In [2]:
```
!pip install numpy pandas matplotlib
```

Requirement already satisfied: numpy in d:\anaconda\lib\site-packages (1.20.1)
Requirement already satisfied: pandas in d:\anaconda\lib\site-packages (1.2.4)
Requirement already satisfied: matplotlib in d:\anaconda\lib\site-packages (3.3.4)
Requirement already satisfied: pillow>=6.2.0 in d:\anaconda\lib\site-packages (from matp
lotlib) (8.2.0)
Requirement already satisfied: python-dateutil>=2.1 in d:\anaconda\lib\site-packages (fr
om matplotlib) (2.8.1)
Requirement already satisfied: cycler>=0.10 in d:\anaconda\lib\site-packages (from matpl
otlib) (0.10.0)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.3 in d:\anaconda\l
ib\site-packages (from matplotlib) (2.4.7)
Requirement already satisfied: kiwisolver>=1.0.1 in d:\anaconda\lib\site-packages (from
matplotlib) (1.3.1)
Requirement already satisfied: six in d:\anaconda\lib\site-packages (from cycler>=0.10->
matplotlib) (1.15.0)
Requirement already satisfied: pytz>=2017.3 in d:\anaconda\lib\site-packages (from panda
s) (2021.1)

In [15]:
```
import numpy as np
import pandas as pd
```

In [30]:
```
x = np.array([ [22, 44, 66],
               [27, 84, 68],
               [75, 65, 93],
               [54, 85, 94]])
print(x.shape)
```

(4, 3)

Generating RandomN of (4, 3)

In [32]:
```
arr = np.random.randn(4, 3)
print(arr)
```

```
[[-4.42956523e-01 -8.17936726e-01  1.51346671e+00]
 [-8.71759159e-01  5.72409030e-01  1.82368468e+00]
 [-1.54451235e+00  8.52523885e-04 -6.46002416e-01]
 [-4.46955306e-01 -4.65924339e-01 -1.29345360e+00]]
```

converting to DataFrame

In [34]:
```
df = pd.DataFrame(arr)
print(df)
```

```
          0         1         2
0 -0.442957 -0.817937  1.513467
1 -0.871759  0.572409  1.823685
2 -1.544512  0.000853 -0.646002
3 -0.446955 -0.465924 -1.293454
```