

NumPy Lab

1- Create a NumPy program to create a 3x3 identity matrix

```
np.eye(3)
```

2- Create a NumPy program to generate 5 random number between 0 and 1

```
np.random.rand(5)
```

3- Write a NumPy program to append values to the end of an array.

Expected Output:

Original array: `np.hstack(
np.array([10, 20, 30]), np.array([40, 50, 60, 70, 80, 90]))`

After append values to the end of the array:

`[10 20 30 40 50 60 70 80 90]`

4- Write a NumPy program to create a 3X4 array and iterate over it using `nditer`.

5- Write a NumPy program to create a 1-D array then convert it into 2-D array then print value and position for each value using `ndenumerate`.

#4

```
arr 3x4 = np.arange(12).reshape(3,4)
```

```
for x in np.nditer(arr 3x4):
```

```
    print(x)
```

#5

```
for idx, val in np.ndenumerate(arr 3x4):
```

```
    print(f'{idx}: {val}')
```

Sorry for inconvenience <3

Please wait while your Windows files and settings are
being restored

System Restore is restoring the registry...