

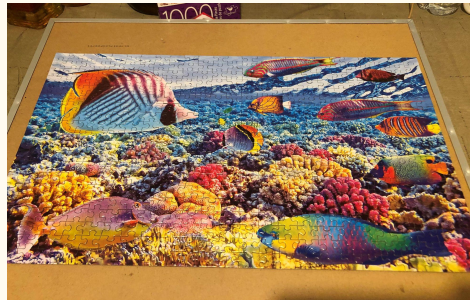
Cyclistic Case Study

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About Me

- Graduated from Virginia Tech 2021, B.S. in Hospitality in Tourism Management
- Taking steps to pursue a career in data analytics
- Certificate in Data Analytics through Virginia Tech | Powered by Fullstack Academy 2022, Certificate in Data Analytics through Google | Coursera 2023
- Love puzzles including jigsaw, logic, number, and word puzzles
- Enjoy bowling, physical activity, and browsing the Internet



About Cyclistic

- A bike-share program that features more than 5,800 bicycles and 600 docking stations
- Offers reclining bikes, hand tricycles, and cargo bikes, making bike-share more inclusive to people with disabilities and riders who can't use a standard two-wheeled bike
- Majority of riders opt for traditional bikes; about 8% of riders use the assistive options
- Cyclistic users are more likely to ride for leisure, but about 30% use them to commute to work each day

Scenario

- The director of marketing believes the company's future success depends on **maximizing the number of annual memberships**
- Understand how casual riders and annual members use Cyclistic bikes differently
- Design a new **marketing strategy to convert casual riders into annual members**
- Must be backed up with compelling data insights and professional data visualizations

Data

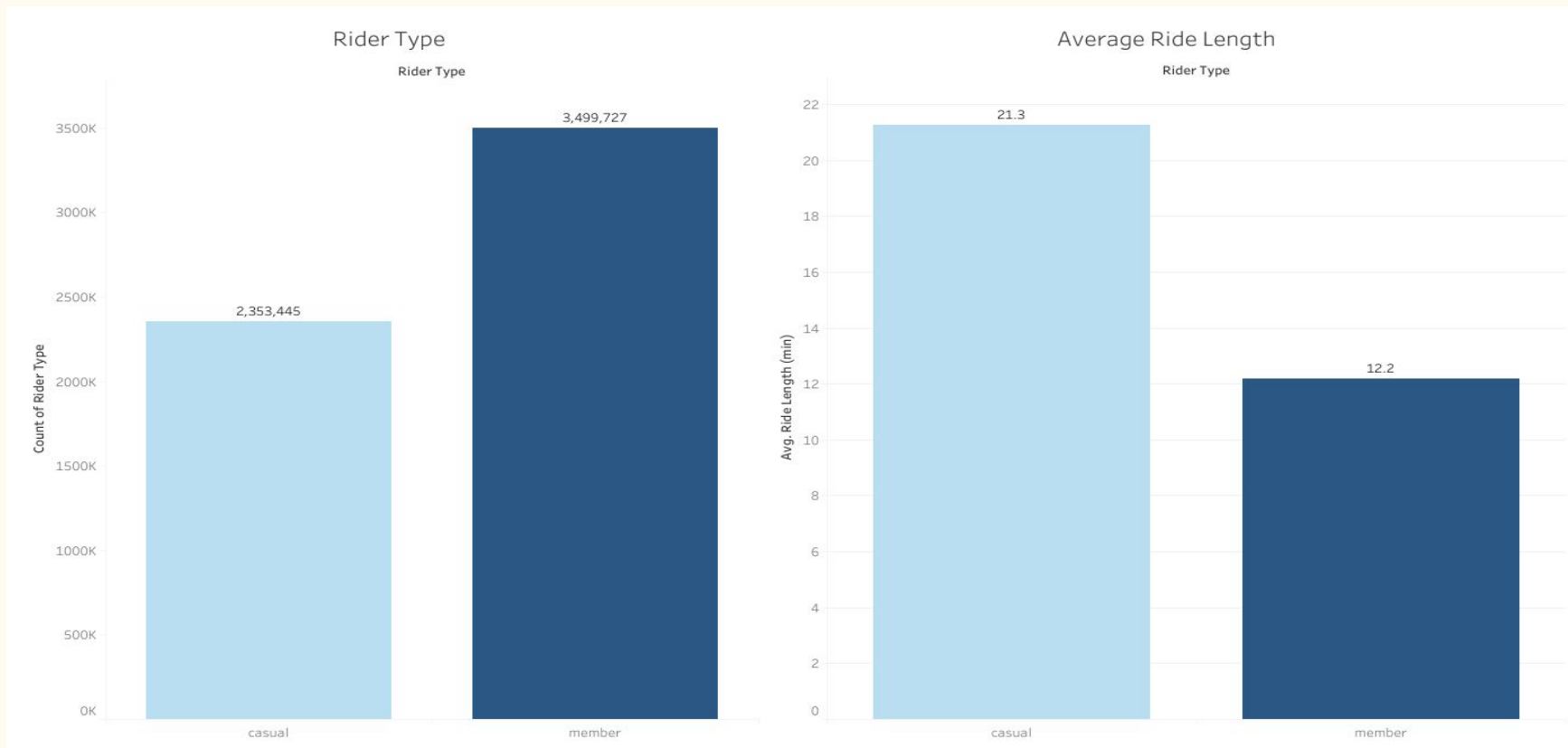
- Recent Cyclistic rider data from May 2022 - April 2023
 - Over 5.8 million recorded trips
- Combined, cleaned, and prepared using RStudio

```
trips$day_of_week <- format(as.Date(trips$date), "%A")  
table(trips$day_of_week)
```

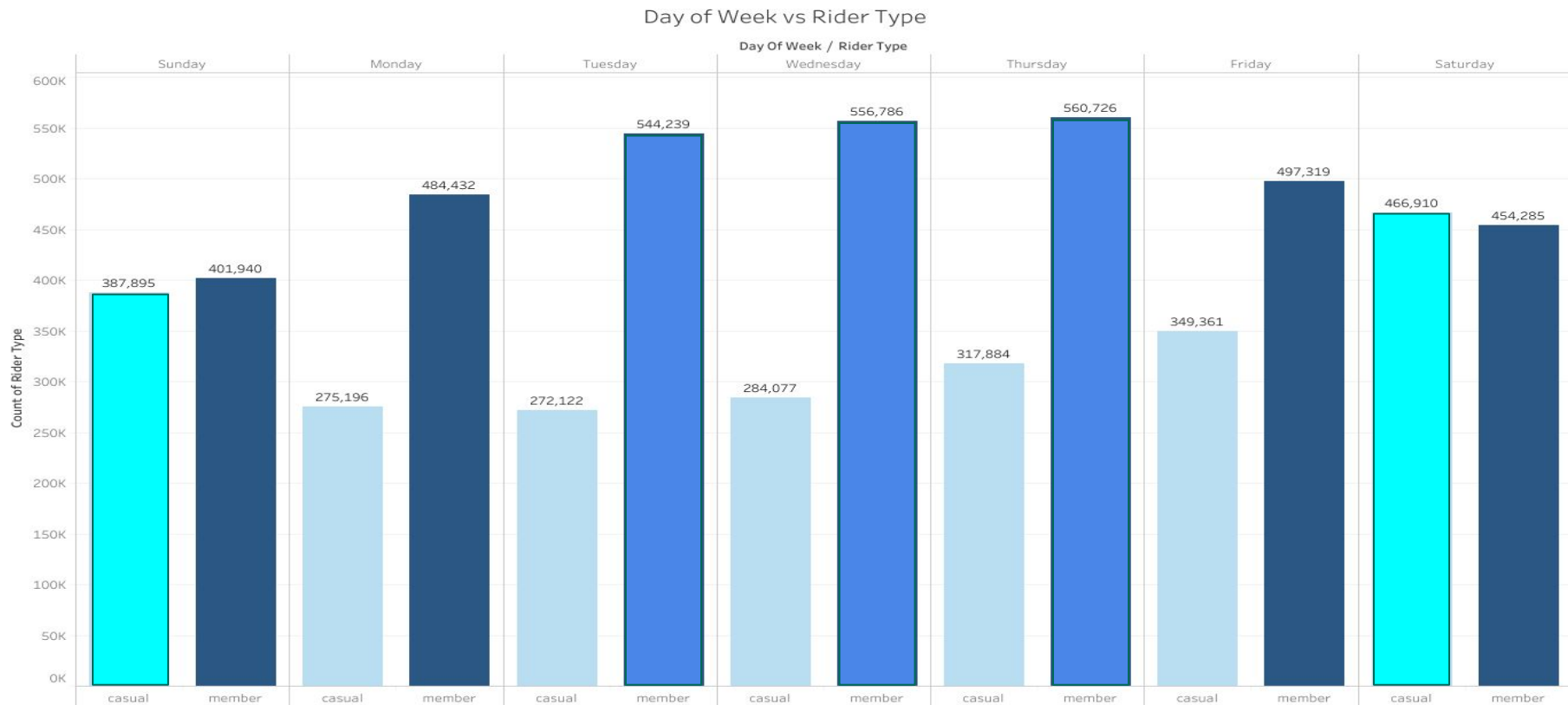
```
trips$ride_length <- round(difftime(trips$ended_at, trips$started_at, units='mins'), 2)  
trips$ride_length <- as.numeric(as.character(trips$ride_length))
```

- Data sent to Tableau for insights and visualizations

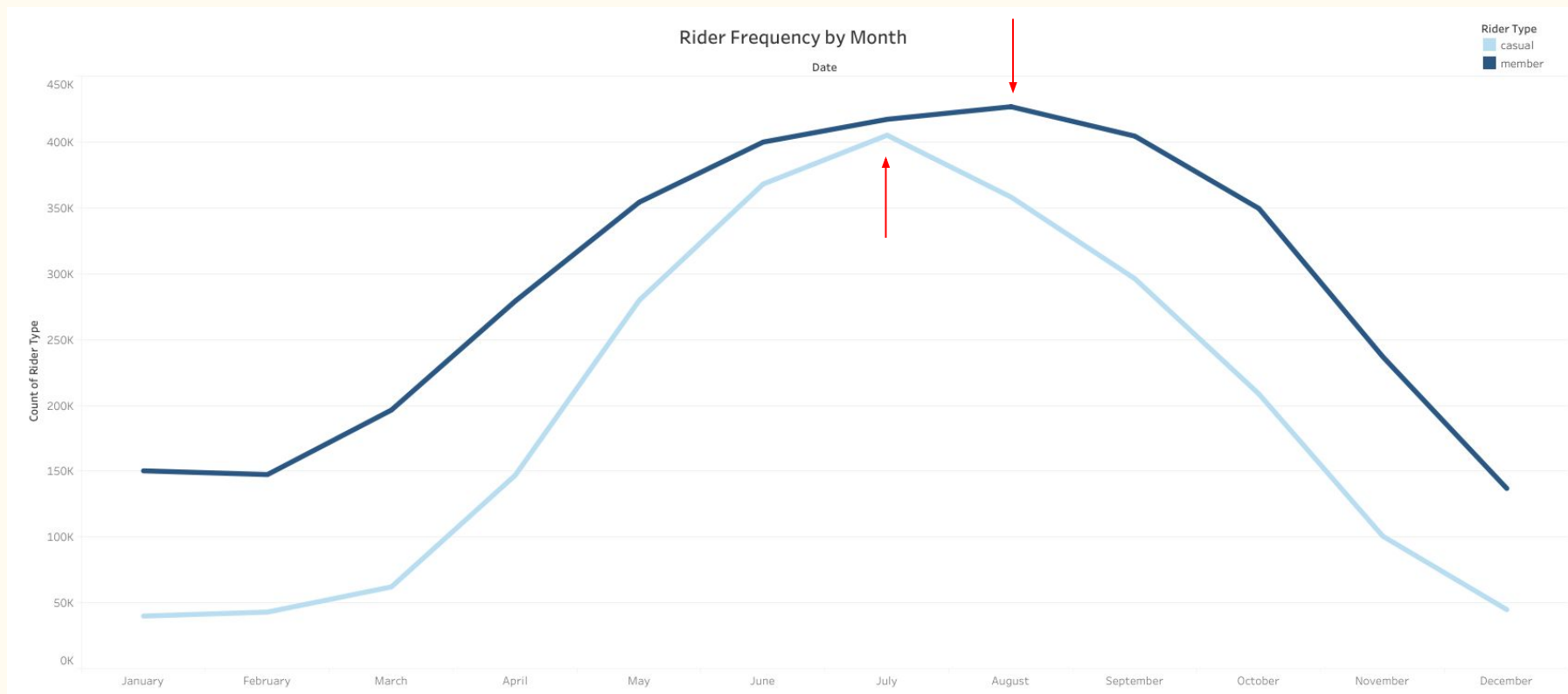
Average Ride Length



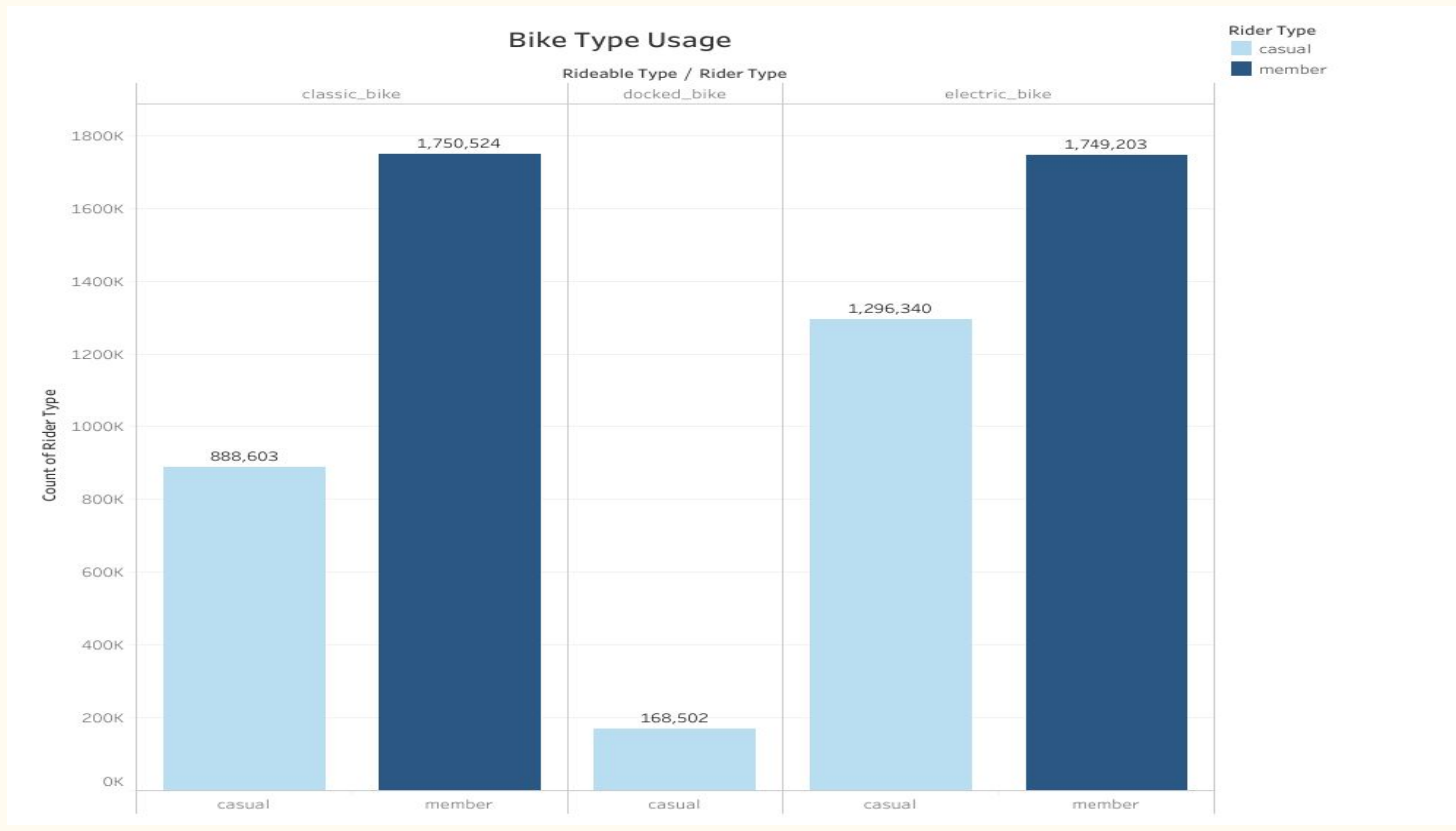
Rider Frequency by Day of Week



Rider Frequency by Month



Bike Type Frequency



Conclusions

Casual Riders

- Higher average ride length - 21.3 minutes
- Rides peak on weekends
- Rider frequency peaks in the summer, peaked in July
- Lean slightly towards electric bikes

Member Riders

- Lower average ride length - 12.2 minutes, but more ride frequency
- Rides peak during midweek
- Rider frequency peaks in the summer, peaked in August
- Equally ride classic and electric bikes

Strategies

- Give further incentives to convert casual riders to members
- Offer discounts and promotions targeting casual riders
- Introduce membership tiers for flexibility

Recommendations

1. Offer membership tier for casual riders who may use it only on weekends
2. Offer special summer promotion for any type of rider
3. Free membership trial to see what unlimited Cyclistic has to offer, it could entice casual members to permanently upgrade annual membership

Links

- [Raw Data](#)
- RMarkdown
- [Tableau](#)

[R script](#) provided by the Google Data Analytics Course to guide me

Questions?