

Assignment:

1. Write a NumPy program to test whether none of the elements of a given array is zero.
2. Write a NumPy program to test whether any of the elements of a given array is non-zero.
3. Write a NumPy program to create an element-wise comparison (equal, equal within a tolerance) of two given
4. Write a NumPy program to create an array of 10 zeros, 10 ones, 10 fives.
5. Write a NumPy program to create an array of the integers from 30 to 70.
6. Write a NumPy program to create a 3x3 identity matrix
7. Write a NumPy program to generate a random number between 0 and 1
8. Write a NumPy program to generate an array of 15 random numbers from a standard normal distribution
9. Write a NumPy program to create a vector with values ranging from 15 to 55 and print all values except the first and last.
10. Write a NumPy program to create a vector of length 5 filled with arbitrary integers from 0 to 10
11. Write a NumPy program to create a 10x10 matrix, in which the elements on the borders will be equal to 1, and inside 0.
12. Write a NumPy program to create a 5x5 zero matrix with elements on the main diagonal equal to 1, 2, 3, 4, 5.
13. Write a NumPy program to create a 4x4 matrix in which 0 and 1 are staggered, with zeros on the main diagonal.
14. Write a NumPy program to save two given arrays into a single file in compressed format (.npz format) and load it.
15. Write a NumPy program to create a one-dimensional array of forty pseudo-randomly generated values. Select

16. Write a NumPy program to extract all numbers from a given array which are less and greater than a specified number.