



United International University  
Department of Computer Science and Engineering  
CSE 1112/ CSI 122 Structured Programming Language Laboratory  
Spring 2022  
Assignment

**IMPORTANT:** The following problem has five tasks with specific instructions. Please follow the instructions exactly as given in the problem description.

You are trying to build and manage a student database for your class. Write a program to perform the following tasks:

1. Declare a structure student with the following attributes:

- A string called name
- A string called id
- A 2-D float array called marks to hold four marks for three subjects as shown below:

	Att.	CT	Mid	Final
Subject1				
Subject2				
Subject3				

- A float called cgpa

2. Take ten students' information as input in an array struct student st[10]. Note that all inputs must be taken from a file called "input.txt" using file operations. A sample is shown below:

Tamim  
011221999  
10 20 28 37  
10 18 30 35  
10 15 18 34  
3.8

.....

3. Print the stored data as output in file "output.txt". Use the function void print(struct student st[]) to print the data. A sample is shown below:

Student 1:  
Name: Tamim  
Id: 011221999  
Subject 1 marks: 10 20 28 37  
Subject 2 marks: 10 18 30 35  
Subject 3 marks: 10 15 18 34  
CGPA: 3.8

4. Print the total marks of each student for each subject in file "output.txt". Use the function void printtotal(struct student st[]) to perform this task. A sample is shown below:

Student 1: Subject 1 total: 95  
          Subject 2 total: 93  
          Subject 3 total: 77

.....

5. Print the maximum and minimum CGPA of the class in file "output.txt". Use the function floatmaxCGPA(struct student st[]) and float minCGPA(stuct student st[]) to perform this task. A sample is shown below:

Maximum CGPA: 3.8  
Minimum CGPA: 3.2

**IMPORTANT:** You have to submit your source code, input file and output file. Make a zip file with all three and upload using the link provided in LMS.