NumPy Array Shape

Shape of an Array

The shape of an array is the number of elements in each dimension.

Get the Shape of an Array

NumPy arrays have an attribute called `shape` that returns a tuple with each index having the number of corresponding elements.

Example

Print the shape of a 2-D array:

```python
import numpy as np

arr = np.array([[1, 2, 3, 4], [5, 6, 7, 8]])

print(arr.shape)
```

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The example above returns `(2, 4)`, which means that the array has 2 dimensions, where the first dimension has 2 elements and the second has 4.

Example

Create an array with 5 dimensions using `ndmin` using a vector with values 1,2,3,4 and verify that last dimension has value 4:

```python
import numpy as np

arr = np.array([1, 2, 3, 4], ndmin=5)

print(arr)
print('shape of array :', arr.shape)
```

Try it Yourself »

What does the shape tuple represent?

Integers at every index tells about the number of elements the corresponding dimension has.

In the example above at index-4 we have value 4, so we can say that 5th (4 + 1 th) dimension has 4 elements.

Test Yourself With Exercises

Exercise:

Use the correct NumPy syntax to check the shape of an array.

```python
arr = np.array([1, 2, 3, 4, 5])

print(arr.     )
```
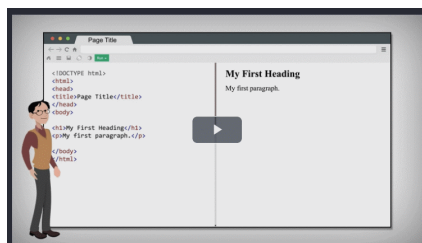
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