```
import numpy as np

a = np.array([1,2,3])
print(a)

b = np.array([(1,2,3) , (4,5,6)])
print(b)

c = np.array([(1,2,3,4,5,6,7,8) , (9,10,11,12,13,14,15,16)])
print(c)
print(c[0,4])    (first row fourth element)

a = np.array([1,2,3,4,5,6,7,8,9,10])
print(a[3:7])  (slicing 3-7 range)

a = np.array([1,2,3,4,5,6,7,8,9,10])
print(a[3:7:2]) (slicing 3-7 range 2jump)

b = np.array([[1,2,3,4],[5,6,7,8]])
#print(b)
print(b[1][2]) (row,index)

b[1,1:5]

arr = np.arange(1,50)
print(arr)  (1-50 range print)

arr = np.arange(1,50)
print(arr[0:50:2])  (1-50 range print 2jump)

arr = np.arange(0,100)
print(arr[0:99:7])  (1-50 range print 7jump)
```

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```
import numpy as np

arr = np.arange(51,60)
print(arr)


print("Size of array:- ",format(arr.itemsize))


print("matrix 3d print:- ")
print(arr.reshape(3,3))        reshape in 3d matrix


print("Shape of matrix:- ")
a = arr.shape                        shape in  matrix
print(a)


print("matrix 3d print:- ")
b = arr.reshape(3,3))       shape in 3d matrix
print(b)
a = b.shape              shape in  matrix
print(b)


arr = np.arange(0,121,5)          25 elements from 0 divisible by 5
print("25 elements from 0 divisible by 5:-",arr)
b = arr.reshape(5,5)
print("5*5 matrix:-")       reshape in 3d matrix 5*5
print(b)


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```

np.stack(arrayname1,arrayname2) is use to merge arrays

```
arr = np.arange(1,10)
print(arr.reshape(3,3))                arr in 3*3 matrix
arr1 = np.arange(11,20)
print(arr1.reshape(3,3))               arr1 in 3*3 matrix
a = np.vstack((arr,arr1))              merge array by vstack function
print(a)

a1 = np.arange(1,10)
print(a1.reshape(3,3))      arr1 in 3*3 matrix
a2 = np.arange(11,20)
print(a1.reshape(3,3))      arr2 in 3*3 matrix
a3 = np.arange(21,30)
print(a1.reshape(3,3))      arr3 in 3*3 matrix
a4 = np.arange(31,40)
print(a1.reshape(3,3))      arr4 in 3*3 matrix
b=np.hstack((a1,a2,a3,a4))             merge array by hstack function
c=np.vstack((a1,a2,a3,a4))             merge array by vstack function
print(b)
print(c)
```