🚲 Ford GoBike User Behavior Analysis

Name: Ashish Khomane

Course: Data Analysis Internship

Date: April 2025

Project Type: Exploratory Data Analysis & Business Insights

# Project Summary

This project analyzes the January 2018 usage data of Ford GoBike, a bike-sharing service in San Francisco. The goal is to uncover usage trends, understand customer behavior, and provide actionable insights to improve service efficiency and user engagement.

# Problem Statement

To understand how different types of users interact with the bike-sharing system, and identify trends in ridership by time, age, gender, and trip duration.

# Business Objective

Provide Ford GoBike with actionable insights based on user behavior and trip patterns. This includes identifying peak hours, understanding user demographics, and suggesting improvements to support growth and user satisfaction.

# Key Visualizations

📌 Note: Insert screenshots of the following charts from your notebook here:

* 1. User Type Distribution
* 2. Gender Distribution
* 3. Age Distribution
* 4. Trip Duration Distribution
* 5. Most Active Ride Hours
* 6. Trip Duration by User Type
* 7. Trip Duration by Gender
* 8. User Type by Hour of Day

# Key EDA Insights

## User Type Distribution

📌 Why this chart: To understand the distribution of Subscribers vs Customers.

🔍 Insight: Subscribers form the majority of the user base.

## Gender Distribution

📌 Why this chart: To explore demographic spread and potential targeting gaps.

🔍 Insight: Male users dominate, followed by Female, with minimal 'Other/Unknown'.

## Age Distribution

📌 Why this chart: To see which age groups are most active on the platform.

🔍 Insight: Users aged 25–40 are most frequent riders.

## Trip Duration Distribution

📌 Why this chart: To assess how long trips typically last.

🔍 Insight: Most rides are under 20 minutes, suggesting commuter use.

## Most Active Ride Hours

📌 Why this chart: To identify peak usage times for operations planning.

🔍 Insight: Peak usage is during 8 AM and 5–6 PM — typical commute hours.

## Trip Duration by User Type

📌 Why this chart: To compare casual vs regular user behavior.

🔍 Insight: Customers take slightly longer trips than Subscribers.

## Trip Duration by Gender

📌 Why this chart: To check if ride lengths differ across genders.

🔍 Insight: Trip durations are fairly consistent across genders.

## User Type by Hour of Day

📌 Why this chart: To match user type behavior with time-of-day trends.

🔍 Insight: Subscribers ride mostly during commute hours; Customers during mid-day.

# Business Recommendations

- Prioritize availability of bikes during commute hours.

- Design marketing campaigns for female riders and underrepresented age groups.

- Offer flexible pricing packages for casual users who take longer, leisure-oriented trips.

- Use insights on peak hours and demographics to improve operational planning.

# Conclusion

The Ford GoBike system is most used by young adult subscribers during weekday commute hours. These findings can guide targeted marketing, operational enhancements, and service optimizations to better serve user needs and increase adoption.