

CASE STUDY

Background

Cyclistic introduced a popular bike-share programme in 2016. The initiative has expanded since then to include a fleet of 5,824 bicycles that are geotracked and locked into a system of 692 stations throughout Chicago. The bikes may at any time be unlocked from one station and brought back to any other station in the network.

Up to this point, Cyclistic's marketing approach focused on raising public awareness and appealing to a wide range of consumer groups. The price plans' flexibility, which included single-ride passes, full-day passes, and annual memberships, was one strategy that assisted in making these things possible. Casual riders are those who buy one-ride or all-day passes from the company. Cyclistic members are customers who purchase annual memberships.

It is concluded that increasing the number of annual members will be essential for future growth. There is a very high possibility to turn casual riders into members rather than developing a marketing effort that targets only new clients. Casual riders already know about the Cyclistic programme and have decided to use it for their mobility requirements.

Following goals are needed to be achieved.

1. Design marketing strategies aimed at converting casual riders into annual members.
2. How annual members and casual riders differ, why casual riders would buy a membership?
3. How digital media could affect their marketing tactics?
4. Analyzing the Cyclistic historical bike trip data to identify trends.

Introduction

For this case these steps will be followed to ensure its completion:

1. Ask
2. Prepare
3. Process
4. Analyze
5. Share
6. Act

Each phase will have some tasks and deliverables.

Ask

Three questions will guide the future marketing program:

1. How do annual members and casual riders use Cyclistic bikes differently?
2. Why would casual riders buy Cyclistic annual memberships?
3. How can Cyclistic use digital media to influence casual riders to become members?

I have been assigned first task.

Business Task: To find the differences in usage patterns between casual and members riders. To derive top insights that will help the marketing team to increase annual members.

Prepare

Cyclistic's historical trip data will be used to analyze and identify trends. Data source can be viewed [here](#).

Data source for this study is the 12 months (Between January 2022 and December 2022) of riding data provided by the Cyclistic company.

Process

In this phase, the data cleaning and manipulation is performed.

Tools used: Python

Brief Procedure

- Removing Null values.
- Removing duplicate values.
- Converting data to suitable format.
- Removing unnecessary columns.
- Calculating time duration of ride.
- Finding week days of ride dates.
- After performing above steps for all files, these cleaned files were combined to a single csv file.

Analyze

In this phase, a bit more of data manipulation and exploratory data analysis is performed.

Tools used: Python

Brief Procedure

- Dropping values with negative ride duration.
- Calculating ride duration in minutes.
- Determining months of ride dates.
- Calculating mean ride lengths and most frequent week day.
- Grouping data by weekdays.
- Grouping data by months.
- Grouping data by bike types.

Share

In this phase, visualizations are made to check about the patterns found from analyzing the data. These visualizations will be shared to stakeholders.

Tools used: Tableau and Canva

Brief Procedure

- Making all the suitable plots.
- Making an interactive dashboard
- Creating a presentation combining insights with visualizations.

Act

In this phase, all the deliverables will be uploaded and presentation will be given. Top three recommendations based on the insights need to be delivered.

Summary

- Most frequent day for the ride is **Saturday**.
- Mean ride length is about **22 minutes** while median is about **12 minutes**.
- Average time per ride for casuals is approximately **20 minutes** more than that for members.
- People tend to ride **8 minutes** longer during weekends.
- People tend to ride more during weekends.
- Casual outnumber members in total rides during weekends. Casual may be using rides for recreational purposes on weekends.
- As the weather starts getting warmer, the number of rides starts increasing while for colder weathers, the number of rides is less compared to that in warm weather.
- Warm weather witness larger duration of rides as compared to cold weather.
- **June, July** and **August** are the peak months.
- During colder months, casual tends to ride less as compared to members. Casual constitute for only **25%** of total rides in colder months.
- During warmer months, casuals are **slightly** riding more.
- The peak time for rides is afternoon while the nights are least busy.
- Most preferred bike type is **classical bike** while least preferred is **docked bike**. Trend is same for both casuals and members.