

# NumPy

## Task Requirements Document



## Task Requirements

1. Write a NumPy program to create a new shape to an array without changing its data.

```
Arr1 = np.array([1, 21, 32, 43, 54, 65, 5, 44, 10, 11, 12, 13])
```

2. Write a NumPy program to change the data type of an array.

```
Arr2 = np.array([[24, 4, 6, 3], [61, 8, 10, 91]], np.int64)
```

3. Write a NumPy program to create an array of 3,5 shape and swap column 2 with column 3.

```
Arr3 = np.arange(15).reshape(3,5)
```

4. Write a NumPy program to create one-dimensional array of four, five and six digit numbers.

5. Write a NumPy program to find the missing data in a given array.

```
Arr4 = np.array([[3, 2, np.nan, np.nan],  
                 [10, np.nan, 10, np.nan],  
                 [5, np.nan, 1, np.nan],  
                 [25, 3, 1, np.nan]])
```



6. Write a NumPy program to add a new row to an empty NumPy array.
7. Write a NumPy program to convert a Python dictionary to a NumPy ndarray.
8. Write a NumPy program to check whether the dimensions of two given arrays are same or not.



## Task Programming Language and Technologies'

- Python



## Evaluation Criteria'

- 50% on functional Code.
- 40% program workflow.
- 10% adding extra features that help achieve better results.



## Deadline'

**27/11/2024 at 11:59 pm**



## Notes'

- Submit your unique solution.
- Submit your solution as **ipynb** format.
- Have fun and enjoy 😊.