

Lab Assignment 16

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Topic : Numpy

Q1. Convert the below list into numpy array then display the array

Input: my_list = [1, 2, 3, 4, 5]

Code:

```
lab16.py > ...
1 import numpy # Importing NumPy library
2 my_list = [1, 2, 3, 4, 5] # Input list
3 my_array = numpy.array(my_list) # Convert the list to a NumPy array
4 print("Array:", my_array)
5
```

Output:

```
Array: [1 2 3 4 5]
```

Q2. Convert the below list into a numpy array then display the array then display the first and last index and then multiply each element by 2 and display the result.

Input: my_list = [1, 2, 3, 4, 5]

Code:

```
lab16.py > ...
1 import numpy # Importing NumPy library
2 my_list = [1, 2, 3, 4, 5] # Input list
3 my_array = numpy.array(my_list) # Convert the list to a NumPy array
4 print("Array:", my_array) # Display the original array
5 print("First element:", my_array[0])
6 print("Last element:", my_array[-1])
7 result = my_array * 2 # Multiply each element by 2
8 print("Array after multiplying by 2:", result) # Display the result after multiplication
9
```

Output:

```
Array: [1 2 3 4 5]
First element: 1
Last element: 5
Array after multiplying by 2: [ 2  4  6  8 10]
```