Numpy(part-2)

```
>>
a= np.random.randn(5,6) # generates random number in a 5x6 matrix
print(a)

[[ 1.47476772 -0.15014207 -0.25472617 -0.41512375 -2.35991018  0.9806464 ]
 [-0.58311142  0.90630393  0.80191422  1.87994527  0.64357894  0.71090483]
 [ 0.31105063  0.09373581  0.50308952  0.68201848 -0.66631769 -1.26286517]
 [ 0.82117511  0.31732614 -1.08346168  0.29518274  1.84434726 -0.158579  ]
 [-0.01916454  0.45780731  1.45460181  0.35207313 -0.0352747   0.42566993]]

>>
# array to begin with
import numpy as np
a=np.array([[1,2,3],[4,5,6],[7,8,9]])
print('Our array is: ')
print(a)
print(a.ndim)
print(np.shape(a))
print(a[2,1])
print(a[:2,1:])
print('\n')

Our array is:
[[1 2 3]
 [4 5 6]
 [7 8 9]]
2
(3, 3)
8
[[2 3]
 [5 6]]


>>
# returns the items of a particuler column column
print('the items of the third column are: ')
print(a,'\n')
print(a[...,2])
print(a,'\n')
# this returns the 2 index column means the third column
# if we try to print the second column then we have to write print(a[...,1])

the items of the second column are:
[[1 2 3]
 [4 5 6]
 [7 8 9]]
[3 6 9]

>>
# now we will try to retrieve a particuler row
print('the items of the 2nd row is: ')
```

```
print(a[1,...])
# this returns the 1 index row means the second row
# if we try to print the third column then we have to write print(a[...,2])

the items of the 2nd row is:
[4 5 6]

>>
# now lets try to slice out all the first elements from each row
print('the column items from 1 onwards are : ')
print(a[...,1:]) # prints the items of 1 index and 2 index means 2nd and 3rd columns

the column items from 1 onwards are :
[[2 3]
 [5 6]
 [8 9]]
```