BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

January 2024 CSE 106 Data Structures and Algorithms I

Online Assignment I on Arrays Section: A1/A2

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A ***triplet*** is defined as three consecutive elements of an array; and a ***triplet-sum*** is the sum of the three aforementioned elements. In this assignment, you will have to find the triplet that has the maximum triplet-sum of an integer array. The program will first take as input the number of test cases. For each test case there will be two lines of input; the first line will contain the array size (assume it to be a positive integer), and the second the elements of the array. Some example test cases are given below:

| **Input** | **Output** |
| --- | --- |
| 5  5  5 3 4 6 1  6  12 35 1 10 32 1  1  42  4  1 3 3 1  5  -1 -2 -3 -4 -5 | 3 4 6  12 35 1  Invalid input  3 3 1  -1 -2 -3 |

Try to understand the general and corner cases by observing the given test cases. A skeleton program is given for your convenience. You only need to complete the **‘maxTripletSum’** method. Note that some test cases may have more than one valid answer (one such example is given in the test cases above).

Time: 45 minutes.