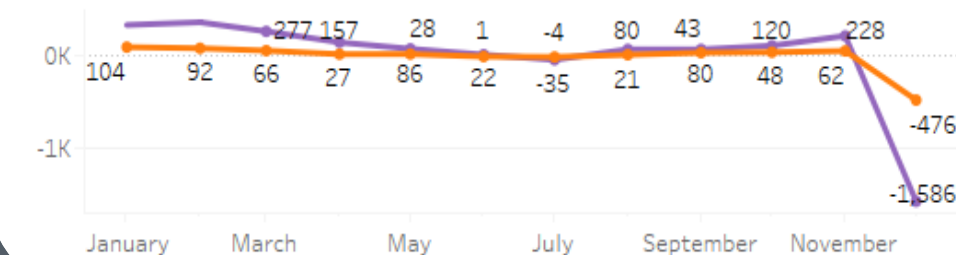
Avg Ride Lengths by Quarters



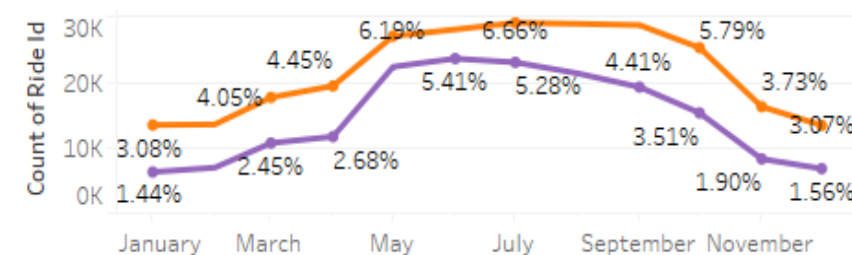
Percentage of rides taken throughout the day



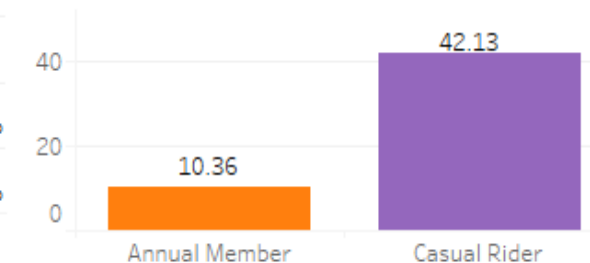
Avg Ride Lengths by Months



Percentage of Rides taken by Months



Average Riding time



DASHBOARD



THE PERMANENT LINK OF THE READ-
ONLY VIEW OF THE TABLEAU
DASHBOARD



[CLICK HERE](#)

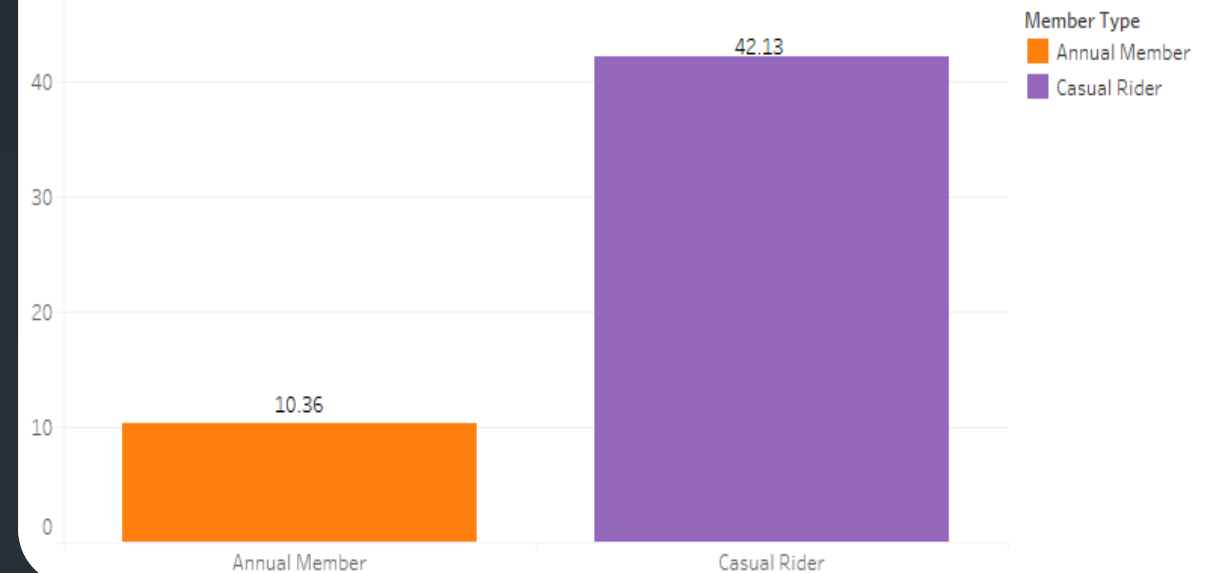


RIDERS AND RIDE TYPES BY CATEGORY

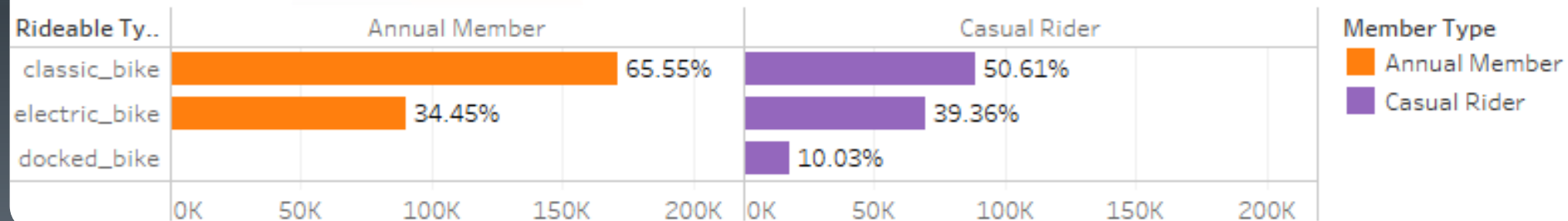
Percentage of Members



Average Riding time



Percentage of bike type

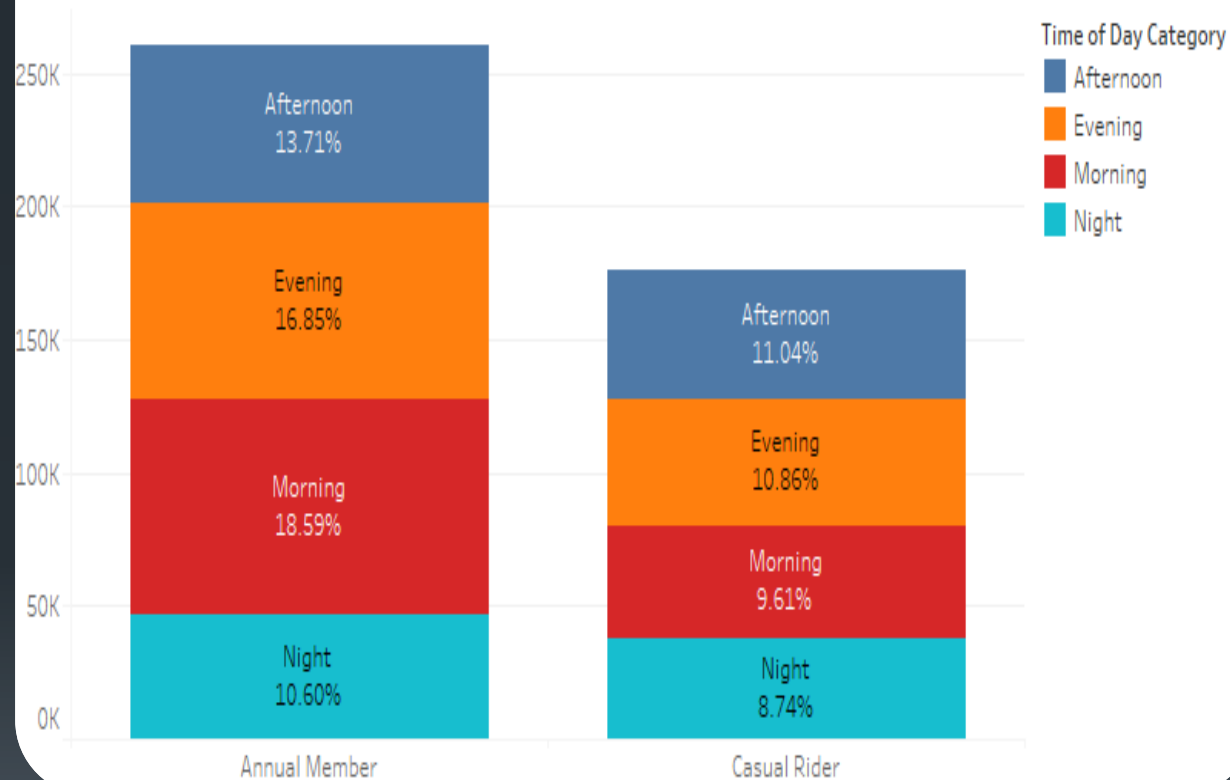


RIDERS AND RIDE TYPES BY CATEGORY- FINDINGS

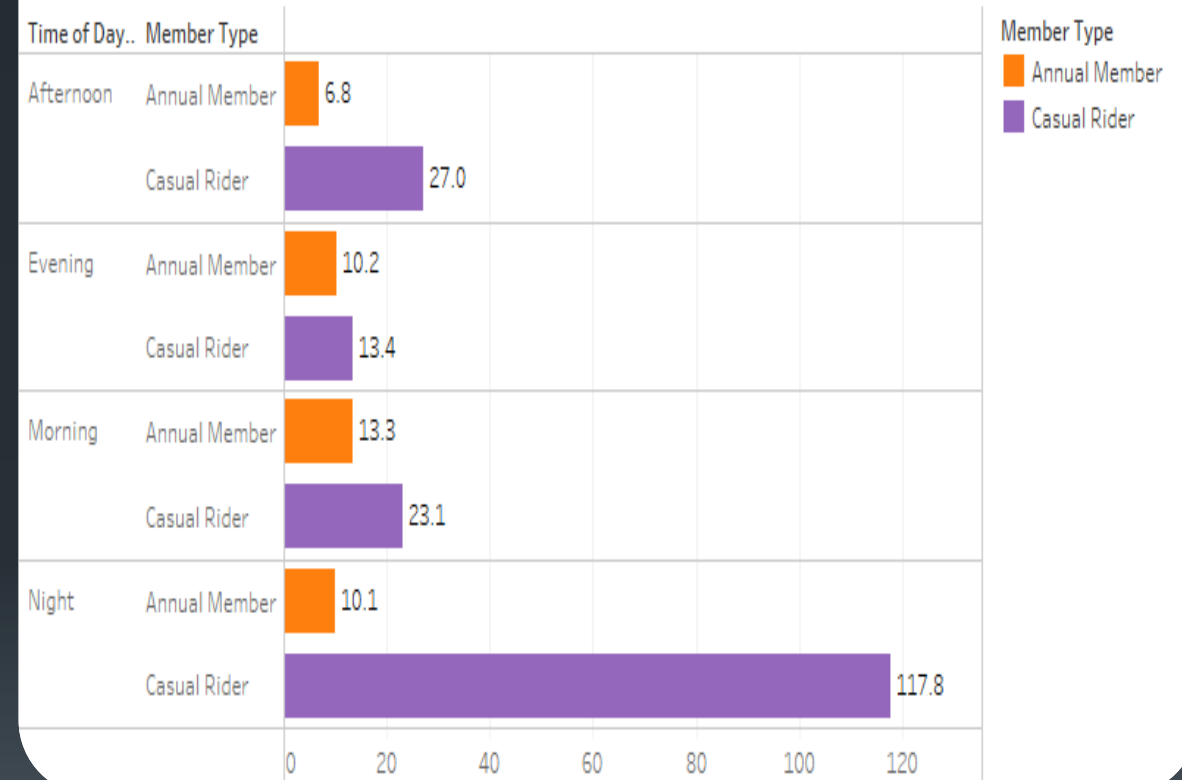
- During 2022, there were 40.24% of casual riders. However in that same span of time we had 59.76% of annual members using our service
- During the year 2022 the average ride duration of annual members was 10.36 minutes and for casual riders it was 42.13 minutes
- In the same year, the annual members used two types of bikes i.e. classic bikes and electric bikes in which classic bikes were used by 65.55%
- The casual riders used three types of bikes i.e. classic bikes, electric bikes, and docked bikes in which classic bikes were used most by 50.61%

RIDE ACTIVITY THROUGHOUT THE DAY

Percentage of rides taken throughout the day



Average riding time throughout the day

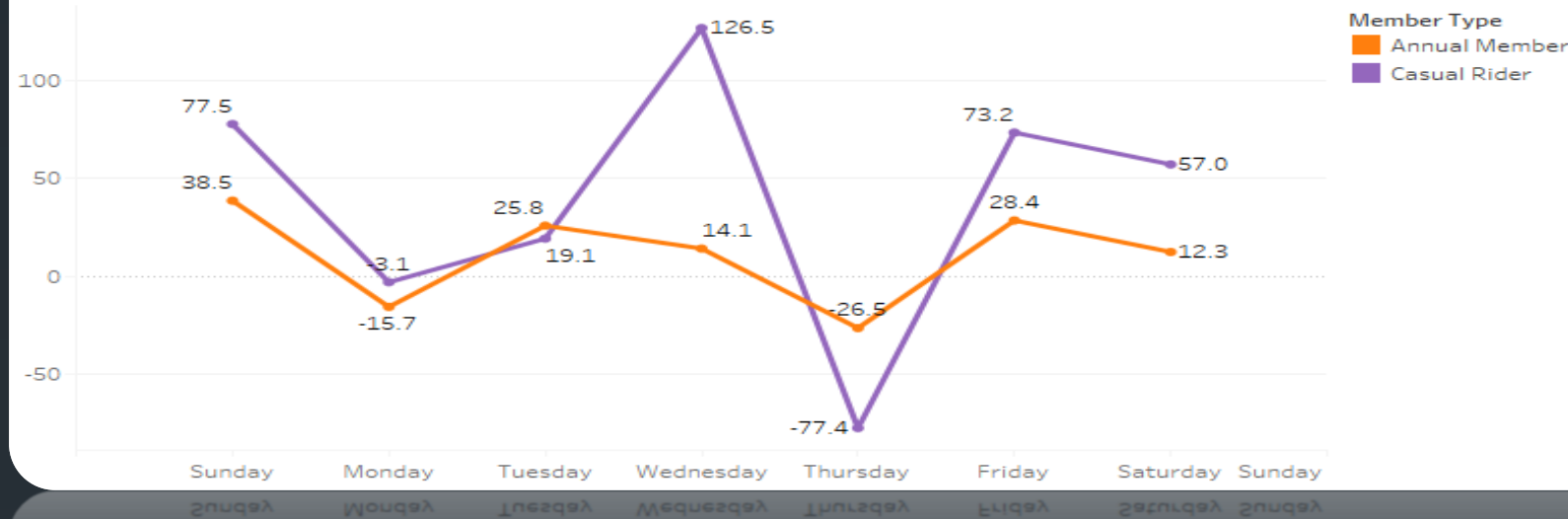


RIDE ACTIVITY THROUGH OUT THE DAY- FINDINGS

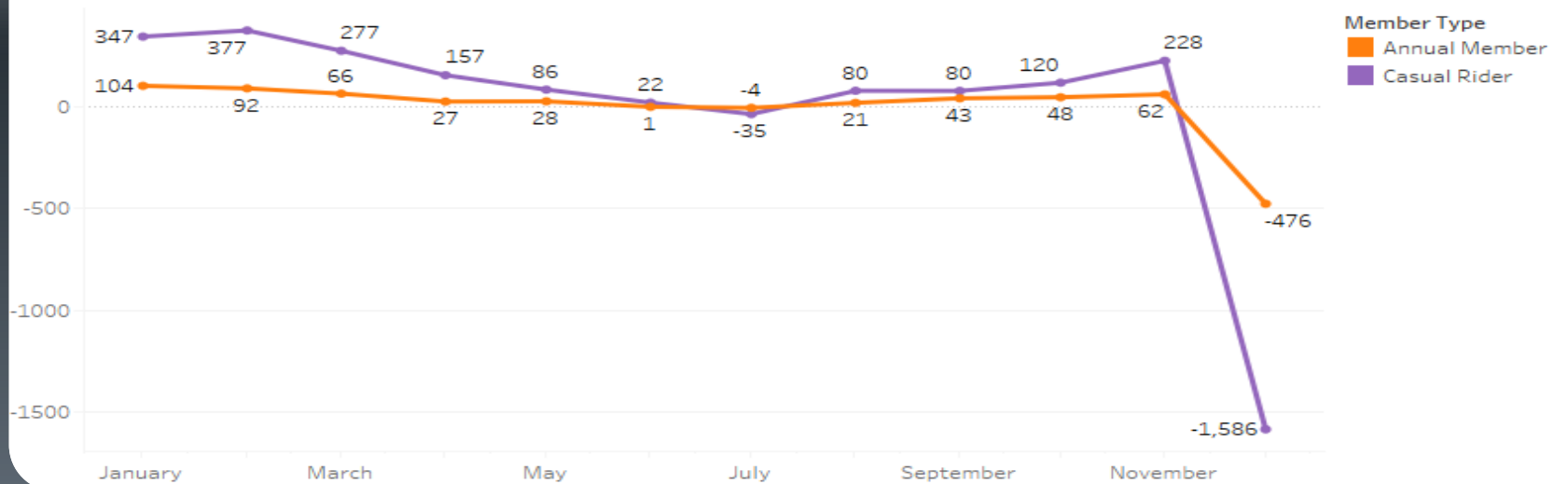
- In the morning, 18.59% of the annual members took rides that was highest through out the day and 10.60% at night which was the lowest
- The casual riders has the highest percentage of 11.04% rides taken in the afternoon and 8.74% was taken during night
- The annual members spent an average time of 13.3 minutes in the morning that is the most and 6.8 minutes in the afternoon that is the least time spend during a day
- During a day, the casual riders spent 117.8 minutes on average at night that is the most and 13.4 minutes in the evening that is the least during a day

LENGTH OF RIDES WEEKLY AND MONTHLY

Avg Ride Lengths by weekdays



Avg Ride Lengths by Months

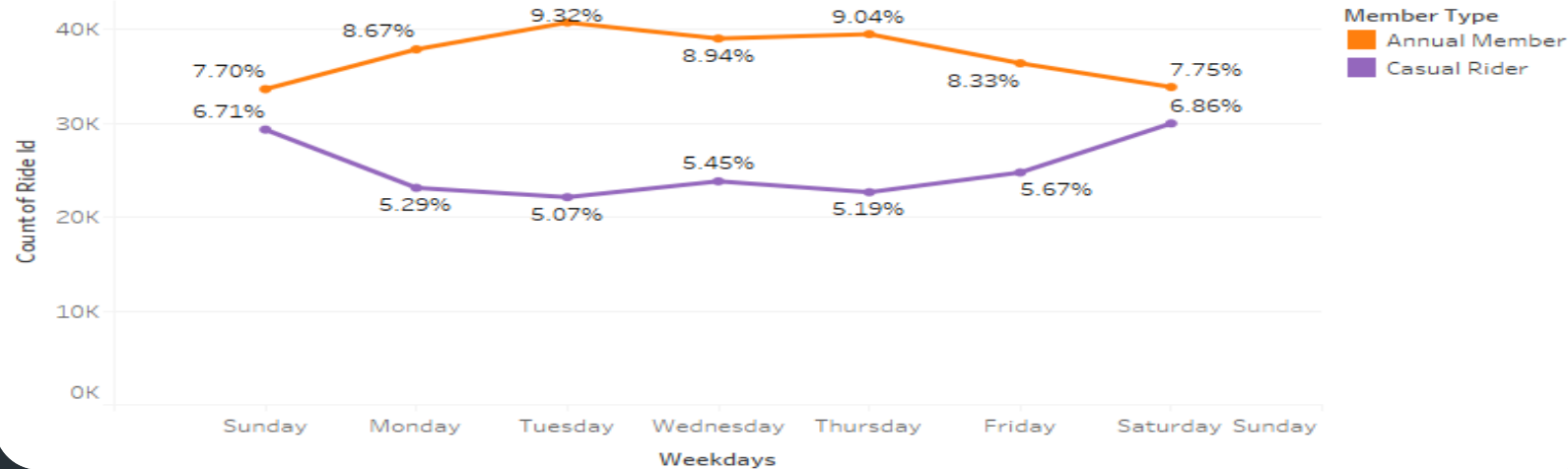


LENGTH OF RIDES WEEKLY AND MONTHLY-FINDINGS

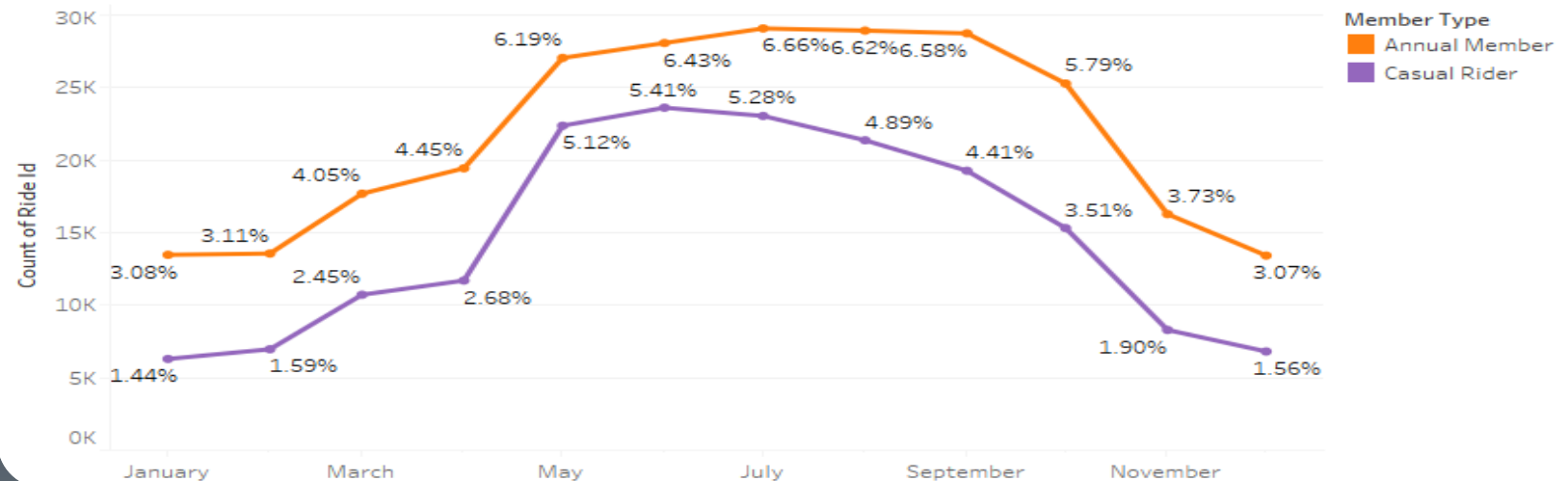
- Annual members spent most times on Sundays on an average of 38.5 minutes and -26.5 minutes on Thursdays that is the least time spent
- Casual riders spent on an average of 126.5 minutes on Wednesdays that is the highest and -77.4 minutes on Thursdays in terms of time spent on rides
- Annual members spent on an average of 104 minutes in the month of January as the most and -476 minutes in December as the least on rides
- Casual riders spent an average of 377 minutes in February as the most and -1,586 minutes as the least time in the month of December

RIDES TAKEN WEEKLY AND MONTHLY

Percentage of Rides taken by weekdays



Percentage of Rides taken by Months



RIDES TAKEN WEEKLY AND MONTHLY- FINDINGS

- 9.32% of annual members took rides on Tuesdays which is the most and 7.70% of them took rides on Sundays which is the least
- Casual riders took rides most on Saturdays that was 6.86% and took least rides on Tuesdays which was 5.07%
- Annual Members used bike rides most in the month of July which was 6.66% and the least was taken in the month of December which was 3.07%
- Casual rides used bikes the most in the month of June that was 5.41% and the least was of 1.44% in January

CONCLUSION

- In 2022, 59.76% riders were annual members
- The average ride time of casual riders was 42.13 which was way more than annual members
- Classic bikes was the most chosen between both annual members and casual riders while docked bikes was used by only casual riders
- Morning was the time when most of the annual members took ride, and on the other hand casual riders took ride most in afternoon
- Annual members spent most time in the morning, on Sundays and in January
- Casual riders spent most time at night, on Wednesdays and in February
- Annual members took most rides on Tuesdays and in July whereas casual riders took most rides on Saturdays and in June

APPENDIX

LENGTH OF RIDES QUARTERLY



PERCENTAGE OF RIDES TAKEN QUARTERLY

