

CASE STUDY REPORT

1. The Business Task is to design a new marketing strategy to convert casual rides into annual members.
2. I have used a dataset from Cyclic trip data provided in this course which contains 96835 rows and 13 columns with names as ride_id, rideable_type, started_at, ended_at, start_station_name, end_station_name, start_station_id, end_station_id, start_lat, start_lng, end_lat, end_lng, member_casual.
3. Found null values and unique values in the dataset:

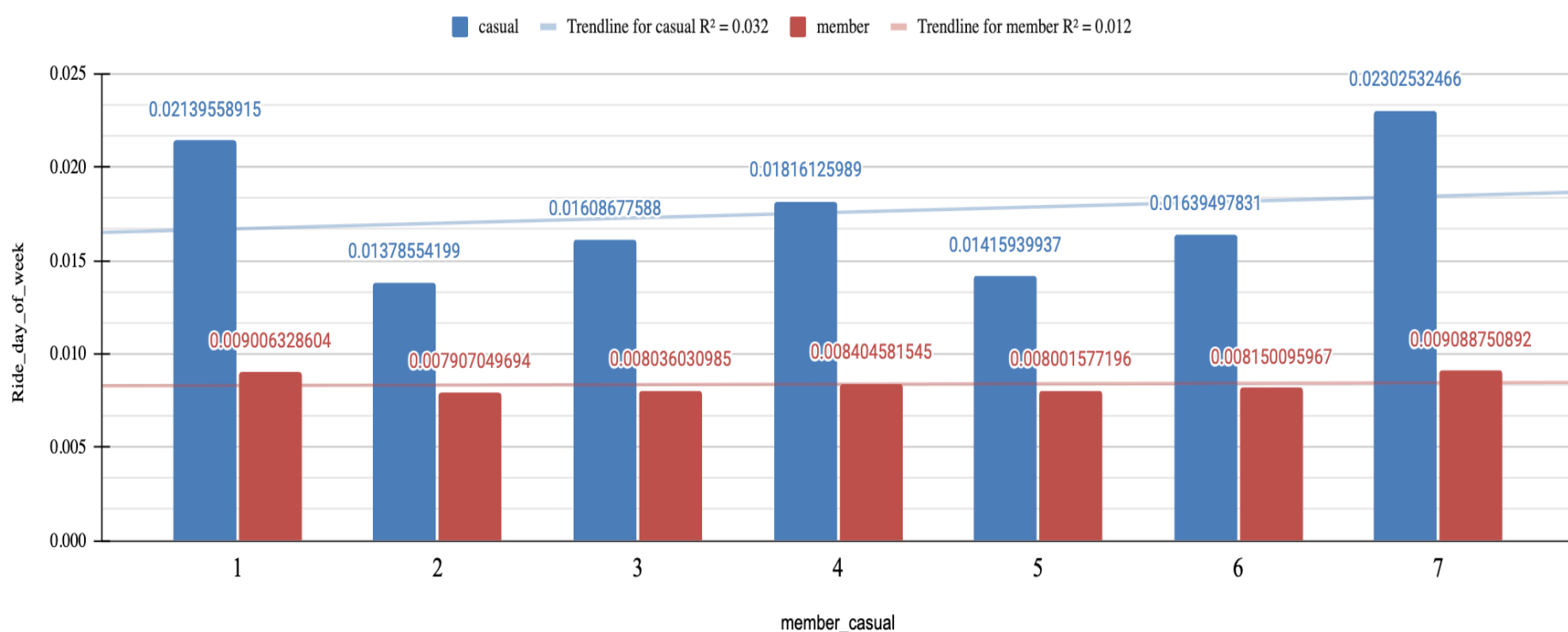
		1 df.nunique()	
	0		0
ride_id	0	ride_id	104489
rideable_type	0	rideable_type	3
started_at	0	started_at	101422
ended_at	0	ended_at	101179
start_station_name	1651	start_station_name	674
start_station_id	1651	start_station_id	667
end_station_name	2065	end_station_name	652
end_station_id	2065	end_station_id	645
start_lat	0	start_lat	19636
start_lng	0	start_lng	19550
end_lat	18	end_lat	19709
end_lng	19	end_lng	19710
member_casual	1	member_casual	2

Handle unique values and null with statistical methods such as measure of central tendency - mean, median, mode and by fillna and dropna method. Then performed a few calculations by creating new columns such as Ride_length =(ended_at - started_at) and day_of_length by formatting the number of days in a week as 1 through 7 by using formula =WEEKDAY(c2,1).

4. I have analyzed data, found correlations between columns and generated insights from the dataset between rideable_type, member_casual.

Casual Vs Member

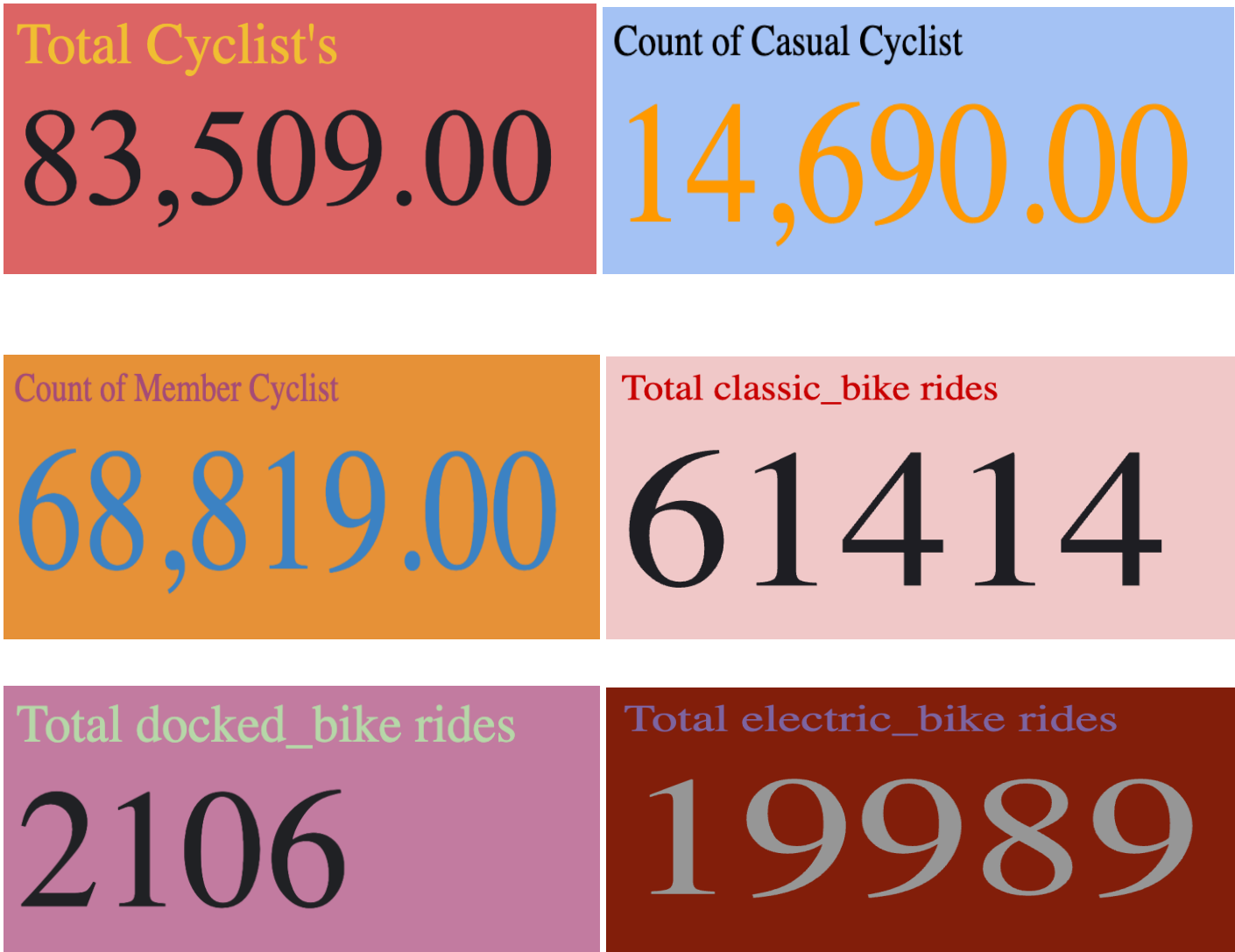
Difference between casual and member cyclists with respect to average value of ride_day_of_week



The above plot represents the barplot between the casual and member cyclists with the average value of ride of days in the week. Where the casual cyclists ride bikes on single and on one day passes are more when compared to annual member cyclists.

In the above graph there is more usage of bikes on singles and day passes by casual cyclists. So, casual cyclists tend to purchase more annual memberships.
The cyclists can use digital media to influence casual riders by sharing the important features of membership.

5. Key findings:-



6. 1. By offering more benefits on memberships.
2. By promoting through digital.
3. By increasing more cycles.