



Cyclistic Bike-Share Analysis: 10-Minute Version

1 Introduction

Cyclistic is a Chicago-based bike-sharing company aiming to increase **annual memberships**, which generate more revenue than casual rides. This analysis identifies **key ridership trends** (2021-2024) and proposes **data-driven strategies** to improve conversions.

2 Methodology

The study integrates:

- ✓ **R Programming** – Data cleaning, merging, and analysis of ride patterns.
- ✓ **Tableau** – Visualization of key trends and user behavior.
- ✓ **NOAA Weather Data** – Examining the impact of temperature, humidity, and wind on ridership.

3 Key Findings

✦ User Behavior

- ✓ **Casual riders** prefer weekends and take longer, leisure-focused rides.
- ✓ **Annual members** ride consistently on weekdays, primarily for commuting.
- ✓ Ridership peaks in **summer (June-August)** and drops in **winter (January-February)**.
- ✓ Casual riders **shifted from classic to electric bikes** over the years.
- ✓ Docked bikes were primarily used by casual riders but were discontinued after 2023.

✦ Weather Impact

- ✓ **15-25°C** is the ideal riding temperature.
- ✓ Extreme cold (<5°C) and heat (>30°C) **significantly reduce ridership**.
- ✓ Humidity above 85% negatively impacts casual riders but **has little effect on annual members**.

✦ Bike Usage Trends

- ✓ Annual members use **bikes more consistently** throughout the year.
- ✓ Casual riders contribute significantly to **summer revenue** but are highly **seasonal**.
- ✓ The **peak riding period** is between **4 PM - 6 PM** for annual users, and **12 PM - 8 PM** for casual riders.

4 Business Strategies & Recommendations

✦ 1 Convert Casual Riders into Annual Members

- ✓ **Target them from April-July** by sending personalized ride summaries (distance, CO₂ saved, amount spent).
- ✓ **Limited-Time August Offer:**
 - **Option 1:** \$150 cancellation fee waived + annual membership at **\$130**
 - **Option 2:** **10% discount + branded riding gloves**

✓ **Evening Marketing Campaign:** Physical marketing at peak **casual ridership hours (4 PM - 8 PM)**.

📌 2 Target the Tourist & Student Market

✓ **Tourist Pass (June-September):** Available at airports, hotels, and key landmarks.

✓ **Student Membership Drive (August-September):** Special student discount at university orientations.

📌 3 Winter Fitness Initiative (January Challenge)

✓ 31-day **Cyclistic Fitness Challenge** 🚴 – Participants complete **20-minute daily rides** in January.

✓ **Classic bikes only** (to increase physical effort).

✓ **Completion Rewards:** Discounted membership + “Cyclistic Fit” badge.

✓ **50% of profits donated to Chicago Public Schools.**

📌 4 Strengthen Infrastructure & Operations

✓ **Optimize station locations** based on heat map data.

✓ **Winter-proof bikes** with heated seats & snow tires.

✓ **University partnerships** to integrate Cyclistic passes into student IDs.

5 Conclusion

With **seasonal strategies, psychological triggers, and targeted offers**, Cyclistic can **increase memberships**, boost revenue, and position itself as Chicago’s go-to mobility solution.



📌 Full Project Resources

[!\[\]\(eabd9f9ababee93effadc3b380fe65fd_img.jpg\) Full Project Report](#)

[!\[\]\(83bbbd261710c59db0214aa27b2edc0d_img.jpg\) Tableau Dashboard](#)

[!\[\]\(166772600a13ad0a433053f90fe45649_img.jpg\) Dataset Source](#)

🚀 Explore the analysis, interactive dashboards, and raw data to gain deeper insights!