

Cyclistic Bike Usage Analysis

Comparing Annual Members and Casual
Riders

-By Prachi Das





Business Objective

- Analyze how annual members and casual riders use Cyclistic bikes differently.
- Identify patterns in behavior, ride time, and preferences.
- Provide data-driven insights to support marketing strategies.



Data Sources

A

3 monthly Excel files converted to CSV:

- 2025_01.csv, 2025_02.csv, 2025_03.csv

B

Imported into MySQL database

C

Connected to Power BI for analysis

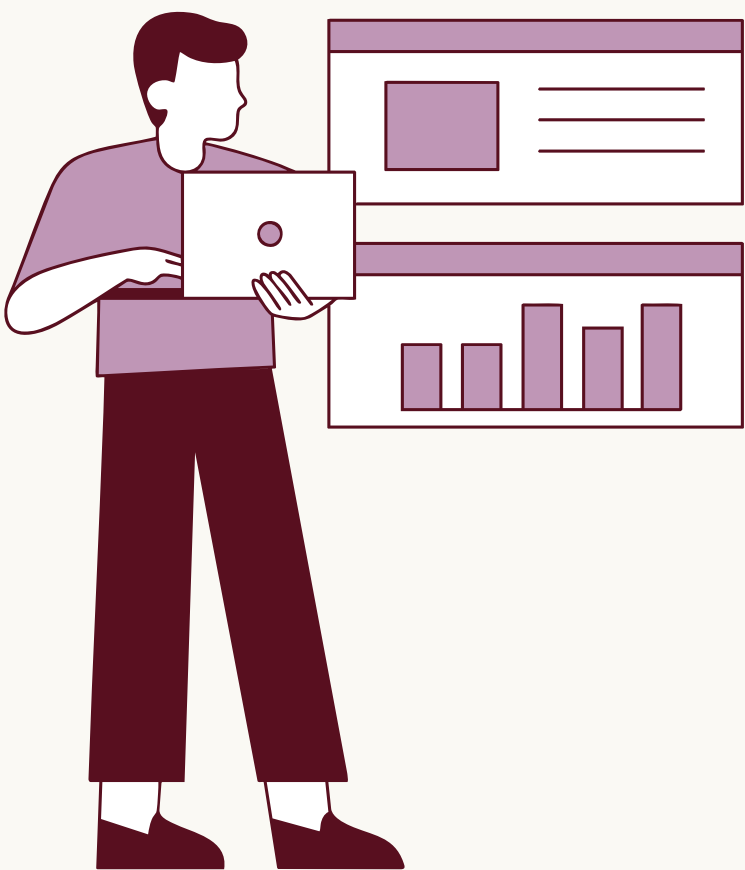
D

KPIs are Total Rides, Average Ride-time, Casual Riders Percentage



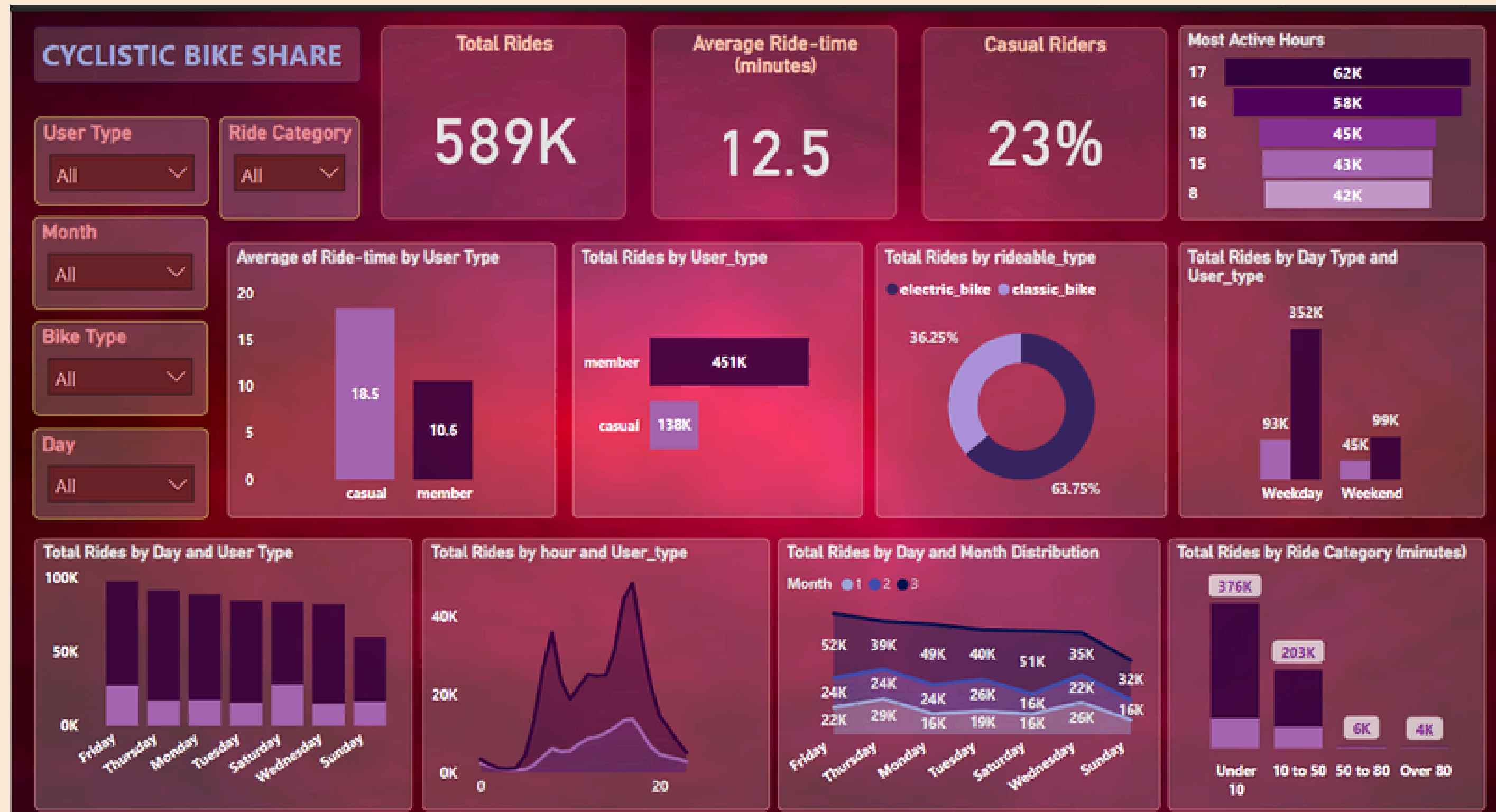
Data Preparation and Cleaning

- Removed rows with NULL values
- Converted date/time fields to extract:
 - **Hour, Day Name, Month**
- Created calculated fields:
 - **Ride_range, Day_type (Weekday/Weekend)**
- Standardized column names and formats



KPIs

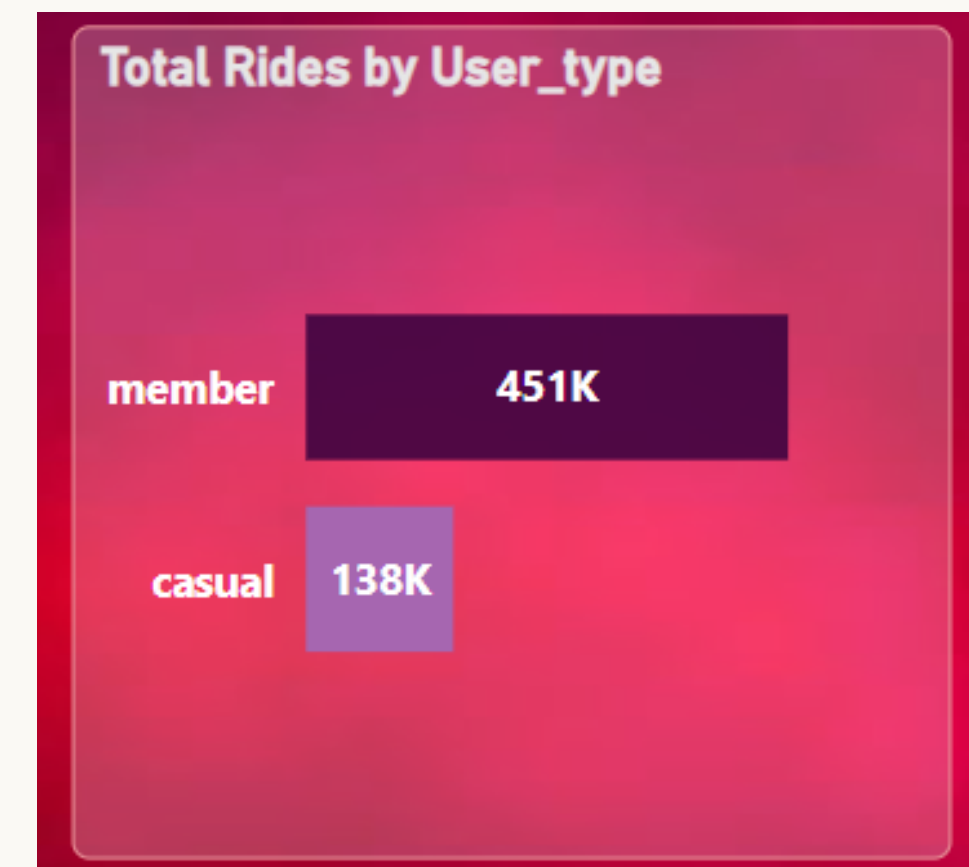
- Total Rides
- Average Ride-Time
- Casual Riders %



Ride Volume by User Type

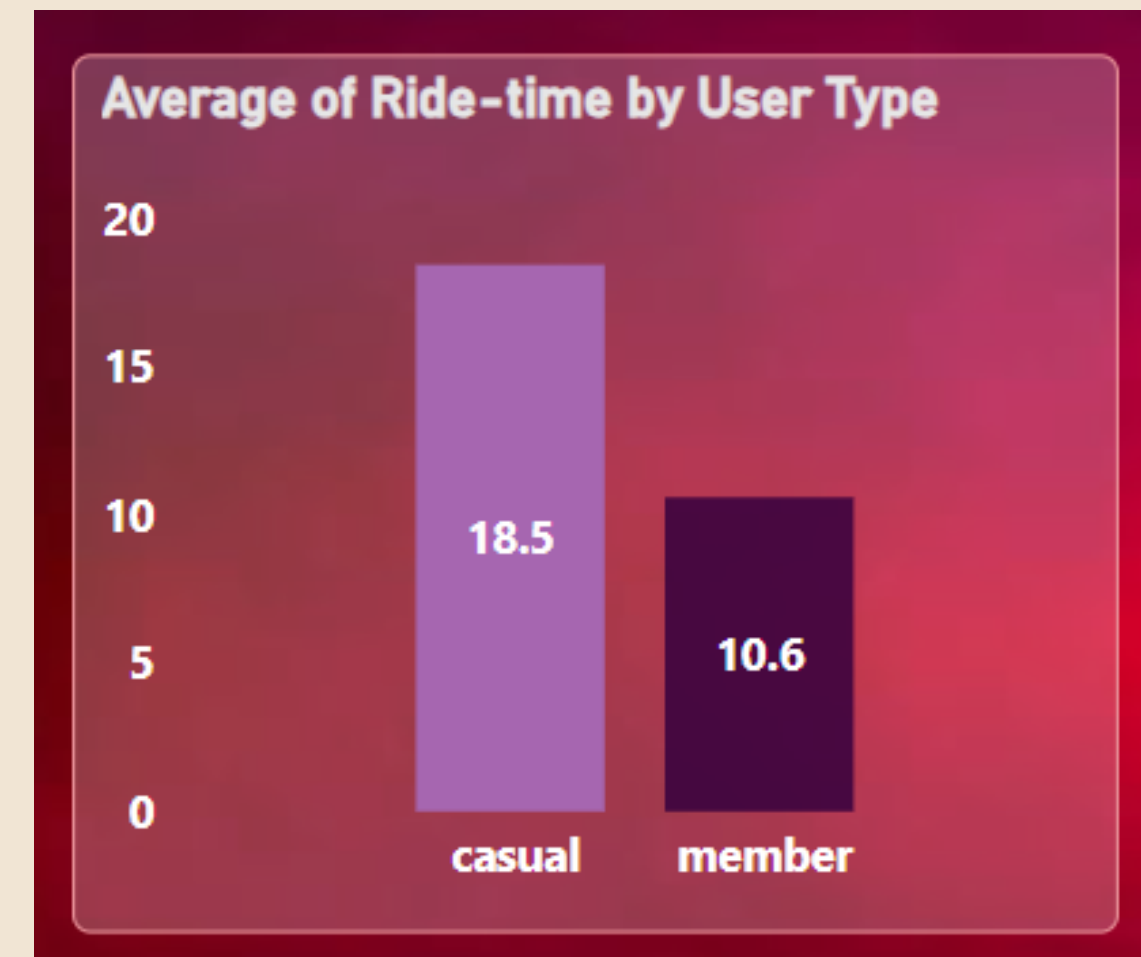


Annual members accounted for 76.6% of all rides (451,000), while casual riders contributed 23.4% (138,000).



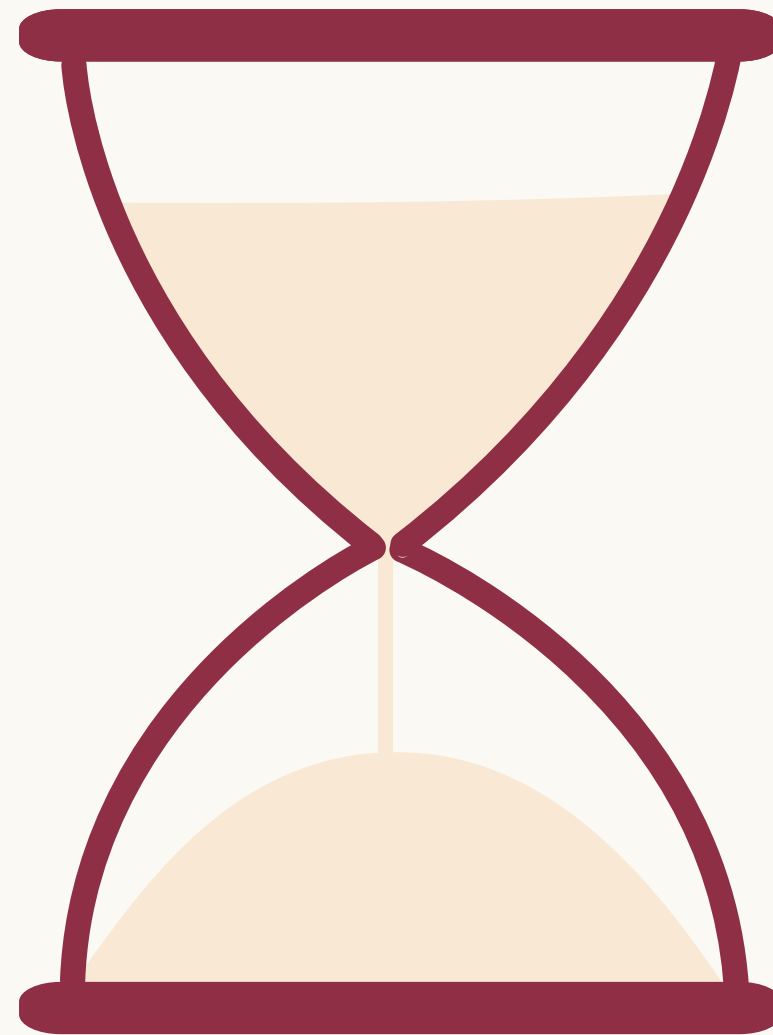
Average Ride Duration Comparison

Although total number of rides of members is greater than casual riders yet casual ones' average ride duration is longer (18.5 mins) with respect members (10.6mins).



Peak Ride Hours

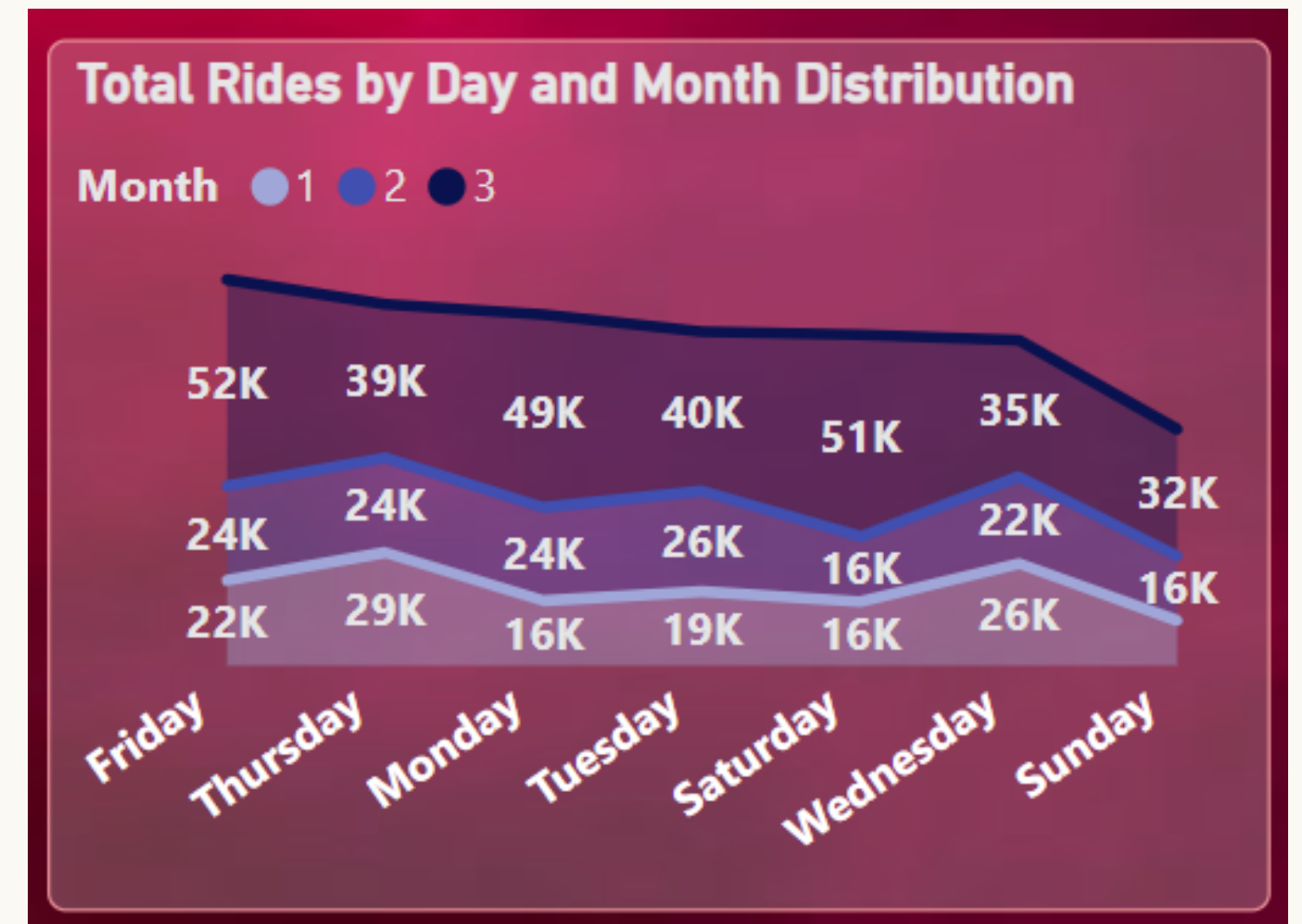
Most rides occur around 8 AM and between 3–6 PM.

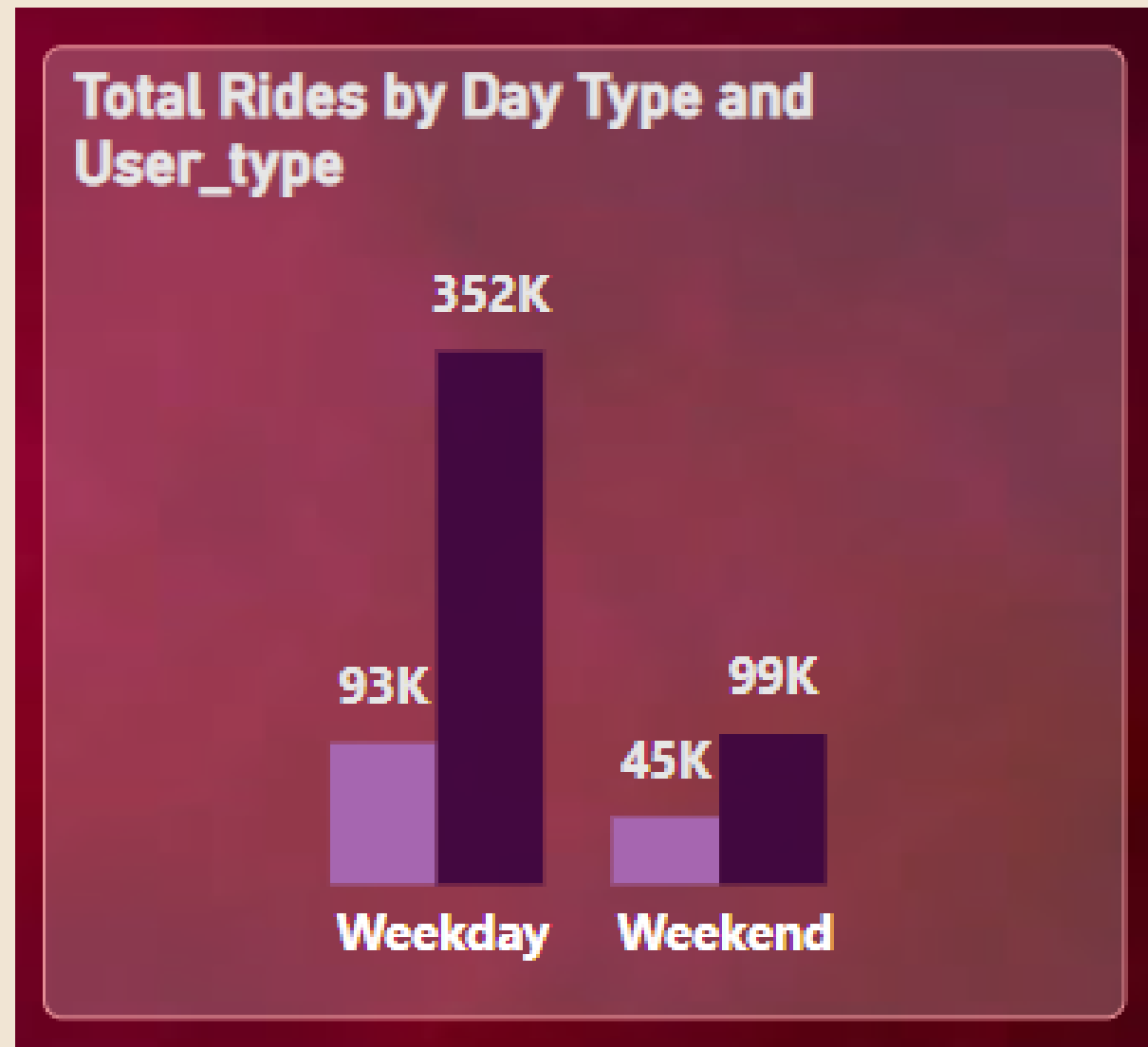


How Ride Patterns Change Over Time

📈 Ride volume increased steadily from January to March, with March recording the highest number of rides.

📦 January had the lowest usage, likely due to colder weather or post-holiday inactivity.





- **Members** ride consistently during weekdays and on weekends a major dip is being observed. Similarly for ● **casual** riders a dip is being observed on weekends but not as much as observed in case of members.



Recommendation

- Promote membership savings to frequent riders
- Target electric bike users with membership offers
- Incentivize weekday rides with exclusive member perks
- Offer seasonal/short-term membership options
- Promote unlimited ride time to long-ride casual users



Insight Behind it

- Casual riders who ride often spend more without membership
- Electric bikes are the most used type among the riders
- Weekday ride volume is higher than weekends
- Rides dip in winter — users may prefer seasonal flexibility
- Casuals take longer rides — upsell based on flexibility & no time caps



Conclusions & Next Steps



Key Insights:

- Members ride more often, casuals ride longer
- Electric bikes dominate usage
- Weekdays outperform weekends in ride volume



Next Steps:

- Launch targeted campaigns for electric bike users
- Promote flexible, cost-effective membership options
- Use weekday trends to time digital promotions

