

## **United** International **University**

Department of Computer Science and Engineering

CSE 2216 (H): Data Structures and Algorithms I Laboratory

Trimester: Summer 2023

Class Performance 1, Total Marks: 20, Total Time: 1 hour

Any examinee found adopting unfair means will be expelled from the trimester/program as per UIU disciplinary rules.

Write a program in C/C++ for the following scenario. You are instructed to read the question carefully.

You will be given the student information of N students. The user will provide the value of N. The student information consists of the student's name, id, and final marks of three subjects: physics, chemistry, and mathematics.

After that, you need to show the user a menu where there will be the following options:

## Actions List:

- 1 Add new student information
- 2. Show the information of the student
- 3. Kth positioned student
- 4. Show the standing of all the students
- 5. Exit

**Add new student Information:** If the user chooses option 1 (Add new student), then you need to take the information of the student from the user and add the new record to the existing data.

**Show the information of the student:** If the user chooses option 2 (Show the information of the student), then you need to take an id from the user, then you need to show the information of the student to the user.

**Kth positioned student:** If the user chooses option 3 (Kth positioned student), then you need to take a position from the user, then you need to show that positioned student from the student list based on their total marks in the three subjects.

**Show the standing of all the students:** If the user chooses option 4 (Show the standing of all the students), then you need to show all the student information with their standing position based on their total marks in the three subjects. You will show the student's name, student id, and position only.

**Exit:** If the user chooses option 5 (Exit), then terminates the program.