LAB Logbook

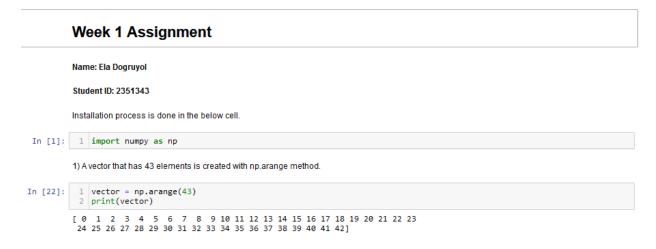
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Lab 1

For the Lab 1 in Week 1, students were asked to create a vector using np.arange method and doing some changes on that vector to be able to practice NumPy and Python.

Firstly, because my student ID is 2351343, I created a vector of 43 elements. Secondly, I changed this matrix into a 2-d array with 1 row using **reshape** method. Thirdly, I used NumPy's **empty_like** method and **slicing** to be able to create an independent array and save the values of the matrix to that independent array. I checked the **shape** attribute values of both matrixes. I printed all results at the end of the steps.

My code and results:



2) Matrix is changed into a to 2-d array with 1 row.

```
In [23]: 1 vector = vector.reshape(43,1)
2 print(vector)
                                                      [[ 0] [ 1] [ 2] [ 3] [ 4] [ 5] [ 6] [ 7] [ 8] [ 10] [ 11] [ 12] [ 13] [ 14] [ 15] [ 16] [ 17] [ 18] [ 19] [ 20] [ 23] [ 24] [ 25] [ 26] [ 27] [ 28] [ 30] [ 31] [ 34] [ 35] [ 36] [ 37] [ 38] [ 36] [ 37] [ 38] [ 37] [ 38] [ 39] [ 41] [ 42] [ 42] [
```

3) The constructed array is saved into another array.

4) Shape attribute value is checked for both arrays.

```
In [26]: 1 print(vector.shape)
2 print(new_array_2d.shape)
(43, 1)
(43, 1)
```

<u>Lab 2</u>

<u>Lab 3</u>

<u>Lab 4</u>

<u>Lab 5</u>

<u>Lab 6</u>

<u>Lab 7</u>

<u> Lab 8</u>

<u>Lab 9</u>

<u>Lab 10</u>

<u>Lab 11</u>

<u>Lab 12</u>