Revision Exercises

1. Create a 3x3 NumPy array with random values between 0 and 1. Then, calculate the mean and the median for each row then for each column and print the result then print the value of the standard deviation.
2. Create a NumPy array with the values [1, 2, 3, 4, 5]. Using slicing, extract the values at the even indices and print the result.
3. Create a 4x4 NumPy array with the values [[1, 2, 3, 4], [5, 6, 7, 8], [9, 10, 11, 12], [13, 14, 15, 16]]. Using slicing, extract the subarray with the values [[6, 7], [10, 11]] and print the result.
4. Create a NumPy array with values ranging from 0 to 9 and extract the even values in a new array and the primary numbers in a new array.
5. Create a NumPy array with values ranging from 0 to 9 and reshape it to a 3x3 array. Then, slice the array to obtain a 2x2 array starting from the second row and second column.
6. Create a NumPy array with values ranging from 0 to 9 and use Boolean indexing to replace all odd values with -1.
7. Create a NumPy array with values ranging from 0 to 9 and use fancy indexing to obtain a new array with the elements in reverse order.