

Chapter 4 - Practical Data Visualization

Segment 5 - Visualizing Time Series

```
In [1]: import numpy as np
        from numpy.random import randn
        import pandas as pd
        from pandas import Series, DataFrame

        import matplotlib.pyplot as plt
        from pylab import rcParams
```

```
In [3]: %matplotlib inline
        rcParams['figure.figsize'] = 5, 4
```

The simplest time series plot

```
In [4]: address = 'C:/Users/danal/Desktop/ExerciseFiles/Data/Superstore-Sales.csv'

df = pd.read_csv(address, index_col='Order Date', encoding='cp1252', parse_dates=True)
df.head()
```

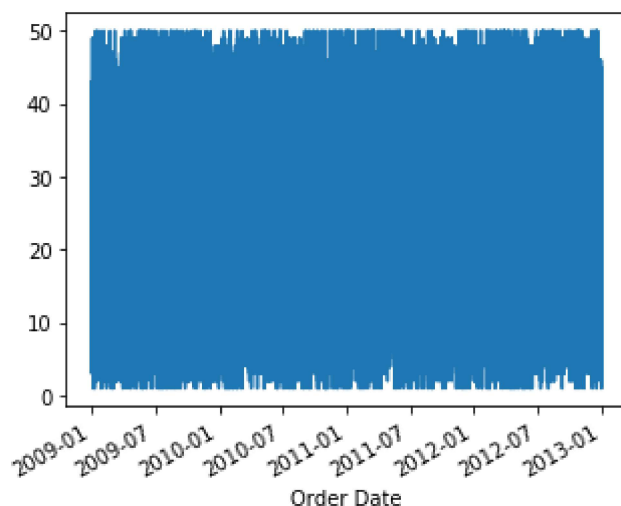
Out[4]:

	Row ID	Order ID	Order Priority	Order Quantity	Sales	Discount	Ship Mode	Profit	Unit Price	Shipping Cost
Order Date										
2010-10-13	1	3	Low	6	261.5400	0.04	Regular Air	-213.25	38.94	35.00
2012-10-01	49	293	High	49	10123.0200	0.07	Delivery Truck	457.81	208.16	68.02
2012-10-01	50	293	High	27	244.5700	0.01	Regular Air	46.71	8.69	2.99
2011-07-10	80	483	High	30	4965.7595	0.08	Regular Air	1198.97	195.99	3.99
2010-08-28	85	515	Not Specified	19	394.2700	0.08	Regular Air	30.94	21.78	5.94



```
In [5]: df['Order Quantity'].plot()
```

```
Out[5]: <matplotlib.axes._subplots.AxesSubplot at 0x1e75f9df7c8>
```



```
In [8]: df2 = df.sample(n=100, random_state=25, axis=0)
```

```
plt.xlabel("Order Date")  
plt.ylabel('Order Quantity')  
plt.title('Superstore Sales')  
  
df2['Order Quantity'].plot()
```

```
Out[8]: <matplotlib.axes._subplots.AxesSubplot at 0x1e7612b6e08>
```

