

DBC_Final_Age

December 20, 2018

This project was completed by insert full name here in partial fulfilment of ECON-UB.0232, Data Bootcamp, Spring 2018. I certify that the NYU Stern Honor Code applies to this project. In particular, I have: Clearly acknowledged the work and efforts of others when submitting written work as our own. The incorporation of the work of others—including but not limited to their ideas, data, creative expression, and direct quotations (which should be designated with quotation marks), or paraphrasing thereof—has been fully and appropriately referenced using notations both in the text and the bibliography. And I understand that: Submitting the same or substantially similar work in multiple courses, either in the same semester or in a different semester, without the express approval of all instructors is strictly forbidden. I acknowledge that a failure to abide by NYU Stern Honor Code will result in a failing grade for the project and course. With this project we have executed a study of citibank through the study of demographics, mainly age and gender. We have come to the conclusion that citibike should mainly focus on marketing their program to males between the ages of 18-30 and 60-80 given that these users experience the highest average cost per minute from riding. If Citi Bike attracts customers who use the program least, they will be able to spread their assets amongst more customers. Unfortunately, we were unable to provide significant correlations between variables in our data and a further investigation with a larger dataset should be done to prove our conclusions.

```
In [63]: %matplotlib inline
```

```
import pandas as pd          # data package
import matplotlib.pyplot as plt # graphics
import numpy as np
import statsmodels.formula.api as smf
usrs=71429
```

```
In [2]: citi = pd.read_csv('C:/Users/Kanyanta/Desktop/datascience/Citi/201501-citibike-tripdata.csv')
for i in ('08','09','10'):
    t = pd.read_csv('C:/Users/Kanyanta/Desktop/datascience/Citi/2015'+i+'-citibike-tripdata.csv')
    citi = citi.append(t)
```

```
In [3]: #citi.to_csv("CitiNew", encoding='utf-8')
```

```
In [4]: citi
```

```
Out[4]:
```

	tripduration	starttime	stoptime	\
0	1346	1/1/2015 0:01	1/1/2015 0:24	
1	363	1/1/2015 0:02	1/1/2015 0:08	

2	346	1/1/2015 0:04	1/1/2015 0:10
3	182	1/1/2015 0:04	1/1/2015 0:07
4	969	1/1/2015 0:05	1/1/2015 0:21
5	496	1/1/2015 0:07	1/1/2015 0:15
6	152	1/1/2015 0:07	1/1/2015 0:09
7	1183	1/1/2015 0:08	1/1/2015 0:28
8	846	1/1/2015 0:09	1/1/2015 0:23
9	576	1/1/2015 0:10	1/1/2015 0:20
10	540	1/1/2015 0:10	1/1/2015 0:19
11	419	1/1/2015 0:11	1/1/2015 0:18
12	751	1/1/2015 0:13	1/1/2015 0:25
13	332	1/1/2015 0:13	1/1/2015 0:18
14	1099	1/1/2015 0:14	1/1/2015 0:32
15	649	1/1/2015 0:14	1/1/2015 0:25
16	614	1/1/2015 0:14	1/1/2015 0:24
17	1196	1/1/2015 0:16	1/1/2015 0:36
18	1426	1/1/2015 0:17	1/1/2015 0:40
19	1262	1/1/2015 0:18	1/1/2015 0:39
20	707	1/1/2015 0:18	1/1/2015 0:30
21	307	1/1/2015 0:18	1/1/2015 0:23
22	1053	1/1/2015 0:19	1/1/2015 0:37
23	446	1/1/2015 0:20	1/1/2015 0:27
24	1251	1/1/2015 0:21	1/1/2015 0:41
25	797	1/1/2015 0:21	1/1/2015 0:35
26	503	1/1/2015 0:21	1/1/2015 0:30
27	1639	1/1/2015 0:22	1/1/2015 0:49
28	1175	1/1/2015 0:22	1/1/2015 0:42
29	470	1/1/2015 0:22	1/1/2015 0:30
...
1212247	302	10/31/2015 23:57:51	11/1/2015 00:02:54
1212248	1321	10/31/2015 23:57:52	11/1/2015 00:19:54
1212249	267	10/31/2015 23:57:57	11/1/2015 00:02:24
1212250	704	10/31/2015 23:58:00	11/1/2015 00:09:45
1212251	1127	10/31/2015 23:58:01	11/1/2015 00:16:49
1212252	288	10/31/2015 23:58:01	11/1/2015 00:02:50
1212253	474	10/31/2015 23:58:06	11/1/2015 00:06:00
1212254	292	10/31/2015 23:58:10	11/1/2015 00:03:03
1212255	470	10/31/2015 23:58:17	11/1/2015 00:06:07
1212256	320	10/31/2015 23:58:19	11/1/2015 00:03:40
1212257	710	10/31/2015 23:58:23	11/1/2015 00:10:14
1212258	513	10/31/2015 23:58:39	11/1/2015 00:07:12
1212259	883	10/31/2015 23:58:56	11/1/2015 00:13:40
1212260	1487	10/31/2015 23:58:58	11/1/2015 00:23:46
1212261	194	10/31/2015 23:58:59	11/1/2015 00:02:13
1212262	1471	10/31/2015 23:59:00	11/1/2015 00:23:31
1212263	3939	10/31/2015 23:59:05	11/1/2015 01:04:44
1212264	4033	10/31/2015 23:59:05	11/1/2015 01:06:19
1212265	3958	10/31/2015 23:59:06	11/1/2015 01:05:04

1212266	1041	10/31/2015	23:59:12	11/1/2015	00:16:33
1212267	736	10/31/2015	23:59:17	11/1/2015	00:11:33
1212268	548	10/31/2015	23:59:26	11/1/2015	00:08:35
1212269	3919	10/31/2015	23:59:35	11/1/2015	01:04:55
1212270	1621	10/31/2015	23:59:36	11/1/2015	00:26:38
1212271	341	10/31/2015	23:59:44	11/1/2015	00:05:25
1212272	1924	10/31/2015	23:59:46	11/1/2015	00:31:50
1212273	711	10/31/2015	23:59:50	11/1/2015	00:11:42
1212274	621	10/31/2015	23:59:54	11/1/2015	00:10:15
1212275	632	10/31/2015	23:59:56	11/1/2015	00:10:29
1212276	807	10/31/2015	23:59:57	11/1/2015	00:13:24

	start station id	start station name \
0	455	1 Ave & E 44 St
1	434	9 Ave & W 18 St
2	491	E 24 St & Park Ave S
3	384	Fulton St & Waverly Ave
4	474	5 Ave & E 29 St
5	512	W 29 St & 9 Ave
6	498	Broadway & W 32 St
7	405	Washington St & Gansevoort St
8	450	W 49 St & 8 Ave
9	160	E 37 St & Lexington Ave
10	291	Madison St & Montgomery St
11	517	Pershing Square South
12	290	2 Ave & E 58 St
13	361	Allen St & Hester St
14	317	E 6 St & Avenue B
15	488	W 39 St & 9 Ave
16	285	Broadway & E 14 St
17	466	W 25 St & 6 Ave
18	360	William St & Pine St
19	485	W 37 St & 5 Ave
20	449	W 52 St & 9 Ave
21	474	5 Ave & E 29 St
22	164	E 47 St & 2 Ave
23	522	E 51 St & Lexington Ave
24	217	Old Fulton St
25	513	W 56 St & 10 Ave
26	243	Fulton St & Rockwell Pl
27	382	University Pl & E 14 St
28	217	Old Fulton St
29	243	Fulton St & Rockwell Pl
...
1212247	439	E 4 St & 2 Ave
1212248	268	Howard St & Centre St
1212249	3086	Graham Ave & Conselyea St
1212250	521	8 Ave & W 31 St

1212251	463	9 Ave & W 16 St
1212252	439	E 4 St & 2 Ave
1212253	521	8 Ave & W 31 St
1212254	439	E 4 St & 2 Ave
1212255	521	8 Ave & W 31 St
1212256	334	W 20 St & 7 Ave
1212257	236	St Marks Pl & 2 Ave
1212258	3074	Montrose Ave & Bushwick Ave
1212259	229	Great Jones St
1212260	119	Park Ave & St Edwards St
1212261	504	1 Ave & E 15 St
1212262	119	Park Ave & St Edwards St
1212263	257	Lispenard St & Broadway
1212264	257	Lispenard St & Broadway
1212265	257	Lispenard St & Broadway
1212266	492	W 33 St & 7 Ave
1212267	348	W Broadway & Spring St
1212268	379	W 31 St & 7 Ave
1212269	257	Lispenard St & Broadway
1212270	285	Broadway & E 14 St
1212271	490	8 Ave & W 33 St
1212272	498	Broadway & W 32 St
1212273	348	W Broadway & Spring St
1212274	237	E 11 St & 2 Ave
1212275	237	E 11 St & 2 Ave
1212276	468	Broadway & W 55 St

	start station latitude	start station longitude	end station id \
0	40.750020	-73.969053	265
1	40.743174	-74.003664	482
2	40.740964	-73.986022	505
3	40.683178	-73.965964	399
4	40.745168	-73.986831	432
5	40.750073	-73.998393	383
6	40.748549	-73.988084	474
7	40.739323	-74.008119	174
8	40.762272	-73.987882	488
9	40.748238	-73.978311	174
10	40.713126	-73.984844	151
11	40.751581	-73.977910	540
12	40.760203	-73.964785	507
13	40.716059	-73.991908	438
14	40.724537	-73.981854	2012
15	40.756458	-73.993722	434
16	40.734546	-73.990741	312
17	40.743954	-73.991449	454
18	40.707179	-74.008873	391
19	40.750380	-73.983390	251

20	40.764618	-73.987895	509
21	40.745168	-73.986831	476
22	40.753231	-73.970325	523
23	40.757148	-73.972078	518
24	40.702772	-73.993836	313
25	40.768254	-73.988639	488
26	40.688226	-73.979382	270
27	40.734927	-73.992005	352
28	40.702772	-73.993836	313
29	40.688226	-73.979382	270
...
1212247	40.726281	-73.989780	326
1212248	40.719105	-73.999733	426
1212249	40.715143	-73.944507	3106
1212250	40.750967	-73.994442	482
1212251	40.742065	-74.004432	403
1212252	40.726281	-73.989780	326
1212253	40.750967	-73.994442	450
1212254	40.726281	-73.989780	326
1212255	40.750967	-73.994442	450
1212256	40.742388	-73.997262	247
1212257	40.728419	-73.987140	302
1212258	40.707678	-73.940162	3087
1212259	40.727434	-73.993790	308
1212260	40.696089	-73.978034	3071
1212261	40.732219	-73.981656	487
1212262	40.696089	-73.978034	3071
1212263	40.719392	-74.002472	387
1212264	40.719392	-74.002472	387
1212265	40.719392	-74.002472	387
1212266	40.750200	-73.990931	285
1212267	40.724910	-74.001547	229
1212268	40.749156	-73.991600	546
1212269	40.719392	-74.002472	387
1212270	40.734546	-73.990741	3156
1212271	40.751551	-73.993934	2021
1212272	40.748549	-73.988084	531
1212273	40.724910	-74.001547	361
1212274	40.730473	-73.986724	348
1212275	40.730473	-73.986724	348
1212276	40.765265	-73.981923	446

	end station name	end station latitude \
0	Stanton St & Chrystie St	40.722293
1	W 15 St & 7 Ave	40.739355
2	6 Ave & W 33 St	40.749013
3	Lafayette Ave & St James Pl	40.688515
4	E 7 St & Avenue A	40.726218

5	Greenwich Ave & Charles St	40.735238
6	5 Ave & E 29 St	40.745168
7	E 25 St & 1 Ave	40.738177
8	W 39 St & 9 Ave	40.756458
9	E 25 St & 1 Ave	40.738177
10	Cleveland Pl & Spring St	40.721816
11	Lexington Ave & E 26 St	40.741473
12	E 25 St & 2 Ave	40.739126
13	St Marks Pl & 1 Ave	40.727791
14	E 27 St & 1 Ave	40.739445
15	9 Ave & W 18 St	40.743174
16	Allen St & E Houston St	40.722055
17	E 51 St & 1 Ave	40.754557
18	Clark St & Henry St	40.697601
19	Mott St & Prince St	40.723180
20	9 Ave & W 22 St	40.745497
21	E 31 St & 3 Ave	40.743943
22	W 38 St & 8 Ave	40.754666
23	E 39 St & 2 Ave	40.747804
24	Washington Ave & Park Ave	40.696102
25	W 39 St & 9 Ave	40.756458
26	Adelphi St & Myrtle Ave	40.693083
27	W 56 St & 6 Ave	40.763406
28	Washington Ave & Park Ave	40.696102
29	Adelphi St & Myrtle Ave	40.693083
...
1212247	E 11 St & 1 Ave	40.729538
1212248	West St & Chambers St	40.717548
1212249	Driggs Ave & N Henry St	40.723250
1212250	W 15 St & 7 Ave	40.739355
1212251	E 2 St & 2 Ave	40.725029
1212252	E 11 St & 1 Ave	40.729538
1212253	W 49 St & 8 Ave	40.762272
1212254	E 11 St & 1 Ave	40.729538
1212255	W 49 St & 8 Ave	40.762272
1212256	Perry St & Bleecker St	40.735354
1212257	Avenue D & E 3 St	40.720828
1212258	Metropolitan Ave & Meeker Ave	40.714133
1212259	St James Pl & Oliver St	40.713079
1212260	Boerum St & Broadway	40.705381
1212261	E 20 St & FDR Drive	40.733143
1212262	Boerum St & Broadway	40.705381
1212263	Centre St & Chambers St	40.712733
1212264	Centre St & Chambers St	40.712733
1212265	Centre St & Chambers St	40.712733
1212266	Broadway & E 14 St	40.734546
1212267	Great Jones St	40.727434
1212268	E 30 St & Park Ave S	40.744449

1212269	Centre St & Chambers St	40.712733
1212270	E 72 St & York Ave	40.766638
1212271	W 45 St & 8 Ave	40.759291
1212272	Forsyth St & Broome St	40.718939
1212273	Allen St & Hester St	40.716059
1212274	W Broadway & Spring St	40.724910
1212275	W Broadway & Spring St	40.724910
1212276	W 24 St & 7 Ave	40.744876

	end station longitude	bikeid	usertype	birth year	gender
0	-73.991475	18660	Subscriber	1960.0	2
1	-73.999318	16085	Subscriber	1963.0	1
2	-73.988484	20845	Subscriber	1974.0	1
3	-73.964763	19610	Subscriber	1969.0	1
4	-73.983799	20197	Subscriber	1977.0	1
5	-74.000271	20788	Subscriber	1969.0	2
6	-73.986831	19006	Subscriber	1972.0	1
7	-73.977387	17640	Subscriber	1985.0	2
8	-73.993722	15691	Subscriber	1991.0	1
9	-73.977387	17837	Subscriber	1991.0	1
10	-73.997203	16947	Subscriber	1979.0	1
11	-73.983209	14807	Subscriber	1980.0	1
12	-73.979738	16702	Subscriber	1987.0	1
13	-73.985649	17342	Subscriber	1988.0	1
14	-73.976806	19909	Subscriber	1983.0	1
15	-74.003664	19584	Subscriber	1979.0	1
16	-73.989111	19202	Subscriber	1959.0	1
17	-73.965930	20683	Subscriber	1971.0	1
18	-73.993446	21554	Subscriber	1977.0	1
19	-73.994800	16894	Subscriber	1980.0	1
20	-74.001971	14598	Subscriber	1972.0	1
21	-73.979661	18834	Subscriber	1962.0	1
22	-73.991382	15617	Subscriber	1987.0	1
23	-73.973442	15812	Subscriber	1988.0	1
24	-73.967510	19780	Customer	NaN	0
25	-73.993722	16761	Subscriber	1969.0	1
26	-73.971789	14570	Customer	NaN	0
27	-73.977225	18320	Subscriber	1996.0	2
28	-73.967510	16610	Customer	NaN	0
29	-73.971789	20804	Subscriber	1986.0	1
...
1212247	-73.984267	23705	Subscriber	1982.0	1
1212248	-74.013221	24036	Customer	NaN	0
1212249	-73.943080	24078	Subscriber	1982.0	1
1212250	-73.999318	23197	Subscriber	1967.0	1
1212251	-73.990697	17391	Subscriber	1983.0	2
1212252	-73.984267	22171	Subscriber	1982.0	2
1212253	-73.987882	23482	Subscriber	1978.0	1

1212254	-73.984267	22120	Subscriber	1983.0	2
1212255	-73.987882	18211	Subscriber	1980.0	2
1212256	-74.004831	22527	Subscriber	1979.0	1
1212257	-73.977932	24230	Subscriber	1963.0	1
1212258	-73.952344	22115	Subscriber	1980.0	1
1212259	-73.998512	17554	Subscriber	1995.0	1
1212260	-73.949765	14948	Customer	NaN	0
1212261	-73.975739	23553	Subscriber	1982.0	2
1212262	-73.949765	15414	Customer	NaN	0
1212263	-74.004607	18901	Customer	NaN	0
1212264	-74.004607	19899	Customer	NaN	0
1212265	-74.004607	16282	Customer	NaN	0
1212266	-73.990741	18253	Subscriber	1959.0	1
1212267	-73.993790	17827	Customer	NaN	0
1212268	-73.983035	16859	Subscriber	1962.0	1
1212269	-74.004607	16982	Customer	NaN	0
1212270	-73.953483	21038	Subscriber	1976.0	1
1212271	-73.988597	15238	Subscriber	1971.0	1
1212272	-73.992663	17292	Subscriber	1960.0	1
1212273	-73.991908	23374	Subscriber	1982.0	1
1212274	-74.001547	23503	Subscriber	1990.0	1
1212275	-74.001547	22104	Subscriber	1980.0	2
1212276	-73.995299	14597	Subscriber	1967.0	1

[3966572 rows x 15 columns]

In [5]: `del citi['usertype']`

In [6]: `del citi['end station name']`

In [7]: `del citi['start station id']`

In [8]: `del citi['start station name']`

In [9]: `del citi['end station id']`

In [10]: `citi`

Out[10]:

	tripduration	starttime	stoptime \
0	1346	1/1/2015 0:01	1/1/2015 0:24
1	363	1/1/2015 0:02	1/1/2015 0:08
2	346	1/1/2015 0:04	1/1/2015 0:10
3	182	1/1/2015 0:04	1/1/2015 0:07
4	969	1/1/2015 0:05	1/1/2015 0:21
5	496	1/1/2015 0:07	1/1/2015 0:15
6	152	1/1/2015 0:07	1/1/2015 0:09
7	1183	1/1/2015 0:08	1/1/2015 0:28
8	846	1/1/2015 0:09	1/1/2015 0:23
9	576	1/1/2015 0:10	1/1/2015 0:20

10	540	1/1/2015 0:10	1/1/2015 0:19
11	419	1/1/2015 0:11	1/1/2015 0:18
12	751	1/1/2015 0:13	1/1/2015 0:25
13	332	1/1/2015 0:13	1/1/2015 0:18
14	1099	1/1/2015 0:14	1/1/2015 0:32
15	649	1/1/2015 0:14	1/1/2015 0:25
16	614	1/1/2015 0:14	1/1/2015 0:24
17	1196	1/1/2015 0:16	1/1/2015 0:36
18	1426	1/1/2015 0:17	1/1/2015 0:40
19	1262	1/1/2015 0:18	1/1/2015 0:39
20	707	1/1/2015 0:18	1/1/2015 0:30
21	307	1/1/2015 0:18	1/1/2015 0:23
22	1053	1/1/2015 0:19	1/1/2015 0:37
23	446	1/1/2015 0:20	1/1/2015 0:27
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28	1175	1/1/2015 0:22	1/1/2015 0:42
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...
1212247	302	10/31/2015 23:57:51	11/1/2015 00:02:54
1212248	1321	10/31/2015 23:57:52	11/1/2015 00:19:54
1212249	267	10/31/2015 23:57:57	11/1/2015 00:02:24
1212250	704	10/31/2015 23:58:00	11/1/2015 00:09:45
1212251	1127	10/31/2015 23:58:01	11/1/2015 00:16:49
1212252	288	10/31/2015 23:58:01	11/1/2015 00:02:50
1212253	474	10/31/2015 23:58:06	11/1/2015 00:06:00
1212254	292	10/31/2015 23:58:10	11/1/2015 00:03:03
1212255	470	10/31/2015 23:58:17	11/1/2015 00:06:07
1212256	320	10/31/2015 23:58:19	11/1/2015 00:03:40
1212257	710	10/31/2015 23:58:23	11/1/2015 00:10:14
1212258	513	10/31/2015 23:58:39	11/1/2015 00:07:12
1212259	883	10/31/2015 23:58:56	11/1/2015 00:13:40
1212260	1487	10/31/2015 23:58:58	11/1/2015 00:23:46
1212261	194	10/31/2015 23:58:59	11/1/2015 00:02:13
1212262	1471	10/31/2015 23:59:00	11/1/2015 00:23:31
1212263	3939	10/31/2015 23:59:05	11/1/2015 01:04:44
1212264	4033	10/31/2015 23:59:05	11/1/2015 01:06:19
1212265	3958	10/31/2015 23:59:06	11/1/2015 01:05:04
1212266	1041	10/31/2015 23:59:12	11/1/2015 00:16:33
1212267	736	10/31/2015 23:59:17	11/1/2015 00:11:33
1212268	548	10/31/2015 23:59:26	11/1/2015 00:08:35
1212269	3919	10/31/2015 23:59:35	11/1/2015 01:04:55
1212270	1621	10/31/2015 23:59:36	11/1/2015 00:26:38
1212271	341	10/31/2015 23:59:44	11/1/2015 00:05:25
1212272	1924	10/31/2015 23:59:46	11/1/2015 00:31:50
1212273	711	10/31/2015 23:59:50	11/1/2015 00:11:42

1212274	621	10/31/2015	23:59:54	11/1/2015	00:10:15
1212275	632	10/31/2015	23:59:56	11/1/2015	00:10:29
1212276	807	10/31/2015	23:59:57	11/1/2015	00:13:24

	start station latitude	start station longitude \
0	40.750020	-73.969053
1	40.743174	-74.003664
2	40.740964	-73.986022
3	40.683178	-73.965964
4	40.745168	-73.986831
5	40.750073	-73.998393
6	40.748549	-73.988084
7	40.739323	-74.008119
8	40.762272	-73.987882
9	40.748238	-73.978311
10	40.713126	-73.984844
11	40.751581	-73.977910
12	40.760203	-73.964785
13	40.716059	-73.991908
14	40.724537	-73.981854
15	40.756458	-73.993722
16	40.734546	-73.990741
17	40.743954	-73.991449
18	40.707179	-74.008873
19	40.750380	-73.983390
20	40.764618	-73.987895
21	40.745168	-73.986831
22	40.753231	-73.970325
23	40.757148	-73.972078
24	40.702772	-73.993836
25	40.768254	-73.988639
26	40.688226	-73.979382
27	40.734927	-73.992005
28	40.702772	-73.993836
29	40.688226	-73.979382
...
1212247	40.726281	-73.989780
1212248	40.719105	-73.999733
1212249	40.715143	-73.944507
1212250	40.750967	-73.994442
1212251	40.742065	-74.004432
1212252	40.726281	-73.989780
1212253	40.750967	-73.994442
1212254	40.726281	-73.989780
1212255	40.750967	-73.994442
1212256	40.742388	-73.997262
1212257	40.728419	-73.987140
1212258	40.707678	-73.940162

1212259	40.727434	-73.993790
1212260	40.696089	-73.978034
1212261	40.732219	-73.981656
1212262	40.696089	-73.978034
1212263	40.719392	-74.002472
1212264	40.719392	-74.002472
1212265	40.719392	-74.002472
1212266	40.750200	-73.990931
1212267	40.724910	-74.001547
1212268	40.749156	-73.991600
1212269	40.719392	-74.002472
1212270	40.734546	-73.990741
1212271	40.751551	-73.993934
1212272	40.748549	-73.988084
1212273	40.724910	-74.001547
1212274	40.730473	-73.986724
1212275	40.730473	-73.986724
1212276	40.765265	-73.981923

	end station latitude	end station longitude	bikeid	birth year	\
0	40.722293	-73.991475	18660	1960.0	
1	40.739355	-73.999318	16085	1963.0	
2	40.749013	-73.988484	20845	1974.0	
3	40.688515	-73.964763	19610	1969.0	
4	40.726218	-73.983799	20197	1977.0	
5	40.735238	-74.000271	20788	1969.0	
6	40.745168	-73.986831	19006	1972.0	
7	40.738177	-73.977387	17640	1985.0	
8	40.756458	-73.993722	15691	1991.0	
9	40.738177	-73.977387	17837	1991.0	
10	40.721816	-73.997203	16947	1979.0	
11	40.741473	-73.983209	14807	1980.0	
12	40.739126	-73.979738	16702	1987.0	
13	40.727791	-73.985649	17342	1988.0	
14	40.739445	-73.976806	19909	1983.0	
15	40.743174	-74.003664	19584	1979.0	
16	40.722055	-73.989111	19202	1959.0	
17	40.754557	-73.965930	20683	1971.0	
18	40.697601	-73.993446	21554	1977.0	
19	40.723180	-73.994800	16894	1980.0	
20	40.745497	-74.001971	14598	1972.0	
21	40.743943	-73.979661	18834	1962.0	
22	40.754666	-73.991382	15617	1987.0	
23	40.747804	-73.973442	15812	1988.0	
24	40.696102	-73.967510	19780	NaN	
25	40.756458	-73.993722	16761	1969.0	
26	40.693083	-73.971789	14570	NaN	
27	40.763406	-73.977225	18320	1996.0	

28	40.696102	-73.967510	16610	NaN
29	40.693083	-73.971789	20804	1986.0
...
1212247	40.729538	-73.984267	23705	1982.0
1212248	40.717548	-74.013221	24036	NaN
1212249	40.723250	-73.943080	24078	1982.0
1212250	40.739355	-73.999318	23197	1967.0
1212251	40.725029	-73.990697	17391	1983.0
1212252	40.729538	-73.984267	22171	1982.0
1212253	40.762272	-73.987882	23482	1978.0
1212254	40.729538	-73.984267	22120	1983.0
1212255	40.762272	-73.987882	18211	1980.0
1212256	40.735354	-74.004831	22527	1979.0
1212257	40.720828	-73.977932	24230	1963.0
1212258	40.714133	-73.952344	22115	1980.0
1212259	40.713079	-73.998512	17554	1995.0
1212260	40.705381	-73.949765	14948	NaN
1212261	40.733143	-73.975739	23553	1982.0
1212262	40.705381	-73.949765	15414	NaN
1212263	40.712733	-74.004607	18901	NaN
1212264	40.712733	-74.004607	19899	NaN
1212265	40.712733	-74.004607	16282	NaN
1212266	40.734546	-73.990741	18253	1959.0
1212267	40.727434	-73.993790	17827	NaN
1212268	40.744449	-73.983035	16859	1962.0
1212269	40.712733	-74.004607	16982	NaN
1212270	40.766638	-73.953483	21038	1976.0
1212271	40.759291	-73.988597	15238	1971.0
1212272	40.718939	-73.992663	17292	1960.0
1212273	40.716059	-73.991908	23374	1982.0
1212274	40.724910	-74.001547	23503	1990.0
1212275	40.724910	-74.001547	22104	1980.0
1212276	40.744876	-73.995299	14597	1967.0

	gender
0	2
1	1
2	1
3	1
4	1
5	2
6	1
7	2
8	1
9	1
10	1
11	1
12	1

13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
23	1
24	0
25	1
26	0
27	2
28	0
29	1
...	...
1212247	1
1212248	0
1212249	1
1212250	1
1212251	2
1212252	2
1212253	1
1212254	2
1212255	2
1212256	1
1212257	1
1212258	1
1212259	1
1212260	0
1212261	2
1212262	0
1212263	0
1212264	0
1212265	0
1212266	1
1212267	0
1212268	1
1212269	0
1212270	1
1212271	1
1212272	1
1212273	1
1212274	1
1212275	2
1212276	1

[3966572 rows x 10 columns]

```
In [11]: citi['Age']=2018-citi['birth year']
citi['Gender']=citi.gender.map({1:'Male',2:'Female'})
```

```
In [12]: citi=citi[citi['tripduration']>60]
citi=citi[citi['tripduration']<7200]
citi=citi[citi['Age']<91]
```

```
In [13]: citi
```

```
Out[13]:
```

	tripduration	starttime	stoptime \
0	1346	1/1/2015 0:01	1/1/2015 0:24
1	363	1/1/2015 0:02	1/1/2015 0:08
2	346	1/1/2015 0:04	1/1/2015 0:10
3	182	1/1/2015 0:04	1/1/2015 0:07
4	969	1/1/2015 0:05	1/1/2015 0:21
5	496	1/1/2015 0:07	1/1/2015 0:15
6	152	1/1/2015 0:07	1/1/2015 0:09
7	1183	1/1/2015 0:08	1/1/2015 0:28
8	846	1/1/2015 0:09	1/1/2015 0:23
9	576	1/1/2015 0:10	1/1/2015 0:20
10	540	1/1/2015 0:10	1/1/2015 0:19
11	419	1/1/2015 0:11	1/1/2015 0:18
12	751	1/1/2015 0:13	1/1/2015 0:25
13	332	1/1/2015 0:13	1/1/2015 0:18
14	1099	1/1/2015 0:14	1/1/2015 0:32
15	649	1/1/2015 0:14	1/1/2015 0:25
16	614	1/1/2015 0:14	1/1/2015 0:24
17	1196	1/1/2015 0:16	1/1/2015 0:36
18	1426	1/1/2015 0:17	1/1/2015 0:40
19	1262	1/1/2015 0:18	1/1/2015 0:39
20	707	1/1/2015 0:18	1/1/2015 0:30
21	307	1/1/2015 0:18	1/1/2015 0:23
22	1053	1/1/2015 0:19	1/1/2015 0:37
23	446	1/1/2015 0:20	1/1/2015 0:27
25	797	1/1/2015 0:21	1/1/2015 0:35
27	1639	1/1/2015 0:22	1/1/2015 0:49
29	470	1/1/2015 0:22	1/1/2015 0:30
30	321	1/1/2015 0:23	1/1/2015 0:29
31	259	1/1/2015 0:23	1/1/2015 0:27
32	81	1/1/2015 0:23	1/1/2015 0:24
...
1212238	384	10/31/2015 23:57:28	11/1/2015 00:03:53
1212239	204	10/31/2015 23:57:30	11/1/2015 00:00:55
1212240	424	10/31/2015 23:57:31	11/1/2015 00:04:36
1212241	573	10/31/2015 23:57:34	11/1/2015 00:07:07
1212243	495	10/31/2015 23:57:42	11/1/2015 00:05:57

1212244	371	10/31/2015	23:57:47	11/1/2015	00:03:58
1212245	529	10/31/2015	23:57:46	11/1/2015	00:06:36
1212246	680	10/31/2015	23:57:52	11/1/2015	00:09:13
1212247	302	10/31/2015	23:57:51	11/1/2015	00:02:54
1212249	267	10/31/2015	23:57:57	11/1/2015	00:02:24
1212250	704	10/31/2015	23:58:00	11/1/2015	00:09:45
1212251	1127	10/31/2015	23:58:01	11/1/2015	00:16:49
1212252	288	10/31/2015	23:58:01	11/1/2015	00:02:50
1212253	474	10/31/2015	23:58:06	11/1/2015	00:06:00
1212254	292	10/31/2015	23:58:10	11/1/2015	00:03:03
1212255	470	10/31/2015	23:58:17	11/1/2015	00:06:07
1212256	320	10/31/2015	23:58:19	11/1/2015	00:03:40
1212257	710	10/31/2015	23:58:23	11/1/2015	00:10:14
1212258	513	10/31/2015	23:58:39	11/1/2015	00:07:12
1212259	883	10/31/2015	23:58:56	11/1/2015	00:13:40
1212261	194	10/31/2015	23:58:59	11/1/2015	00:02:13
1212266	1041	10/31/2015	23:59:12	11/1/2015	00:16:33
1212268	548	10/31/2015	23:59:26	11/1/2015	00:08:35
1212270	1621	10/31/2015	23:59:36	11/1/2015	00:26:38
1212271	341	10/31/2015	23:59:44	11/1/2015	00:05:25
1212272	1924	10/31/2015	23:59:46	11/1/2015	00:31:50
1212273	711	10/31/2015	23:59:50	11/1/2015	00:11:42
1212274	621	10/31/2015	23:59:54	11/1/2015	00:10:15
1212275	632	10/31/2015	23:59:56	11/1/2015	00:10:29
1212276	807	10/31/2015	23:59:57	11/1/2015	00:13:24

	start station latitude	start station longitude \
0	40.750020	-73.969053
1	40.743174	-74.003664
2	40.740964	-73.986022
3	40.683178	-73.965964
4	40.745168	-73.986831
5	40.750073	-73.998393
6	40.748549	-73.988084
7	40.739323	-74.008119
8	40.762272	-73.987882
9	40.748238	-73.978311
10	40.713126	-73.984844
11	40.751581	-73.977910
12	40.760203	-73.964785
13	40.716059	-73.991908
14	40.724537	-73.981854
15	40.756458	-73.993722
16	40.734546	-73.990741
17	40.743954	-73.991449
18	40.707179	-74.008873
19	40.750380	-73.983390
20	40.764618	-73.987895

21	40.745168	-73.986831
22	40.753231	-73.970325
23	40.757148	-73.972078
25	40.768254	-73.988639
27	40.734927	-73.992005
29	40.688226	-73.979382
30	40.734546	-73.990741
31	40.734546	-73.990741
32	40.715816	-73.994224
...
1212238	40.730477	-73.999061
1212239	40.745712	-73.981948
1212240	40.737262	-73.992390
1212241	40.730477	-73.999061
1212243	40.741444	-73.975361
1212244	40.730473	-73.986724
1212245	40.723684	-73.975748
1212246	40.719105	-73.999733
1212247	40.726281	-73.989780
1212249	40.715143	-73.944507
1212250	40.750967	-73.994442
1212251	40.742065	-74.004432
1212252	40.726281	-73.989780
1212253	40.750967	-73.994442
1212254	40.726281	-73.989780
1212255	40.750967	-73.994442
1212256	40.742388	-73.997262
1212257	40.728419	-73.987140
1212258	40.707678	-73.940162
1212259	40.727434	-73.993790
1212261	40.732219	-73.981656
1212266	40.750200	-73.990931
1212268	40.749156	-73.991600
1212270	40.734546	-73.990741
1212271	40.751551	-73.993934
1212272	40.748549	-73.988084
1212273	40.724910	-74.001547
1212274	40.730473	-73.986724
1212275	40.730473	-73.986724
1212276	40.765265	-73.981923

	end station latitude	end station longitude	bikeid	birth year \
0	40.722293	-73.991475	18660	1960.0
1	40.739355	-73.999318	16085	1963.0
2	40.749013	-73.988484	20845	1974.0
3	40.688515	-73.964763	19610	1969.0
4	40.726218	-73.983799	20197	1977.0
5	40.735238	-74.000271	20788	1969.0

6	40.745168	-73.986831	19006	1972.0
7	40.738177	-73.977387	17640	1985.0
8	40.756458	-73.993722	15691	1991.0
9	40.738177	-73.977387	17837	1991.0
10	40.721816	-73.997203	16947	1979.0
11	40.741473	-73.983209	14807	1980.0
12	40.739126	-73.979738	16702	1987.0
13	40.727791	-73.985649	17342	1988.0
14	40.739445	-73.976806	19909	1983.0
15	40.743174	-74.003664	19584	1979.0
16	40.722055	-73.989111	19202	1959.0
17	40.754557	-73.965930	20683	1971.0
18	40.697601	-73.993446	21554	1977.0
19	40.723180	-73.994800	16894	1980.0
20	40.745497	-74.001971	14598	1972.0
21	40.743943	-73.979661	18834	1962.0
22	40.754666	-73.991382	15617	1987.0
23	40.747804	-73.973442	15812	1988.0
25	40.756458	-73.993722	16761	1969.0
27	40.763406	-73.977225	18320	1996.0
29	40.693083	-73.971789	20804	1986.0
30	40.739017	-74.002638	15777	1986.0
31	40.739017	-74.002638	21338	1986.0
32	40.714067	-73.992939	20781	1982.0
...
1212238	40.733320	-73.995101	18778	1978.0
1212239	40.748238	-73.978311	15163	1988.0
1212240	40.730477	-73.999061	19062	1981.0
1212241	40.722055	-73.989111	22597	1987.0
1212243	40.745168	-73.986831	21287	1960.0
1212244	40.732219	-73.981656	22923	1994.0
1212245	40.738177	-73.977387	23153	1987.0
1212246	40.720196	-73.989978	18911	1990.0
1212247	40.729538	-73.984267	23705	1982.0
1212249	40.723250	-73.943080	24078	1982.0
1212250	40.739355	-73.999318	23197	1967.0
1212251	40.725029	-73.990697	17391	1983.0
1212252	40.729538	-73.984267	22171	1982.0
1212253	40.762272	-73.987882	23482	1978.0
1212254	40.729538	-73.984267	22120	1983.0
1212255	40.762272	-73.987882	18211	1980.0
1212256	40.735354	-74.004831	22527	1979.0
1212257	40.720828	-73.977932	24230	1963.0
1212258	40.714133	-73.952344	22115	1980.0
1212259	40.713079	-73.998512	17554	1995.0
1212261	40.733143	-73.975739	23553	1982.0
1212266	40.734546	-73.990741	18253	1959.0
1212268	40.744449	-73.983035	16859	1962.0

1212270	40.766638	-73.953483	21038	1976.0
1212271	40.759291	-73.988597	15238	1971.0
1212272	40.718939	-73.992663	17292	1960.0
1212273	40.716059	-73.991908	23374	1982.0
1212274	40.724910	-74.001547	23503	1990.0
1212275	40.724910	-74.001547	22104	1980.0
1212276	40.744876	-73.995299	14597	1967.0

	gender	Age	Gender
0	2	58.0	Female
1	1	55.0	Male
2	1	44.0	Male
3	1	49.0	Male
4	1	41.0	Male
5	2	49.0	Female
6	1	46.0	Male
7	2	33.0	Female
8	1	27.0	Male
9	1	27.0	Male
10	1	39.0	Male
11	1	38.0	Male
12	1	31.0	Male
13	1	30.0	Male
14	1	35.0	Male
15	1	39.0	Male
16	1	59.0	Male
17	1	47.0	Male
18	1	41.0	Male
19	1	38.0	Male
20	1	46.0	Male
21	1	56.0	Male
22	1	31.0	Male
23	1	30.0	Male
25	1	49.0	Male
27	2	22.0	Female
29	1	32.0	Male
30	1	32.0	Male
31	1	32.0	Male
32	1	36.0	Male
...
1212238	1	40.0	Male
1212239	1	30.0	Male
1212240	1	37.0	Male
1212241	1	31.0	Male
1212243	1	58.0	Male
1212244	2	24.0	Female
1212245	1	31.0	Male
1212246	2	28.0	Female

1212247	1	36.0	Male
1212249	1	36.0	Male
1212250	1	51.0	Male
1212251	2	35.0	Female
1212252	2	36.0	Female
1212253	1	40.0	Male
1212254	2	35.0	Female
1212255	2	38.0	Female
1212256	1	39.0	Male
1212257	1	55.0	Male
1212258	1	38.0	Male
1212259	1	23.0	Male
1212261	2	36.0	Female
1212266	1	59.0	Male
1212268	1	56.0	Male
1212270	1	42.0	Male
1212271	1	47.0	Male
1212272	1	58.0	Male
1212273	1	36.0	Male
1212274	1	28.0	Male
1212275	2	38.0	Female
1212276	1	51.0	Male

[3372554 rows x 12 columns]

In [14]: citi.dropna()

Out[14]:	tripduration	starttime	stoptime \
0	1346	1/1/2015 0:01	1/1/2015 0:24
1	363	1/1/2015 0:02	1/1/2015 0:08
2	346	1/1/2015 0:04	1/1/2015 0:10
3	182	1/1/2015 0:04	1/1/2015 0:07
4	969	1/1/2015 0:05	1/1/2015 0:21
5	496	1/1/2015 0:07	1/1/2015 0:15
6	152	1/1/2015 0:07	1/1/2015 0:09
7	1183	1/1/2015 0:08	1/1/2015 0:28
8	846	1/1/2015 0:09	1/1/2015 0:23
9	576	1/1/2015 0:10	1/1/2015 0:20
10	540	1/1/2015 0:10	1/1/2015 0:19
11	419	1/1/2015 0:11	1/1/2015 0:18
12	751	1/1/2015 0:13	1/1/2015 0:25
13	332	1/1/2015 0:13	1/1/2015 0:18
14	1099	1/1/2015 0:14	1/1/2015 0:32
15	649	1/1/2015 0:14	1/1/2015 0:25
16	614	1/1/2015 0:14	1/1/2015 0:24
17	1196	1/1/2015 0:16	1/1/2015 0:36
18	1426	1/1/2015 0:17	1/1/2015 0:40
19	1262	1/1/2015 0:18	1/1/2015 0:39

20	707	1/1/2015 0:18	1/1/2015 0:30
21	307	1/1/2015 0:18	1/1/2015 0:23
22	1053	1/1/2015 0:19	1/1/2015 0:37
23	446	1/1/2015 0:20	1/1/2015 0:27
25	797	1/1/2015 0:21	1/1/2015 0:35
27	1639	1/1/2015 0:22	1/1/2015 0:49
29	470	1/1/2015 0:22	1/1/2015 0:30
30	321	1/1/2015 0:23	1/1/2015 0:29
31	259	1/1/2015 0:23	1/1/2015 0:27
32	81	1/1/2015 0:23	1/1/2015 0:24
...
1212238	384	10/31/2015 23:57:28	11/1/2015 00:03:53
1212239	204	10/31/2015 23:57:30	11/1/2015 00:00:55
1212240	424	10/31/2015 23:57:31	11/1/2015 00:04:36
1212241	573	10/31/2015 23:57:34	11/1/2015 00:07:07
1212243	495	10/31/2015 23:57:42	11/1/2015 00:05:57
1212244	371	10/31/2015 23:57:47	11/1/2015 00:03:58
1212245	529	10/31/2015 23:57:46	11/1/2015 00:06:36
1212246	680	10/31/2015 23:57:52	11/1/2015 00:09:13
1212247	302	10/31/2015 23:57:51	11/1/2015 00:02:54
1212249	267	10/31/2015 23:57:57	11/1/2015 00:02:24
1212250	704	10/31/2015 23:58:00	11/1/2015 00:09:45
1212251	1127	10/31/2015 23:58:01	11/1/2015 00:16:49
1212252	288	10/31/2015 23:58:01	11/1/2015 00:02:50
1212253	474	10/31/2015 23:58:06	11/1/2015 00:06:00
1212254	292	10/31/2015 23:58:10	11/1/2015 00:03:03
1212255	470	10/31/2015 23:58:17	11/1/2015 00:06:07
1212256	320	10/31/2015 23:58:19	11/1/2015 00:03:40
1212257	710	10/31/2015 23:58:23	11/1/2015 00:10:14
1212258	513	10/31/2015 23:58:39	11/1/2015 00:07:12
1212259	883	10/31/2015 23:58:56	11/1/2015 00:13:40
1212261	194	10/31/2015 23:58:59	11/1/2015 00:02:13
1212266	1041	10/31/2015 23:59:12	11/1/2015 00:16:33
1212268	548	10/31/2015 23:59:26	11/1/2015 00:08:35
1212270	1621	10/31/2015 23:59:36	11/1/2015 00:26:38
1212271	341	10/31/2015 23:59:44	11/1/2015 00:05:25
1212272	1924	10/31/2015 23:59:46	11/1/2015 00:31:50
1212273	711	10/31/2015 23:59:50	11/1/2015 00:11:42
1212274	621	10/31/2015 23:59:54	11/1/2015 00:10:15
1212275	632	10/31/2015 23:59:56	11/1/2015 00:10:29
1212276	807	10/31/2015 23:59:57	11/1/2015 00:13:24

	start station latitude	start station longitude \
0	40.750020	-73.969053
1	40.743174	-74.003664
2	40.740964	-73.986022
3	40.683178	-73.965964
4	40.745168	-73.986831

5	40.750073	-73.998393
6	40.748549	-73.988084
7	40.739323	-74.008119
8	40.762272	-73.987882
9	40.748238	-73.978311
10	40.713126	-73.984844
11	40.751581	-73.977910
12	40.760203	-73.964785
13	40.716059	-73.991908
14	40.724537	-73.981854
15	40.756458	-73.993722
16	40.734546	-73.990741
17	40.743954	-73.991449
18	40.707179	-74.008873
19	40.750380	-73.983390
20	40.764618	-73.987895
21	40.745168	-73.986831
22	40.753231	-73.970325
23	40.757148	-73.972078
25	40.768254	-73.988639
27	40.734927	-73.992005
29	40.688226	-73.979382
30	40.734546	-73.990741
31	40.734546	-73.990741
32	40.715816	-73.994224
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1212238	40.730477	-73.999061
1212239	40.745712	-73.981948
1212240	40.737262	-73.992390
1212241	40.730477	-73.999061
1212243	40.741444	-73.975361
1212244	40.730473	-73.986724
1212245	40.723684	-73.975748
1212246	40.719105	-73.999733
1212247	40.726281	-73.989780
1212249	40.715143	-73.944507
1212250	40.750967	-73.994442
1212251	40.742065	-74.004432
1212252	40.726281	-73.989780
1212253	40.750967	-73.994442
1212254	40.726281	-73.989780
1212255	40.750967	-73.994442
1212256	40.742388	-73.997262
1212257	40.728419	-73.987140
1212258	40.707678	-73.940162
1212259	40.727434	-73.993790
1212261	40.732219	-73.981656
1212266	40.750200	-73.990931

1212268	40.749156	-73.991600
1212270	40.734546	-73.990741
1212271	40.751551	-73.993934
1212272	40.748549	-73.988084
1212273	40.724910	-74.001547
1212274	40.730473	-73.986724
1212275	40.730473	-73.986724
1212276	40.765265	-73.981923

	end station latitude	end station longitude	bikeid	birth year	\
0	40.722293	-73.991475	18660	1960.0	
1	40.739355	-73.999318	16085	1963.0	
2	40.749013	-73.988484	20845	1974.0	
3	40.688515	-73.964763	19610	1969.0	
4	40.726218	-73.983799	20197	1977.0	
5	40.735238	-74.000271	20788	1969.0	
6	40.745168	-73.986831	19006	1972.0	
7	40.738177	-73.977387	17640	1985.0	
8	40.756458	-73.993722	15691	1991.0	
9	40.738177	-73.977387	17837	1991.0	
10	40.721816	-73.997203	16947	1979.0	
11	40.741473	-73.983209	14807	1980.0	
12	40.739126	-73.979738	16702	1987.0	
13	40.727791	-73.985649	17342	1988.0	
14	40.739445	-73.976806	19909	1983.0	
15	40.743174	-74.003664	19584	1979.0	
16	40.722055	-73.989111	19202	1959.0	
17	40.754557	-73.965930	20683	1971.0	
18	40.697601	-73.993446	21554	1977.0	
19	40.723180	-73.994800	16894	1980.0	
20	40.745497	-74.001971	14598	1972.0	
21	40.743943	-73.979661	18834	1962.0	
22	40.754666	-73.991382	15617	1987.0	
23	40.747804	-73.973442	15812	1988.0	
25	40.756458	-73.993722	16761	1969.0	
27	40.763406	-73.977225	18320	1996.0	
29	40.693083	-73.971789	20804	1986.0	
30	40.739017	-74.002638	15777	1986.0	
31	40.739017	-74.002638	21338	1986.0	
32	40.714067	-73.992939	20781	1982.0	
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1212238	40.733320	-73.995101	18778	1978.0	
1212239	40.748238	-73.978311	15163	1988.0	
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1212241	40.722055	-73.989111	22597	1987.0	
1212243	40.745168	-73.986831	21287	1960.0	
1212244	40.732219	-73.981656	22923	1994.0	
1212245	40.738177	-73.977387	23153	1987.0	

1212246	40.720196	-73.989978	18911	1990.0
1212247	40.729538	-73.984267	23705	1982.0
1212249	40.723250	-73.943080	24078	1982.0
1212250	40.739355	-73.999318	23197	1967.0
1212251	40.725029	-73.990697	17391	1983.0
1212252	40.729538	-73.984267	22171	1982.0
1212253	40.762272	-73.987882	23482	1978.0
1212254	40.729538	-73.984267	22120	1983.0
1212255	40.762272	-73.987882	18211	1980.0
1212256	40.735354	-74.004831	22527	1979.0
1212257	40.720828	-73.977932	24230	1963.0
1212258	40.714133	-73.952344	22115	1980.0
1212259	40.713079	-73.998512	17554	1995.0
1212261	40.733143	-73.975739	23553	1982.0
1212266	40.734546	-73.990741	18253	1959.0
1212268	40.744449	-73.983035	16859	1962.0
1212270	40.766638	-73.953483	21038	1976.0
1212271	40.759291	-73.988597	15238	1971.0
1212272	40.718939	-73.992663	17292	1960.0
1212273	40.716059	-73.991908	23374	1982.0
1212274	40.724910	-74.001547	23503	1990.0
1212275	40.724910	-74.001547	22104	1980.0
1212276	40.744876	-73.995299	14597	1967.0

	gender	Age	Gender
0	2	58.0	Female
1	1	55.0	Male
2	1	44.0	Male
3	1	49.0	Male
4	1	41.0	Male
5	2	49.0	Female
6	1	46.0	Male
7	2	33.0	Female
8	1	27.0	Male
9	1	27.0	Male
10	1	39.0	Male
11	1	38.0	Male
12	1	31.0	Male
13	1	30.0	Male
14	1	35.0	Male
15	1	39.0	Male
16	1	59.0	Male
17	1	47.0	Male
18	1	41.0	Male
19	1	38.0	Male
20	1	46.0	Male
21	1	56.0	Male
22	1	31.0	Male

23	1	30.0	Male
25	1	49.0	Male
27	2	22.0	Female
29	1	32.0	Male
30	1	32.0	Male
31	1	32.0	Male
32	1	36.0	Male
...
1212238	1	40.0	Male
1212239	1	30.0	Male
1212240	1	37.0	Male
1212241	1	31.0	Male
1212243	1	58.0	Male
1212244	2	24.0	Female
1212245	1	31.0	Male
1212246	2	28.0	Female
1212247	1	36.0	Male
1212249	1	36.0	Male
1212250	1	51.0	Male
1212251	2	35.0	Female
1212252	2	36.0	Female
1212253	1	40.0	Male
1212254	2	35.0	Female
1212255	2	38.0	Female
1212256	1	39.0	Male
1212257	1	55.0	Male
1212258	1	38.0	Male
1212259	1	23.0	Male
1212261	2	36.0	Female
1212266	1	59.0	Male
1212268	1	56.0	Male
1212270	1	42.0	Male
1212271	1	47.0	Male
1212272	1	58.0	Male
1212273	1	36.0	Male
1212274	1	28.0	Male
1212275	2	38.0	Female
1212276	1	51.0	Male

[3367936 rows x 12 columns]

In [15]: citi.dropna()

Out[15]:	tripduration	starttime	stoptime \
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1	363	1/1/2015 0:02	1/1/2015 0:08
2	346	1/1/2015 0:04	1/1/2015 0:10
3	182	1/1/2015 0:04	1/1/2015 0:07

4	969	1/1/2015 0:05	1/1/2015 0:21
5	496	1/1/2015 0:07	1/1/2015 0:15
6	152	1/1/2015 0:07	1/1/2015 0:09
7	1183	1/1/2015 0:08	1/1/2015 0:28
8	846	1/1/2015 0:09	1/1/2015 0:23
9	576	1/1/2015 0:10	1/1/2015 0:20
10	540	1/1/2015 0:10	1/1/2015 0:19
11	419	1/1/2015 0:11	1/1/2015 0:18
12	751	1/1/2015 0:13	1/1/2015 0:25
13	332	1/1/2015 0:13	1/1/2015 0:18
14	1099	1/1/2015 0:14	1/1/2015 0:32
15	649	1/1/2015 0:14	1/1/2015 0:25
16	614	1/1/2015 0:14	1/1/2015 0:24
17	1196	1/1/2015 0:16	1/1/2015 0:36
18	1426	1/1/2015 0:17	1/1/2015 0:40
19	1262	1/1/2015 0:18	1/1/2015 0:39
20	707	1/1/2015 0:18	1/1/2015 0:30
21	307	1/1/2015 0:18	1/1/2015 0:23
22	1053	1/1/2015 0:19	1/1/2015 0:37
23	446	1/1/2015 0:20	1/1/2015 0:27
25	797	1/1/2015 0:21	1/1/2015 0:35
27	1639	1/1/2015 0:22	1/1/2015 0:49
29	470	1/1/2015 0:22	1/1/2015 0:30
30	321	1/1/2015 0:23	1/1/2015 0:29
31	259	1/1/2015 0:23	1/1/2015 0:27
32	81	1/1/2015 0:23	1/1/2015 0:24
...
1212238	384	10/31/2015 23:57:28	11/1/2015 00:03:53
1212239	204	10/31/2015 23:57:30	11/1/2015 00:00:55
1212240	424	10/31/2015 23:57:31	11/1/2015 00:04:36
1212241	573	10/31/2015 23:57:34	11/1/2015 00:07:07
1212243	495	10/31/2015 23:57:42	11/1/2015 00:05:57
1212244	371	10/31/2015 23:57:47	11/1/2015 00:03:58
1212245	529	10/31/2015 23:57:46	11/1/2015 00:06:36
1212246	680	10/31/2015 23:57:52	11/1/2015 00:09:13
1212247	302	10/31/2015 23:57:51	11/1/2015 00:02:54
1212249	267	10/31/2015 23:57:57	11/1/2015 00:02:24
1212250	704	10/31/2015 23:58:00	11/1/2015 00:09:45
1212251	1127	10/31/2015 23:58:01	11/1/2015 00:16:49
1212252	288	10/31/2015 23:58:01	11/1/2015 00:02:50
1212253	474	10/31/2015 23:58:06	11/1/2015 00:06:00
1212254	292	10/31/2015 23:58:10	11/1/2015 00:03:03
1212255	470	10/31/2015 23:58:17	11/1/2015 00:06:07
1212256	320	10/31/2015 23:58:19	11/1/2015 00:03:40
1212257	710	10/31/2015 23:58:23	11/1/2015 00:10:14
1212258	513	10/31/2015 23:58:39	11/1/2015 00:07:12
1212259	883	10/31/2015 23:58:56	11/1/2015 00:13:40
1212261	194	10/31/2015 23:58:59	11/1/2015 00:02:13

1212266	1041	10/31/2015	23:59:12	11/1/2015	00:16:33
1212268	548	10/31/2015	23:59:26	11/1/2015	00:08:35
1212270	1621	10/31/2015	23:59:36	11/1/2015	00:26:38
1212271	341	10/31/2015	23:59:44	11/1/2015	00:05:25
1212272	1924	10/31/2015	23:59:46	11/1/2015	00:31:50
1212273	711	10/31/2015	23:59:50	11/1/2015	00:11:42
1212274	621	10/31/2015	23:59:54	11/1/2015	00:10:15
1212275	632	10/31/2015	23:59:56	11/1/2015	00:10:29
1212276	807	10/31/2015	23:59:57	11/1/2015	00:13:24

	start station latitude	start station longitude \
0	40.750020	-73.969053
1	40.743174	-74.003664
2	40.740964	-73.986022
3	40.683178	-73.965964
4	40.745168	-73.986831
5	40.750073	-73.998393
6	40.748549	-73.988084
7	40.739323	-74.008119
8	40.762272	-73.987882
9	40.748238	-73.978311
10	40.713126	-73.984844
11	40.751581	-73.977910
12	40.760203	-73.964785
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15	40.756458	-73.993722
16	40.734546	-73.990741
17	40.743954	-73.991449
18	40.707179	-74.008873
19	40.750380	-73.983390
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21	40.745168	-73.986831
22	40.753231	-73.970325
23	40.757148	-73.972078
25	40.768254	-73.988639
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29	40.688226	-73.979382
30	40.734546	-73.990741
31	40.734546	-73.990741
32	40.715816	-73.994224
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1212238	40.730477	-73.999061
1212239	40.745712	-73.981948
1212240	40.737262	-73.992390
1212241	40.730477	-73.999061
1212243	40.741444	-73.975361
1212244	40.730473	-73.986724

1212245	40.723684	-73.975748
1212246	40.719105	-73.999733
1212247	40.726281	-73.989780
1212249	40.715143	-73.944507
1212250	40.750967	-73.994442
1212251	40.742065	-74.004432
1212252	40.726281	-73.989780
1212253	40.750967	-73.994442
1212254	40.726281	-73.989780
1212255	40.750967	-73.994442
1212256	40.742388	-73.997262
1212257	40.728419	-73.987140
1212258	40.707678	-73.940162
1212259	40.727434	-73.993790
1212261	40.732219	-73.981656
1212266	40.750200	-73.990931
1212268	40.749156	-73.991600
1212270	40.734546	-73.990741
1212271	40.751551	-73.993934
1212272	40.748549	-73.988084
1212273	40.724910	-74.001547
1212274	40.730473	-73.986724
1212275	40.730473	-73.986724
1212276	40.765265	-73.981923

	end station latitude	end station longitude	bikeid	birth year	\
0	40.722293	-73.991475	18660	1960.0	
1	40.739355	-73.999318	16085	1963.0	
2	40.749013	-73.988484	20845	1974.0	
3	40.688515	-73.964763	19610	1969.0	
4	40.726218	-73.983799	20197	1977.0	
5	40.735238	-74.000271	20788	1969.0	
6	40.745168	-73.986831	19006	1972.0	
7	40.738177	-73.977387	17640	1985.0	
8	40.756458	-73.993722	15691	1991.0	
9	40.738177	-73.977387	17837	1991.0	
10	40.721816	-73.997203	16947	1979.0	
11	40.741473	-73.983209	14807	1980.0	
12	40.739126	-73.979738	16702	1987.0	
13	40.727791	-73.985649	17342	1988.0	
14	40.739445	-73.976806	19909	1983.0	
15	40.743174	-74.003664	19584	1979.0	
16	40.722055	-73.989111	19202	1959.0	
17	40.754557	-73.965930	20683	1971.0	
18	40.697601	-73.993446	21554	1977.0	
19	40.723180	-73.994800	16894	1980.0	
20	40.745497	-74.001971	14598	1972.0	
21	40.743943	-73.979661	18834	1962.0	

22	40.754666	-73.991382	15617	1987.0
23	40.747804	-73.973442	15812	1988.0
25	40.756458	-73.993722	16761	1969.0
27	40.763406	-73.977225	18320	1996.0
29	40.693083	-73.971789	20804	1986.0
30	40.739017	-74.002638	15777	1986.0
31	40.739017	-74.002638	21338	1986.0
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1212239	40.748238	-73.978311	15163	1988.0
1212240	40.730477	-73.999061	19062	1981.0
1212241	40.722055	-73.989111	22597	1987.0
1212243	40.745168	-73.986831	21287	1960.0
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1212247	40.729538	-73.984267	23705	1982.0
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1212251	40.725029	-73.990697	17391	1983.0
1212252	40.729538	-73.984267	22171	1982.0
1212253	40.762272	-73.987882	23482	1978.0
1212254	40.729538	-73.984267	22120	1983.0
1212255	40.762272	-73.987882	18211	1980.0
1212256	40.735354	-74.004831	22527	1979.0
1212257	40.720828	-73.977932	24230	1963.0
1212258	40.714133	-73.952344	22115	1980.0
1212259	40.713079	-73.998512	17554	1995.0
1212261	40.733143	-73.975739	23553	1982.0
1212266	40.734546	-73.990741	18253	1959.0
1212268	40.744449	-73.983035	16859	1962.0
1212270	40.766638	-73.953483	21038	1976.0
1212271	40.759291	-73.988597	15238	1971.0
1212272	40.718939	-73.992663	17292	1960.0
1212273	40.716059	-73.991908	23374	1982.0
1212274	40.724910	-74.001547	23503	1990.0
1212275	40.724910	-74.001547	22104	1980.0
1212276	40.744876	-73.995299	14597	1967.0

	gender	Age	Gender
0	2	58.0	Female
1	1	55.0	Male
2	1	44.0	Male
3	1	49.0	Male
4	1	41.0	Male
5	2	49.0	Female
6	1	46.0	Male

7	2	33.0	Female
8	1	27.0	Male
9	1	27.0	Male
10	1	39.0	Male
11	1	38.0	Male
12	1	31.0	Male
13	1	30.0	Male
14	1	35.0	Male
15	1	39.0	Male
16	1	59.0	Male
17	1	47.0	Male
18	1	41.0	Male
19	1	38.0	Male
20	1	46.0	Male
21	1	56.0	Male
22	1	31.0	Male
23	1	30.0	Male
25	1	49.0	Male
27	2	22.0	Female
29	1	32.0	Male
30	1	32.0	Male
31	1	32.0	Male
32	1	36.0	Male
...
1212238	1	40.0	Male
1212239	1	30.0	Male
1212240	1	37.0	Male
1212241	1	31.0	Male
1212243	1	58.0	Male
1212244	2	24.0	Female
1212245	1	31.0	Male
1212246	2	28.0	Female
1212247	1	36.0	Male
1212249	1	36.0	Male
1212250	1	51.0	Male
1212251	2	35.0	Female
1212252	2	36.0	Female
1212253	1	40.0	Male
1212254	2	35.0	Female
1212255	2	38.0	Female
1212256	1	39.0	Male
1212257	1	55.0	Male
1212258	1	38.0	Male
1212259	1	23.0	Male
1212261	2	36.0	Female
1212266	1	59.0	Male
1212268	1	56.0	Male
1212270	1	42.0	Male

1212271	1	47.0	Male
1212272	1	58.0	Male
1212273	1	36.0	Male
1212274	1	28.0	Male
1212275	2	38.0	Female
1212276	1	51.0	Male

[3367936 rows x 12 columns]

In [16]: citi.describe()

```
Out[16]:
```

	tripduration	start station latitude	start station longitude	\
count	3.372554e+06	3.372554e+06	3.372554e+06	
mean	7.363967e+02	4.073622e+01	-7.398889e+01	
std	5.434387e+02	2.016099e-02	1.436770e-02	
min	6.100000e+01	4.067891e+01	-7.401713e+01	
25%	3.710000e+02	4.072217e+01	-7.399884e+01	
50%	5.860000e+02	4.073705e+01	-7.399009e+01	
75%	9.390000e+02	4.075097e+01	-7.398057e+01	
max	7.199000e+03	4.078721e+01	-7.392989e+01	

	end station latitude	end station longitude	bikeid	\
count	3.372554e+06	3.372554e+06	3.372554e+06	
mean	4.073588e+01	-7.398906e+01	2.021684e+04	
std	2.006677e-02	1.439341e-02	2.970967e+03	
min	4.064677e+01	-7.404630e+01	1.452900e+04	
25%	4.072210e+01	-7.399915e+01	1.760300e+04	
50%	4.073705e+01	-7.399009e+01	2.079100e+04	
75%	4.075066e+01	-7.398093e+01	2.289000e+04	
max	4.078721e+01	-7.392989e+01	2.474300e+04	

	birth year	gender	Age
count	3.372554e+06	3.372554e+06	3.372554e+06
mean	1.977003e+03	1.239152e+00	4.099717e+01
std	1.140671e+01	4.297636e-01	1.140671e+01
min	1.930000e+03	0.000000e+00	1.900000e+01
25%	1.969000e+03	1.000000e+00	3.200000e+01
50%	1.980000e+03	1.000000e+00	3.800000e+01
75%	1.986000e+03	1.000000e+00	4.900000e+01
max	1.999000e+03	2.000000e+00	8.800000e+01

In [17]: citi['tripduration'].mean()

Out[17]: 736.3966545828473

In [18]: citi.to_csv("CitiFinalData2",)

In [19]: citi.drop

```

Out[19]: <bound method DataFrame.drop of
          tripduration      starttime
0          1346      1/1/2015 0:01      1/1/2015 0:24
1           363      1/1/2015 0:02      1/1/2015 0:08
2           346      1/1/2015 0:04      1/1/2015 0:10
3           182      1/1/2015 0:04      1/1/2015 0:07
4           969      1/1/2015 0:05      1/1/2015 0:21
5           496      1/1/2015 0:07      1/1/2015 0:15
6           152      1/1/2015 0:07      1/1/2015 0:09
7          1183      1/1/2015 0:08      1/1/2015 0:28
8           846      1/1/2015 0:09      1/1/2015 0:23
9           576      1/1/2015 0:10      1/1/2015 0:20
10          540      1/1/2015 0:10      1/1/2015 0:19
11          419      1/1/2015 0:11      1/1/2015 0:18
12          751      1/1/2015 0:13      1/1/2015 0:25
13          332      1/1/2015 0:13      1/1/2015 0:18
14         1099      1/1/2015 0:14      1/1/2015 0:32
15          649      1/1/2015 0:14      1/1/2015 0:25
16          614      1/1/2015 0:14      1/1/2015 0:24
17         1196      1/1/2015 0:16      1/1/2015 0:36
18         1426      1/1/2015 0:17      1/1/2015 0:40
19         1262      1/1/2015 0:18      1/1/2015 0:39
20          707      1/1/2015 0:18      1/1/2015 0:30
21          307      1/1/2015 0:18      1/1/2015 0:23
22         1053      1/1/2015 0:19      1/1/2015 0:37
23          446      1/1/2015 0:20      1/1/2015 0:27
25          797      1/1/2015 0:21      1/1/2015 0:35
27         1639      1/1/2015 0:22      1/1/2015 0:49
29          470      1/1/2015 0:22      1/1/2015 0:30
30          321      1/1/2015 0:23      1/1/2015 0:29
31          259      1/1/2015 0:23      1/1/2015 0:27
32           81      1/1/2015 0:23      1/1/2015 0:24
...
1212238      384  10/31/2015 23:57:28  11/1/2015 00:03:53
1212239      204  10/31/2015 23:57:30  11/1/2015 00:00:55
1212240      424  10/31/2015 23:57:31  11/1/2015 00:04:36
1212241      573  10/31/2015 23:57:34  11/1/2015 00:07:07
1212243      495  10/31/2015 23:57:42  11/1/2015 00:05:57
1212244      371  10/31/2015 23:57:47  11/1/2015 00:03:58
1212245      529  10/31/2015 23:57:46  11/1/2015 00:06:36
1212246      680  10/31/2015 23:57:52  11/1/2015 00:09:13
1212247      302  10/31/2015 23:57:51  11/1/2015 00:02:54
1212249      267  10/31/2015 23:57:57  11/1/2015 00:02:24
1212250      704  10/31/2015 23:58:00  11/1/2015 00:09:45
1212251     1127  10/31/2015 23:58:01  11/1/2015 00:16:49
1212252      288  10/31/2015 23:58:01  11/1/2015 00:02:50
1212253      474  10/31/2015 23:58:06  11/1/2015 00:06:00
1212254      292  10/31/2015 23:58:10  11/1/2015 00:03:03
1212255      470  10/31/2015 23:58:17  11/1/2015 00:06:07

```

1212256	320	10/31/2015	23:58:19	11/1/2015	00:03:40
1212257	710	10/31/2015	23:58:23	11/1/2015	00:10:14
1212258	513	10/31/2015	23:58:39	11/1/2015	00:07:12
1212259	883	10/31/2015	23:58:56	11/1/2015	00:13:40
1212261	194	10/31/2015	23:58:59	11/1/2015	00:02:13
1212266	1041	10/31/2015	23:59:12	11/1/2015	00:16:33
1212268	548	10/31/2015	23:59:26	11/1/2015	00:08:35
1212270	1621	10/31/2015	23:59:36	11/1/2015	00:26:38
1212271	341	10/31/2015	23:59:44	11/1/2015	00:05:25
1212272	1924	10/31/2015	23:59:46	11/1/2015	00:31:50
1212273	711	10/31/2015	23:59:50	11/1/2015	00:11:42
1212274	621	10/31/2015	23:59:54	11/1/2015	00:10:15
1212275	632	10/31/2015	23:59:56	11/1/2015	00:10:29
1212276	807	10/31/2015	23:59:57	11/1/2015	00:13:24

	start station latitude	start station longitude \
0	40.750020	-73.969053
1	40.743174	-74.003664
2	40.740964	-73.986022
3	40.683178	-73.965964
4	40.745168	-73.986831
5	40.750073	-73.998393
6	40.748549	-73.988084
7	40.739323	-74.008119
8	40.762272	-73.987882
9	40.748238	-73.978311
10	40.713126	-73.984844
11	40.751581	-73.977910
12	40.760203	-73.964785
13	40.716059	-73.991908
14	40.724537	-73.981854
15	40.756458	-73.993722
16	40.734546	-73.990741
17	40.743954	-73.991449
18	40.707179	-74.008873
19	40.750380	-73.983390
20	40.764618	-73.987895
21	40.745168	-73.986831
22	40.753231	-73.970325
23	40.757148	-73.972078
25	40.768254	-73.988639
27	40.734927	-73.992005
29	40.688226	-73.979382
30	40.734546	-73.990741
31	40.734546	-73.990741
32	40.715816	-73.994224
...
1212238	40.730477	-73.999061

1212239	40.745712	-73.981948
1212240	40.737262	-73.992390
1212241	40.730477	-73.999061
1212243	40.741444	-73.975361
1212244	40.730473	-73.986724
1212245	40.723684	-73.975748
1212246	40.719105	-73.999733
1212247	40.726281	-73.989780
1212249	40.715143	-73.944507
1212250	40.750967	-73.994442
1212251	40.742065	-74.004432
1212252	40.726281	-73.989780
1212253	40.750967	-73.994442
1212254	40.726281	-73.989780
1212255	40.750967	-73.994442
1212256	40.742388	-73.997262
1212257	40.728419	-73.987140
1212258	40.707678	-73.940162
1212259	40.727434	-73.993790
1212261	40.732219	-73.981656
1212266	40.750200	-73.990931
1212268	40.749156	-73.991600
1212270	40.734546	-73.990741
1212271	40.751551	-73.993934
1212272	40.748549	-73.988084
1212273	40.724910	-74.001547
1212274	40.730473	-73.986724
1212275	40.730473	-73.986724
1212276	40.765265	-73.981923

	end station latitude	end station longitude	bikeid	birth year	\
0	40.722293	-73.991475	18660	1960.0	
1	40.739355	-73.999318	16085	1963.0	
2	40.749013	-73.988484	20845	1974.0	
3	40.688515	-73.964763	19610	1969.0	
4	40.726218	-73.983799	20197	1977.0	
5	40.735238	-74.000271	20788	1969.0	
6	40.745168	-73.986831	19006	1972.0	
7	40.738177	-73.977387	17640	1985.0	
8	40.756458	-73.993722	15691	1991.0	
9	40.738177	-73.977387	17837	1991.0	
10	40.721816	-73.997203	16947	1979.0	
11	40.741473	-73.983209	14807	1980.0	
12	40.739126	-73.979738	16702	1987.0	
13	40.727791	-73.985649	17342	1988.0	
14	40.739445	-73.976806	19909	1983.0	
15	40.743174	-74.003664	19584	1979.0	
16	40.722055	-73.989111	19202	1959.0	

17	40.754557	-73.965930	20683	1971.0
18	40.697601	-73.993446	21554	1977.0
19	40.723180	-73.994800	16894	1980.0
20	40.745497	-74.001971	14598	1972.0
21	40.743943	-73.979661	18834	1962.0
22	40.754666	-73.991382	15617	1987.0
23	40.747804	-73.973442	15812	1988.0
25	40.756458	-73.993722	16761	1969.0
27	40.763406	-73.977225	18320	1996.0
29	40.693083	-73.971789	20804	1986.0
30	40.739017	-74.002638	15777	1986.0
31	40.739017	-74.002638	21338	1986.0
32	40.714067	-73.992939	20781	1982.0
...
1212238	40.733320	-73.995101	18778	1978.0
1212239	40.748238	-73.978311	15163	1988.0
1212240	40.730477	-73.999061	19062	1981.0
1212241	40.722055	-73.989111	22597	1987.0
1212243	40.745168	-73.986831	21287	1960.0
1212244	40.732219	-73.981656	22923	1994.0
1212245	40.738177	-73.977387	23153	1987.0
1212246	40.720196	-73.989978	18911	1990.0
1212247	40.729538	-73.984267	23705	1982.0
1212249	40.723250	-73.943080	24078	1982.0
1212250	40.739355	-73.999318	23197	1967.0
1212251	40.725029	-73.990697	17391	1983.0
1212252	40.729538	-73.984267	22171	1982.0
1212253	40.762272	-73.987882	23482	1978.0
1212254	40.729538	-73.984267	22120	1983.0
1212255	40.762272	-73.987882	18211	1980.0
1212256	40.735354	-74.004831	22527	1979.0
1212257	40.720828	-73.977932	24230	1963.0
1212258	40.714133	-73.952344	22115	1980.0
1212259	40.713079	-73.998512	17554	1995.0
1212261	40.733143	-73.975739	23553	1982.0
1212266	40.734546	-73.990741	18253	1959.0
1212268	40.744449	-73.983035	16859	1962.0
1212270	40.766638	-73.953483	21038	1976.0
1212271	40.759291	-73.988597	15238	1971.0
1212272	40.718939	-73.992663	17292	1960.0
1212273	40.716059	-73.991908	23374	1982.0
1212274	40.724910	-74.001547	23503	1990.0
1212275	40.724910	-74.001547	22104	1980.0
1212276	40.744876	-73.995299	14597	1967.0

	gender	Age	Gender
0	2	58.0	Female
1	1	55.0	Male

2	1	44.0	Male
3	1	49.0	Male
4	1	41.0	Male
5	2	49.0	Female
6	1	46.0	Male
7	2	33.0	Female
8	1	27.0	Male
9	1	27.0	Male
10	1	39.0	Male
11	1	38.0	Male
12	1	31.0	Male
13	1	30.0	Male
14	1	35.0	Male
15	1	39.0	Male
16	1	59.0	Male
17	1	47.0	Male
18	1	41.0	Male
19	1	38.0	Male
20	1	46.0	Male
21	1	56.0	Male
22	1	31.0	Male
23	1	30.0	Male
25	1	49.0	Male
27	2	22.0	Female
29	1	32.0	Male
30	1	32.0	Male
31	1	32.0	Male
32	1	36.0	Male
...
1212238	1	40.0	Male
1212239	1	30.0	Male
1212240	1	37.0	Male
1212241	1	31.0	Male
1212243	1	58.0	Male
1212244	2	24.0	Female
1212245	1	31.0	Male
1212246	2	28.0	Female
1212247	1	36.0	Male
1212249	1	36.0	Male
1212250	1	51.0	Male
1212251	2	35.0	Female
1212252	2	36.0	Female
1212253	1	40.0	Male
1212254	2	35.0	Female
1212255	2	38.0	Female
1212256	1	39.0	Male
1212257	1	55.0	Male
1212258	1	38.0	Male

```

1212259      1  23.0    Male
1212261      2  36.0  Female
1212266      1  59.0    Male
1212268      1  56.0    Male
1212270      1  42.0    Male
1212271      1  47.0    Male
1212272      1  58.0    Male
1212273      1  36.0    Male
1212274      1  28.0    Male
1212275      2  38.0  Female
1212276      1  51.0    Male

```

```
[3372554 rows x 12 columns]>
```

```
In [ ]: citi
```

```

In [26]: fig1, ax1 = plt.subplots()
        colors = ['gold', 'lightskyblue', 'lightcoral']
        ax1.pie(citi.groupby(citi['Gender']).size(), colors=colors, autopct='%1.1f%%', shadow=True)
        ax1.set_title("Citibike Usage by Gender")
        ax1.axis('equal') # Equal aspect ratio ensures that pie is drawn as a circle.

```

```

Out[26]: (-1.1045095633687003,
          1.1052032311155244,
          -1.104410047727207,
          1.1002100218026478)

```

