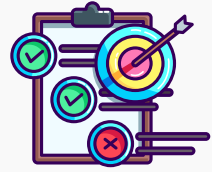# Bike Sharing Data Analysis

Presented by: Shabhi Aliyya

Objective

To analyze and identify **differences in usage patterns** between **annual members** and **casual riders** of Cyclistic bikes.

This analysis focuses on:
- Ride duration
- Ride frequency by time (month, day of week, hour)
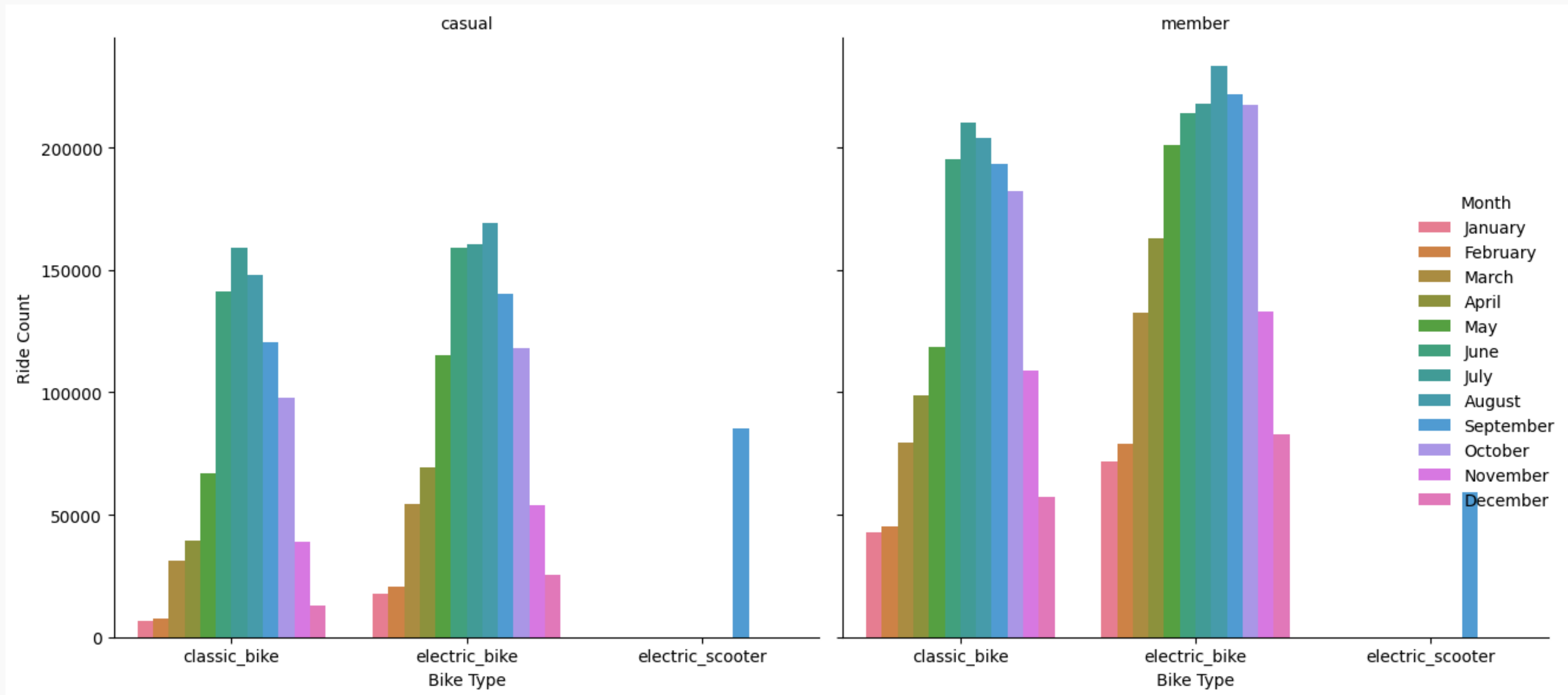- Type of bike used

Provide insights to **support** the marketing team in **converting casual riders into annual members.**

Data Findings

Monthly Trends

- Electric and classic bikes are the most popular types for both casual and member users.
- The peak usage for all user types and bike types occurs during June to October, with the highest ridership in August.
- Electric scooters are rarely used and almost exclusively by casual riders in one specific month, which might indicate a data anomaly or seasonal availability.

Day of Weeks

Number of Bikes Used per Day by User Type
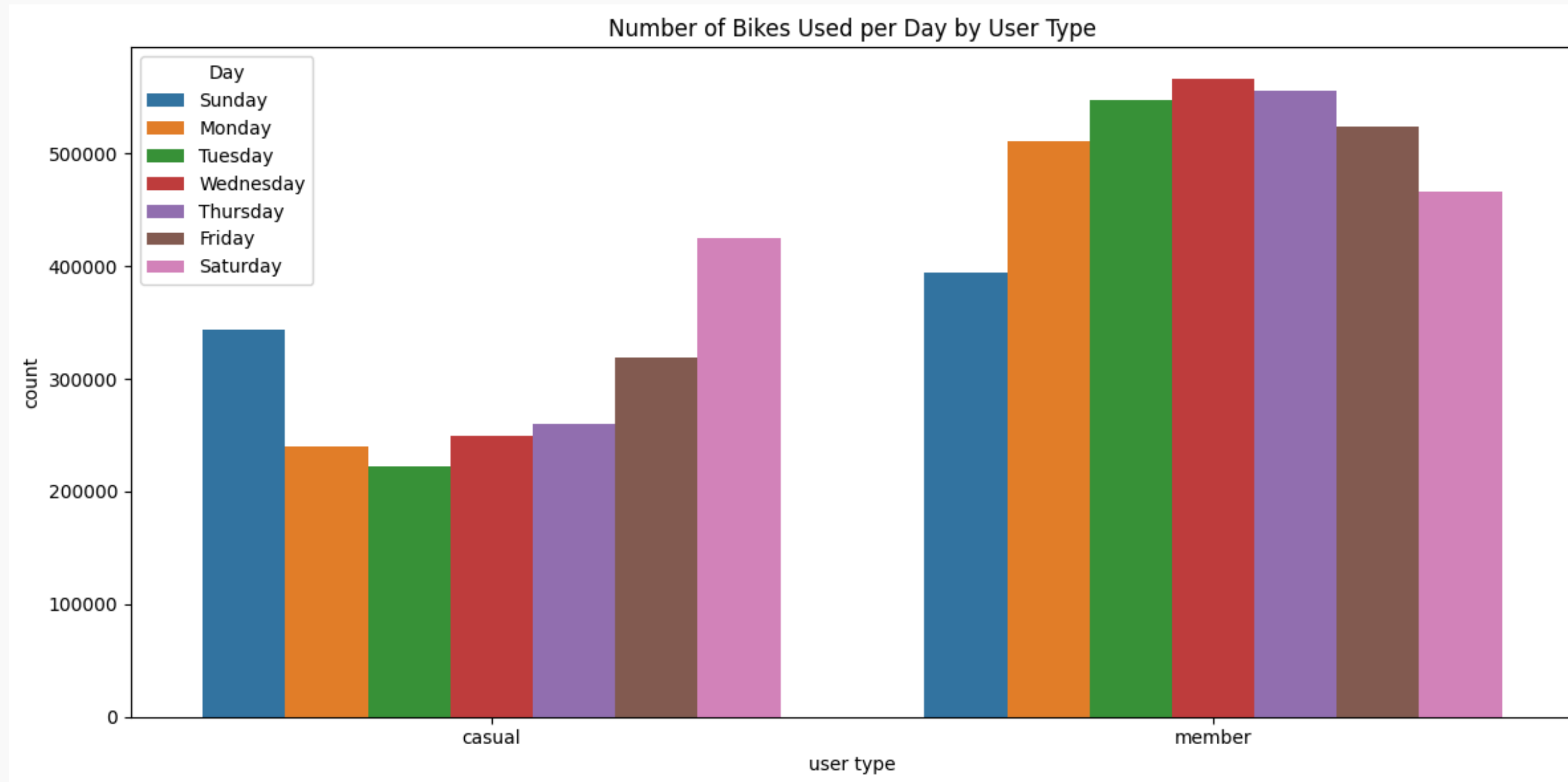
- Casual users ride significantly more during weekends, especially on Saturday and Sunday, suggesting they use the service for leisure or recreation.
- Members, on the other hand, have higher usage during weekdays, peaking around Tuesday to Thursday, indicating a strong association with commuting or routine work travel.

Hour of Day

Number of Bicycle Uses by Hour and User Type
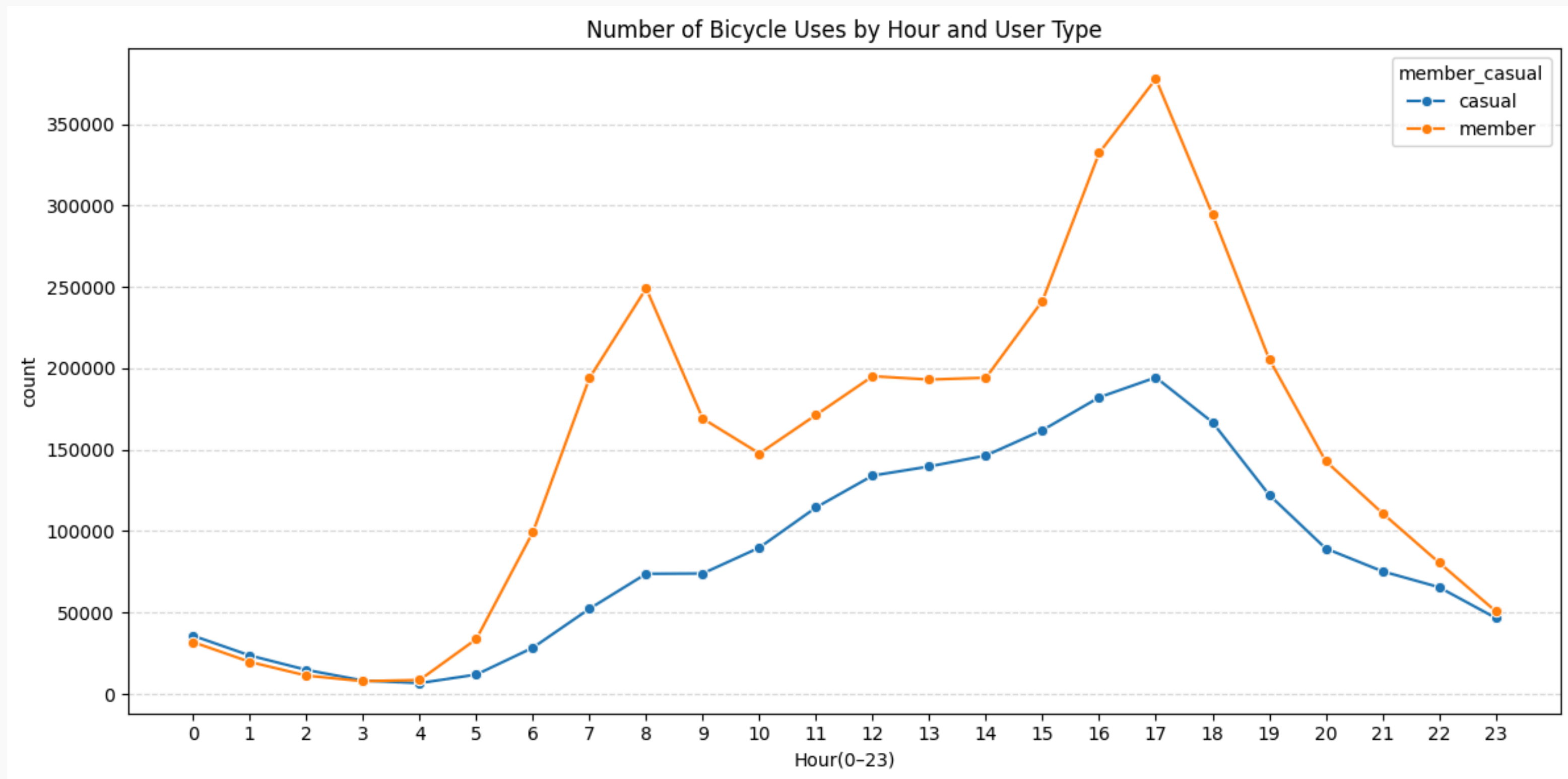
- Members show peaks at 8 AM and 5–6 PM, indicating bike use for commuting.
- Casual users peak around 4–5 PM, suggesting more leisure-oriented rides outside work hours.

Ride Length

Ride Duration Distribution by User Type
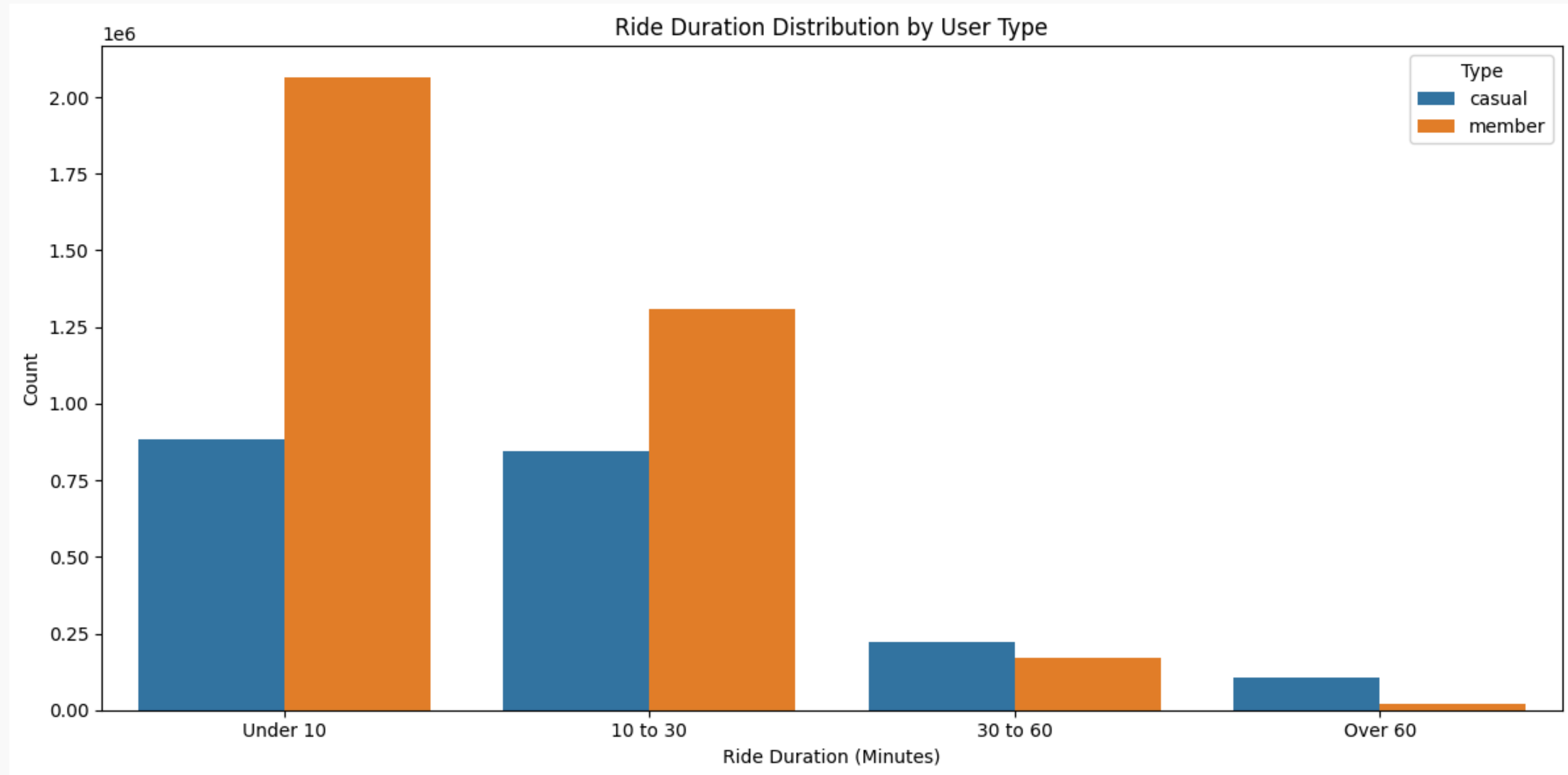
- Members mostly take short, functional trips under 30 minutes, indicating commuting use.
- Casual users have more longer rides, pointing to leisure, exploratory usage, or sport.

Type of Bike Used

Use of Bicycle Types Based on User Type
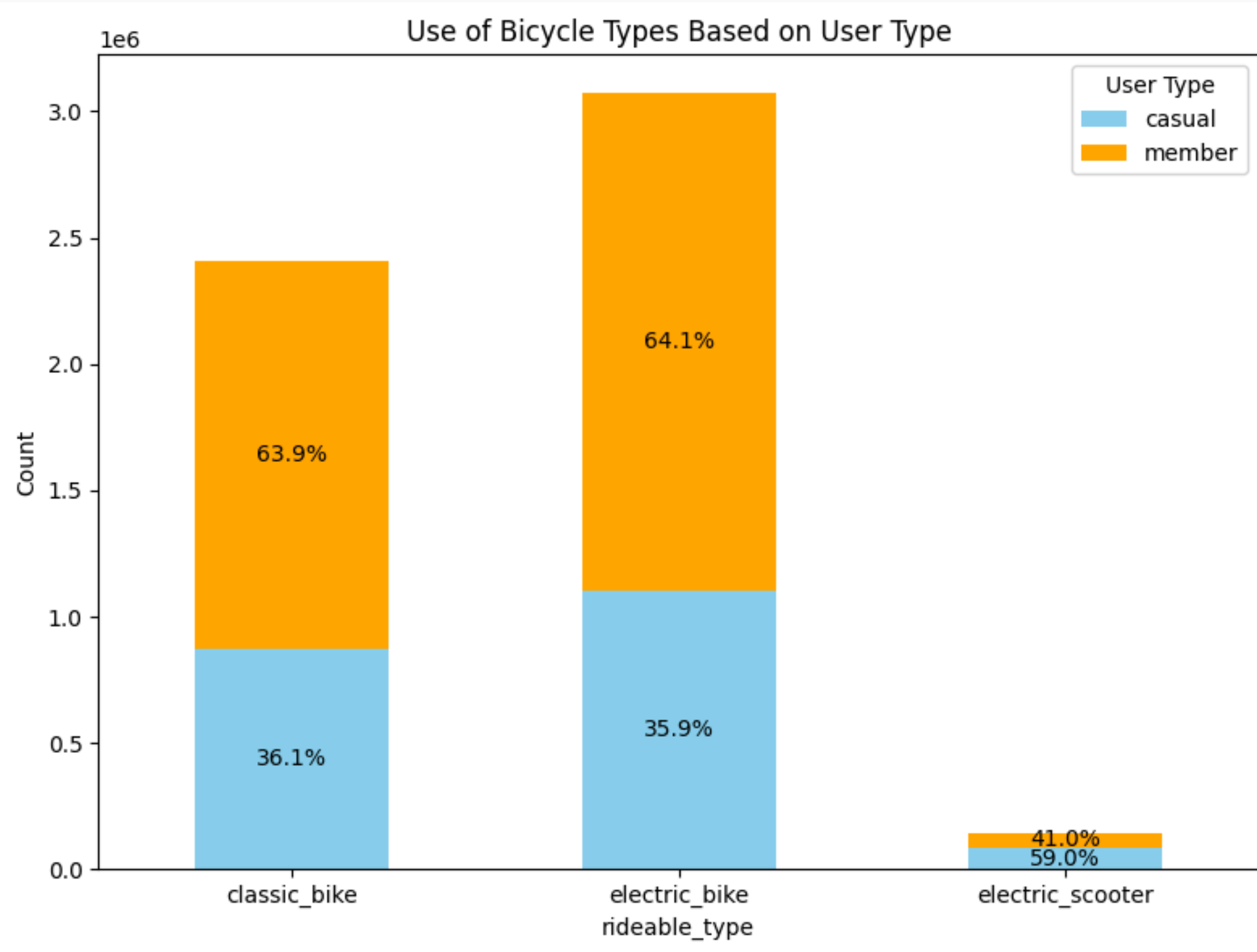
- Members prefer classic and electric bikes, likely for routine commuting.
- For both classic_bike and electric_bike, the majority of users are members (63.9% and 64.1% respectively).
- Electric_scooter is the only rideable type where casual users dominate (59.0%), unlike the other two types.

CONCLUSION

Chicago experiences **harsh winter conditions** from late December to February, **which may explain the low ride counts in February (month 2**). Given this, marketing efforts would be **most effective if launched in spring or early summer— ideally between March and May**—when ridership is beginning to increase.

By aligning promotional campaigns with the rising seasonal demand, especially targeting casual users during warmer months, Cyclistic has a better chance of converting them into annual members.

Members are likely working professionals who depend on Cyclistic bikes for weekday commuting. Therefore, a **focused marketing strategy aimed at urban employees or office workers**, possibly highlighting cost-effectiveness and convenience, could effectively convert casual riders into members.

This insight complements the earlier seasonal findings: targeting working professionals during the start of warmer seasons may maximize membership conversions

CONCLUSION

Since **members ride more during weekday commuting hours**, it's likely they are working professionals. This observation supports the idea that **weekday-focused promotions or employer partnerships could be effective in increasing annual memberships**. Meanwhile, **casual users may be more reachable through weekend or tourist-based marketing campaigns**, especially during vacation **seasons or warmer months.**

Marketing strategies should **highlight the efficiency and convenience of short trips** to attract casual riders into becoming members. For example, messaging that **emphasizes saving time on daily commutes or faster access to urban destinations could be compelling for conversion.**

promoting the health and environmental benefits of cycling may resonate with casual users and encourage them to adopt biking as a regular mode of transportation.

CONCLUSION

Since c**asual users prefer electric scooters**, promotions or trial incentives can focus on converting electric scooter users into members by **offering discounts or bundled ride packages.**

Members highly favor electric bikes. The company **could invest in maintaining and expanding the electric bike** fleet for loyal, paying users.