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Bike Rental Spreadsheet Project

17th June 2022

INTRODUCTION

For this project, I wanted to show off my skills using a spreadsheet program. I used Google Sheets, which basically works the same as Excel. For the data I used a bike rental company dataset, provided – and licensed – by my course.

PROBLEMS

- **The dataset was too big to work with.**
  I wanted to use a year's worth of data to show changes over a long period of time by using monthly datasets (Jan. - Dec.), but my laptop kept crashing.

SOLUTIONS

- I realized that I could only realistically use 1 month's worth of data without crashing. So all of my conclusions cover only the month of January, 2021.

RAW DATA SAMPLE

202101-divvy-tripdata.csv

18.39 MB

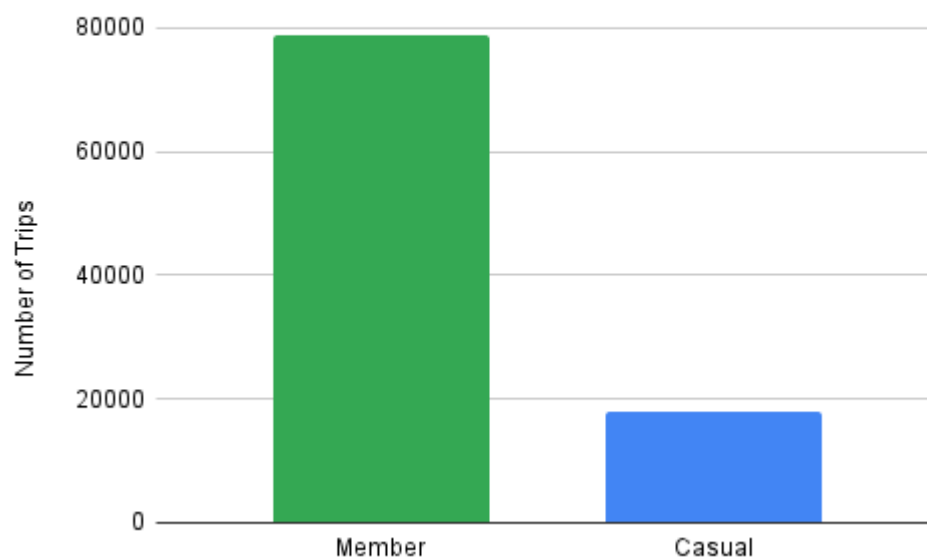|	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ride_id	rideable_type	started_at	ended_at	start_station_nai	start_station_id	end_station_nan	end_station_id	start_lat	start_lng	end_lat	end_lng	member_casual
2	E19E6F1B8D4C	electric_bike	2021-01-23 16:1	2021-01-23 16:2	California Ave &	17660			41.90034067	-87.696743	41.89	-87.72	member
3	DC88F20C2C55	electric_bike	2021-01-27 18:4	2021-01-27 18:4	California Ave &	17660			41.90033283	-87.696707	41.9	-87.69	member
4	EC45C94683FE	electric_bike	2021-01-21 22:3	2021-01-21 22:3	California Ave &	17660			41.90031267	-87.69664267	41.9	-87.7	member
5	4FA453A75AE3	electric_bike	2021-01-07 13:3	2021-01-07 13:4	California Ave &	17660			41.90039867	-87.69666217	41.92	-87.69	member
6	BE5E8EB4E726	electric_bike	2021-01-23 2:24	2021-01-23 2:24	California Ave &	17660			41.90032633	-87.69669717	41.9	-87.7	casual
7	5D8969F88C77	electric_bike	2021-01-09 14:2	2021-01-09 15:1	California Ave &	17660			41.90040867	-87.69676283	41.94	-87.71	casual
8	09275CC10F85	electric_bike	2021-01-04 5:05	2021-01-04 5:10	California Ave &	17660			41.9003905	-87.69675733	41.9	-87.71	member
9	DF7A32A217AE	electric_bike	2021-01-14 15:0	2021-01-14 15:1	California Ave &	17660			41.9003895	-87.69672833	41.91	-87.7	member
10	C2EFC62379EB	electric_bike	2021-01-09 9:57	2021-01-09 10:0	California Ave &	17660			41.90030583	-87.69679633	41.9	-87.7	member
11	B9F73448DFBE	classic_bike	2021-01-24 19:1	2021-01-24 19:2	California Ave &	17660	Wood St & Augu	657	41.900363	-87.696704	41.899181	-87.6722	member
12	457C7F4B5D3D	electric_bike	2021-01-23 12:5	2021-01-23 13:0	California Ave &	17660	California Ave &	13258	41.90040617	-87.69673317	41.9104355	-87.6968905	member
13	57C750326F9FE	electric_bike	2021-01-09 15:2	2021-01-09 15:3	California Ave &	17660	Wood St & Augu	657	41.9003735	-87.69668783	41.89917967	-87.6721775	casual
14	4D518C65E338l	electric_bike	2021-01-09 15:2	2021-01-09 15:3	California Ave &	17660	Wood St & Augu	657	41.9003785	-87.69671567	41.89914867	-87.67217667	casual
15	9D08A3AFF410	classic_bike	2021-01-24 15:5	2021-01-24 16:0	California Ave &	17660	Wood St & Augu	657	41.900363	-87.696704	41.899181	-87.6722	casual
16	49FCE1F8598F	electric_bike	2021-01-22 15:1	2021-01-22 15:3	California Ave &	17660	Wells St & Elm S	KA1504000135	41.9003725	-87.69679033	41.90327167	-87.6344575	member
17	0FEED5C2C874	classic_bike	2021-01-05 10:3	2021-01-05 10:3	California Ave &	17660	Sacramento Blvc	KA1504000113	41.900363	-87.696704	41.89046879	-87.70260751	member
18	E276FD43BDEL	classic_bike	2021-01-30 11:5	2021-01-30 12:0	California Ave &	17660	Western Ave & V	KA1504000103	41.900363	-87.696704	41.89841769	-87.68659602	member
19	88BFCF66C2D5	electric_bike	2021-01-27 7:27	2021-01-27 7:45	California Ave &	17660	Damen Ave & Cl	13271	41.90031333	-87.6967915	41.9318415	-87.677814	member
20	8BD6F6510F5C	electric_bike	2021-01-15 8:54	2021-01-15 9:11	California Ave &	17660	Damen Ave & Cl	13271	41.90035583	-87.69662683	41.9319215	-87.67785583	member
21	84F11CC620F8	electric_bike	2021-01-10 8:05	2021-01-10 8:13	California Ave &	17660	Leavitt St & Nort	TA1308000005	41.90039583	-87.69670833	41.910124	-87.6823965	casual
22	C84E5DD4D74F	electric_bike	2021-01-18 13:3	2021-01-18 13:3	California Ave &	17660	Leavitt St & Nort	TA1308000005	41.90041	-87.69670967	41.9101535	-87.68245917	casual
23	00AEF8EE4622	electric_bike	2021-01-07 9:45	2021-01-07 9:52	California Ave &	17660	Leavitt St & Nort	TA1308000005	41.90040583	-87.69685	41.91013	-87.6824395	casual

CONCLUSIONS

Members vs Casual Riders

Members of the bike sharing company were the majority of renters, with Casual riders making up about a quarter of renters for January.
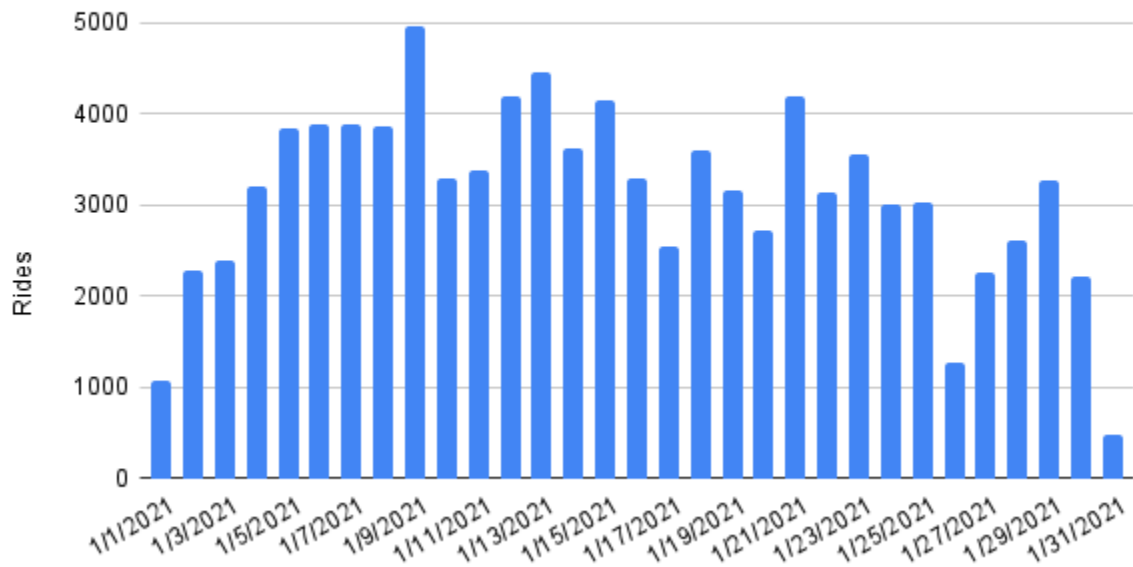

Types of Riders
January 2021

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Monthly Ridership

There are no visible trends for ridership during the month. There is a slight drop off by the end of the month. (This might be due to people trying to bike as part of their New Year's resolutions then losing interest by the end of the month, but without another month's data for comparison we don't know.)
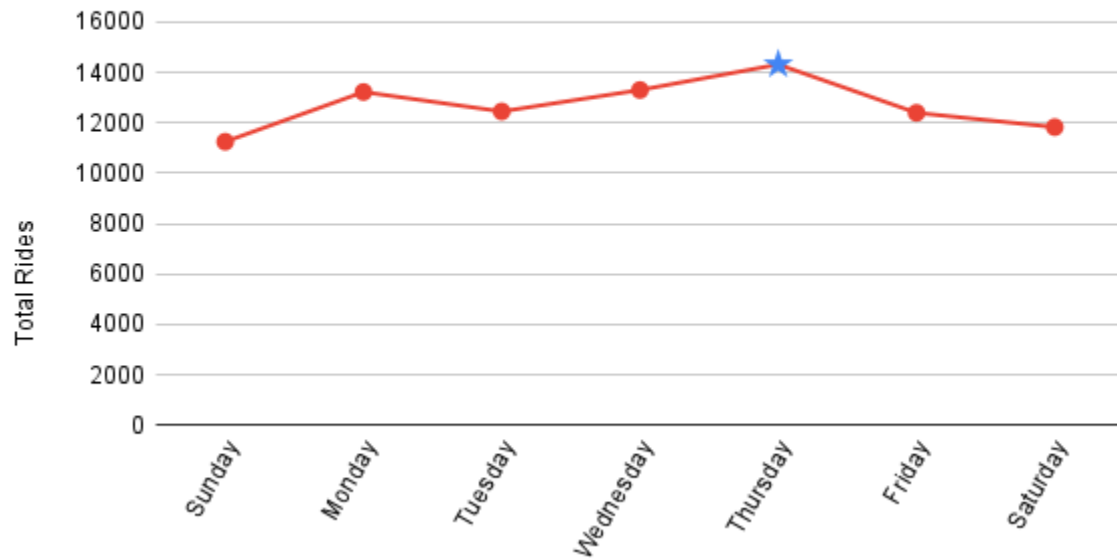
Rides Per Day

January 2021

Daily Ridership

Here we see that ridership is consistent during the week as well with Thursday being slightly busier.
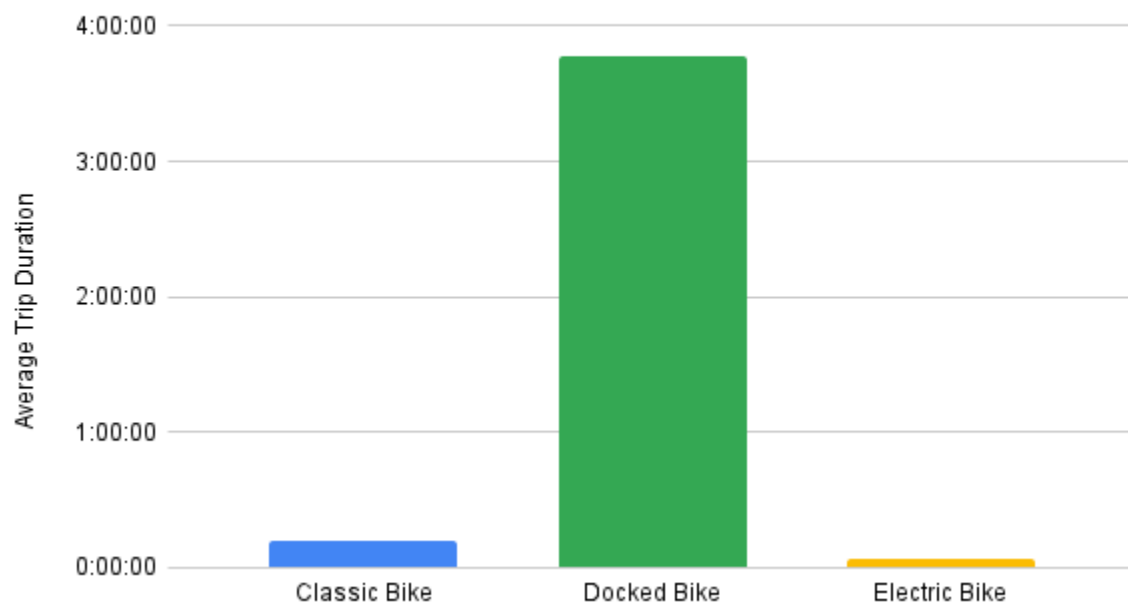
Busiest Day of the Week

January 2021

Length of Rides by Bike

Here we see that Docked Bikes are the preferred choice for longer trips.

Overall Usage

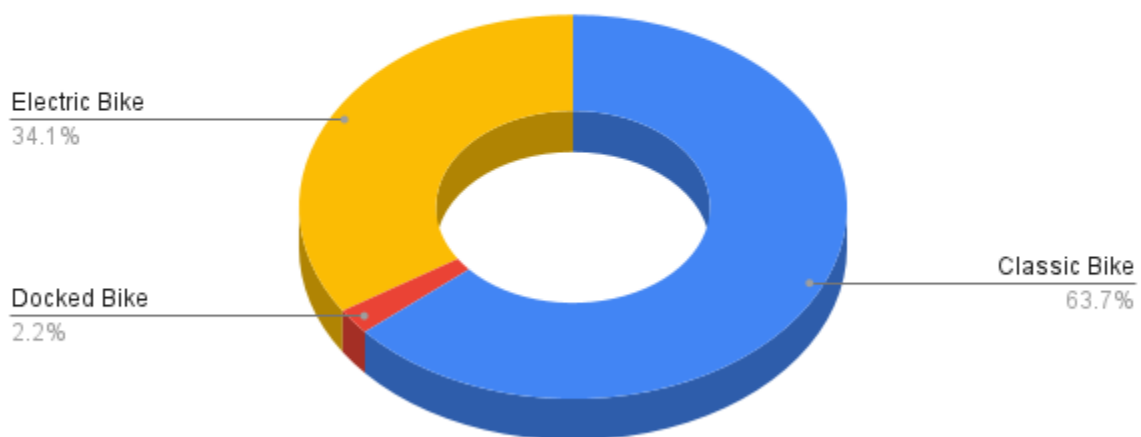Finally we see that Classic Bikes are the overall choice for renters.

Usage by Bicycle Type
January 2021

Electric Bike
34.1%

Docked Bike
2.2%

Classic Bike
63.7%

RECOMMENDATIONS

I would recommend focusing marketing efforts on increasing membership enrollment, as we see that Members tend to take more trips than Casual riders.