

What is a Pandas Series?

A Pandas Series is like a column in a table.

It is a one-dimensional array holding data of any type.

```
import pandas as pd

a = [1, 7, 2]

myvar = pd.Series(a)

print(myvar)
```

Create Labels

With the `index` argument, you can name your own labels.

```
import pandas as pd

a = [1, 7, 2]

myvar = pd.Series(a, index = ["x", "y", "z"])

print(myvar)
```

When you have created labels, you can access an item by referring to the label.

```
print(myvar["y"])
```

```
import pandas as pd

calories = {"day1": 420, "day2": 380, "day3": 390}

myvar = pd.Series(calories)

print(myvar)
```

Note: The keys of the dictionary become the labels.

```
import pandas as pd

calories = {"day1": 420, "day2": 380, "day3": 390}

myvar = pd.Series(calories, index = ["day1", "day2"])

print(myvar)
```

DataFrames

Data sets in Pandas are usually multi-dimensional tables, called **DataFrames**.

Series is like a column, a DataFrame is the whole table.

How will you add a column to a pandas DataFrame?

```
# importing the pandas library  
import pandas as pd  
info = {'one' : pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e']),  
       'two' : pd.Series([1, 2, 3, 4, 5, 6], index=['a', 'b', 'c', 'd', 'e', 'f'])}  
info = pd.DataFrame(info)  
  
# Add a new column to an existing DataFrame object  
print ("Add new column by passing series")  
  
info['three']=pd.Series([20,40,60],index=['a','b','c'])  
  
print (info)  
  
print ("Add new column using existing DataFrame columns")  
  
info['four']=info['one']+info['three']  
  
print (info)
```