

```
In [13]: 1 import numpy as np
          2 import pandas as pd
          3 import seaborn as sns
          4 import matplotlib.pyplot as plt
          5 %matplotlib inline
          6 import datetime as dt
```

```
In [24]: 1 uber_df=pd.read_csv('B:\\work\\uber data.csv')
```

In [25]:

1 uber_df

Out[25]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03
4	3112	City	1.0	Trip Completed	13-07-2016 08:33:16	13-07-2016 09:25:47
5	3879	Airport	1.0	Trip Completed	13-07-2016 21:57:28	13-07-2016 22:28:59
6	4270	Airport	1.0	Trip Completed	14-07-2016 06:15:32	14-07-2016 07:13:15
7	5510	Airport	1.0	Trip Completed	15-07-2016 05:11:52	15-07-2016 06:07:52
8	6248	City	1.0	Trip Completed	15-07-2016 17:57:27	15-07-2016 18:50:51
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57
12	2784	Airport	2.0	Trip Completed	13-07-2016 04:49:20	13-07-2016 05:23:03
13	3075	City	2.0	Trip Completed	13-07-2016 08:02:53	13-07-2016 09:16:19
14	3379	City	2.0	Trip Completed	13-07-2016 14:23:02	13-07-2016 15:35:18
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10
...
6715	6683	City	NaN	No Cars Available	15-07-2016 22:34:01	NaN
6716	6686	Airport	NaN	No Cars Available	15-07-2016 22:36:13	NaN
6717	6688	Airport	NaN	No Cars Available	15-07-2016 22:37:37	NaN
6718	6689	Airport	NaN	No Cars Available	15-07-2016 22:43:46	NaN
6719	6693	City	NaN	No Cars Available	15-07-2016 22:49:33	NaN
6720	6696	City	NaN	No Cars Available	15-07-2016 22:49:45	NaN
6721	6697	Airport	NaN	No Cars Available	15-07-2016 22:51:18	NaN
6722	6709	Airport	NaN	No Cars Available	15-07-2016 22:56:00	NaN
6723	6706	Airport	NaN	No Cars Available	15-07-2016 22:58:15	NaN
6724	6708	City	NaN	No Cars Available	15-07-2016 23:03:23	NaN
6725	6713	City	NaN	No Cars Available	15-07-2016 23:08:14	NaN
6726	6715	City	NaN	No Cars Available	15-07-2016 23:11:41	NaN
6727	6716	City	NaN	No Cars Available	15-07-2016 23:14:36	NaN
6728	6718	Airport	NaN	No Cars Available	15-07-2016 23:14:39	NaN
6729	6720	City	NaN	No Cars Available	15-07-2016 23:16:48	NaN
6730	6722	Airport	NaN	No Cars Available	15-07-2016 23:18:21	NaN
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN

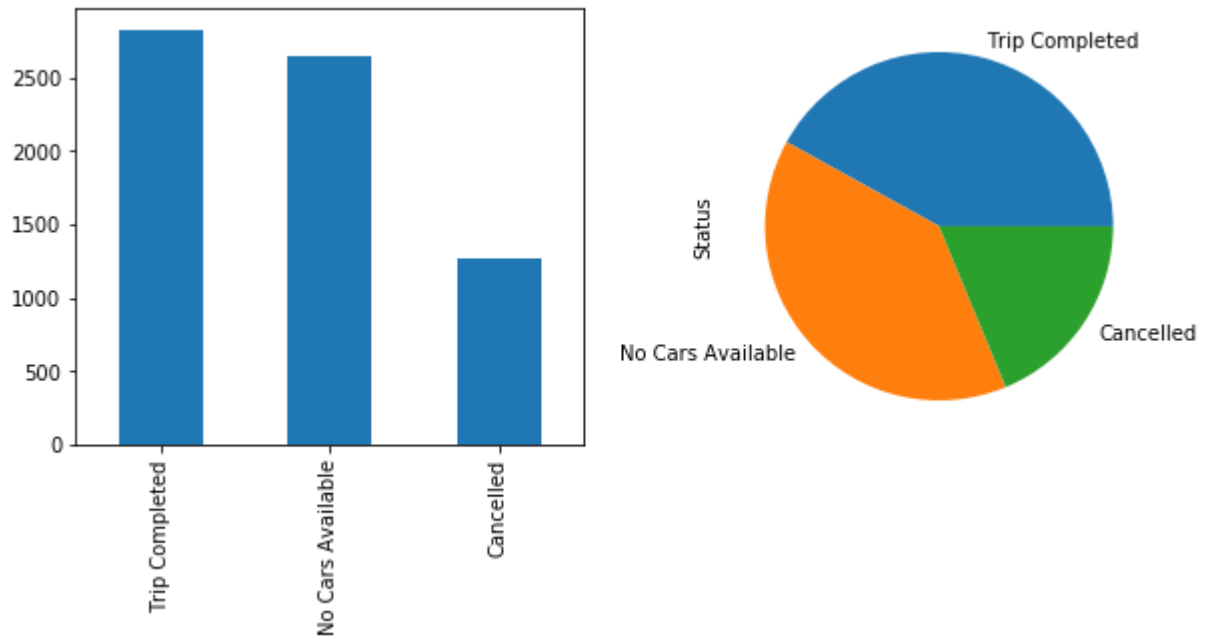
	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN

6745 rows × 6 columns

In [26]: 1 uber_df['Status'].value_counts()

Out[26]: Trip Completed 2831
 No Cars Available 2650
 Cancelled 1264
 Name: Status, dtype: int64

```
In [27]: 1 plt.figure(figsize=(10,4))
2 plt.subplot(1,2,1)
3 uber_df['Status'].value_counts().plot(kind='bar')
4 plt.subplot(1,2,2)
5 uber_df['Status'].value_counts().plot(kind='pie')
6 plt.show()
```

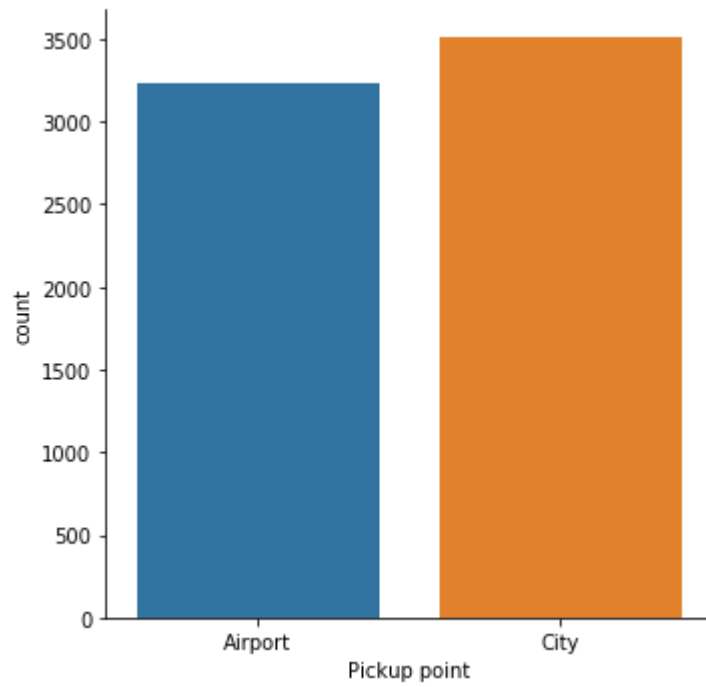


```
In [28]: 1 uber_df['Pickup point'].value_counts()
```

```
Out[28]: City      3507
Airport    3238
Name: Pickup point, dtype: int64
```

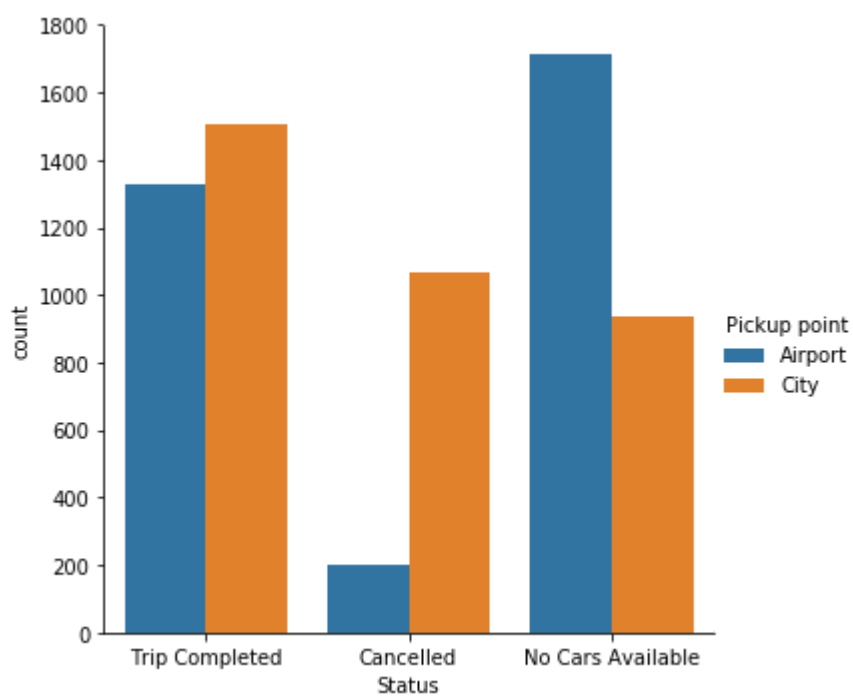
```
In [29]: 1 sns.catplot('Pickup point',data=uber_df,kind='count')
```

```
Out[29]: <seaborn.axisgrid.FacetGrid at 0x1fdbb324e10>
```



```
In [30]: 1 sns.catplot(hue='Pickup point',x='Status',data=uber_df,kind='count')
```

```
Out[30]: <seaborn.axisgrid.FacetGrid at 0x1fdb58db588>
```



```
In [31]: 1 request_df=uber_df['Request timestamp'].value_counts()
         2 request_df
```

```
Out[31]: 11/7/2016 19:02      6
         11/7/2016 17:57      6
         11/7/2016 9:40       6
         11/7/2016 8:37       6
         11/7/2016 19:14      5
         11/7/2016 9:24       5
         12/7/2016 17:30      5
         11/7/2016 22:00      5
         11/7/2016 20:47      5
         11/7/2016 21:38      5
         12/7/2016 4:46       5
         12/7/2016 19:31      5
         12/7/2016 21:07      5
         12/7/2016 19:17      5
         12/7/2016 21:42      5
         11/7/2016 20:23      5
         11/7/2016 5:12       5
         11/7/2016 5:10       5
         11/7/2016 19:01      5
         11/7/2016 7:51       4
         12/7/2016 18:32      4
         12/7/2016 9:13       4
         12/7/2016 17:46      4
         11/7/2016 6:44       4
         11/7/2016 7:05       4
         11/7/2016 6:27       4
         12/7/2016 8:14       4
         12/7/2016 6:41       4
         12/7/2016 18:30      4
         11/7/2016 6:31       4
         ..
         15-07-2016 09:37:21    1
         15-07-2016 23:02:36    1
         13-07-2016 07:21:15    1
         13-07-2016 17:38:56    1
         11/7/2016 1:23         1
         15-07-2016 04:45:25    1
         12/7/2016 5:18         1
         13-07-2016 08:25:17    1
         13-07-2016 09:59:46    1
         15-07-2016 12:14:51    1
         12/7/2016 11:06        1
         15-07-2016 07:27:37    1
         15-07-2016 22:20:23    1
         15-07-2016 02:20:24    1
         15-07-2016 07:01:00    1
         15-07-2016 23:55:03    1
         12/7/2016 7:56         1
         12/7/2016 8:23         1
         12/7/2016 11:10        1
         12/7/2016 8:20         1
         13-07-2016 06:28:41    1
         13-07-2016 14:02:38    1
         13-07-2016 12:02:32    1
```



```
13-07-2016 10:06:32    1
13-07-2016 10:01:02    1
14-07-2016 05:46:51    1
13-07-2016 23:39:52    1
15-07-2016 21:49:39    1
12/7/2016 19:58        1
14-07-2016 18:02:12    1
```

Name: Request timestamp, Length: 5618, dtype: int64

```
In [46]: 1 #uber_df['timestamp'] = uber_df['Request timestamp'].apply(lambda x : pd.
2         # for getting datetime in same format like(2016-11-07)
```

```
In [ ]: 1 #uber_df['Time'] = uber_df['timestamp'].dt.time (for getting only time)
2        #uber_df['Date'] =uber_df['timestamp'].dt.date (for getting only date)
3
```

```
In [11]: 1 uber_df['Date']=pd.to_datetime(uber_df['Request timestamp'],errors='coerc
```

In [12]:

1 uber_df

Out[12]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00	2016-11-07 11:51:00
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47	2016-11-07 17:57:00
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58	2016-12-07 09:17:00
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03	2016-12-07 21:08:00
4	3112	City	1.0	Trip Completed	13-07-2016 08:33:16	13-07-2016 09:25:47	2016-07-13 08:33:16
5	3879	Airport	1.0	Trip Completed	13-07-2016 21:57:28	13-07-2016 22:28:59	2016-07-13 21:57:28
6	4270	Airport	1.0	Trip Completed	14-07-2016 06:15:32	14-07-2016 07:13:15	2016-07-14 06:15:32
7	5510	Airport	1.0	Trip Completed	15-07-2016 05:11:52	15-07-2016 06:07:52	2016-07-15 05:11:52
8	6248	City	1.0	Trip Completed	15-07-2016 17:57:27	15-07-2016 18:50:51	2016-07-15 17:57:27
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25	2016-11-07 06:46:00
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02	2016-12-07 05:08:00
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57	2016-12-07 12:30:00
12	2784	Airport	2.0	Trip Completed	13-07-2016 04:49:20	13-07-2016 05:23:03	2016-07-13 04:49:20
13	3075	City	2.0	Trip Completed	13-07-2016 08:02:53	13-07-2016 09:16:19	2016-07-13 08:02:53
14	3379	City	2.0	Trip Completed	13-07-2016 14:23:02	13-07-2016 15:35:18	2016-07-13 14:23:02
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51	2016-07-13 17:23:18
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46	2016-07-14 12:01:02
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52	2016-07-14 22:24:13
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31	2016-11-07 10:00:00
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23	2016-11-07 18:45:00
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23	2016-12-07 11:17:00

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40	2016-12-07 15:46:00
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28	2016-12-07 18:00:00
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37	2016-07-13 08:17:29
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23	2016-07-13 21:54:18
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19	2016-07-14 21:23:03
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43	2016-07-15 02:41:38
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06	2016-07-15 10:00:43
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49	2016-11-07 13:08:00
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10	2016-12-07 06:21:00
...
6715	6683	City	NaN	No Cars Available	15-07-2016 22:34:01	NaN	2016-07-15 22:34:01
6716	6686	Airport	NaN	No Cars Available	15-07-2016 22:36:13	NaN	2016-07-15 22:36:13
6717	6688	Airport	NaN	No Cars Available	15-07-2016 22:37:37	NaN	2016-07-15 22:37:37
6718	6689	Airport	NaN	No Cars Available	15-07-2016 22:43:46	NaN	2016-07-15 22:43:46
6719	6693	City	NaN	No Cars Available	15-07-2016 22:49:33	NaN	2016-07-15 22:49:33
6720	6696	City	NaN	No Cars Available	15-07-2016 22:49:45	NaN	2016-07-15 22:49:45
6721	6697	Airport	NaN	No Cars Available	15-07-2016 22:51:18	NaN	2016-07-15 22:51:18
6722	6709	Airport	NaN	No Cars Available	15-07-2016 22:56:00	NaN	2016-07-15 22:56:00
6723	6706	Airport	NaN	No Cars Available	15-07-2016 22:58:15	NaN	2016-07-15 22:58:15
6724	6708	City	NaN	No Cars Available	15-07-2016 23:03:23	NaN	2016-07-15 23:03:23
6725	6713	City	NaN	No Cars Available	15-07-2016 23:08:14	NaN	2016-07-15 23:08:14
6726	6715	City	NaN	No Cars Available	15-07-2016 23:11:41	NaN	2016-07-15 23:11:41

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date
6727	6716	City	NaN	No Cars Available	15-07-2016 23:14:36	NaN	2016-07-15 23:14:36
6728	6718	Airport	NaN	No Cars Available	15-07-2016 23:14:39	NaN	2016-07-15 23:14:39
6729	6720	City	NaN	No Cars Available	15-07-2016 23:16:48	NaN	2016-07-15 23:16:48
6730	6722	Airport	NaN	No Cars Available	15-07-2016 23:18:21	NaN	2016-07-15 23:18:21
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN	2016-07-15 23:21:53
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN	2016-07-15 23:26:50
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN	2016-07-15 23:27:55
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN	2016-07-15 23:35:50
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN	2016-07-15 23:39:15
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN	2016-07-15 23:42:51
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN	2016-07-15 23:43:54
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN	2016-07-15 23:46:03
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN	2016-07-15 23:46:20
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN	2016-07-15 23:49:03
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN	2016-07-15 23:50:05
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN	2016-07-15 23:52:06
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN	2016-07-15 23:54:39
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN	2016-07-15 23:55:03

6745 rows × 7 columns

In [13]: 1 uber_df['time']=uber_df['Date'].dt.hour

In [14]:

1 uber_df

Out[14]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00	2016-11-07 11:51:00	11
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47	2016-11-07 17:57:00	17
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58	2016-12-07 09:17:00	9
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03	2016-12-07 21:08:00	21
4	3112	City	1.0	Trip Completed	13-07-2016 08:33:16	13-07-2016 09:25:47	2016-07-13 08:33:16	8
5	3879	Airport	1.0	Trip Completed	13-07-2016 21:57:28	13-07-2016 22:28:59	2016-07-13 21:57:28	21
6	4270	Airport	1.0	Trip Completed	14-07-2016 06:15:32	14-07-2016 07:13:15	2016-07-14 06:15:32	6
7	5510	Airport	1.0	Trip Completed	15-07-2016 05:11:52	15-07-2016 06:07:52	2016-07-15 05:11:52	5
8	6248	City	1.0	Trip Completed	15-07-2016 17:57:27	15-07-2016 18:50:51	2016-07-15 17:57:27	17
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25	2016-11-07 06:46:00	6
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02	2016-12-07 05:08:00	5
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57	2016-12-07 12:30:00	12
12	2784	Airport	2.0	Trip Completed	13-07-2016 04:49:20	13-07-2016 05:23:03	2016-07-13 04:49:20	4
13	3075	City	2.0	Trip Completed	13-07-2016 08:02:53	13-07-2016 09:16:19	2016-07-13 08:02:53	8
14	3379	City	2.0	Trip Completed	13-07-2016 14:23:02	13-07-2016 15:35:18	2016-07-13 14:23:02	14
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51	2016-07-13 17:23:18	17
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46	2016-07-14 12:01:02	12
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52	2016-07-14 22:24:13	22
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31	2016-11-07 10:00:00	10
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23	2016-11-07 18:45:00	18
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23	2016-12-07 11:17:00	11

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40	2016-12-07 15:46:00	15
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28	2016-12-07 18:00:00	18
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37	2016-07-13 08:17:29	8
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23	2016-07-13 21:54:18	21
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19	2016-07-14 21:23:03	21
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43	2016-07-15 02:41:38	2
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06	2016-07-15 10:00:43	10
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49	2016-11-07 13:08:00	13
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10	2016-12-07 06:21:00	6
...
6715	6683	City	NaN	No Cars Available	15-07-2016 22:34:01	NaN	2016-07-15 22:34:01	22
6716	6686	Airport	NaN	No Cars Available	15-07-2016 22:36:13	NaN	2016-07-15 22:36:13	22
6717	6688	Airport	NaN	No Cars Available	15-07-2016 22:37:37	NaN	2016-07-15 22:37:37	22
6718	6689	Airport	NaN	No Cars Available	15-07-2016 22:43:46	NaN	2016-07-15 22:43:46	22
6719	6693	City	NaN	No Cars Available	15-07-2016 22:49:33	NaN	2016-07-15 22:49:33	22
6720	6696	City	NaN	No Cars Available	15-07-2016 22:49:45	NaN	2016-07-15 22:49:45	22
6721	6697	Airport	NaN	No Cars Available	15-07-2016 22:51:18	NaN	2016-07-15 22:51:18	22
6722	6709	Airport	NaN	No Cars Available	15-07-2016 22:56:00	NaN	2016-07-15 22:56:00	22
6723	6706	Airport	NaN	No Cars Available	15-07-2016 22:58:15	NaN	2016-07-15 22:58:15	22
6724	6708	City	NaN	No Cars Available	15-07-2016 23:03:23	NaN	2016-07-15 23:03:23	23
6725	6713	City	NaN	No Cars Available	15-07-2016 23:08:14	NaN	2016-07-15 23:08:14	23
6726	6715	City	NaN	No Cars Available	15-07-2016 23:11:41	NaN	2016-07-15 23:11:41	23

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
6727	6716	City	NaN	No Cars Available	15-07-2016 23:14:36	NaN	2016-07-15 23:14:36	23
6728	6718	Airport	NaN	No Cars Available	15-07-2016 23:14:39	NaN	2016-07-15 23:14:39	23
6729	6720	City	NaN	No Cars Available	15-07-2016 23:16:48	NaN	2016-07-15 23:16:48	23
6730	6722	Airport	NaN	No Cars Available	15-07-2016 23:18:21	NaN	2016-07-15 23:18:21	23
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN	2016-07-15 23:21:53	23
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN	2016-07-15 23:26:50	23
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN	2016-07-15 23:27:55	23
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN	2016-07-15 23:35:50	23
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN	2016-07-15 23:39:15	23
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN	2016-07-15 23:42:51	23
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN	2016-07-15 23:43:54	23
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN	2016-07-15 23:46:03	23
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN	2016-07-15 23:46:20	23
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN	2016-07-15 23:49:03	23
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN	2016-07-15 23:50:05	23
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN	2016-07-15 23:52:06	23
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN	2016-07-15 23:54:39	23
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN	2016-07-15 23:55:03	23

6745 rows × 8 columns

In [15]:

1 uber_df

Out[15]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	timestamp	dates
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00	2016-11-07 11:51:00	2016- 11-07
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47	2016-11-07 17:57:00	2016- 11-07
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58	2016-12-07 09:17:00	2016- 12-07
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03	2016-12-07 21:08:00	2016- 12-07
4	3112	City	1.0	Trip Completed	13-07-2016 08:33:16	13-07-2016 09:25:47	2016-07-13 08:33:16	2016- 07-13
5	3879	Airport	1.0	Trip Completed	13-07-2016 21:57:28	13-07-2016 22:28:59	2016-07-13 21:57:28	2016- 07-13
6	4270	Airport	1.0	Trip Completed	14-07-2016 06:15:32	14-07-2016 07:13:15	2016-07-14 06:15:32	2016- 07-14
7	5510	Airport	1.0	Trip Completed	15-07-2016 05:11:52	15-07-2016 06:07:52	2016-07-15 05:11:52	2016- 07-15
8	6248	City	1.0	Trip Completed	15-07-2016 17:57:27	15-07-2016 18:50:51	2016-07-15 17:57:27	2016- 07-15
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25	2016-11-07 06:46:00	2016- 11-07
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02	2016-12-07 05:08:00	2016- 12-07
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57	2016-12-07 12:30:00	2016- 12-07
12	2784	Airport	2.0	Trip Completed	13-07-2016 04:49:20	13-07-2016 05:23:03	2016-07-13 04:49:20	2016- 07-13
13	3075	City	2.0	Trip Completed	13-07-2016 08:02:53	13-07-2016 09:16:19	2016-07-13 08:02:53	2016- 07-13
14	3379	City	2.0	Trip Completed	13-07-2016 14:23:02	13-07-2016 15:35:18	2016-07-13 14:23:02	2016- 07-13
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51	2016-07-13 17:23:18	2016- 07-13
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46	2016-07-14 12:01:02	2016- 07-14
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52	2016-07-14 22:24:13	2016- 07-14
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31	2016-11-07 10:00:00	2016- 11-07
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23	2016-11-07 18:45:00	2016- 11-07
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23	2016-12-07 11:17:00	2016- 12-07

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	timestamp	dates
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40	2016-12-07 15:46:00	2016-12-07
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28	2016-12-07 18:00:00	2016-12-07
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37	2016-07-13 08:17:29	2016-07-13
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23	2016-07-13 21:54:18	2016-07-13
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19	2016-07-14 21:23:03	2016-07-14
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43	2016-07-15 02:41:38	2016-07-15
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06	2016-07-15 10:00:43	2016-07-15
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49	2016-11-07 13:08:00	2016-11-07
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10	2016-12-07 06:21:00	2016-12-07
...
6715	6683	City	NaN	No Cars Available	15-07-2016 22:34:01	NaN	2016-07-15 22:34:01	2016-07-15
6716	6686	Airport	NaN	No Cars Available	15-07-2016 22:36:13	NaN	2016-07-15 22:36:13	2016-07-15
6717	6688	Airport	NaN	No Cars Available	15-07-2016 22:37:37	NaN	2016-07-15 22:37:37	2016-07-15
6718	6689	Airport	NaN	No Cars Available	15-07-2016 22:43:46	NaN	2016-07-15 22:43:46	2016-07-15
6719	6693	City	NaN	No Cars Available	15-07-2016 22:49:33	NaN	2016-07-15 22:49:33	2016-07-15
6720	6696	City	NaN	No Cars Available	15-07-2016 22:49:45	NaN	2016-07-15 22:49:45	2016-07-15
6721	6697	Airport	NaN	No Cars Available	15-07-2016 22:51:18	NaN	2016-07-15 22:51:18	2016-07-15
6722	6709	Airport	NaN	No Cars Available	15-07-2016 22:56:00	NaN	2016-07-15 22:56:00	2016-07-15
6723	6706	Airport	NaN	No Cars Available	15-07-2016 22:58:15	NaN	2016-07-15 22:58:15	2016-07-15
6724	6708	City	NaN	No Cars Available	15-07-2016 23:03:23	NaN	2016-07-15 23:03:23	2016-07-15
6725	6713	City	NaN	No Cars Available	15-07-2016 23:08:14	NaN	2016-07-15 23:08:14	2016-07-15
6726	6715	City	NaN	No Cars Available	15-07-2016 23:11:41	NaN	2016-07-15 23:11:41	2016-07-15

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	timestamp	dates
6727	6716	City	NaN	No Cars Available	15-07-2016 23:14:36	NaN	2016-07-15 23:14:36	2016-07-15
6728	6718	Airport	NaN	No Cars Available	15-07-2016 23:14:39	NaN	2016-07-15 23:14:39	2016-07-15
6729	6720	City	NaN	No Cars Available	15-07-2016 23:16:48	NaN	2016-07-15 23:16:48	2016-07-15
6730	6722	Airport	NaN	No Cars Available	15-07-2016 23:18:21	NaN	2016-07-15 23:18:21	2016-07-15
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN	2016-07-15 23:21:53	2016-07-15
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN	2016-07-15 23:26:50	2016-07-15
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN	2016-07-15 23:27:55	2016-07-15
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN	2016-07-15 23:35:50	2016-07-15
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN	2016-07-15 23:39:15	2016-07-15
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN	2016-07-15 23:42:51	2016-07-15
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN	2016-07-15 23:43:54	2016-07-15
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN	2016-07-15 23:46:03	2016-07-15
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN	2016-07-15 23:46:20	2016-07-15
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN	2016-07-15 23:49:03	2016-07-15
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN	2016-07-15 23:50:05	2016-07-15
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN	2016-07-15 23:52:06	2016-07-15
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN	2016-07-15 23:54:39	2016-07-15
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN	2016-07-15 23:55:03	2016-07-15

6745 rows × 8 columns

In [15]:

1 uber_df

Out[15]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00	2016-11-07 11:51:00	11
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47	2016-11-07 17:57:00	17
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58	2016-12-07 09:17:00	9
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03	2016-12-07 21:08:00	21
4	3112	City	1.0	Trip Completed	13-07-2016 08:33:16	13-07-2016 09:25:47	2016-07-13 08:33:16	8
5	3879	Airport	1.0	Trip Completed	13-07-2016 21:57:28	13-07-2016 22:28:59	2016-07-13 21:57:28	21
6	4270	Airport	1.0	Trip Completed	14-07-2016 06:15:32	14-07-2016 07:13:15	2016-07-14 06:15:32	6
7	5510	Airport	1.0	Trip Completed	15-07-2016 05:11:52	15-07-2016 06:07:52	2016-07-15 05:11:52	5
8	6248	City	1.0	Trip Completed	15-07-2016 17:57:27	15-07-2016 18:50:51	2016-07-15 17:57:27	17
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25	2016-11-07 06:46:00	6
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02	2016-12-07 05:08:00	5
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57	2016-12-07 12:30:00	12
12	2784	Airport	2.0	Trip Completed	13-07-2016 04:49:20	13-07-2016 05:23:03	2016-07-13 04:49:20	4
13	3075	City	2.0	Trip Completed	13-07-2016 08:02:53	13-07-2016 09:16:19	2016-07-13 08:02:53	8
14	3379	City	2.0	Trip Completed	13-07-2016 14:23:02	13-07-2016 15:35:18	2016-07-13 14:23:02	14
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51	2016-07-13 17:23:18	17
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46	2016-07-14 12:01:02	12
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52	2016-07-14 22:24:13	22
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31	2016-11-07 10:00:00	10
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23	2016-11-07 18:45:00	18
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23	2016-12-07 11:17:00	11

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40	2016-12-07 15:46:00	15
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28	2016-12-07 18:00:00	18
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37	2016-07-13 08:17:29	8
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23	2016-07-13 21:54:18	21
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19	2016-07-14 21:23:03	21
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43	2016-07-15 02:41:38	2
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06	2016-07-15 10:00:43	10
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49	2016-11-07 13:08:00	13
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10	2016-12-07 06:21:00	6
...
6715	6683	City	NaN	No Cars Available	15-07-2016 22:34:01	NaN	2016-07-15 22:34:01	22
6716	6686	Airport	NaN	No Cars Available	15-07-2016 22:36:13	NaN	2016-07-15 22:36:13	22
6717	6688	Airport	NaN	No Cars Available	15-07-2016 22:37:37	NaN	2016-07-15 22:37:37	22
6718	6689	Airport	NaN	No Cars Available	15-07-2016 22:43:46	NaN	2016-07-15 22:43:46	22
6719	6693	City	NaN	No Cars Available	15-07-2016 22:49:33	NaN	2016-07-15 22:49:33	22
6720	6696	City	NaN	No Cars Available	15-07-2016 22:49:45	NaN	2016-07-15 22:49:45	22
6721	6697	Airport	NaN	No Cars Available	15-07-2016 22:51:18	NaN	2016-07-15 22:51:18	22
6722	6709	Airport	NaN	No Cars Available	15-07-2016 22:56:00	NaN	2016-07-15 22:56:00	22
6723	6706	Airport	NaN	No Cars Available	15-07-2016 22:58:15	NaN	2016-07-15 22:58:15	22
6724	6708	City	NaN	No Cars Available	15-07-2016 23:03:23	NaN	2016-07-15 23:03:23	23
6725	6713	City	NaN	No Cars Available	15-07-2016 23:08:14	NaN	2016-07-15 23:08:14	23
6726	6715	City	NaN	No Cars Available	15-07-2016 23:11:41	NaN	2016-07-15 23:11:41	23

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time
6727	6716	City	NaN	No Cars Available	15-07-2016 23:14:36	NaN	2016-07-15 23:14:36	23
6728	6718	Airport	NaN	No Cars Available	15-07-2016 23:14:39	NaN	2016-07-15 23:14:39	23
6729	6720	City	NaN	No Cars Available	15-07-2016 23:16:48	NaN	2016-07-15 23:16:48	23
6730	6722	Airport	NaN	No Cars Available	15-07-2016 23:18:21	NaN	2016-07-15 23:18:21	23
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN	2016-07-15 23:21:53	23
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN	2016-07-15 23:26:50	23
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN	2016-07-15 23:27:55	23
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN	2016-07-15 23:35:50	23
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN	2016-07-15 23:39:15	23
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN	2016-07-15 23:42:51	23
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN	2016-07-15 23:43:54	23
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN	2016-07-15 23:46:03	23
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN	2016-07-15 23:46:20	23
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN	2016-07-15 23:49:03	23
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN	2016-07-15 23:50:05	23
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN	2016-07-15 23:52:06	23
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN	2016-07-15 23:54:39	23
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN	2016-07-15 23:55:03	23

6745 rows × 8 columns

In [16]: 1 uber_df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 6745 entries, 0 to 6744
Data columns (total 8 columns):
Request id          6745 non-null int64
Pickup point        6745 non-null object
Driver id           4095 non-null float64
Status              6745 non-null object
Request timestamp    6745 non-null object
Drop timestamp       2831 non-null object
Date                6745 non-null datetime64[ns]
time                6745 non-null int64
dtypes: datetime64[ns](1), float64(1), int64(2), object(4)
memory usage: 421.6+ KB
```

In [38]:

```
1 timings=[]
2 for i in uber_df['time']:
3     if 3<=i<7:
4         timings.append('early morning')
5     elif 7<=i<12:
6         timings.append('morning')
7     elif 12<=i<16:
8         timings.append('afternoon')
9     elif 16<=i<21:
10        timings.append('evening')
11    elif i>=21:
12        timings.append('late evening')
13    elif i<3:
14        timings.append('late evening')
```

In [39]: 1 uber_df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 6745 entries, 0 to 6744
Data columns (total 8 columns):
Request id          6745 non-null int64
Pickup point        6745 non-null object
Driver id           4095 non-null float64
Status              6745 non-null object
Request timestamp    6745 non-null object
Drop timestamp       2831 non-null object
Date                6745 non-null datetime64[ns]
time                6745 non-null int64
dtypes: datetime64[ns](1), float64(1), int64(2), object(4)
memory usage: 421.6+ KB
```

In [40]: 1 len(timings)

Out[40]: 6745

In [47]: 1 uber_df['session']=timings

```
In [48]: 1 uber_df['session']
```

```
Out[48]: 0          morning
1          evening
2          morning
3      late evening
4          morning
5      late evening
6      early morning
7      early morning
8          evening
9      early morning
10     early morning
11          afternoon
12     early morning
13          morning
14          afternoon
15          evening
16          afternoon
17     late evening
18          morning
19          evening
20          morning
21          afternoon
22          evening
23          morning
24     late evening
25     late evening
26     late evening
27          morning
28          afternoon
29     early morning
...
6715    late evening
6716    late evening
6717    late evening
6718    late evening
6719    late evening
6720    late evening
6721    late evening
6722    late evening
6723    late evening
6724    late evening
6725    late evening
6726    late evening
6727    late evening
6728    late evening
6729    late evening
6730    late evening
6731    late evening
6732    late evening
6733    late evening
6734    late evening
6735    late evening
6736    late evening
6737    late evening
6738    late evening
```

```
6739    late evening
6740    late evening
6741    late evening
6742    late evening
6743    late evening
6744    late evening
Name: session, Length: 6745, dtype: object
```


In [49]:

1 uber_df

Out[49]:

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time	hours	ses
0	619	Airport	1.0	Trip Completed	11/7/2016 11:51	11/7/2016 13:00	2016- 11-07 11:51:00	11	morning	mo
1	867	Airport	1.0	Trip Completed	11/7/2016 17:57	11/7/2016 18:47	2016- 11-07 17:57:00	17	evening	eve
2	1807	City	1.0	Trip Completed	12/7/2016 9:17	12/7/2016 9:58	2016- 12-07 09:17:00	9	morning	mo
3	2532	Airport	1.0	Trip Completed	12/7/2016 21:08	12/7/2016 22:03	2016- 12-07 21:08:00	21	late evening	eve
4	3112	City	1.0	Trip Completed	13-07- 2016 08:33:16	13-07- 2016 09:25:47	2016- 07-13 08:33:16	8	morning	mo
5	3879	Airport	1.0	Trip Completed	13-07- 2016 21:57:28	13-07- 2016 22:28:59	2016- 07-13 21:57:28	21	late evening	eve
6	4270	Airport	1.0	Trip Completed	14-07- 2016 06:15:32	14-07- 2016 07:13:15	2016- 07-14 06:15:32	6	early morning	mo
7	5510	Airport	1.0	Trip Completed	15-07- 2016 05:11:52	15-07- 2016 06:07:52	2016- 07-15 05:11:52	5	early morning	mo
8	6248	City	1.0	Trip Completed	15-07- 2016 17:57:27	15-07- 2016 18:50:51	2016- 07-15 17:57:27	17	evening	eve
9	267	City	2.0	Trip Completed	11/7/2016 6:46	11/7/2016 7:25	2016- 11-07 06:46:00	6	early morning	mo
10	1467	Airport	2.0	Trip Completed	12/7/2016 5:08	12/7/2016 6:02	2016- 12-07 05:08:00	5	early morning	mo
11	1983	City	2.0	Trip Completed	12/7/2016 12:30	12/7/2016 12:57	2016- 12-07 12:30:00	12	afternoon	after
12	2784	Airport	2.0	Trip Completed	13-07- 2016 04:49:20	13-07- 2016 05:23:03	2016- 07-13 04:49:20	4	early morning	mo
13	3075	City	2.0	Trip Completed	13-07- 2016 08:02:53	13-07- 2016 09:16:19	2016- 07-13 08:02:53	8	morning	mo
14	3379	City	2.0	Trip Completed	13-07- 2016 14:23:02	13-07- 2016 15:35:18	2016- 07-13 14:23:02	14	afternoon	after

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time	hours	ses
15	3482	Airport	2.0	Trip Completed	13-07-2016 17:23:18	13-07-2016 18:20:51	2016-07-13 17:23:18	17	evening	eve
16	4652	City	2.0	Trip Completed	14-07-2016 12:01:02	14-07-2016 12:36:46	2016-07-14 12:01:02	12	afternoon	after
17	5335	Airport	2.0	Trip Completed	14-07-2016 22:24:13	14-07-2016 23:18:52	2016-07-14 22:24:13	22	late evening	eve
18	535	Airport	3.0	Trip Completed	11/7/2016 10:00	11/7/2016 10:31	2016-11-07 10:00:00	10	morning	mo
19	960	Airport	3.0	Trip Completed	11/7/2016 18:45	11/7/2016 19:23	2016-11-07 18:45:00	18	evening	eve
20	1934	Airport	3.0	Trip Completed	12/7/2016 11:17	12/7/2016 12:23	2016-12-07 11:17:00	11	morning	mo
21	2083	Airport	3.0	Trip Completed	12/7/2016 15:46	12/7/2016 16:40	2016-12-07 15:46:00	15	afternoon	after
22	2211	Airport	3.0	Trip Completed	12/7/2016 18:00	12/7/2016 18:28	2016-12-07 18:00:00	18	evening	eve
23	3096	Airport	3.0	Trip Completed	13-07-2016 08:17:29	13-07-2016 09:22:37	2016-07-13 08:17:29	8	morning	mo
24	3881	Airport	3.0	Trip Completed	13-07-2016 21:54:18	13-07-2016 22:51:23	2016-07-13 21:54:18	21	late evening	eve
25	5254	City	3.0	Trip Completed	14-07-2016 21:23:03	14-07-2016 22:25:19	2016-07-14 21:23:03	21	late evening	eve
26	5434	City	3.0	Trip Completed	15-07-2016 02:41:38	15-07-2016 03:24:43	2016-07-15 02:41:38	2	late evening	eve
27	5916	City	3.0	Trip Completed	15-07-2016 10:00:43	15-07-2016 10:53:06	2016-07-15 10:00:43	10	morning	mo
28	669	City	4.0	Trip Completed	11/7/2016 13:08	11/7/2016 13:49	2016-11-07 13:08:00	13	afternoon	after
29	1567	Airport	4.0	Trip Completed	12/7/2016 6:21	12/7/2016 7:10	2016-12-07 06:21:00	6	early morning	mo
...

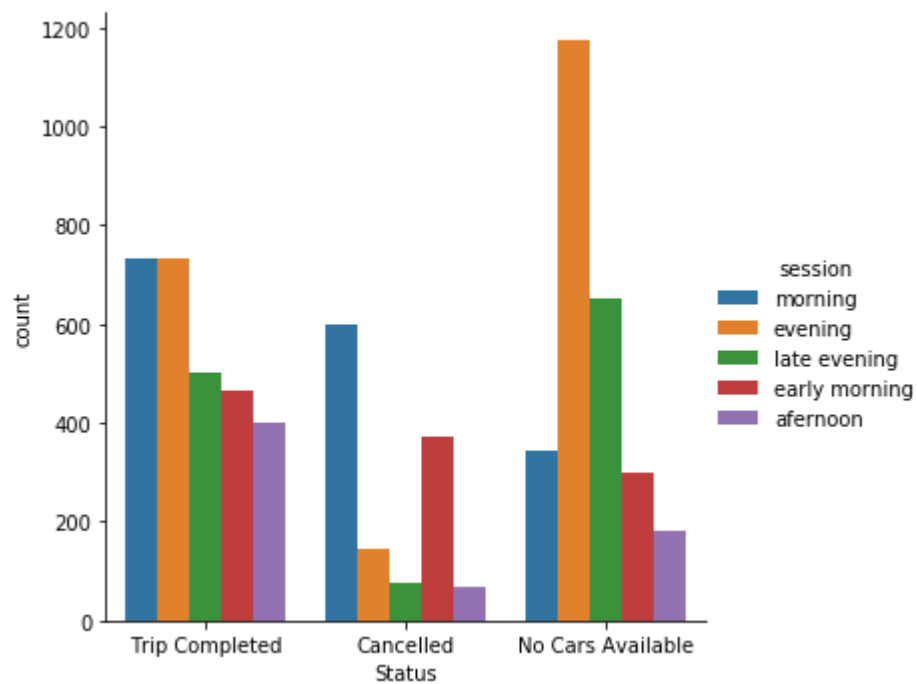
	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time	hours	ses
6715	6683	City	NaN	No Cars Available	15-07- 2016 22:34:01	NaN	2016- 07-15 22:34:01	22	late evening	eve
6716	6686	Airport	NaN	No Cars Available	15-07- 2016 22:36:13	NaN	2016- 07-15 22:36:13	22	late evening	eve
6717	6688	Airport	NaN	No Cars Available	15-07- 2016 22:37:37	NaN	2016- 07-15 22:37:37	22	late evening	eve
6718	6689	Airport	NaN	No Cars Available	15-07- 2016 22:43:46	NaN	2016- 07-15 22:43:46	22	late evening	eve
6719	6693	City	NaN	No Cars Available	15-07- 2016 22:49:33	NaN	2016- 07-15 22:49:33	22	late evening	eve
6720	6696	City	NaN	No Cars Available	15-07- 2016 22:49:45	NaN	2016- 07-15 22:49:45	22	late evening	eve
6721	6697	Airport	NaN	No Cars Available	15-07- 2016 22:51:18	NaN	2016- 07-15 22:51:18	22	late evening	eve
6722	6709	Airport	NaN	No Cars Available	15-07- 2016 22:56:00	NaN	2016- 07-15 22:56:00	22	late evening	eve
6723	6706	Airport	NaN	No Cars Available	15-07- 2016 22:58:15	NaN	2016- 07-15 22:58:15	22	late evening	eve
6724	6708	City	NaN	No Cars Available	15-07- 2016 23:03:23	NaN	2016- 07-15 23:03:23	23	late evening	eve
6725	6713	City	NaN	No Cars Available	15-07- 2016 23:08:14	NaN	2016- 07-15 23:08:14	23	late evening	eve
6726	6715	City	NaN	No Cars Available	15-07- 2016 23:11:41	NaN	2016- 07-15 23:11:41	23	late evening	eve
6727	6716	City	NaN	No Cars Available	15-07- 2016 23:14:36	NaN	2016- 07-15 23:14:36	23	late evening	eve
6728	6718	Airport	NaN	No Cars Available	15-07- 2016 23:14:39	NaN	2016- 07-15 23:14:39	23	late evening	eve
6729	6720	City	NaN	No Cars Available	15-07- 2016 23:16:48	NaN	2016- 07-15 23:16:48	23	late evening	eve
6730	6722	Airport	NaN	No Cars Available	15-07- 2016 23:18:21	NaN	2016- 07-15 23:18:21	23	late evening	eve

	Request id	Pickup point	Driver id	Status	Request timestamp	Drop timestamp	Date	time	hours	ses
6731	6725	Airport	NaN	No Cars Available	15-07-2016 23:21:53	NaN	2016-07-15 23:21:53	23	late evening	eve
6732	6728	City	NaN	No Cars Available	15-07-2016 23:26:50	NaN	2016-07-15 23:26:50	23	late evening	eve
6733	6730	Airport	NaN	No Cars Available	15-07-2016 23:27:55	NaN	2016-07-15 23:27:55	23	late evening	eve
6734	6732	Airport	NaN	No Cars Available	15-07-2016 23:35:50	NaN	2016-07-15 23:35:50	23	late evening	eve
6735	6737	Airport	NaN	No Cars Available	15-07-2016 23:39:15	NaN	2016-07-15 23:39:15	23	late evening	eve
6736	6744	Airport	NaN	No Cars Available	15-07-2016 23:42:51	NaN	2016-07-15 23:42:51	23	late evening	eve
6737	6740	City	NaN	No Cars Available	15-07-2016 23:43:54	NaN	2016-07-15 23:43:54	23	late evening	eve
6738	6746	City	NaN	No Cars Available	15-07-2016 23:46:03	NaN	2016-07-15 23:46:03	23	late evening	eve
6739	6739	City	NaN	No Cars Available	15-07-2016 23:46:20	NaN	2016-07-15 23:46:20	23	late evening	eve
6740	6745	City	NaN	No Cars Available	15-07-2016 23:49:03	NaN	2016-07-15 23:49:03	23	late evening	eve
6741	6752	Airport	NaN	No Cars Available	15-07-2016 23:50:05	NaN	2016-07-15 23:50:05	23	late evening	eve
6742	6751	City	NaN	No Cars Available	15-07-2016 23:52:06	NaN	2016-07-15 23:52:06	23	late evening	eve
6743	6754	City	NaN	No Cars Available	15-07-2016 23:54:39	NaN	2016-07-15 23:54:39	23	late evening	eve
6744	6753	Airport	NaN	No Cars Available	15-07-2016 23:55:03	NaN	2016-07-15 23:55:03	23	late evening	eve

6745 rows × 10 columns

```
In [50]: 1 sns.catplot(hue='session',x='Status',data=uber_df,kind='count')
```

```
Out[50]: <seaborn.axisgrid.FacetGrid at 0x26a4592a080>
```

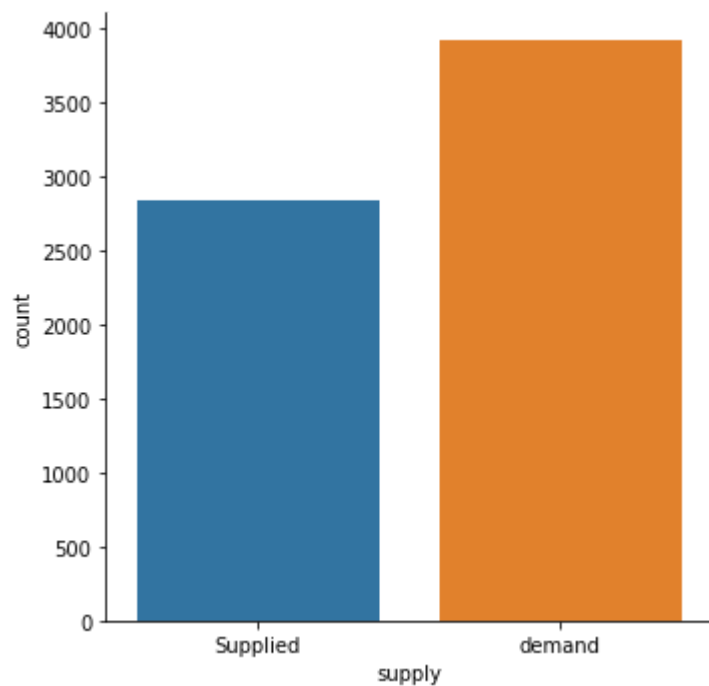


```
In [52]: 1 supply=[]
2 for i in uber_df['Status']:
3     if i=='Trip Completed':
4         supply.append('Supplied')
5     else:
6         supply.append('demand')
```



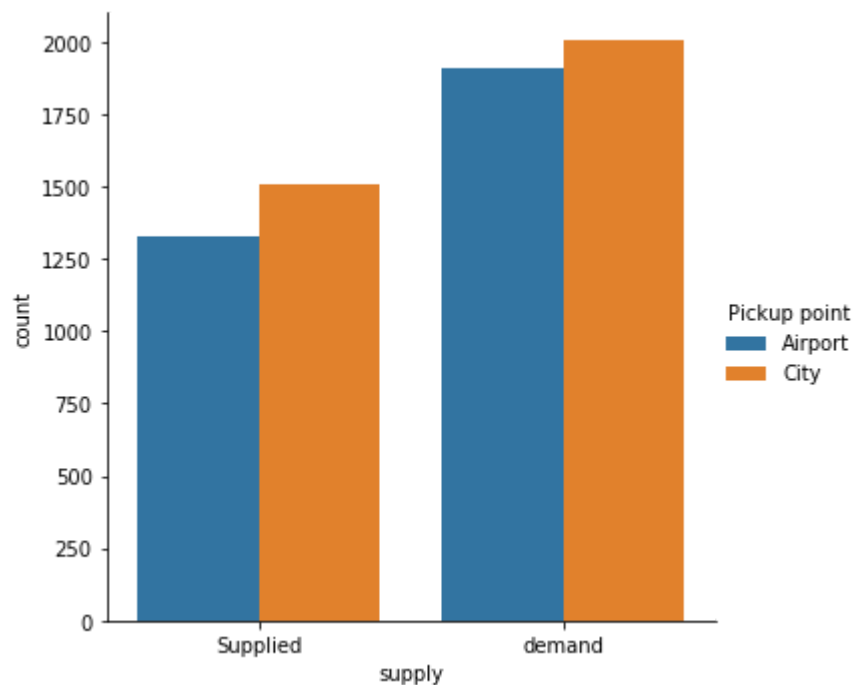
```
In [64]: 1 sns.catplot(x='supply',data=uber_df,kind='count')
```

```
Out[64]: <seaborn.axisgrid.FacetGrid at 0x26a45c38b70>
```



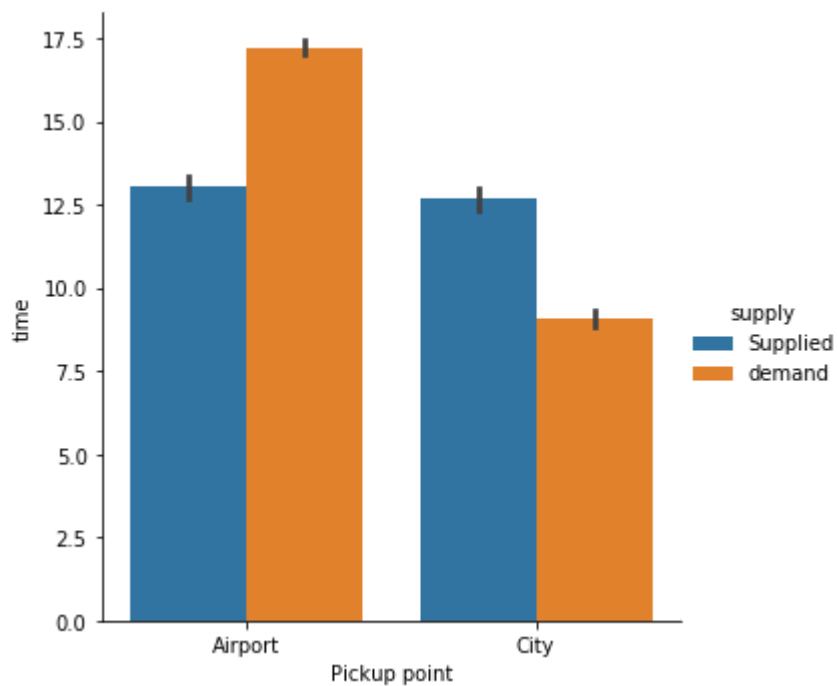
```
In [65]: 1 sns.catplot(hue='Pickup point',x='supply',data=uber_df,kind='count')
```

```
Out[65]: <seaborn.axisgrid.FacetGrid at 0x26a45c2e780>
```



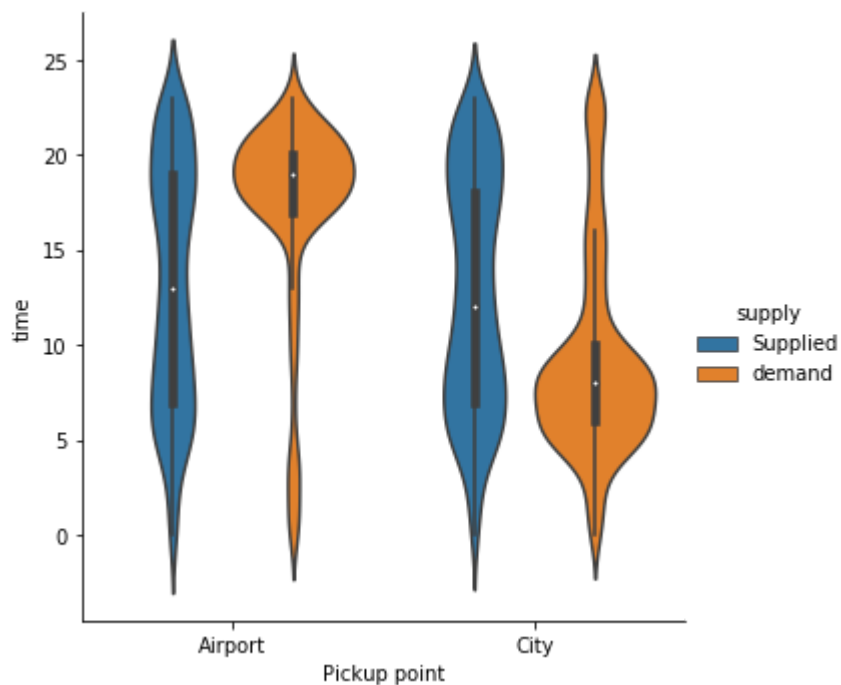
```
In [72]: 1 sns.catplot(x='Pickup point',y='time',hue='supply',data=uber_df,kind='bar')
```

```
Out[72]: <seaborn.axisgrid.FacetGrid at 0x26a454b3b38>
```



```
In [73]: 1 sns.catplot(x='Pickup point',y='time',hue='supply',data=uber_df,kind='violin')
```

```
Out[73]: <seaborn.axisgrid.FacetGrid at 0x26a454e3828>
```



```
In [ ]: 1
```