In [1]:
```
import numpy as np
arr=np.array([[-1,2,0,4],[4,-0.5,6,0],[2.6,0,7,8],[3,-7,4,2.0]])
print("Oringinal array:\n",arr)
```

```
Oringinal array:
 [[-1.   2.   0.   4. ]
 [ 4.  -0.5  6.   0. ]
 [ 2.6  0.   7.   8. ]
 [ 3.  -7.   4.   2. ]]
```

In [2]:
```
print("\nEvery other rows:\n",arr[0:3:2])
```

```
Every other rows:
 [[-1.   2.   0.   4. ]
 [ 2.6  0.   7.   8. ]]
```

In [3]:
```
arr=np.array([1,2,3,4,5,6,7])
print("\nOriginal array:",arr)
print("\nReturns every others element in the array:arr[::2]:",arr[::2])
```

```
Original array: [1 2 3 4 5 6 7]

Returns every others element in the array:arr[::2]: [1 3 5 7]
```

In [5]:
```
arr=np.array([[-1,2,0,4],[4,-0.5,6,0],[2.6,0,7,8],[3,-7,4,2.0]])
temp=arr[:2,:3]
print("Array with first 2 rows and 3 columns\n",temp)
```

```
Array with first 2 rows and 3 columns
 [[-1.   2.   0. ]
 [ 4.  -0.5  6. ]]
```

In [6]:
```
temp=arr[[0,1,2,3],[3,2,1,0]]
print("\nElements at indices(0,3),(1,2),(2,1),(3,0):\n",temp)
```

```
Elements at indices(0,3),(1,2),(2,1),(3,0):
 [4. 6. 0. 3.]
```

In [8]:
```
cond=arr>2
temp1=arr[cond]
print("\nElements greater than 2:\n",temp1)
```

```
Elements greater than 2:
 [4.  4.  6.  2.6 7.  8.  3.  4. ]
```

In [9]:
```
#joining of two array
arr1=np.array([1,2,3])
arr2=np.array([4,5,6])
arr=np.concatenate((arr1,arr2))
print(arr)
```

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

In [10]:
```
arr3=np.hstack((arr1,arr2))
print(arr3)
```

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

In [11]:
```
arr4=np.vstack((arr1,arr2))
print(arr4)
```

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

In [13]:
```
arr5=np.dstack((arr1,arr2))
print(arr5)
```

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

In [14]:
```
arr=np.array([1,2,3,4,5,6])
arr6=np.array_split(arr,3)
print(arr)
print(arr6)
```

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

In [ ]: