In [14]:
```
import numpy as np
arr=np.array([1,2,3,4,5,6])
newarr=np.array_split(arr,3)
print("\noriginal array:\n",arr)
print("\nsplit array:\n",newarr)
```

```
original array:
 [1 2 3 4 5 6]

split array:
 [array([1, 2]), array([3, 4]), array([5, 6])]
```

In [13]:
```
arr1=np.array([1,2,3])
arr2=np.array([4,5,6])
arr=np.concatenate((arr1,arr2))
print("\n original array:\n",arr1,arr2)
print("\n joined array:\n",arr)
```

```
 original array:
 [1 2 3] [4 5 6]

 joined array:
 [1 2 3 4 5 6]
```

In [12]:
```
arr=np.hstack((arr1,arr2))
print("\n original array: \n",arr1,arr2)
print("\n Horizontal joined array:\n",arr)
```

```
 original array:
 [1 2 3] [4 5 6]

 Horizontal joined array:
 [1 2 3 4 5 6]
```

In [9]:
```
arr=np.vstack((arr1,arr2))
print("\n original array:\n",arr1,arr2)
print("\n vertical joined array:\n",arr)
```

```
 original array:
 [1 2 3] [4 5 6]

 vertical joined array:
 [[1 2 3]
 [4 5 6]]
```

In [11]:
```
arr=np.dstack((arr1,arr2))
print("\n original array:\n",arr1,arr2)
print("\n dept joined:\n",arr)
```

```
 original array:
 [1 2 3] [4 5 6]

 dept joined:
 [[[1 4]
  [2 5]
  [3 6]]]
```

In [17]:
```
arr=np.array([1,2,3,4,5,6])
newarr=np.array_split(arr,3)
print(newarr[0])
print(newarr[1])
print(newarr[2])
```

```
[1 2]
[3 4]
[5 6]
```

In [19]:
```
arr=np.array([4,7,2,9,1,0])
print(np.sort(arr))
```

```
[0 1 2 4 7 9]
```

In [24]:
```
import pandas as pd
import numpy as np
arr=np.array(['p','a','n','d','a','s'])
a= pd.Series(arr)
print("series from array:")
print(a)
```

```
series from array:
0    p
1    a
2    n
3    d
4    a
5    s
dtype: object
```

In [25]:
```
arr={'x':0,'y':1,'z':2}
b=pd.Series(arr)
print("\n\n series from dictionary:\n")
print(b)
```

```
 series from dictionary:

x    0
y    1
z    2
dtype: int64
```

In [27]:
```
x=pd.Series(4,index=(0,1,2,3))
print("\n series using scalar:\n")
print(x)
```

```
 series using scalar:

0    4
1    4
2    4
3    4
dtype: int64
```

In [28]:
```
x=pd.Series([1,2,3],index=['a','b','c'])
print("\n series through index:")
print(x)
```

```
 series through index:
a    1
b    2
c    3
dtype: int64
```

In [31]:
```
a=pd.Series(data=[1,2,3,4])
print("\n Series:\n",a)
print("\n index:\n",a.index)
print("\n values:\n",a.values)
print("\n shape:\n",a.shape)
print("\n dimension:\n",a.ndim)
```

```
 Series:
 0    1
1    2
2    3
3    4
dtype: int64

 index:
 RangeIndex(start=0, stop=4, step=1)

 values:
 [1 2 3 4]

 shape:
 (4,)

 dimension:
 1
```

In [ ]:
```

```