**American International University-Bangladesh**

**Data Structure Lab [G]**

**Summer 2022-23**

**Lab Tasks 01 || 1D Array**

1. Write a C++ program to find the sum of all elements in a 1D array. You must take the elements of the array from the user.
2. Write a C++ program to find the maximum element in a 1D array. You must take the elements of the array from the user.
3. Write a C++ program to find the minimum element in a 1D array. You must take the elements of the array from the user.
4. Write a C++ program to calculate the average of all elements in a 1D array. You must take the elements of the array from the user.
5. Write a C++ program to reverse the elements in a 1D array. You must take the elements of the array from the user.
6. Write a C++ program to check if a 1D array is sorted in ascending order. You must take the elements of the array from the user.
7. Write a C++ program to check if a 1D array contains any duplicate elements. You must take the elements of the array from the user.
8. Write a C++ program to find the second largest element in a 1D array. You must take the elements of the array from the user.
9. Write a C++ program to remove all occurrences of a specific element from a 1D array. You must take the elements of the array from the user.
10. Write a C++ program to merge two sorted 1D arrays into a new sorted array. You must take the elements of the array from the user.