

EXERCISE 1 - addition of 2 numpy arrays

Create 2 array of 2D and perform the addition by every element

EXERCISE 2 –

Create random array “A” with shape (3,4) and another array “B” with same shape where all values are 5, and add the two arrays. After that print the integer values of the output

Output 1:

```
A: --> [[-1.99153779  0.42602587 -0.54128544  0.776823   ]
 [-0.04764371  0.51869446 -0.39140181  0.4380226   ]
 [ 1.66376979 -0.73923643 -0.10719448 -0.48621729]]

B: --> [[5. 5. 5. 5.]
 [5. 5. 5. 5.]
 [5. 5. 5. 5.]]

A+B: --> [[3.00846221  5.42602587  4.45871456  5.776823   ]
 [4.95235629  5.51869446  4.60859819  5.4380226   ]
 [6.66376979  4.26076357  4.89280552  4.51378271]]
```

Output 2:

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

EXERCISE 3 - Obtaining Boolean Array from Binary Array

Convert a binary numpy array (containing only 0s and 1s) to a boolean numpy array

```
a = np.array([[1, 0, 0],
              [1, 1, 1],
              [0, 0, 0]])
```

EXERCISE 4 - Matrix Generation with one particular value

Output a matrix (numpy array) of dimension 2-by-3 with each and every value equal to 5

EXERCISE 5:

```
np.random.seed(42)
```

```
M = np.random.randint(10, size=(2,2,10))
```

- Print the last element from each internal array.
[[4 1]
[3 3]]
- Print even index element from the second internal array.
[3 7 5 1 5]
- Print every element with odd index from each internal array.
[[[3 4 9 6 4]
[7 2 4 7 1]]

[[0 5 0 2 3]
[2 2 4 6 3]]]