

NUMPY :

NumPy – which stands for numerical Python; It is a library consisting of multidimensional, array objects and collection of routines on processing those arrays. NumPy helps to perform mathematical and logical operations on arrays.

Operation using NumPy:

- . Mathematical and logical operations on arrays.
- . Fourier transforms and routines for shape manipulation.
- . Operations related to linear algebra and in-built functions for linear algebra and random number generation.

NumPy is often used along with packages like SciPy (scientific Python) and Matplotlib (Plotting library)

Import NumPy as np is the most important object defined in NumPy is an n-dimensional array type called an array.

```
import NumPy as np
a = np.array([1, 2, 3])
Print a
```

Output: -

```
[1, 2, 3]
```

```
import NumPy as np
a = np.array([[12, 3], [4, 5, 6]])
Print a.shape
```

Output:

```
(2, 3)
```