Cyclistic Case Study /

Subscription Enhancement of a Bike Share Company

Google Data Analytics Capstone Project

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1. Convert casual riders to annual members to drive long term business success.

2. See how casual riders ride differently than members.

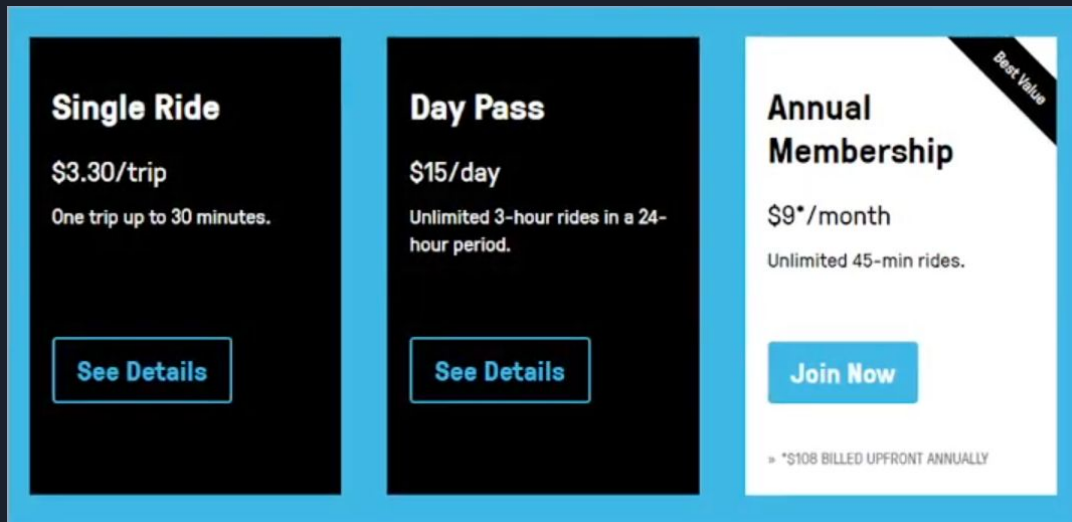# OBJECTIVE

Bikeshare company with over 6,000 bikes and 600 locations

3 Bike types - Classic, E-bike & Docked

Currently has 3 tiers of riders

ABOUT CYCLISTIC

Was conducted via DIVVY & the City of Chicago and was made available to us via Data License Agreement.

Consists of previous 12 months of data, from 1 July, 2022 to 30 June, 2023 and approximately 5.6 million data points.

Was conducted on a 1st party basis indicating high integrity.

THE DATA

DATA SHORTCOMINGS

1. Casual refers to any rides that weren't member rides.

2. Due to Consumer Protection laws, we can't see how many times customers made purchases.

3. We don't have access to distance rode per trip.

4. Some nulls and general errors with overall data.

THE PROCESS

SQL & Tableau.

Data with unknown errors kept.

ride_id [PK] text	rideable_type text	started_at timestamp wi	ended_at timestamp wi	start_station_name text	start_station_id text	end_station_name text	end_station_id text	start_lat double precis	start_lng double precis	end_lat double precis	end_lng double precis	member_casual text
0000017...	electric_b...	2022-07-...	2022-07-...	Ellis Ave & 55th St	KA1504000...	Ellis Ave & 55th...	KA150400...	41.79423733	-87.6013428:	41.79430062	-87.6014497	casual
0000038...	electric_b...	2022-12-...	2022-12-...	Lakeview Ave & ...	TA13090000...	Clark St & Elm St	TA130700...	41.92582595	-87.6388230:	41.902973	-87.63128	casual
0000047...	electric_b...	2022-07-...	2022-07-...	Streeter Dr & Gra...	13022	Calumet Ave & ...	13102	41.89220883	-87.6118311(	41.857611	-87.619407	casual

Split timestamps to be more specific.

start_timestamp timestamp without tim
2022-07-01 00:00:01
2022-07-01 00:00:02
2022-07-01 00:00:16

start_time time without t	start_day text	start_month text
00:00:01	Friday	July
00:00:02	Friday	July
00:00:16	Friday	July

This was original data format.

| ride_id [PK] text	rideable_type text	started_at timestamp wi	ended_at timestamp wi	start_station_name text	start_station_id text	end_station_name text	end_station_id text	start_lat double precis	start_lng double precis	end_lat double precis	end_lng double precis	member_casual text
0000017...	electric_b...	2022-07-...	2022-07-...	Ellis Ave & 55th St	KA1504000...	Ellis Ave & 55th...	KA150400...	41.79423733	-87.6013428;	41.79430062	-87.6014497	casual
0000038...	electric_b...	2022-12-...	2022-12-...	Lakeview Ave & ...	TA13090000...	Clark St & Elm St	TA130700...	41.92582595	-87.6388230;	41.902973	-87.63128	casual
0000047...	electric_b...	2022-07-...	2022-07-...	Streeter Dr & Gra...	13022	Calumet Ave & ...	13102	41.89220883	-87.6118311(	41.857611	-87.619407	casual

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This is what I converted it into.

ride_id text	membership_type text	bike_type text	start_timestamp timestamp without tim	start_time time without t	start_day text	start_month text	end_timestamp timestamp without time	end_time time without t	end_day text	end_month text	duration_in_min numeric
7EA7A3A...	casual	classic_bi...	2022-07-01 00:00:01	00:00:01	Friday	July	2022-07-01 00:11:06	00:11:06	Friday	July	11.08
AAB8184...	casual	electric_b...	2022-07-01 00:00:02	00:00:02	Friday	July	2022-07-01 00:41:27	00:41:27	Friday	July	41.42
C60D39A...	member	electric_b...	2022-07-01 00:00:16	00:00:16	Friday	July	2022-07-01 00:07:38	00:07:38	Friday	July	7.37

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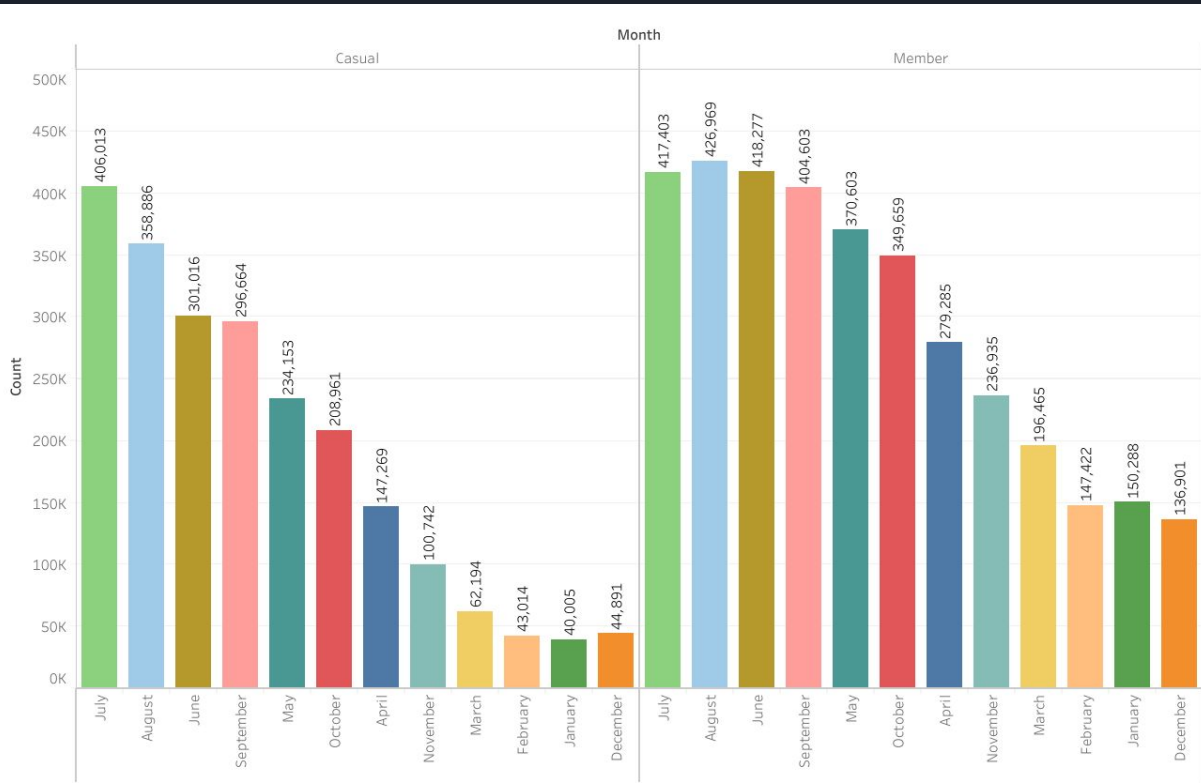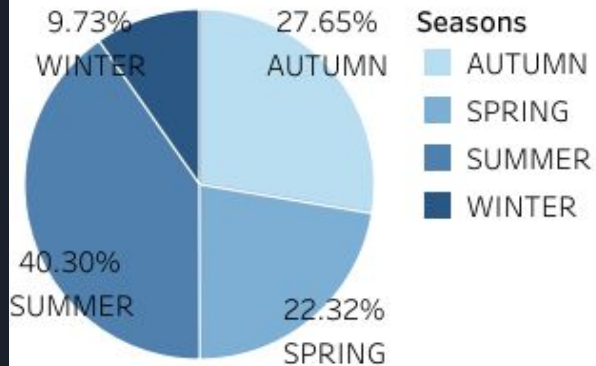# THE PROCESS (cont..)
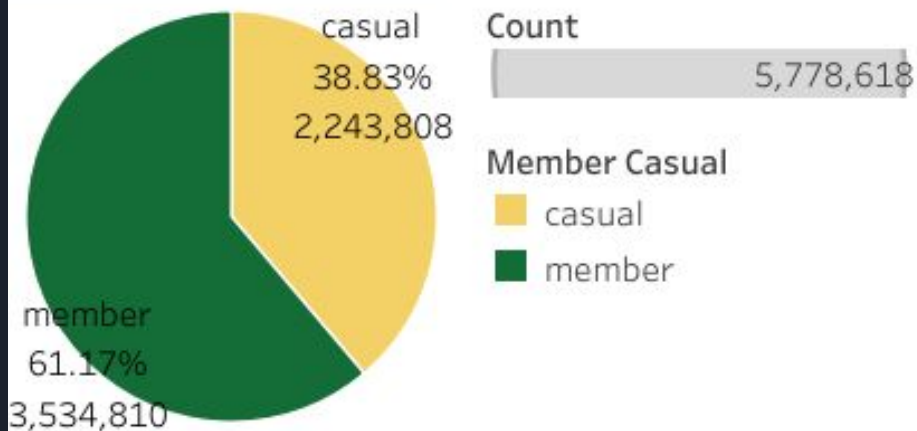
Overall Riders
Total of 57,78,618 riders last year

Monthly Riders
Busiest month was July - 8,23,416
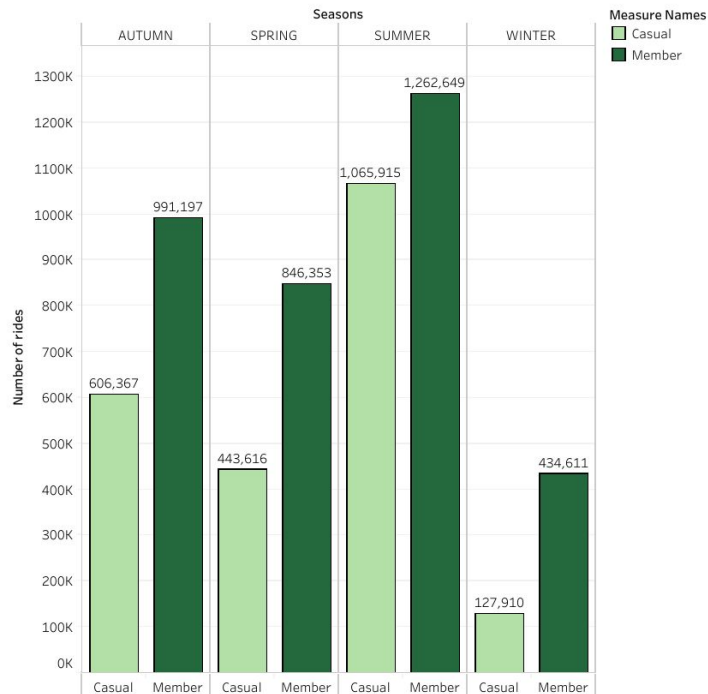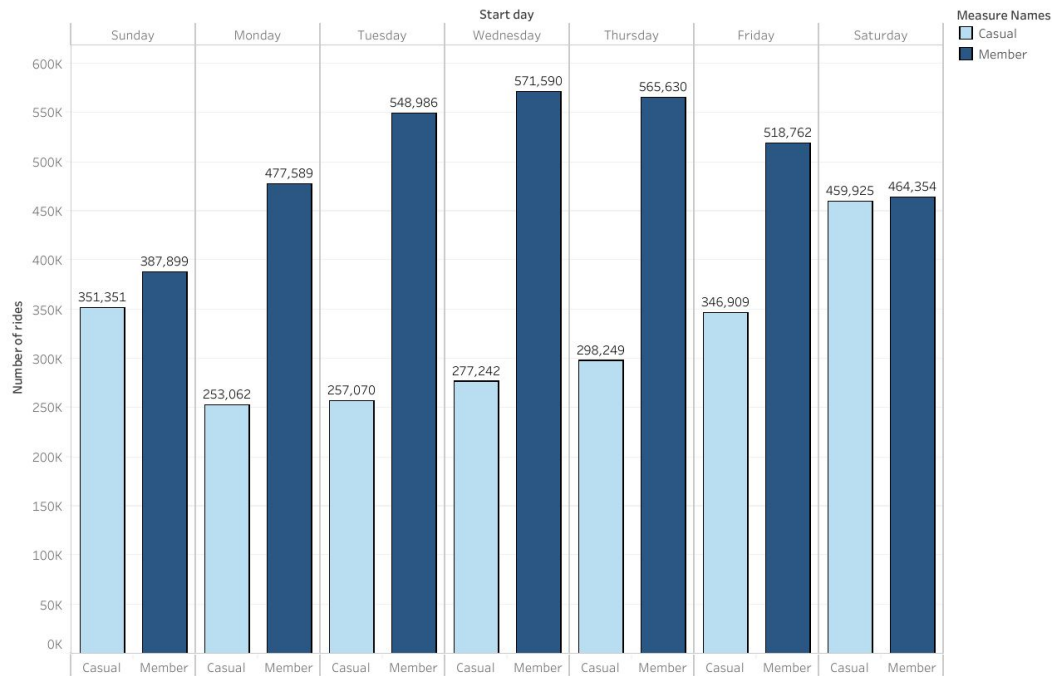Slowest month was December - 1,81,792
More members per month

Seasonal Riders
Majority of Ridership comes from Summer
Massive falloff in Winter

Daily Riders
Members ride more during the week
Casuals ride more on weekends

Start Day/ Subscription Type

Start day		Avg ride duration (in mins)
Sunday	Casual	32.62
	Member	13.67
Monday	Casual	27.10
	Member	11.77
Tuesday	Casual	24.14
	Member	11.84
Wednesday	Casual	23.12
	Member	11.83
Thursday	Casual	23.15
	Member	11.89
Friday	Casual	26.42
	Member	12.29
Saturday	Casual	32.11
	Member	13.96

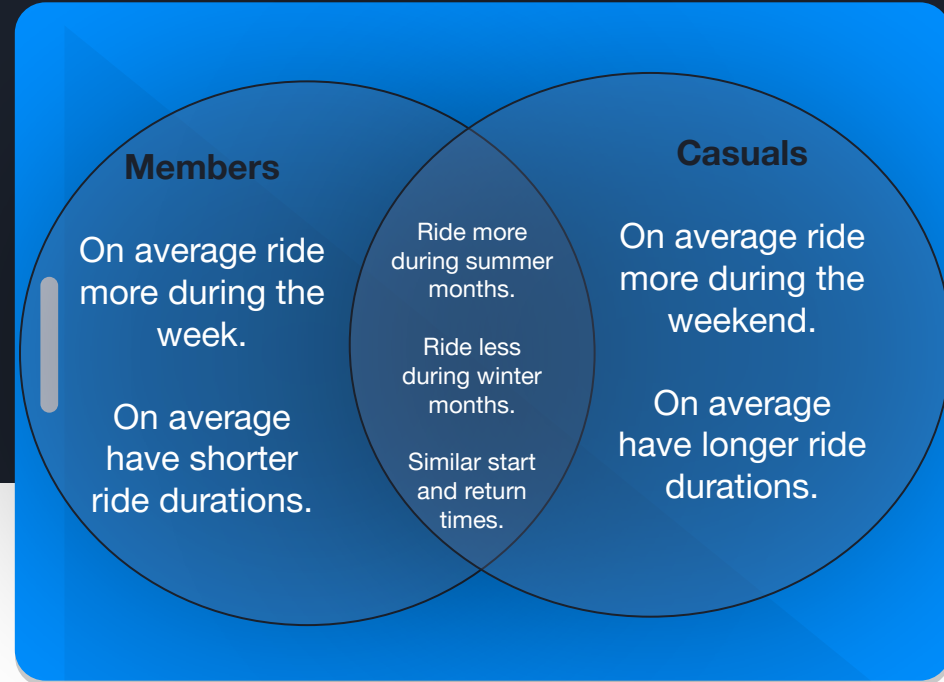Measure Names
- Casual
- Member
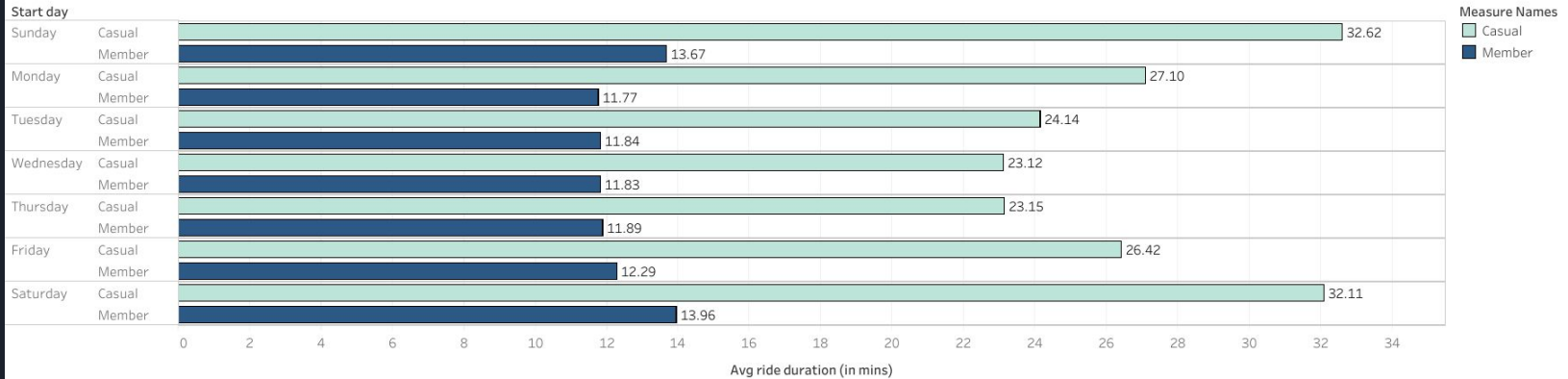
Average Ride Duration
Casuals ride longer on average
Members are under 14 minutes on average daily

Annual Benefits

1. Unlimited 45min rides.
2. Potentially more value per month for frequent riders.

INSIGHTS

Members

On average ride more during the week.

On average have shorter ride durations.

Ride more during summer months.

Ride less during winter months.

Similar start and return times.

Casuals

On average ride more during the weekend.

On average have longer ride durations.

OPTION 1

Make annual memberships include unlimited 3 hour rides, instead of unlimited 45 minutes.

OPTION 2

Create in between tier for memberships, possibly $75 annually ($6.25 monthly), that includes annual benefits only on weekends.

OPTION 3

Create in between tier for memberships, possibly $60 billed annually ($5 monthly), that includes annual benefits only on summer months.

SUGGESTIONS