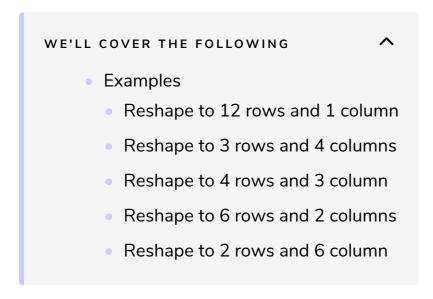
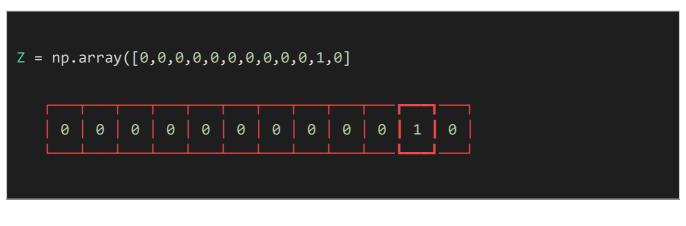
# Reshaping in NumPy

This lesson explains how to reshape an array into various dimensions.



As explained in the previous lesson, to create a basic NumPy array write:





We can reshape the array in any dimension

The basic syntax for reshaping array is:

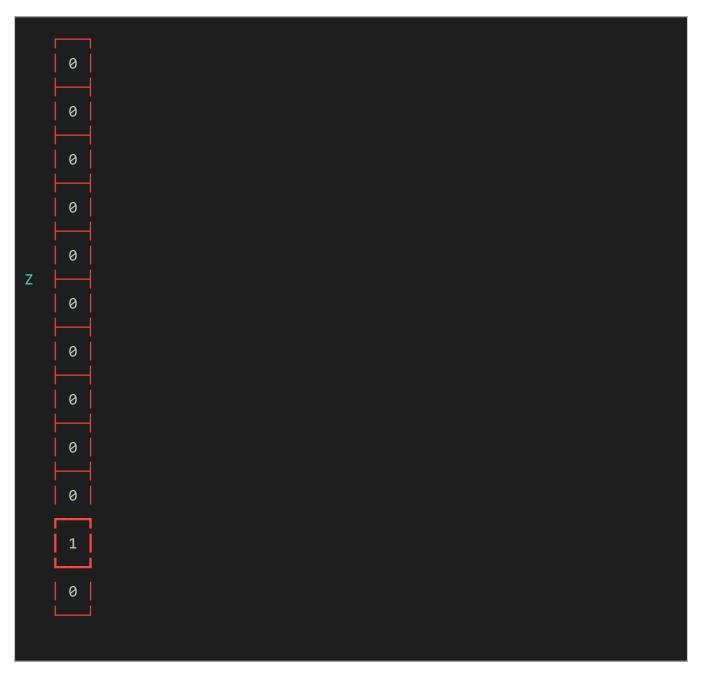
# Examples #

The following examples shows how to reshape an array in different dimenions:-

### Reshape to 12 rows and 1 column #

To reshape array to 12 rows and 1 column write:

Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(12,1)





#### Reshape to 3 rows and 4 columns #

To reshape array to 3 rows and 4 columns write:

```
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(3,4)
```



```
import numpy as np
Z = np.array([0,0,0,0,0,0,0,0,0,0,1,0]).reshape(3,4)
print(Z)
```

#### Reshape to 4 rows and 3 column #

To reshape array to 4 rows and 3 columns write:

```
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(4,3)
```



```
import numpy as np
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(4,3)
print(Z)
```

#### Reshape to 6 rows and 2 columns #

To reshape array to 6 rows and 2 columns write:

```
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(6,2)
```



```
import numpy as np
Z = np.array([0,0,0,0,0,0,0,0,0,0,1,0]).reshape(6,2)
print(Z)
```

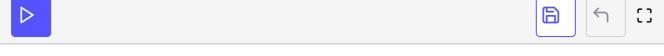
### Reshape to 2 rows and 6 column #

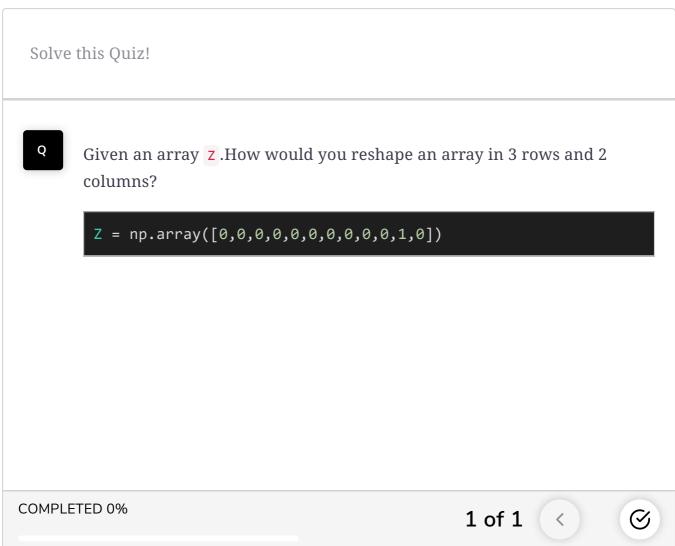
To reshape array to 2 rows and 6 columns write:

```
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(2,6)
```



```
import numpy as np
Z = np.array([0,0,0,0,0,0,0,0,0,1,0]).reshape(2,6)
print(Z)
```





Now that we have learned to reshape an array using NumPy, let's move to learn "Indexing in NumPy" in the next lesson.