

Project Overview

This project aims to analyze Cyclistic's bike share program data, identify user behavior patterns, and provide recommendations for targeted marketing strategies.





Data Collection and Preparation

In the data collection phase, we sourced comprehensive ride records from Cyclistic's Bike Share program, neatly organized in AWS-hosted CSV files. These files, spanning distinct quarters, contain key details like trip IDs, durations, stations, and user types. Ensuring data integrity, we verified the source's credibility, adhered to privacy protocols, and meticulously downloaded the dataset.

Data Cleaning and Standardization

In the crucial data cleaning and standardization phase, we undertook a meticulous process to enhance data integrity. This involved rectifying missing values, streamlining column names across quarters, and converting data types as needed. By fostering a uniform and reliable dataset, we laid the groundwork for accurate and meaningful insights into user behavior and trends.

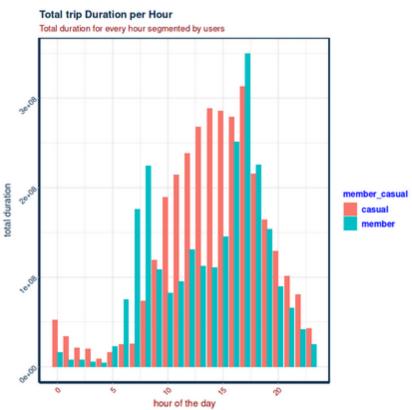




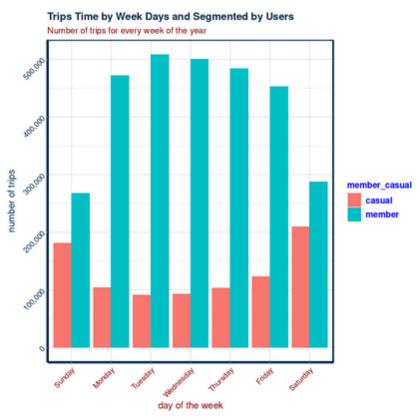
Data Transformation and Analysis

Utilizing R programming and libraries such as 'tidyverse' and 'lubridate', we transformed and analyzed the data. Exploratory analysis included insights into usage patterns by hours, days of the week, and months.

Key Visualizations

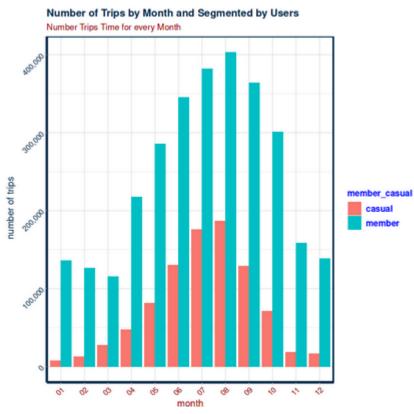


Graph of Trip Duration Across Hours of the Day

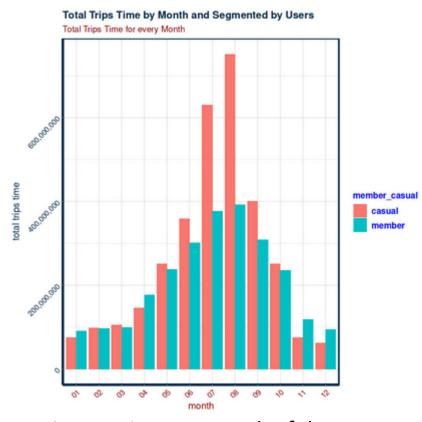


Graph of number of Trip Across Days of the Week

Key Visualizations

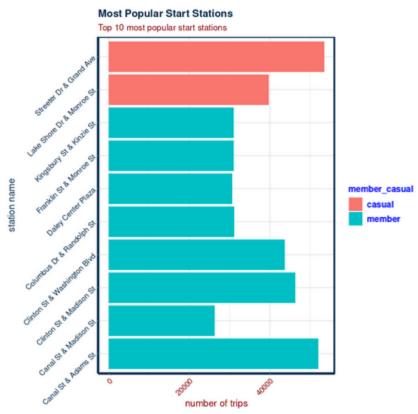


Number of Trips per Month of the year

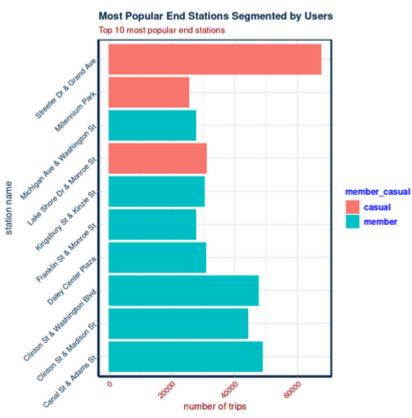


Trip Duration per Month of the Year

Key Visualizations



Most Popular Start Stations



Most Popular End Stations

Key Findings

- From our analysis above it can be deduced that users with membership take more rides throughout the week.
- Also, casual users of Cyclistic take much longer rides, that is to say, their trip times are far higher..
- Both Casual and Member Users have their peak use during the 2nd and 3rd quarters of the year, coinciding with the more favorable summer weather.
- We can also see that while users with membership have their peak use during the week, casual users have their peak use in the weekends.
- Looking at the analysis for Popular Start and End stations brings us to conclude that Streeter Dr & Grand Ave is the most popular station, especially for Casual users.

Recommendations for Marketing Campaign

"For Casual Users:"

- "Introduce weekend-specific promotions with discounted rates or ride bundles to attract leisure riders."
- "Highlight the convenience of short rides for exploring popular tourist spots."

"For Member Users:"

- "Emphasize cost savings and reliability for daily commuters with membership."
- "Promote the benefits of a consistent exercise routine by using the bike share program."





Recommendations for Marketing Campaign

Seasonal Campaigns:

- Launch summer campaigns targeting both user types, showcasing the joy of outdoor riding in pleasant weather.
- Winter campaigns could focus on member loyalty and maintaining fitness during colder months.

Station-Specific Promotions:

- Collaborate with local businesses near the Streeter Dr & Grand Ave station for joint promotions.
- Offer exclusive discounts or rewards for rides that start or end at popular stations.

Conclusion

At the heart of the Cyclistic's Bike Share Analysis and Marketing Insights project, we've unveiled more than just data — we've unraveled the tales of how users engage with Cyclistic. From these stories, a roadmap emerges, guiding us towards tailored marketing journeys that enhance user joy and inspire them to join our vibrant community of riders.

