

Segmentation, preferences and habits of Cyclistic users (2019-2024)

Asgard Andrés Mendoza Flores
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Objective

Defining the differences in **behaviour** between **casual users** and **subscribers** of Cyclistic bike network **to create an effective ad campaign** aimed at turning casual users in subscribers.

Data gathering

Source: [Index of bucket "divvy-tripdata"](#)

Storage: Data stored locally and protected under system password

Segmentation:

- Excel: Merged 2023 - 2024 data into year quarters with [Power Query](#)

Limited to quarters due to excel maximum amount of observations on a worksheet

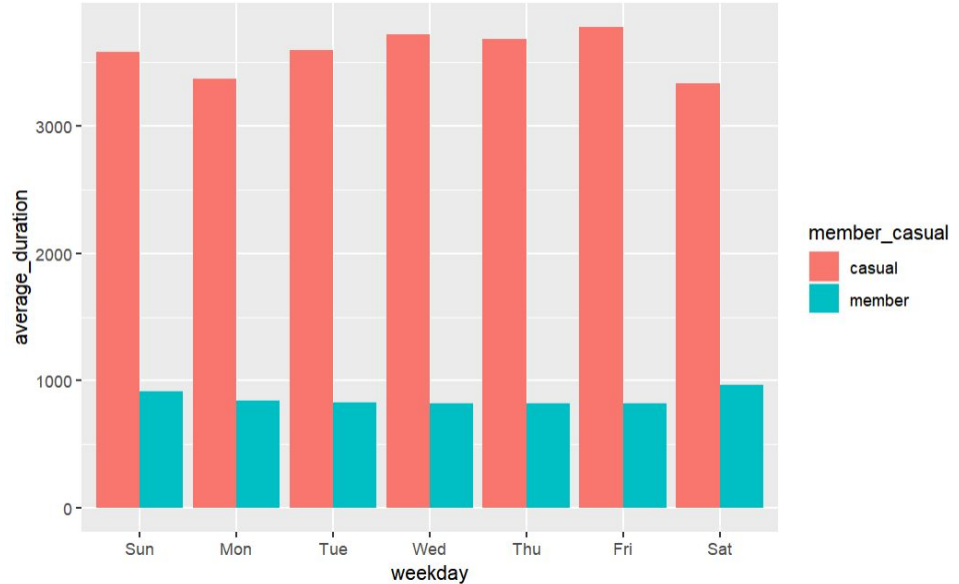
- R Studio: 2019 - 2020 data merged into a single dataframe through [dplyr](#) **bind_rows()** function

Data manipulation and observations

	Excel	R Studio
Negative Duration times removal		X
Merging of sheets	Year Quarters	Annual dataframe
Addition of meaningful rows	Trip_duration, Weekday	Trip_duration, Year, Month, Day, Weekday
Changing of variable names		X

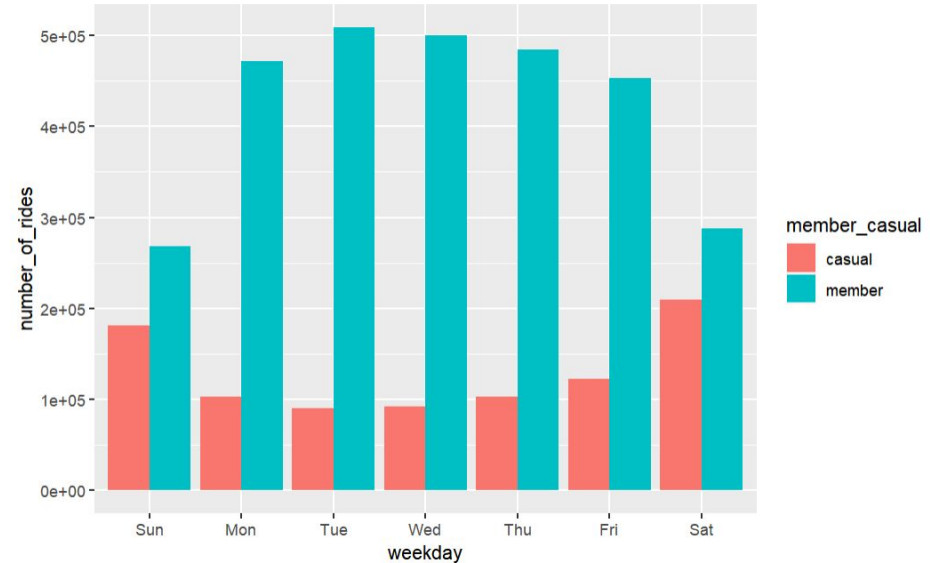
Data Insights

- Docked bikes are only used by casual users
- Casual users tend to make longer trips on average



Data Insights

- Weekends are the busiest days on casual users activity
- Tuesday are the weakest day for casual users



Data Insights

- The preferred bike type of casual users is the electrical bike
- Docked bikes were only used by casual users

Conclusions

Casual users and **members** differ greatly in the way they use Cyclistic service, the biggest differences were the **average trip duration**, the strongest and weakest **activity days** and **preferred bike types**

Thank you!

Appendix

Row Labels	casual			member		
	Count_of_member_type	Average_trip_duration	Max_trip_duration	Count_of_member_type	Average_trip_duration	Max_trip_duration
classic_bike	83889	0:28:56	25:59:56	282820	0:12:24	25:59:40
1	12907	0:31:51	24:59:56	31385	0:13:48	24:59:56
2	8038	0:28:18	24:59:57	38541	0:11:35	24:59:55
3	10069	0:26:37	24:59:57	46883	0:12:00	24:59:54
4	10959	0:24:53	24:59:56	47495	0:11:50	24:59:56
5	11796	0:26:11	24:59:56	45756	0:11:52	24:59:56
6	12729	0:28:48	24:59:57	39466	0:12:11	24:59:56
7	17391	0:32:53	25:59:56	33294	0:14:20	25:59:40
docked_bike	14102	2:22:23	314:25:46			
1	2579	2:05:08	254:51:15			
2	1318	2:48:23	236:42:44			
3	1476	2:34:21	306:35:29			
4	1633	2:38:26	314:25:46			
5	1703	1:52:57	278:34:04			
6	2173	1:35:10	137:27:51			
7	3220	2:59:24	237:31:28			
electric_bike	154511	0:12:45	8:00:27	340391	0:09:58	8:01:24
1	20621	0:14:15	7:30:07	35689	0:10:42	8:00:27
2	16369	0:11:13	8:00:00	45164	0:09:13	7:59:55
3	20353	0:11:31	7:59:58	54368	0:09:38	7:59:55
4	21660	0:11:36	7:10:02	56547	0:09:41	8:00:27
5	23845	0:12:04	6:10:40	56604	0:09:52	8:00:24
6	24632	0:12:51	8:00:27	50582	0:09:57	7:59:58
7	27031	0:14:55	7:59:59	41437	0:11:08	8:01:24
Grand Total	252502	0:25:22	314:25:46	623211	0:11:04	25:59:40

Data from February 2023 to April 2023

Row Labels	Column Labels					
	casual			member		
	Count_of_member_type	Average of trip_duration	Max of trip_duration	Count_of_member_type	Average of trip_duration	Max of trip_duration
classic_bike	176983	0:29:03	24:59:57	323950	0:14:17	25:00:31
1	30389	0:32:21	24:59:57	35150	0:15:58	25:00:31
2	20354	0:30:16	24:59:56	42830	0:13:52	24:59:56
3	19254	0:26:48	24:59:56	51116	0:13:59	24:59:56
4	20432	0:27:20	24:59:56	53033	0:13:34	24:59:56
5	21974	0:25:34	24:59:56	52282	0:13:20	24:59:56
6	26296	0:28:03	24:59:56	47034	0:13:48	24:59:56
7	38284	0:30:31	24:59:56	42505	0:16:13	24:59:56
docked_bike	23514	1:40:45	486:50:31			
1	4605	1:42:27	465:55:36			
2	2894	1:21:11	233:22:35			
3	2409	1:59:10	381:49:10			
4	2453	1:22:24	285:00:50			
5	2614	1:55:26	266:57:03			
6	3400	1:42:04	486:50:31			
7	5139	1:42:03	473:42:42			
electric_bike	209438	0:15:23	7:59:59	314690	0:11:32	8:00:22
1	31623	0:18:02	7:59:59	32832	0:13:04	7:59:58
2	25457	0:15:48	7:59:53	40729	0:10:55	8:00:00
3	26458	0:13:36	7:59:59	50029	0:10:55	7:59:58
4	28414	0:13:01	7:59:52	54035	0:10:56	7:59:57
5	28719	0:13:48	7:59:59	51361	0:11:12	8:00:22
6	31673	0:14:52	7:59:54	46863	0:11:28	7:34:07
7	37094	0:17:37	4:40:55	38841	0:13:03	7:59:56
Grand Total	409935	0:26:11	486:50:31	638640	0:12:56	25:00:31

Data from May 2023 to July 2023

Row Labels	casual			member		
	Count of member_type	Average of trip_duration2	Max of trip_duration	Count of member_type	Average of trip_duration2	Max of trip_duration
classic_bike	196601	0:30:04	24:59:57	377249	0:13:55	24:59:57
1	37414	0:35:51	24:59:57	45239	0:15:48	24:59:56
2	20326	0:29:28	24:59:56	53589	0:12:54	24:59:56
3	27077	0:27:16	24:59:56	70511	0:13:25	24:59:55
4	26081	0:26:48	24:59:57	62701	0:13:40	24:59:56
5	24290	0:25:46	24:59:56	57254	0:13:20	24:59:57
6	26781	0:29:25	24:59:57	47365	0:14:04	24:59:56
7	34632	0:32:22	24:59:57	40590	0:15:08	24:59:56
docked_bike	12507	2:10:53	1542:49:55			
1	2292	2:37:26	1047:47:06			
2	1032	3:46:31	1389:42:35			
3	1542	1:30:54	416:38:36			
4	1495	1:26:40	297:12:23			
5	1419	2:32:32	1542:49:55			
6	2058	1:56:29	676:07:14			
7	2669	1:58:34	397:30:26			
electric_bike	168979	0:13:57	8:00:00	293239	0:11:14	8:01:30
1	28590	0:16:18	7:59:53	33992	0:12:18	7:59:58
2	20079	0:13:10	7:59:52	40862	0:10:22	7:59:54
3	25660	0:13:05	7:55:56	54718	0:11:06	7:52:12
4	24848	0:12:52	7:59:52	49333	0:11:10	8:01:30
5	22784	0:12:30	7:59:59	45311	0:10:56	7:59:58
6	23057	0:13:44	8:00:00	38500	0:11:14	7:59:55
7	23961	0:15:26	7:56:49	30523	0:12:02	8:00:25
Grand Total	378087	0:26:12	1542:49:55	670488	0:12:45	24:59:57

Data from August 2023 to October 2023

Row Labels	casual			member		
	Count of member_type	Average_trip_duration	Max of trip_duration	Count of member_type	Average_trip_duration	Max of trip_duration
classic_bike	73464	0:32:41	25:00:25	283802	0:13:52	24:59:57
1	10916	0:36:06	24:59:57	27485	0:14:35	24:59:56
2	8145	0:34:32	25:00:25	40590	0:13:50	24:59:57
3	7661	0:29:30	24:59:56	41657	0:13:48	24:59:56
4	10019	0:29:56	24:59:56	52379	0:14:33	24:59:56
5	12077	0:32:23	24:59:56	51364	0:13:14	24:59:56
6	10327	0:30:51	24:59:57	37958	0:12:39	24:59:55
7	14319	0:34:16	24:59:57	32369	0:14:39	24:59:55
electric_bike	101060	0:10:31	7:59:56	273138	0:09:56	8:00:28
1	12646	0:12:07	7:59:54	25430	0:10:29	7:59:57
2	11991	0:10:05	5:51:46	37777	0:09:36	7:59:55
3	11777	0:09:11	4:17:52	39374	0:09:30	8:00:00
4	15325	0:09:27	7:58:28	49816	0:09:41	8:00:28
5	17972	0:10:16	7:59:56	50856	0:09:58	7:59:58
6	15110	0:10:11	4:59:20	38843	0:09:58	7:59:58
7	16239	0:12:09	4:59:42	31042	0:10:42	7:59:55
Grand Total	174524	0:19:51	25:00:25	556940	0:11:56	24:59:57

Data from November 2023 to January 2024

	Weekday	Casual	Member		Weekday	Casual	Member		
Quartile 1		1	36107	67074		1	66617	67982	
		2	25725	83705		2	48705	83559	
		3	31898	101251		3	48121	101145	
		4	34252	104042	Quartile 2	4	51299	107068	
		5	37344	102360		5	53307	103643	
		6	39534	90048		6	61369	93897	
		7	47642	74731		7	80517	81346	
	Total	252502	623211	875713		Total	409935	638640	1048575
	Percentage	28.83%	71.17%	100.00%		Percentage	39.09%	60.91%	100.00%
	Weekday	Casual	Member		Weekday	Casual	Member		
Quartile 3		1	68296	79231		1	23562	52915	
		2	41437	94451		2	20136	78367	
		3	54279	125229		3	19438	81031	
		4	52424	112034	Quartile 4	4	25344	102195	
		5	48493	102565		5	30049	102220	
		6	51896	85865		6	25437	76801	
		7	61262	71113		7	30558	63411	
	Total	378087	670488	1048575		Total	174524	556940	731464
	Percentage	36.06%	63.94%	100.00%		Percentage	23.86%	76.14%	100.00%