

```
In [108]: data = pd.read_csv("comptagevelo2017.csv")
```

```
In [110]: data[:3]
```

Out[110]:

	Date	Unnamed: 1	Berri1	Boyer	Boyer 2	Brébeuf	Christophe-Colomb	CSC (Côte Sainte-Catherine)	Eco-Totem - Métro Laurier	Maisonneuve_2	...	Notre-Dame	Parc	PierDup	J
0	01/01/2017	00:00	38	35	NaN	20	NaN	60	58	38	...	10	13	9	
1	02/01/2017	00:00	109	40	0.0	43	NaN	61	66	152	...	9	52	14	
2	03/01/2017	00:00	141	24	24.0	9	NaN	14	131	216	...	32	71	17	

3 rows x 21 columns

```
In [5]: data = pd.read_csv("comptagevelo2017.csv", parse_dates=['Date'], dayfirst=True, index_col='Date')
```

```
In [7]: data[:3]
```

Out[7]:

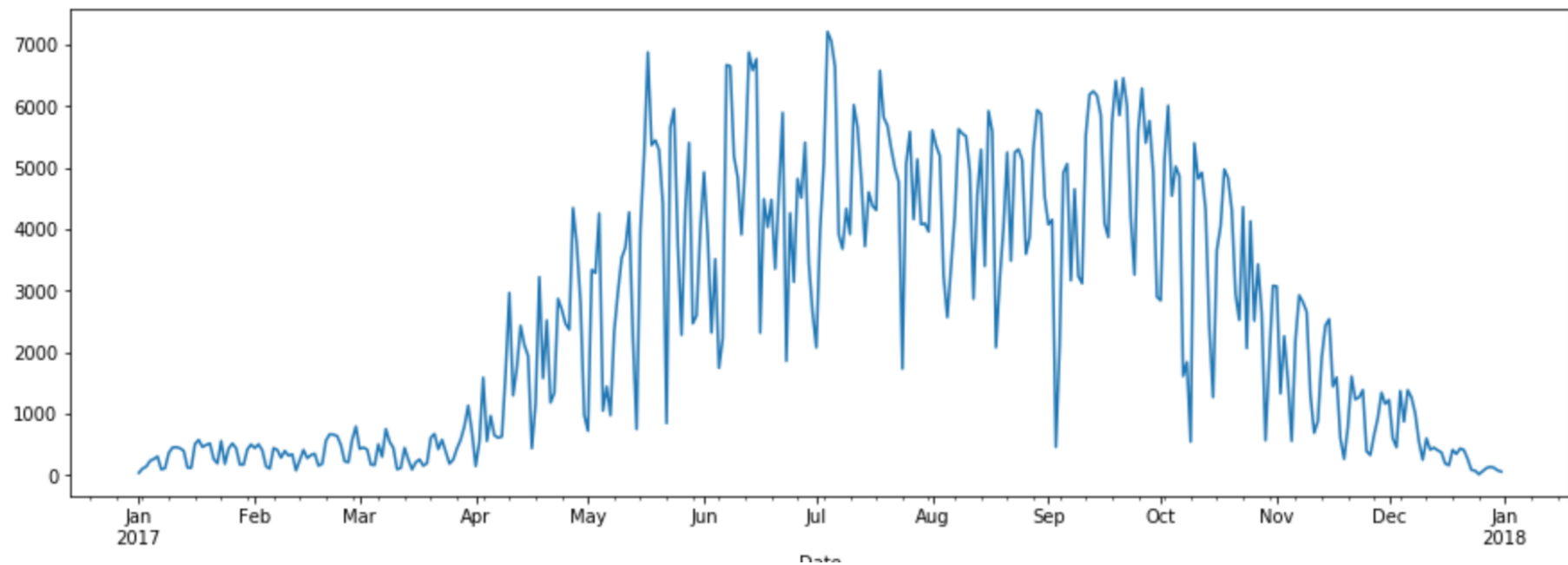
	Unnamed: 1	Berri1	Boyer	Boyer 2	Brébeuf	Christophe-Colomb	CSC (Côte Sainte-Catherine)	Eco-Totem - Métro Laurier	Maisonneuve_2	Maisonneuve_3	Notre-Dame	Parc	PierDu
Date													
2017-01-01	00:00	38	35	NaN	20	NaN	60	58	38		12	10	13
2017-01-02	00:00	109	40	0.0	43	NaN	61	66	152		57	9	52

```
In [116]: data['Berri1'][:10]
```

```
Out[116]: Date
2017-01-01      38
2017-01-02     109
2017-01-03     141
2017-01-04     233
2017-01-05     265
2017-01-06     306
2017-01-07      96
2017-01-08     113
2017-01-09     362
2017-01-10     451
Name: Berri1, dtype: int64
```

```
In [11]: data["Berri1"].plot()
```

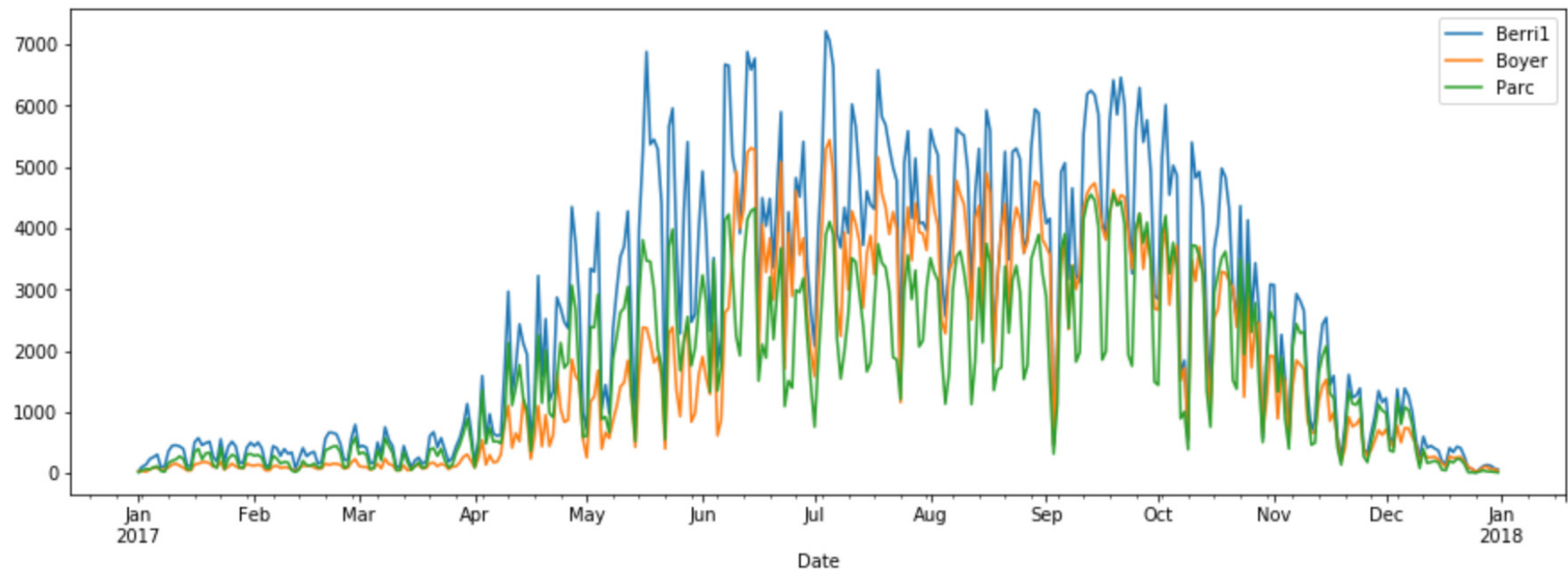
```
Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x1101cf630>
```



```
In [117]: plt.rcParams["figure.figsize"]=(15,5)
```

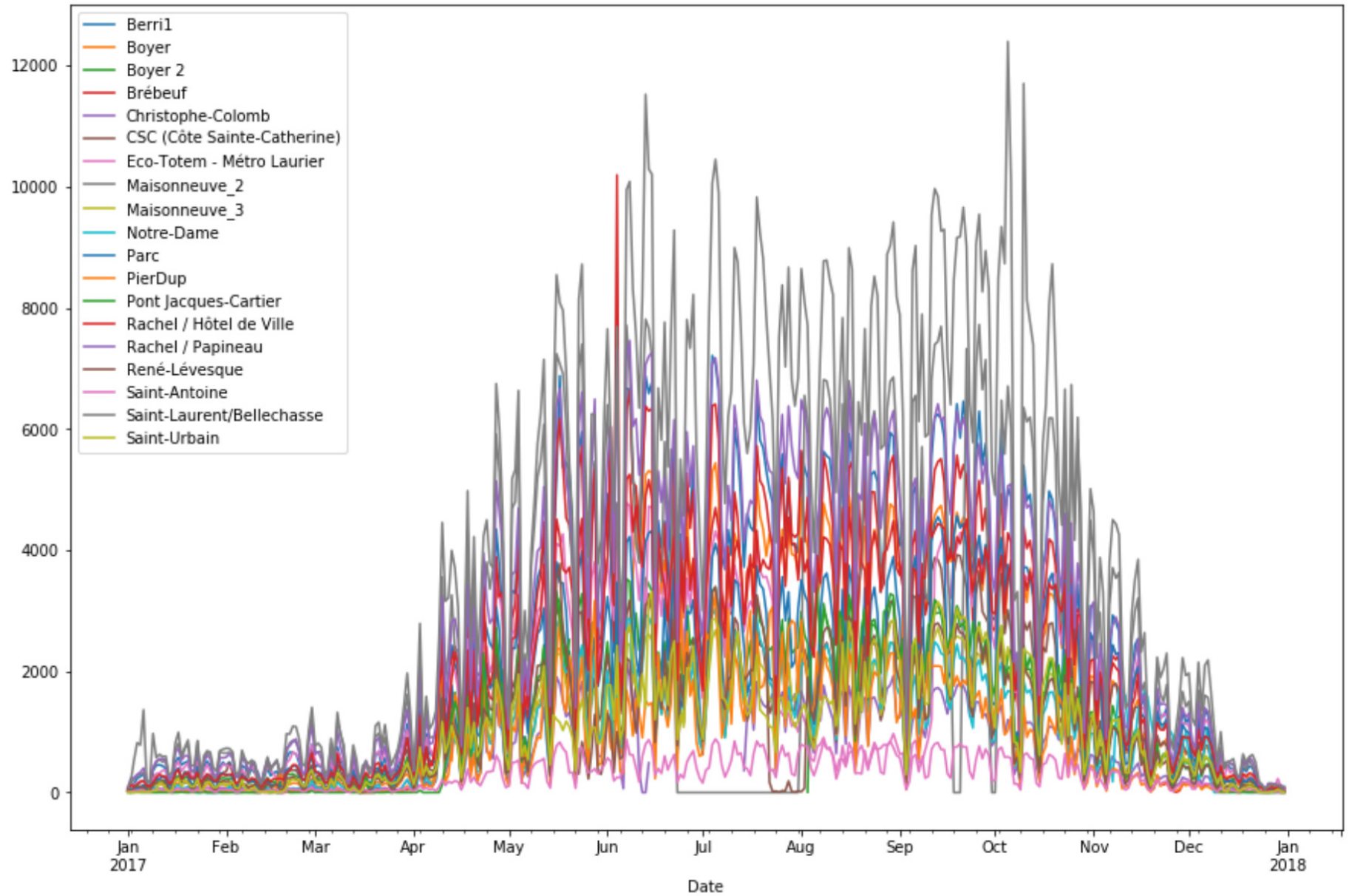
```
In [121]: data.loc[:,["Berri1","Boyer","Parc"]].plot()
```

```
Out[121]: <matplotlib.axes._subplots.AxesSubplot at 0x123e11c50>
```



```
In [13]: data.plot(figsize=(15,10))
```

```
Out[13]: <matplotlib.axes._subplots.AxesSubplot at 0x11898a978>
```



```
In [158]: berri_bikes = data[["Berri1"]].copy()
```

```
In [159]: berri_bikes[:5]
```

```
Out[159]:
```

Berri1	
Date	
2017-01-01	38
2017-01-02	109
2017-01-03	141
2017-01-04	233
2017-01-05	265

```
In [160]: berri_bikes.index
```

```
Out[160]: DatetimeIndex(['2017-01-01', '2017-01-02', '2017-01-03', '2017-01-04',  
                        '2017-01-05', '2017-01-06', '2017-01-07', '2017-01-08',  
                        '2017-01-09', '2017-01-10',  
                        ...  
                        '2017-12-22', '2017-12-23', '2017-12-24', '2017-12-25',  
                        '2017-12-26', '2017-12-27', '2017-12-28', '2017-12-29',  
                        '2017-12-30', '2017-12-31'],  
                        dtype='datetime64[ns]', name='Date', length=365, freq=None)
```

```
In [163]: berri_bikes.index.weekday
```

```
Out[163]: Int64Index([6, 0, 1, 2, 3, 4, 5, 6, 0, 1,  
                    ...  
                    4, 5, 6, 0, 1, 2, 3, 4, 5, 6],  
                    dtype='int64', name='Date', length=365)
```

```
In [166]: berri_bikes["weekday"] = berri_bikes.index.weekday
```

```
In [167]: berri_bikes[:5]
```

```
Out[167]:
```

	Berri1	weekday
Date		
2017-01-01	38	6
2017-01-02	109	0
2017-01-03	141	1
2017-01-04	233	2
2017-01-05	265	3

```
In [165]: berri_bikes.loc[:, "weekday"]
```

```
Out[165]:
```

Date	
2017-01-01	6
2017-01-02	0
2017-01-03	1
2017-01-04	2
2017-01-05	3
2017-01-06	4
2017-01-07	5

```
In [96]: berri_bikes.loc[:, "weekday"] = berri_bikes.index.weekday
```

```
In [97]: berri_bikes[:5]
```

```
Out[97]:
```

	Berri1	weekday
Date		
2017-01-01	38	6
2017-01-02	109	0
2017-01-03	141	1
2017-01-04	233	2
2017-01-05	265	3

```
In [171]: grupos=berri_bikes.groupby("weekday")
```

```
In [179]: grupos.groups
```

```
Out[179]: {0: DatetimeIndex(['2017-01-02', '2017-01-09', '2017-01-16', '2017-01-23',  
                             '2017-01-30', '2017-02-06', '2017-02-13', '2017-02-20',  
                             '2017-02-27', '2017-03-06', '2017-03-13', '2017-03-20',  
                             '2017-03-27', '2017-04-03', '2017-04-10', '2017-04-17',  
                             '2017-04-24', '2017-05-01', '2017-05-08', '2017-05-15',  
                             '2017-05-22', '2017-05-29', '2017-06-05', '2017-06-12',  
                             '2017-06-19', '2017-06-26', '2017-07-03', '2017-07-10',  
                             '2017-07-17', '2017-07-24', '2017-07-31', '2017-08-07',  
                             '2017-08-14', '2017-08-21', '2017-08-28', '2017-09-04',  
                             '2017-09-11', '2017-09-18', '2017-09-25', '2017-10-02',  
                             '2017-10-09', '2017-10-16', '2017-10-23', '2017-10-30',  
                             '2017-11-06', '2017-11-13', '2017-11-20', '2017-11-27',  
                             '2017-12-04', '2017-12-11', '2017-12-18', '2017-12-25'],  
                             dtype='datetime64[ns]', name='Date', freq=None),  
 1: DatetimeIndex(['2017-01-03', '2017-01-10', '2017-01-17', '2017-01-24',  
                   '2017-01-31', '2017-02-07', '2017-02-14', '2017-02-21',  
                   '2017-02-28', '2017-03-07', '2017-03-14', '2017-03-21',  
                   '2017-03-28', '2017-04-04', '2017-04-11', '2017-04-18',  
                   '2017-04-25', '2017-05-02', '2017-05-09', '2017-05-16',  
                   '2017-05-23', '2017-05-30', '2017-06-06', '2017-06-13',  
                   '2017-06-20', '2017-06-27', '2017-07-04', '2017-07-11',  
                   '2017-07-18', '2017-07-25', '2017-08-01', '2017-08-08',
```



```
In [180]: cuentas=grupos.aggregate(sum)
```

```
In [181]: cuentas
```

Out[181]:

Berri1	
weekday	
0	122291
1	153303
2	165956
3	157685
4	127579
5	102816
6	94869

```
In [102]: cuentas.index=["Lunes","Martes","Miércoles","Jueves","Viernes","Sabado","Domingo"]
cuentas
```

Out[102]:

Berri1	
Lunes	122291
Martes	153303
Miércoles	165956
Jueves	157685
Viernes	127579
Sabado	102816
Domingo	94869

```
In [103]: cuentas.plot(kind="bar")
```

```
Out[103]: <matplotlib.axes._subplots.AxesSubplot at 0x123e095c0>
```

