Pandas Functions:

```
Instead of using describe method, if we want to individually invoke different methods such
as mean, median, minimum and maximum use the following methods.
```

Mean:

In [2]:

```
import pandas as pd
```

In [3]:

```
iris = pd.read_csv('iris.csv')
```

In [4]:

```
iris.mean()
```

Out[4]:

```
Sepal.Length    5.843333
Sepal.Width     3.057333
Petal.Length    3.758000
Petal.Width     1.199333
dtype: float64
```

Median:

In [5]:

```
iris.median()
```

Out[5]:

```
Sepal.Length    5.80
Sepal.Width     3.00
Petal.Length    4.35
Petal.Width     1.30
dtype: float64
```

Minimum:

In [6]:

```
iris.min()
```

Out[6]:

```
Sepal.Length       4.3
Sepal.Width          2
Petal.Length         1
Petal.Width        0.1
Species         setosa
dtype: object
```

Maximum:

In [7]:

```
iris.max()
```

Out[7]:

```
Sepal.Length          7.9
Sepal.Width           4.4
Petal.Length          6.9
Petal.Width           2.5
Species         virginica
dtype: object
```

Apply():

```
Apply method bassically works on different columns.
```

If we want to reduce the values of the column by half:

In [10]:

```python
def half(s):
    return s * 0.5
```

In [11]:

```python
iris[['Sepal.Length','Petal.Length']].apply(half)
```

Out[11]:

	Sepal.Length	Petal.Length
0	2.55	0.70
1	2.45	0.70
2	2.35	0.65
3	2.30	0.75
4	2.50	0.70
...	...	...
145	3.35	2.60
146	3.15	2.50
147	3.25	2.60
148	3.10	2.70
149	2.95	2.55

150 rows × 2 columns

If we want to double the values of the column:

In [13]:

```python
def double_make(s):
    return s * 2
```

In [14]:

```python
iris[['Sepal.Width','Petal.Width']].apply(double_make)
```

Out[14]:

	Sepal.Width	Petal.Width
0	7.0	0.4
1	6.0	0.4
2	6.4	0.4

	Sepal.Width	Petal.Width
3	6.2	0.4
4	7.2	0.4
...	...	...
145	6.0	4.6
146	5.0	3.8
147	6.0	4.0
148	6.8	4.6
149	6.0	3.6

150 rows × 2 columns

value_counts():

```
If we want the frequency of a catacorical column then we can use value_counts().
```

In [15]:

```
iris['Species'].value_counts()
```

Out[15]:

```
versicolor    50
setosa        50
virginica     50
Name: Species, dtype: int64
```

sort_values():

If we want to sort the dataframe with respect to a particular column then we can use the sort_values().

In [16]:

```
iris.sort_values(by = 'Sepal.Length')
```

Out[16]:

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
13	4.3	3.0	1.1	0.1	setosa
42	4.4	3.2	1.3	0.2	setosa
38	4.4	3.0	1.3	0.2	setosa
8	4.4	2.9	1.4	0.2	setosa
41	4.5	2.3	1.3	0.3	setosa
...	...	...	...	...	...
122	7.7	2.8	6.7	2.0	virginica
118	7.7	2.6	6.9	2.3	virginica
117	7.7	3.8	6.7	2.2	virginica
135	7.7	3.0	6.1	2.3	virginica
131	7.9	3.8	6.4	2.0	virginica

150 rows × 5 columns

In [ ]: