NumpyAssignment

February 5, 2025

[20]:
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"""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]"""
import numpy as np
my_list = [1, 2, 3, 4, 5]
arr1 = np.array(my_list)
print(arr1)
print(type(arr1))
print("The first index is: ", arr1[0])
print("The last index is: ", arr1[-1])
print("Multiplying each element by 2, we get: ",2*arr1)
```

```
[1 2 3 4 5]
<class 'numpy.ndarray'>
The first index is:  1
The last index is:  5
Multiplying each element by 2, we get:  [ 2  4  6  8 10]
```

[8]:
```
"""2.Use arange() to create an array starting from 0 to 20 with a step of 2."""
import numpy as np
arr2 = np.arange(0,20,2)
print(arr2)
print(type(arr2))
```

```
[ 0  2  4  6  8 10 12 14 16 18]
<class 'numpy.ndarray'>
```

[18]:
```
"""3.Create a NumPy array with values [10, 25, 5, 18, 30].
Find and print the maximum and minimum values in the array."""
arr3 = np.array([10, 25, 5, 18, 30])
print(type(arr3))
print(arr3)
print("The maximum value is: ", max(arr3))
print("The minimum value is: ", min(arr3))
```

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<class 'numpy.ndarray'>
[10 25  5 18 30]
```

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The maximum value is:  30
The minimum value is:  5
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[19]:
```
"""4.Create a NumPy array containing the numbers 1 to 10,
 then find the sum of all elements in the array."""
arr4 = np.arange(1,11)
print(arr4)
print(type(arr4))
sum = 0
for i in arr4:
    sum += i
print("The sum of elements of array is: ", sum)
```

```
[ 1  2  3  4  5  6  7  8  9 10]
<class 'numpy.ndarray'>
The sum of elements of array is:  55
```