University of Central Punjab

Faculty of Information Technology

Introduction to Data Science

Spring 2021

Assignment # 02 – Numpy

Instructions:

1 - Upload the following tasks in a single Jupyter Notebook on MS-teams.
2 - Deadline of this assignment is April 25 2021 11:00 pm

1: Create a 4X2 integer array and Prints its attributes

2: Create a 5X2 integer array from a range between 100 to 200 such that the difference between each element is 10

3: Following is the provided numPy array. return array of items in the third column from all rows
sampleArray = numpy.array([[11 ,22, 33], [44, 55, 66], [77, 88, 99]])

4: Return array of odd rows and even columns from below numpy array
sampleArray = numpy.array([[3 ,6, 9, 12], [15 ,18, 21, 24],
[27 ,30, 33, 36], [39 ,42, 45, 48], [51 ,54, 57, 60]])

5: Create a result array by adding the following two NumPy arrays. Next, modify the result array by calculating the square of each element
arrayOne = numpy.array([[5, 6, 9], [21 ,18, 27]])
arrayTwo = numpy.array([[15 ,33, 24], [4 ,7, 1]])

6: Create an 8X3 integer array from a range between 10 to 34 such that the difference between each element is 1 and then Split the array into four equal-sized sub-arrays.

7: Sort following NumPy array first by the second row, then by the second columns
sampleArray = numpy.array([[34,43,73],[82,22,12],[53,94,66]])

8: Print max from axis 0 and min from axis 1 from the following 2-D array.
sampleArray = numpy.array([[34,43,73],[82,22,12],[53,94,66]])

9: Delete the second column from a given array and insert the following new column in its place.
sampleArray = numpy.array([[34,43,73],[82,22,12],[53,94,66]])
newColumn = numpy.array([[10,10,10]])