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In [ ]: ### Numpy
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In [ ]: ## What is Numpy ?
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## It is a package used to deal with arrays and matrix.
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```
### How to install ?
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```
# pip install numpy
```

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

```
In [ ]: # How to create one dimensional array ?
```

```
list = [10,20,30,40,50]
```

```
array_one = np.array(list)
```

```
In [ ]: array_one
```

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

```
In [ ]: array_one.ndim # shows the number of dimensions for array
```

```
Out[ ]: 1
```

```
In [ ]: array_one.shape # Returns the number of elements in numpy array.
```

```
Out[ ]: (5,)
```

```
In [ ]: type(array_one) # Shows type of array_one
```

```
Out[ ]: numpy.ndarray
```

```
In [ ]: ## How to create two dimensional array ?
```

```
array_two = np.array([[10,20,30],  
                      [40,50,60],  
                      [70,80,90]])
```

```
In [ ]: array_two
```

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

```
In [ ]: array_two.ndim # shows the number of dimensions for array
```

```
Out[ ]: 2
```

```
In [ ]: array_two.shape # Returns the number of elements in numpy array.
```

```
Out[ ]: (3, 3)
```

```
In [ ]: type(array_two) # Shows type of array_two
```

```
Out[ ]: numpy.ndarray
```

```
In [ ]: # How to create matrix in numpy ?
```

```
In [ ]: matrix = np.matrix([[10,20,30],  
                             [40, 50, 60],  
                             [70,80,90]]))
```

```
In [ ]: matrix
```

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

```
In [ ]:
```