## **Exercises: NumPy**

## WE'LL COVER THE FOLLOWING

- Time To Test Your Skills!
  - Q1.Create a null vector (all zeros) of size 10 and set it in the variable called "Z".
  - Q2. Create a 1D array of numbers from 0 to 9 and set it in the variable called "arr".
  - Q3. Create a 3x3x3 array with random values and set it in the variable called "arr".
  - Q4. Create a 10x10 array with random values called "arr4". Find its minimum and maximum values and set them in the variables called "min\_val" and "max\_val" respectively.
  - Q5. First create a 1D array with numbers from 1 to 9 and then convert it into a 3x3 grid. Store the final answer in the variable called "grid".
  - Q6. Replace the maximum value in the given vector, "arr6", with -1.
  - Q7. Reverse the rows of the given 2D array, "arr7".
  - Q8. Subtract the mean of each row of the given 2D array, "arr8", from the values in the array. Set the updated array in "transformed\_arr8".

## Time To Test Your Skills! #

Q1.Create a null vector (all zeros) of size 10 and set it in the variable called "Z". #



Q2. Create a 1D array of numbers from 0 to 9 and set it in the variable called "arr".



Q3. Create a 3x3x3 array with random values and set it in the variable called "arr".



Q4. Create a 10x10 array with random values called "arr4". Find its minimum and maximum values and set them in the variables called "min\_val" and "max\_val" respectively. #



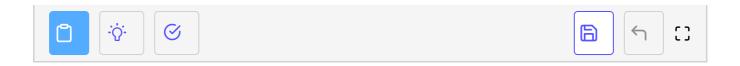
Q5. First create a 1D array with numbers from 1 to 9 and then convert it into a 3x3 grid. Store the final answer in the variable called "grid". #



Q6. Replace the maximum value in the given vector, "arr6", with -1. #

```
# Input
arr6 = np.arange(10)

# Your solution goes here
```



Q7. Reverse the rows of the given 2D array, "arr7". #



Q8. Subtract the mean of each row of the given 2D array, "arr8", from the values in the array. Set the updated array in "transformed\_arr8". #

To get the mean along the row axis, you can use the *numpy.mean* method, mean(axis=1, keepdims=True).

