In [1]:
```
import numpy as np
```

In [2]:
```
a=np.array([10,-20,30,-40,50,0,25,-45])
```

In [3]:
```
#Select OR Filter Only +Ve Elements
#Method1: Prepare Boolean Array
#         Syntax:    booleanarray=ndarrayobj[TestCond]
#          Pass Boolean Array Object to ndarray object
#         Syntax:   ndarrayobj[booleanarray]
```

In [4]:
```
print(a)
```

```
[ 10 -20  30 -40  50   0  25 -45]
```

In [5]:
```
ba=a>0 # Vector Based Opereation
print(ba,type(ba))
```

```
[ True False  True False  True False  True False] <class 'numpy.ndarray'>
```

In [6]:
```
#Pass Boolean Array Object to ndarray object
a[ba]
```

Out[6]:
```
array([10, 30, 50, 25])
```

In [7]:
```
#Select OR Filter Only +Ve Elements
#Method2:
#  Syntax:    ndarrayobj[ndarrayobj[TestCond]]
```

In [8]:
```
a[a>0]
```

Out[8]:
```
array([10, 30, 50, 25])
```

In [9]:
```
#Select OR Filter Only -Ve Elements
ba=a<0 # Boolean array
a[ba]
```

Out[9]:
```
array([-20, -40, -45])
```

In [11]:
```
#OR
a[a<0]
```

Out[11]:
```
array([-20, -40, -45])
```

In [12]:
```
a=np.array([10,20,30,40,50,60,70,80,90,15,25,35,45,65,75,85,25,35])
print(a,type(a))
print("Dim of a=",a.ndim)
```

```
[10 20 30 40 50 60 70 80 90 15 25 35 45 65 75 85 25 35] <class 'numpy.ndarra
y'>
Dim of a= 1
```

In [14]:
```
#get all the even Numbers
a[a%2==0]
```

Out[14]:
```
array([10, 20, 30, 40, 50, 60, 70, 80, 90])
```

In [15]:
```
#get all the odd  Numbers
a[a%2!=0]
```

Out[15]:
```
array([15, 25, 35, 45, 65, 75, 85, 25, 35])
```

In [16]:
```
#get all the Mulples of 3
a[a%3==0]
```

Out[16]:
```
array([30, 60, 90, 15, 45, 75])
```

In [17]:
```
#get all the Mulples of 6
a[a%6==0]
```

Out[17]:
```
array([30, 60, 90])
```

In [ ]:
```

```