In [1]:
```
#Experiment no.5
```

In [2]:
```
#Aim:Creation of arrays using numpy
```

In [3]:
```
#Name:Janvi R.Kale
#Roll no.:29
#sec:A
#sub:ET 1
#date:19-08-2025
```

In [4]:
```
import numpy as np
```

creating 1D array using numpy

In [5]:
```
a1=np.array([10,20,30,40,50])
```

In [6]:
```
a1
```

Out[6]:
```
array([10, 20, 30, 40, 50])
```

In [13]:
```
print("Sum of all elements in 1D array:", np.sum(a1))
```

```
Sum of all elements in 1D array: 150
```

creating 2D array using numpy

In [7]:
```
a2=np.array([[10,20,30,40,50],[90,50,60,40,10]])
```

In [8]:
```
a2
```

Out[8]:
```
array([[10, 20, 30, 40, 50],
       [90, 50, 60, 40, 10]])
```

In [18]:
```
print("Mean of 2D array:", np.mean(a2))
```

```
Mean of 2D array: 40.0
```

creating multiD array using numpy

In [9]:
```
a3=np.matrix('11,22;33,44;55,66')
print(a3)
```

```
[[11 22]
 [33 44]
 [55 66]]
```

In [17]:
```
print("Shape of 3D array:", a3.shape)
```

```
Shape of 3D array: (3, 2)
```