

Cyclistic Final Report

Delivered by Daniel Darzi

Date: January 6th 2026

Executive Summary

Cyclistic, a bike-share program in Chicago, aims to increase the number of annual members as part of its long-term growth strategy. To support this goal, I analyzed 12 months of historical trip data to understand how annual members and casual riders differ in their usage patterns. The analysis focused on ride frequency, ride duration, and day-of-week behavior, using Excel, Power Query, and PivotTables to prepare and explore the data.

The findings reveal clear and consistent differences between the two rider groups. Annual members take significantly more rides overall and follow a strong weekday commuting pattern. In contrast, casual riders take fewer rides but tend to ride much longer, especially on weekends, suggesting recreational or tourist-oriented usage. These behavioral distinctions highlight opportunities for Cyclistic to tailor its marketing and operational strategies.

Based on these insights, the report recommends five key actions: launching weekend-focused membership promotions, creating recreational ride packages for casual riders, strengthening commuter-oriented benefits for members, optimizing bike availability based on weekday versus weekend demand, and improving onboarding for first-time riders. Together, these strategies provide a data-driven path to converting more casual riders into annual members while improving the overall rider experience.

Business Task

Cyclistic wants to increase the number of annual members.

My task is to analyze how annual members and casual riders use Cyclistic differently, identify actionable insights, and recommend strategies to convert more casual riders into members.

Data Summary

This analysis uses **12 months of historical Cyclistic trip data** collected from January to December 2023. The raw datasets were provided as monthly CSV files containing millions of individual ride records. After cleaning and preparation, the combined dataset included all valid rides with complete and accurate information.

The key variables used in the analysis include:

- **ride_id** — unique identifier for each trip
- **rideable_type** — type of bike used (classic, docked, or electric)
- **started_at / ended_at** — timestamps for trip start and end
- **member_casual** — rider type (annual member or casual rider)
- **ride_length** — calculated duration of each ride in minutes
- **day_of_week** — derived field indicating the weekday of each ride

Data cleaning and transformation were performed in **Excel and Power Query**, including:

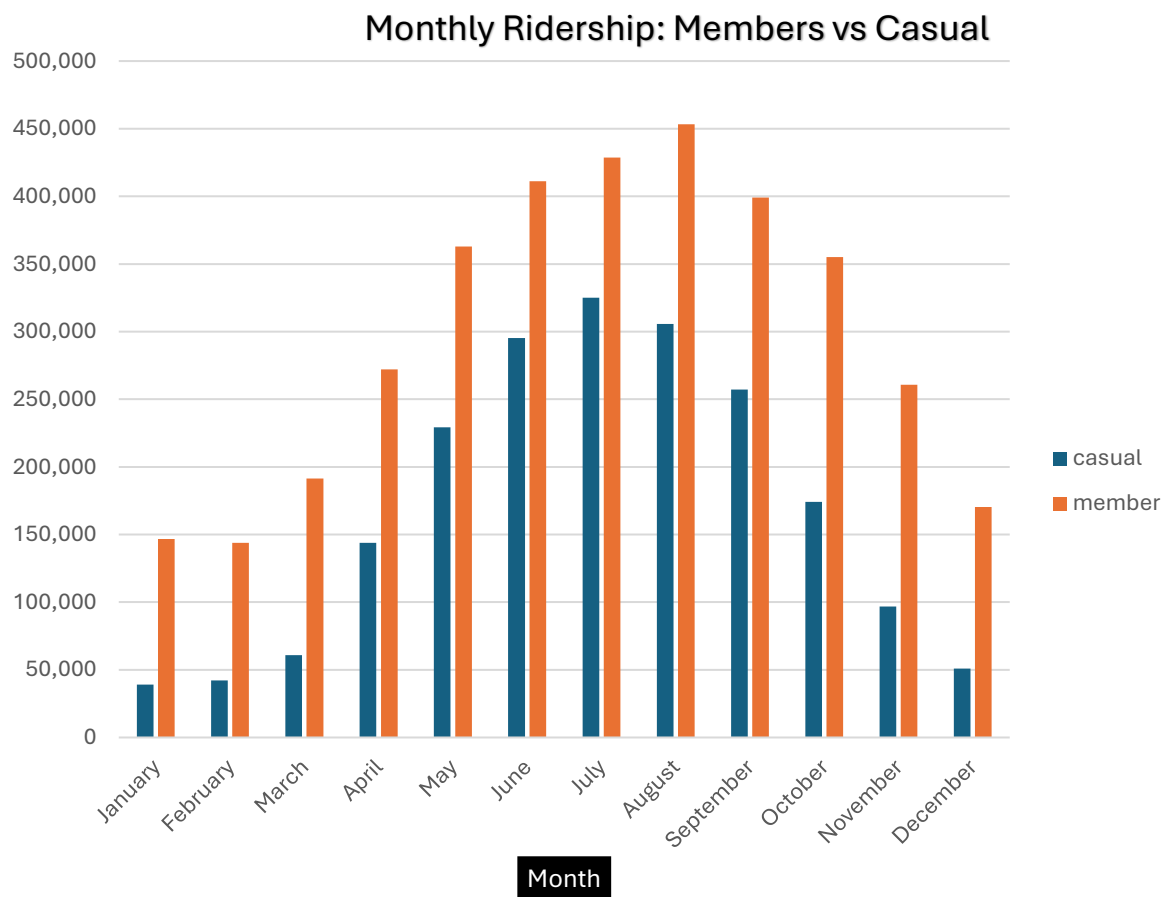
- Removing rows with missing or invalid timestamps
- Filtering out negative or zero-length rides
- Standardizing date and time formats
- Creating calculated fields (ride_length and day_of_week)
- Combining all monthly files into a single, consistent dataset

The cleaned dataset served as the foundation for all PivotTables and visualizations used in the Insights section. A detailed description of the cleaning process is documented separately in the *Cyclistic Data Cleaning & Preparation Report*.

Insights

1. Members take far more rides overall than casual riders

The ride count PivotTable shows that **annual members generate the majority of total trips** across the year. This indicates that members are the core user base and rely on Cyclistic for frequent, consistent transportation. Casual riders represent a smaller portion of total rides, suggesting more occasional or situational usage.



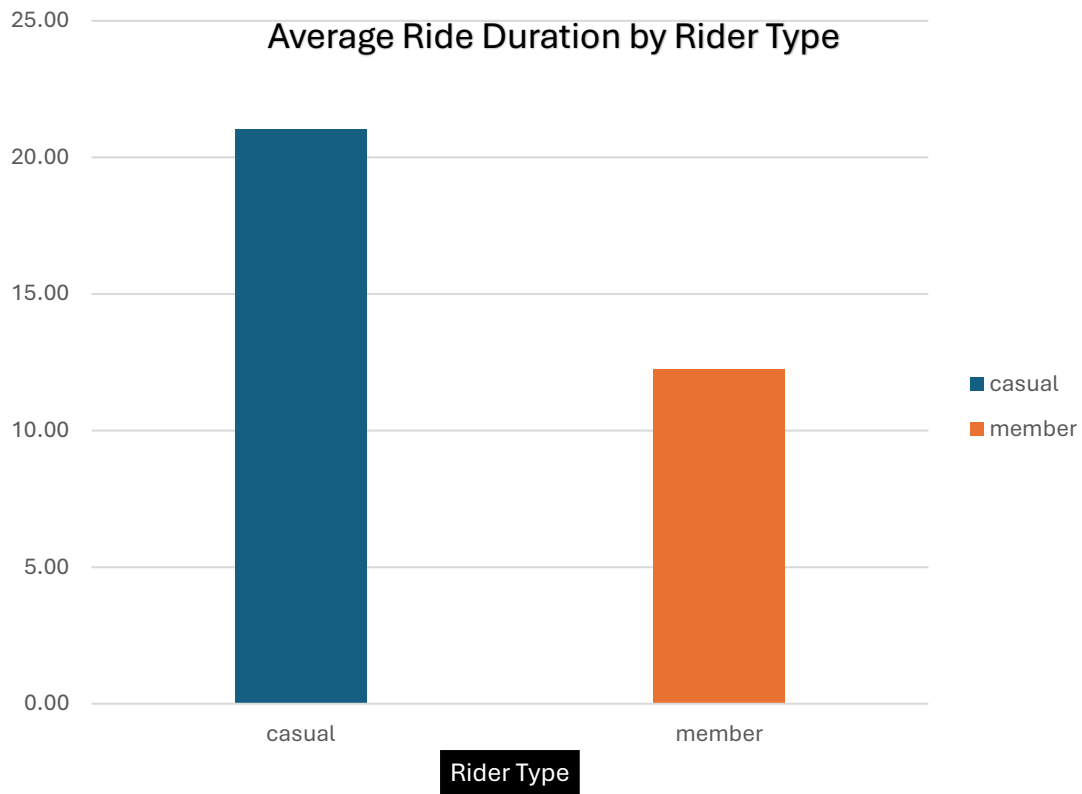
Count of ride_id	Column Labels		
Row Labels	casual	member	Grand Total
January	39,148	146,754	185,902
February	42,120	143,963	186,083
March	60,760	191,327	252,087
April	143,837	272,063	415,900
May	229,334	362,965	592,299
June	295,296	411,185	706,481
July	325,091	428,723	753,814
August	305,614	453,253	758,867
September	257,218	399,138	656,356
October	174,044	355,105	529,149
November	96,768	260,650	357,418
December	50,820	170,260	221,080
Grand Total	2,020,050	3,595,386	5,615,436

2. Casual riders take significantly longer rides than members

The average ride length PivotTable reveals a clear behavioural difference:

casual riders consistently take longer trips, while members take shorter, more predictable rides.

This supports the idea that casual riders are more likely using the service for leisure, exploration, or tourism, while members are using it for commuting or short, utilitarian trips.



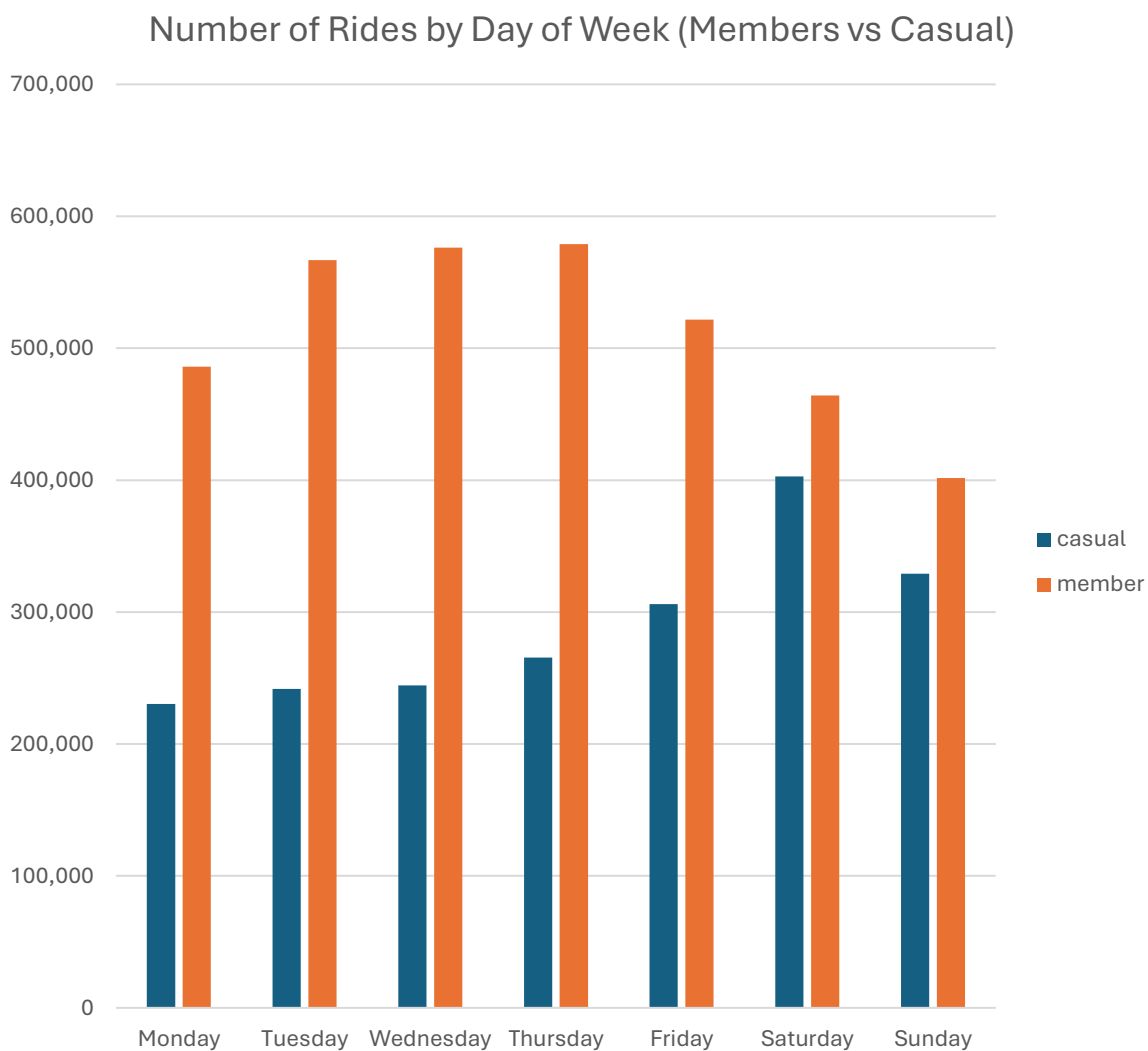
Row Labels	Average of ride_length_minutes
casual	21.03
member	12.26
Grand Total	15.42

3. Members ride most heavily on weekdays, while casual riders peak on weekends

The day-of-week ride count PivotTable shows a strong pattern:

- **Members** ride most frequently Monday–Friday
- **Casual riders** spike on **Saturday and Sunday**

This reinforces the commuter vs. recreational distinction. Members follow a weekday rhythm, while casual riders align with leisure time.

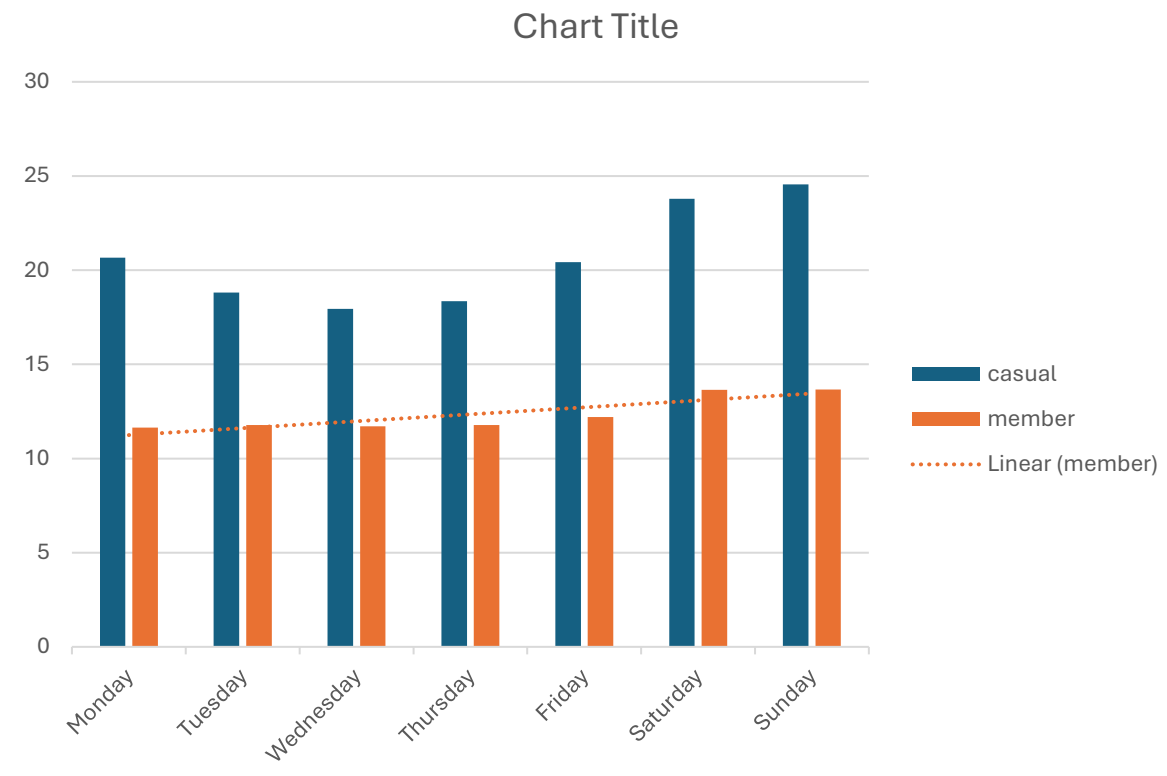


Count of ride_id	Column Labels			Grand Total
Row Labels	casual	member		
Monday	230,450	485,918	716,368	
Tuesday	241,670	566,740	808,410	
Wednesday	244,476	576,377	820,853	
Thursday	265,536	578,895	844,431	
Friday	305,985	521,761	827,746	
Saturday	402,843	464,080	866,923	
Sunday	329,090	401,615	730,705	
Grand Total	2,020,050	3,595,386	5,615,436	

4. Casual riders' ride lengths increase sharply on weekends

The average ride length by day of week shows that casual riders not only ride more on weekends — they also ride **much longer** on those days.

Members remain steady throughout the week, but casual riders show a dramatic weekend increase, suggesting recreational trips, sightseeing, and longer-distance exploration.



Average Ride Length	Column Labels		
Row Labels	casual	member	Grand Total
Monday	20.66332827	11.64553896	14.54649147
Tuesday	18.81611288	11.78153121	13.88448312
Wednesday	17.94713592	11.70442089	13.56369898
Thursday	18.34936506	11.78135931	13.84670506
Friday	20.42558622	12.20529514	15.24401205
Saturday	23.7823147	13.64744656	18.35693135
Sunday	24.54816312	13.66818968	18.56823889
Grand Total	21.02830722	12.26385011	15.41670264

Recommendations

1. Convert casual riders into annual members through targeted weekend promotions

Since casual riders take longer rides and peak on weekends, Cyclistic should introduce **weekend-focused membership incentives**. Examples include discounted first-month membership for riders who take two or more weekend trips, or “Try-a-Membership Weekend” campaigns. These promotions meet casual riders where they already are — using the service for leisure — and encourage them to consider the value of becoming members.

2. Create recreational and tourist-oriented ride packages for casual riders

Casual riders’ long weekend trips suggest leisure, sightseeing, and exploration. Cyclistic can capitalize on this by offering **bundle packages**, such as:

- Day passes with suggested scenic routes
- Partnerships with museums, parks, or waterfront attractions
- Group ride discounts for families or tourists

These offerings align with casual riders’ motivations and can increase revenue without requiring membership conversion.

3. Strengthen commuter-focused benefits to retain and grow the member base

Members ride most frequently on weekdays, indicating strong commuter usage.

Cyclistic should enhance the value of membership by improving **weekday-oriented features**, such as:

- Priority access or guaranteed bike availability at peak commuter stations
- Loyalty rewards for consistent weekday usage
- Work with local companies so their employees can get special membership deals

These strategies reinforce Cyclistic's most reliable revenue stream.

4. Improve station placement and bike availability based on weekday vs. weekend patterns

The clear divide between weekday member usage and weekend casual usage suggests opportunities for operational optimization. Cyclistic should analyze station-level data to ensure:

- High-traffic commuter stations are fully stocked during weekday mornings
- Popular leisure areas (parks, waterfronts, tourist zones) have increased availability on weekends

This improves user satisfaction for both groups and reduces friction during peak times.

5. Enhance onboarding and in-app guidance for casual riders

Because casual riders are less frequent users, they may benefit from clearer instructions and smoother onboarding. Cyclistic could implement:

- In-app tutorials for first-time riders
- Clearer pricing explanations
- Suggested routes and safety tips

Better onboarding reduces confusion, increases rider confidence, and encourages repeat usage.

Conclusion

This analysis reveals clear and actionable differences between Cyclistic's annual members and casual riders. Members ride more frequently and follow a weekday commuting pattern, while casual riders take longer rides and peak on weekends, suggesting recreational or tourist behavior. These patterns offer Cyclistic a strategic opportunity to tailor its marketing, membership incentives, and operational planning to better serve both groups.

By launching weekend-focused promotions, creating leisure-oriented ride packages, enhancing commuter benefits, optimizing bike availability, and improving onboarding, Cyclistic can convert more casual riders into loyal annual members. These recommendations are grounded in data and designed to support long-term growth, improve rider satisfaction, and strengthen Cyclistic's position in the competitive bike-share market.

