

CYCLISTIC CAPSTONE PROJECT



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OUTLINE

- COMPANY BACKGROUND
- BUSINESS TASK
- DATA PREPARATION
- ANALYSIS
- CONCLUSION
- RECOMMENDATIONS

INTRODUCTION

In 2016, Cyclistic launched a successful bike-share offering. Since then, the program has grown to a fleet of 5,824 bicycles that are geotracked and locked into a network of 692 stations across Chicago. The bikes can be unlocked from one station and returned to any other station in the system anytime.

Cyclistic sets itself apart by also offering reclining bikes, hand tricycles, and cargo bikes, making bike-share more inclusive to people with disabilities and riders who can't use a standard two-wheeled bike. The majority of riders opt for traditional bikes; about 8% of riders use the assistive options. Their users are more likely to ride for leisure, but about 30% use them to commute to work each day.

Cyclistic has flexible pricing plans: single-ride passes, full-day passes, and annual memberships, which has grown its customer segment and reach over time. Customers who purchase single-ride or full-day passes are referred to as casual riders. Customers who purchase annual memberships are Cyclistic members

BUSINESS TASK

Cyclistic currently has a customer base of casual and member riders but they believe they can expand by maximizing their casual riders and converting them to member riders rather than targeting all-new customers.

Key stakeholders of this study are; Cyclistic executive team – executive that will decide to approve the recommended marketing program, Lily Moreno – director of marketing, cyclistic marketing analytics team – a team of analyst responsible for analyzing and reporting data that guides marketing strategy.

Task

“To understand the ‘nature of bike usage between casual and annual member and the insight gained applied in coming up with a strategy to increase annual memberships”.

Description of data used

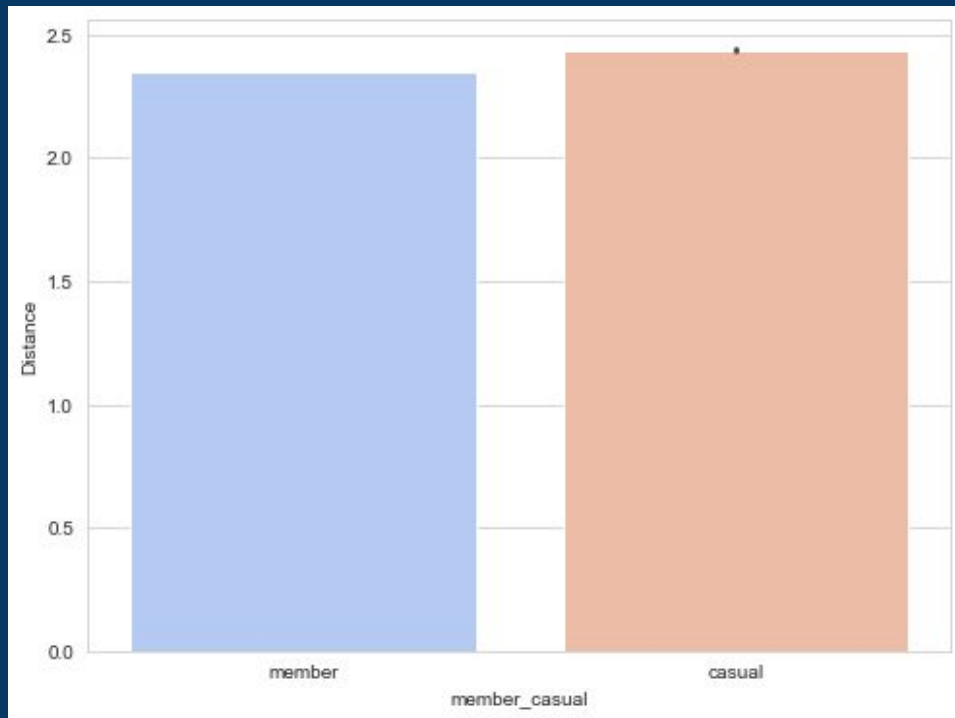
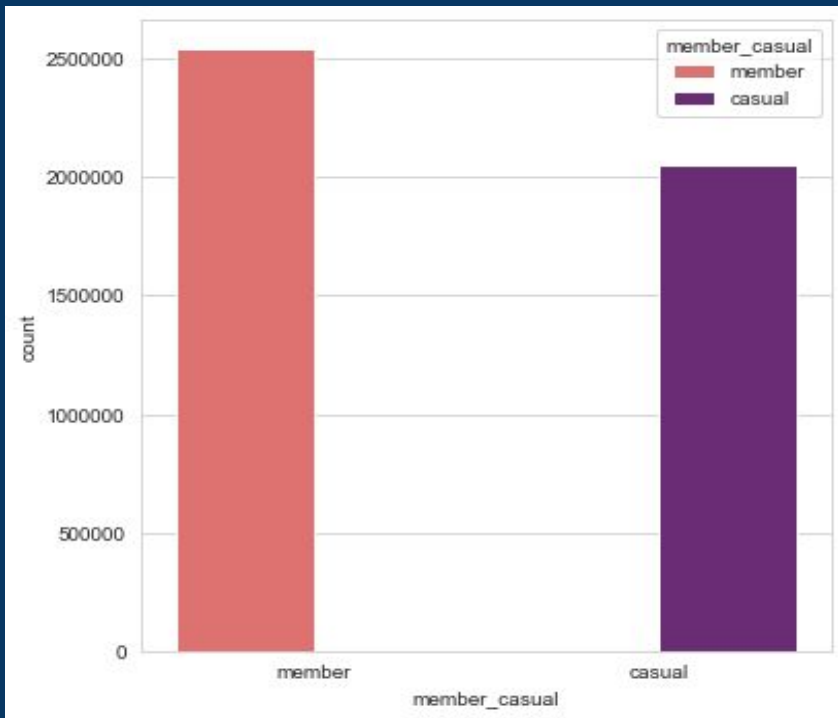
The data source used for this case study is Cyclistic Tripdata (2101 - 2112). The dataset was made available through Motivate International Inc. This data set contains bike ride details from year 2013 – 2022 (July being the most recent month) collated on a monthly basis and sometimes quarterly basis. It includes information about bike type, start and end time, start and end station, latitude, longitude and customer type.

Data used is easily accessible, its open source and can be copied but has data privacy issues which prohibits you from using riders' personally identifiable information

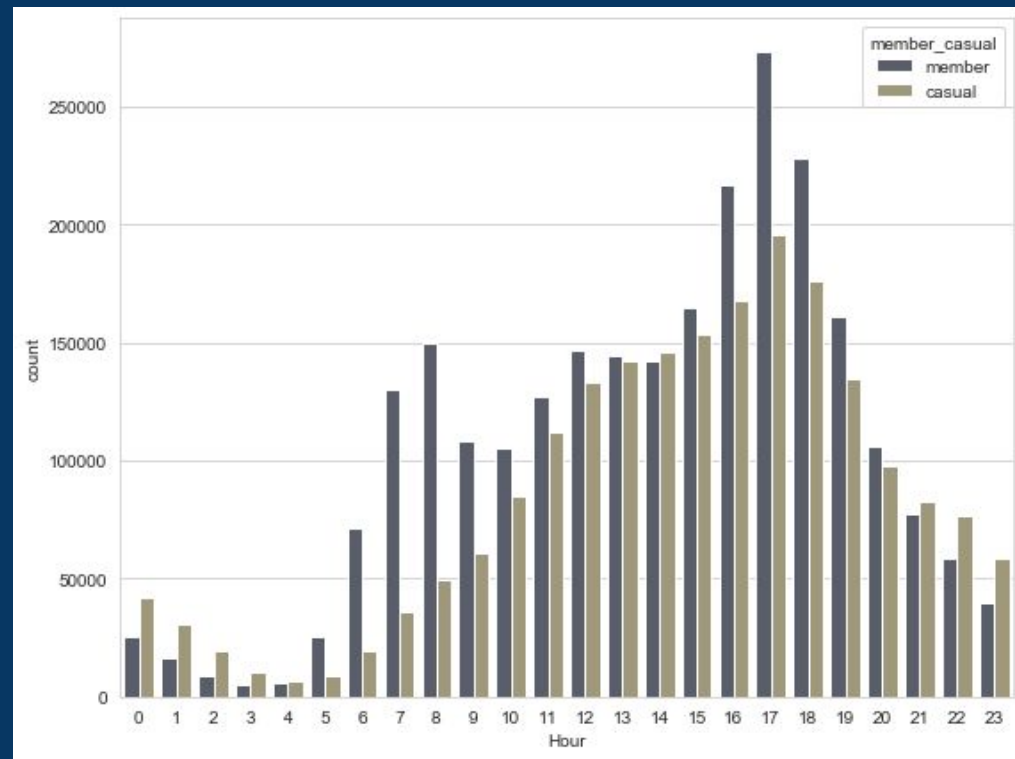
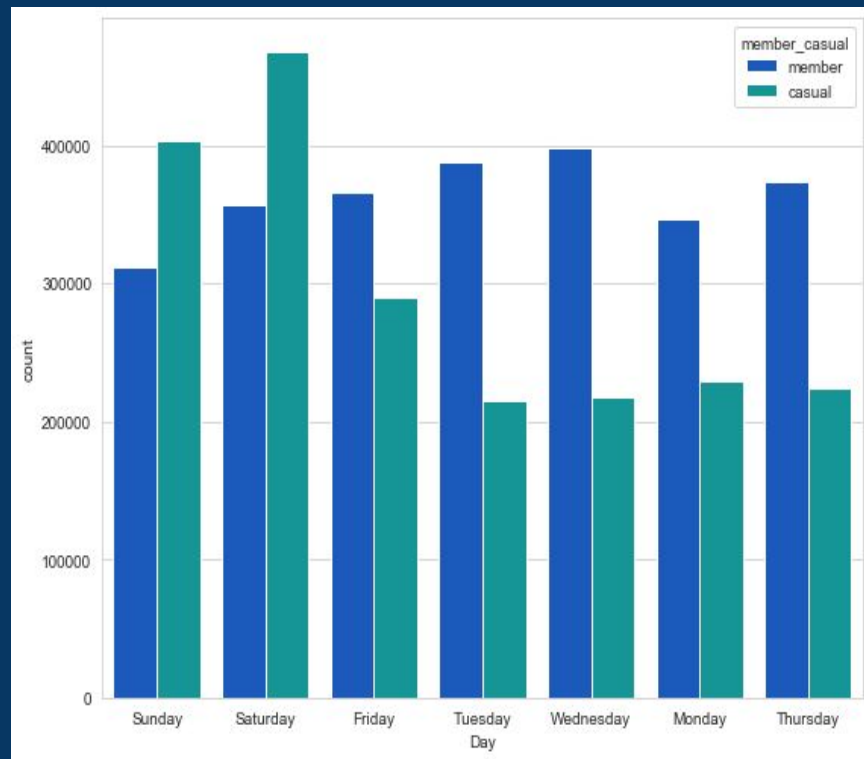
Data cleaning and Manipulation

Python, its library and visualization package was used to clean, manipulate analyze the dataset under review and also provide visualization of result analysis

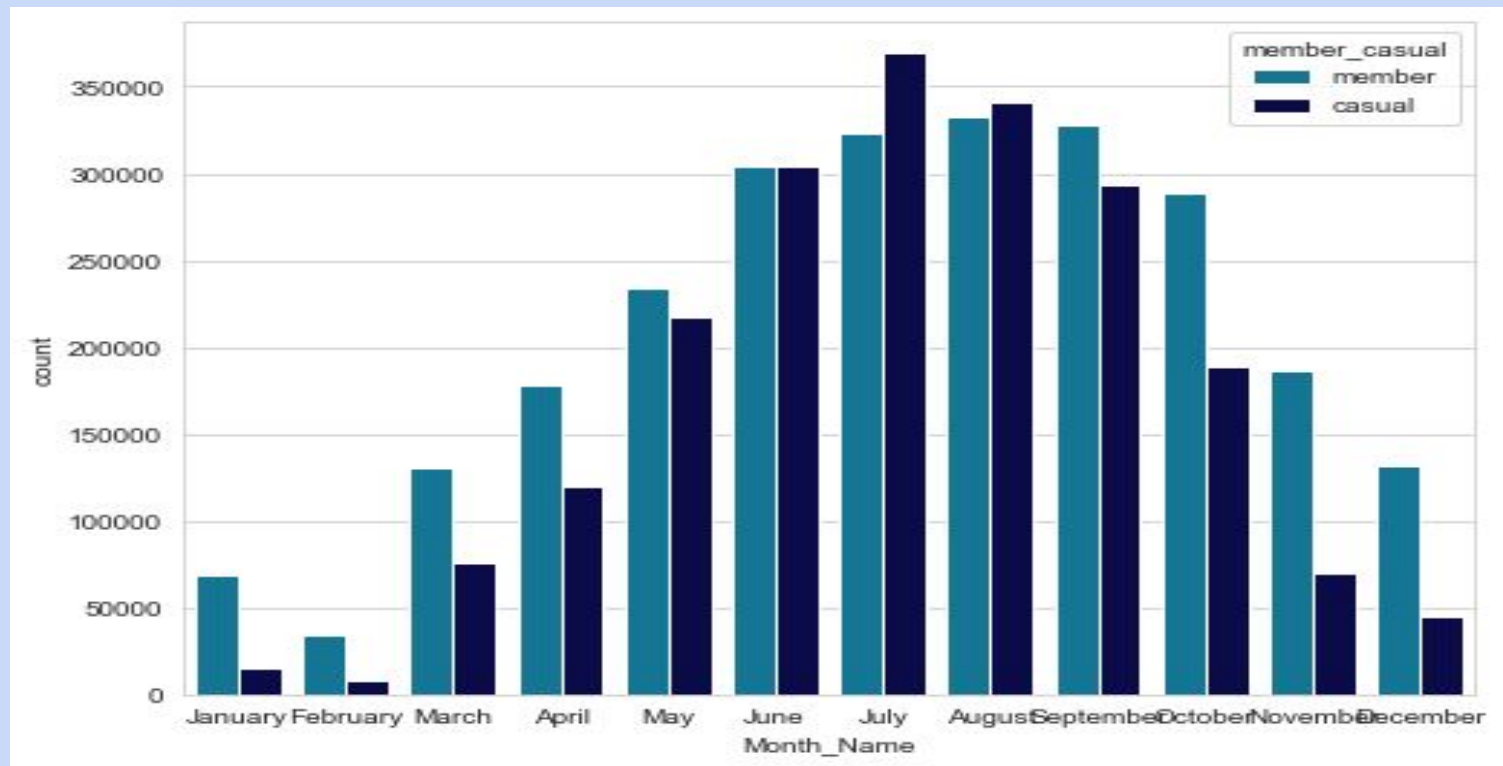
ANALYSIS



From the images above we can deduce that member riders used their bikes more but casual riders covered more distance overall.

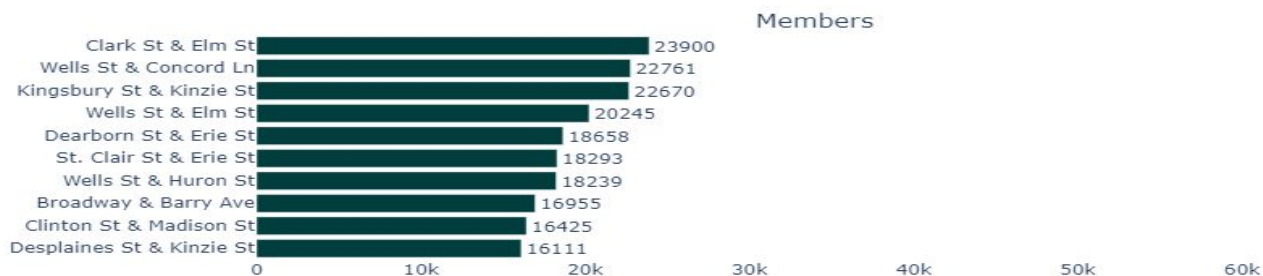


Casual riders rode more on weekends which support the narrative that they ride for leisure. Rides peaked between 16:00 - 18:00 for both rider group which implies that most trips were made towards the evening which will be a good time to push any recommendation and capture most riders.



The analysis also showed that more rides happened in July and August for both casual and member riders, which are summer months. So season is an important point to note as it contributes to bikers behaviour and interaction with cyclicistic.

Top 10 Start Stations




Streeter Dr Avenue was the start point with the highest number of rides for casual riders (which consist of parks, recreational centers, beach etc; this buttresses the point that most casual riders ride for leisure)

Top 10 Start station for Casual Riders by weekday

Start Station Name	Member Casual / Day							Distance
	Sunday	Monday	Tuesday	Wednes..	Thursday	Friday	Saturday	
Streeter Dr & Grand Ave	7,393	3,359	1,892	1,672	1,390	2,791	8,200	 322 8,200
Lake Shore Dr & Monroe St	4,309	2,247	1,269	901	838	2,067	4,881	
Michigan Ave & Oak St	3,361	1,886	1,179	953	878	1,323	3,758	
Lake Shore Dr & North Blvd	3,465	1,568	1,056	965	608	1,141	3,196	
Theater on the Lake	3,460	1,503	1,028	823	687	1,116	3,245	
Wells St & Concord Ln	1,877	797	672	734	766	1,122	2,361	
Clark St & Lincoln Ave	1,710	969	721	688	611	899	2,388	
Indiana Ave & Roosevelt Rd	1,830	975	660	630	509	1,054	1,934	
Clark St & Elm St	1,670	842	825	673	633	1,046	1,873	
St. Clair St & Erie St	900	556	556	437	322	446	769	

Top 10 Start station for Member Riders by weekday

Start Station Name	Member Casual / Day							Distance
	Sunday	Monday	Tuesday	Wednes..	Thursday	Friday	Saturday	
Clark St & Elm St	1,893	1,750	1,820	1,824	1,650	1,941	2,443	 635 2,905
Theater on the Lake	2,905	1,865	1,466	1,605	1,216	1,289	2,862	
St. Clair St & Erie St	737	2,165	2,229	2,250	1,992	2,086	849	
Wells St & Concord Ln	1,732	1,524	1,609	1,712	1,519	1,799	2,251	
Michigan Ave & Oak St	1,770	1,715	1,427	1,375	1,159	1,425	1,979	
Streeter Dr & Grand Ave	2,430	1,464	1,186	1,031	887	1,200	2,359	
Lake Shore Dr & North Blvd	2,284	1,676	1,234	1,176	817	1,164	2,171	
Clark St & Lincoln Ave	1,625	1,159	1,192	1,256	965	1,147	1,948	
Lake Shore Dr & Monroe St	2,190	1,294	1,070	926	635	753	1,943	
Indiana Ave & Roosevelt Rd	1,636	1,105	1,075	1,082	891	1,233	1,557	

This further buttresses the initial conclusion of most rides happening weekends especially Saturdays.

Conclusion

The dataset is large thus ruling out sample bias. Its integrity and credibility is also intact as its first party data and internal to the company.

From the analysis carried out so far, casual riders have more engagement with cyclistic bikes and tailored membership subscription should be adopted to adequately capture them while still serving their purpose of riding.

Recommendations

Coupons should be introduced on annual membership based on ride time and distance covered as a means to attract casual riders as they currently ride longer and cover a longer distance.

Discount weekday plans should be introduced to get more casual riders to use their bike often on weekdays too and in time entice them to embrace annual membership plan

Cyclistic should introduce a summer only membership for casual riders who will be hesitant to subscribe to a full year membership plan

Recommendations

Monthly/weekly membership plan should be introduced which will propel casual riders to embrace annual membership eventually once they become familiar and comfortable with the membership plan

A 'tour the city' campaign can be organized to cover a minimum of 52 suggested routes targeted at casual riders to occur every weekend. Thus they tour their city in one year (the price in determining the rental fee can be benchmarked to an annual subscription discounted on a weekly basis).

A customer appreciation incentive, such as 10% off annual membership fee renewal for returning riders who wish to enjoy cyclistic offers long term

THANK YOU