

In [1]: `!pip install pandas`

```
Requirement already satisfied: pandas in c:\users\am\anaconda3\lib\site-packages (1.0.1)
Requirement already satisfied: numpy>=1.13.3 in c:\users\am\anaconda3\lib\site-packages (from pandas) (1.19.1)
Requirement already satisfied: python-dateutil>=2.6.1 in c:\users\am\anaconda3\lib\site-packages (from pandas) (2.8.1)
Requirement already satisfied: pytz>=2017.2 in c:\users\am\anaconda3\lib\site-packages (from pandas) (2019.3)
Requirement already satisfied: six>=1.5 in c:\users\am\anaconda3\lib\site-packages (from python-dateutil>=2.6.1->pandas) (1.14.0)
```

In [2]: `!pip install pandas --upgrade`

```
Collecting pandas
  Downloading pandas-1.1.1-cp37-cp37m-win_amd64.whl (9.4 MB)
Requirement already satisfied, skipping upgrade: pytz>=2017.2 in c:\users\am\anaconda3\lib\site-packages (from pandas) (2019.3)
Requirement already satisfied, skipping upgrade: python-dateutil>=2.7.3 in c:\users\am\anaconda3\lib\site-packages (from pandas) (2.8.1)
Requirement already satisfied, skipping upgrade: numpy>=1.15.4 in c:\users\am\anaconda3\lib\site-packages (from pandas) (1.19.1)
Requirement already satisfied, skipping upgrade: six>=1.5 in c:\users\am\anaconda3\lib\site-packages (from python-dateutil>=2.7.3->pandas) (1.14.0)
Installing collected packages: pandas
  Attempting uninstall: pandas
    Found existing installation: pandas 1.0.1
    Uninstalling pandas-1.0.1:
      Successfully uninstalled pandas-1.0.1
Successfully installed pandas-1.1.1
```

In [3]: `import numpy as np`
`import pandas as pd`

In []:

In [4]: *#Pandas DataFrames*

In [5]: `x = {'one': pd.Series ([1,2,3], index = ['a','b','c']),
 'two': pd.Series ([1,2,3,4], index = ['a','b','c','d'])}`

In [6]: `df = pd.DataFrame (x)
print(df)`

	one	two
a	1.0	1
b	2.0	2
c	3.0	3
d	NaN	4

In []: To select a single column:

In [7]: `print(df['two'])`

a	1
b	2
c	3
d	4

Name: two, dtype: int64

In [8]: `print(df['one'])`

a	1.0
b	2.0
c	3.0
d	NaN

Name: one, dtype: float64

In []:

In []: To add a new column:

```
In [16]: print('\n Adding a New Column')
```

Adding a New Column

```
In [20]: df['three'] = pd.Series([10,20,30], index = ['a','b','c'])
print(df)
```

	one	two	three
a	1.0	1	10.0
b	2.0	2	20.0
c	3.0	3	30.0
d	NaN	4	NaN

```
In [21]: df['four'] = df['three'] - df['two']
print(df)
```

	one	two	three	four
a	1.0	1	10.0	9.0
b	2.0	2	20.0	18.0
c	3.0	3	30.0	27.0
d	NaN	4	NaN	NaN

In []:

In []: To delete a column:

```
In [22]: del df['three']
print(df)
```

	one	two	four
a	1.0	1	9.0
b	2.0	2	18.0
c	3.0	3	27.0
d	NaN	4	NaN

In []:

In []: Pop Method:

```
In [29]: x = df.pop('one')
print(df)
```

	two	four
a	1	9.0
b	2	18.0
c	3	27.0
d	4	NaN

```
In [30]: print(x)
```

a	1.0
b	2.0
c	3.0
d	NaN

Name: one, dtype: float64

In []: