

KEY_Practice15_Pandas-Reading

January 11, 2020

1 Practice: Reading Data with Pandas

Let's start by importing pandas. Remember to give it its special nickname!

```
[1]: import pandas as pd
```

We have another dataset called `iris` located in the GWC GitHub. Let's load it into a DataFrame called `iris`:

```
[2]: # this is where the file is located
path = 'https://raw.githubusercontent.com/GWC-DCMB/ClubCurriculum/master/'
filename = path + 'SampleData/iris.csv'

# load the iris dataset into a DataFrame
iris = pd.read_csv(filename)
```

Explore the DataFrame; take a look at the beginning and end:

```
[3]: # View the first few rows

iris.head()
```

```
[3]:   sepal_length  sepal_width  petal_length  petal_width  species
0           5.1           3.5           1.4           0.2   setosa
1           4.9           3.0           1.4           0.2   setosa
2           4.7           3.2           1.3           0.2   setosa
3           4.6           3.1           1.5           0.2   setosa
4           5.0           3.6           1.4           0.2   setosa
```

```
[4]: # View the last few rows

iris.tail()
```

```
[4]:   sepal_length  sepal_width  petal_length  petal_width  species
145           6.7           3.0           5.2           2.3  virginica
146           6.3           2.5           5.0           1.9  virginica
147           6.5           3.0           5.2           2.0  virginica
148           6.2           3.4           5.4           2.3  virginica
```

149 5.9 3.0 5.1 1.8 virginica

After taking a close look at the data, what do you think each row in the DataFrame represents?

Answer: Each row represents an individual flower.

How many rows are in the DataFrame? Use `len` to find out:

```
[5]: # number of rows  
len(iris)
```

```
[5]: 150
```

How many columns are in the DataFrame? Use `columns` and `len` to find out:

```
[7]: # number of columns  
len(iris.columns)
```

```
[7]: 5
```

How many data points are in the DataFrame?

```
[8]: # calculate the number of data points  
len(iris)*len(iris.columns)
```

```
[8]: 750
```