



United International University
Department of Computer Science and Engineering
CSI 122 Structured Programming Language Laboratory
Fall 2020
Final 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:

```
Alman
011073054
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: Alman
Id: 011073054
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 int maxCGPA(struct student st[]) and int 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 elms. Folder name must be your name and ID combined like the previous assignment.