

▶ #Differences between Flatten() and Ravel()  
 #used to convert a ndarray to a 1D array

#create 2D array

```
import numpy as np
a = np.array ([[1,2,3],[4,5,6]])
a      #original 2D array
```

⇒ array([[1, 2, 3],  
 [4, 5, 6]])

```
[10] #use flatten() to convert 2d array into 1D array
b = a.flatten() #converts 2D arrayn into 1D array
b      #gives 1D array
```

```
array([1, 2, 3, 4, 5, 6])
```

✓  
 0s ▶ #Change any value in the array

```
b [3] = 25
b
```

```
array([ 1,  2,  3, 25,  5,  6])
```

```
[13] #Now print original array after changing value
a      # there is no any change in original array when we chnage values on an array where we have used flatten()
```

```
array([[1, 2, 3],
       [4, 5, 6]])
```

```
[14] #use ravel() to convert 2d array into 1D array
c=a.ravel()      #converts 2D arrayn into 1D array
c      #gives 1D array
```

```
array([1, 2, 3, 4, 5, 6])
```

✓  
 0s [16] #Change any value in the array

```
c [3] = 25
c
```

```
array([ 1,  2,  3, 25,  5,  6])
```

✓  
 0s [17] #Now print original array after changing value

```
a      # there is a change in original array when we chnage values on an array where we have used ravel()
```

```
array([[ 1,  2,  3],
       [25,  5,  6]])
```