

## NumPy Basic (41 – 59)

41. Write a NumPy program to convert numpy dtypes to native Python types
42. Write a NumPy program to add elements to a matrix. If an element in the matrix is 0, we will not add the element below this element.
43. Write a NumPy program to find missing data in a given array.
44. Write a NumPy program to check whether two arrays are equal (element wise) or not.
45. Write a NumPy program to create a one-dimensional array of single, two and three-digit numbers.
46. Write a NumPy program to create a two-dimensional array of a specified format.
47. Write a NumPy program to create a one-dimensional array of forty pseudo-randomly generated values. Select random numbers from a uniform distribution between 0 and 1.
48. Write a NumPy program to create a two-dimensional array with shape (8,5) of random numbers. Select random numbers from a normal distribution (200,7).
49. Write a NumPy program to generate a uniform, non-uniform random sample from a given 1-D array with and without replacement.
50. Write a NumPy program to create a 4x4 array with random values. Create an array from the said array swapping first and last rows.
51. Write a NumPy program to create a new array of given shape (5,6) and type, filled with zeros.
52. Write a NumPy program to sort a given array by row and column in ascending order.
53. Write a NumPy program to extract all numbers from a given array less and greater than a specified number.
54. Write a NumPy program to replace all numbers in a given array equal, less and greater than a given number.
55. Write a NumPy program to create an array of equal shape and data type for a given array.
56. Write a NumPy program to create a three-dimensional array with the shape (3,5,4) and set it to a variable.
57. Write a NumPy program to create a 4x4 array. Create an array from said array by swapping first and last, second and third columns.

58. Write a NumPy program to swap rows and columns of a given array in reverse order.
59. Write a NumPy program to multiply two given arrays of the same size element-by-element.