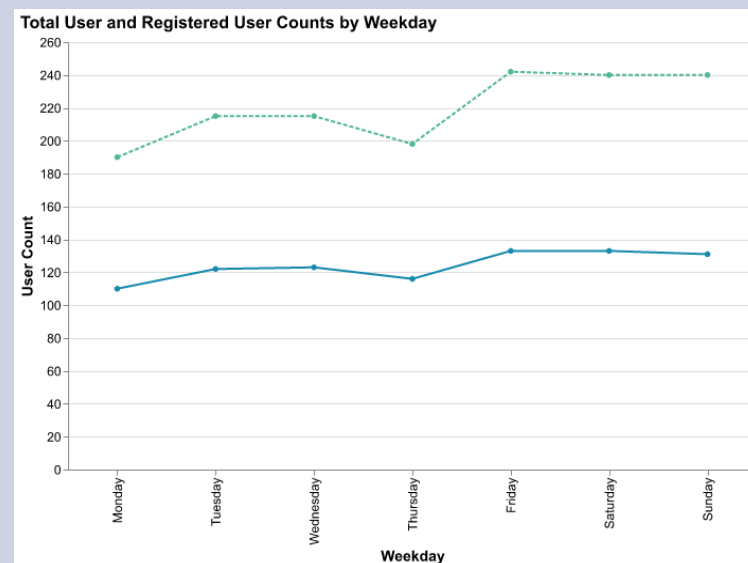


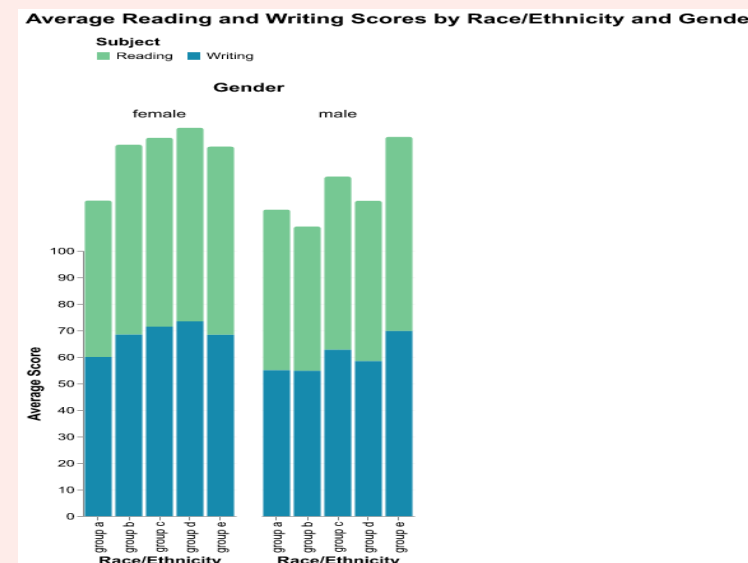
Introduction

This study examines how weekday and weather conditions affect bike sharing usage. It compares total, registered, and casual user patterns across weekdays and weather types. Visualizations clarify usage trends among different user groups under varying conditions.

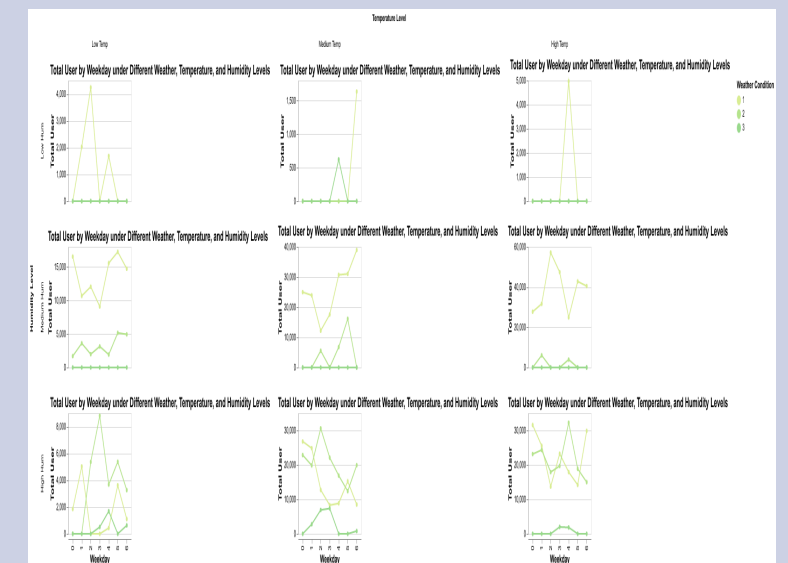
How Do Weekdays, User Types, and Weather Shape Bike Sharing Usage?



Total and registered user counts peak on Friday to Sunday, with lower counts Monday through Thursday.



Casual_user counts vary across weekdays with distinct peaks and troughs, showing non-uniform distribution and varied engagement levels.



Total_user counts peak on weekdays 2 and 5 under weather 1 with medium/high temperature and humidity.

Conclusion

Bike sharing usage peaks on Fridays and weekends for total and registered users. Casual users show varied weekday patterns, indicating fluctuating engagement. Clear weather with medium to high temperature and humidity boosts total usage significantly. Poor weather and low humidity reduce bike sharing activity across all weekdays. Weekdays Monday to Thursday generally have lower usage than Friday to Sunday. Registered users consistently show high counts on weekends. Weather condition 1 favors higher bike sharing counts compared to other conditions. Overall, bike sharing usage depends strongly on weekday, user type, and weather conditions combined.