cyclistic case study

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Business Task

- **Goal**: Help Cyclistic convert **casual riders** into **annual members**
- Compare behavior between casual vs. member riders
- Use insights to propose targeted marketing strategies

About Cyclistic

- Chicago-based bike-share company

- 5,800+ bikes, 600+ stations
- Types: standard, reclining, hand tricycles, cargo bikes
- Plans: single-ride, day-pass, annual membership
- 30% of riders commute, rest ride for leisure

Key Stakeholders

- **Lily Moreno**: Director of Marketing
- **Marketing Analytics Team**
- **Cyclistic Executives** (decision-makers)

Tools & Data

- Tool: **RStudio + tidyverse + ggplot**
- Source: Divvy Trip Data (May 2022 – April 2023)
- Public dataset licensed by Motivate International
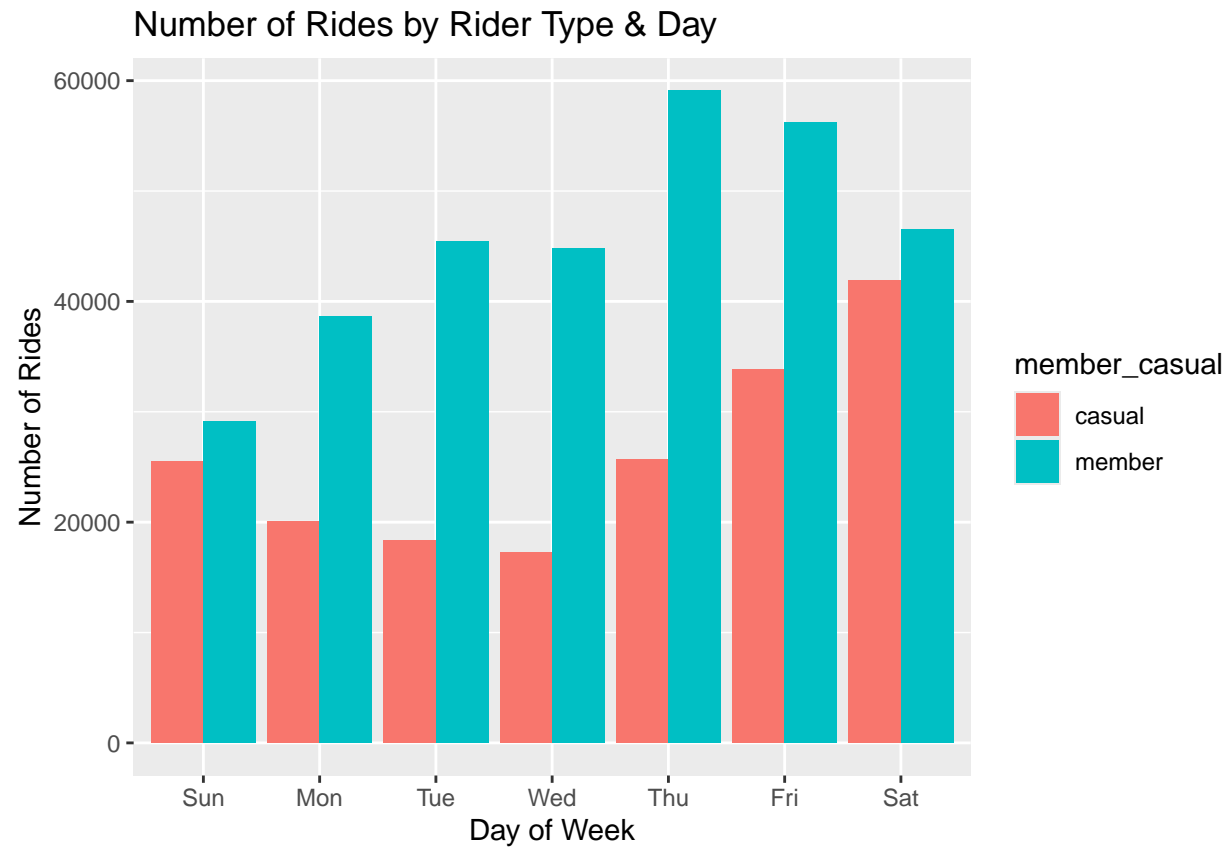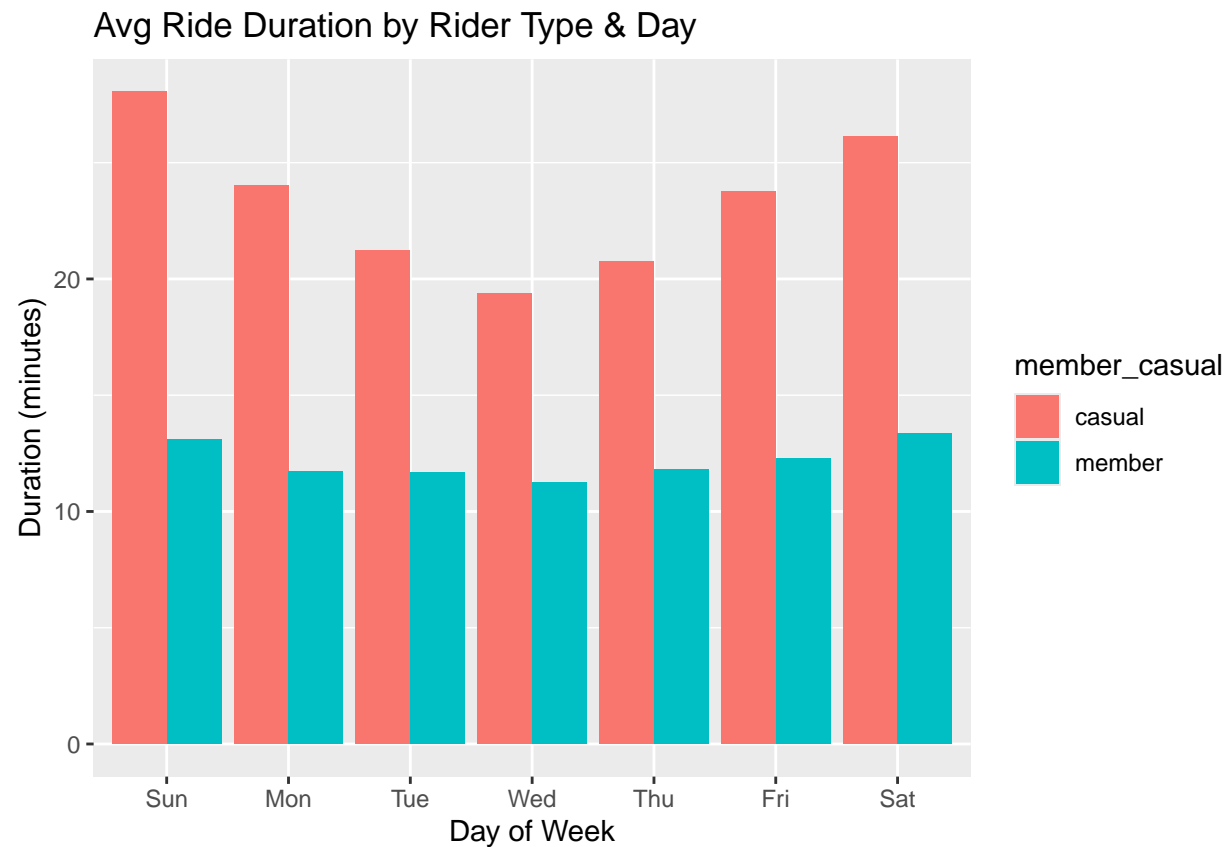- 12 CSVs merged into 1 dataset

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Cleaning & Preparation

- Removed empty columns, NA values, duplicates
- Calculated `ride_length` (in minutes)
- Created `day_of_week` using `wday()` from lubridate
- Removed rows with negative ride lengths

- Verified consistency across all months

Summary Statistics

```
## # A tibble: 2 x 5
##   member_casual avg_ride median_ride max_ride number_of_rides
##   <chr>            <dbl>       <dbl>    <dbl>           <int>
## 1 casual            23.8        11.8     1500          182637
## 2 member            12.1         8.6     1500          319819
```

Number of Rides by Rider Type & Day

Avg Ride Duration by Rider Type & Day

Key Insights

- Casual riders take longer rides, especially on weekends
- Members take shorter, more frequent rides, mostly on weekdays
- Suggests: casual = leisure, members = commuters

Recommendations

- Weekend Promotions Offer discounts on annual plans to weekend riders
- Targeted Digital Ads Use ride history to promote commuting benefits
- Membership Perks Free helmet rental, exclusive bikes, or partner rewards

Conclusion

- Clear differences in how each rider type uses bikes
- Data supports marketing segmentation
- Digital outreach + perks can drive membership conversion

Thank You!

Created in RStudio using Tidyverse + Ggplot

Data: Divvy Bike Share (2022–2023)

Analysis by: **Imran ul Haque Qureshi**