



American International University-Bangladesh (AIUB)

Department of Computer Science

Midterm Assignment

Course Name: Data Structure Lab

Course Code: CSC2107

Faculty Name: Md. Khairul Alam Mazumder

Semester: 2023-2024, Spring

1. Write a C++ program with appropriate data structure to keep records of 5 students. Each student will have the following information:
 - a. Unique ID (you can use an integer for this)
 - b. Number of Credits Completed
 - c. CGPA
 - Print all the student's IDs whose CGPA is more than 3.60.
 - Print all the student's IDs who have completed more than 60 credits.
2. Declare Implement a stack-based data structure in C++ to reverse a string using a stack. Your task is to write a C++ program that takes a string as input and reverses it using a stack-based approach.

Input: Hello
Output: olleH
3. You are given an array of integers representing scores of students in a class. Write a C++ program to calculate the average score of the class.
4. Write a C++ program to perform matrix addition between 4 matrices [2×2 matrix].

Instruction:

- Solve all the problems
- Prepare a word file and print the file
- Submit the hard copy
- Don't forget to write your name, id, and section
- Deadline: 25 March, 2024