United International University



Department of Computer Science and Engineering

CSI 122 Structured Programming Language Laboratory

Section A

Spring 2020

Lab 5(Class)

1. Write a program that takes two 4X4 matrices of number as input and prints their sum and difference as output.

|  |  |
| --- | --- |
| *Sample Input:*  Enter matrix 1:  Row 1: 5 9 3 1  Row 2: 1 2 6 7  Row 3: 8 0 4 2  Row 4: 7 9 3 5  Enter matrix 2:  Row 1: 3 5 2 1  Row 2: 6 2 8 7  Row 3: 0 9 3 2  Row 4: 8 2 7 5 | *Sample Output:*  The sum is:  8 14 5 2  7 4 14 14  8 9 7 4  15 11 10 10  The difference is:  2 4 1 0  -5 0 -2 0  8 -9 1 0  -1 7 -4 0 |

1. Write a program that takes the exam marks for three subjects for five students as input in a 2-D array and prints the average marks for each student and the maximum marks for each subject as output.

*Sample Input:*

Enter marks for student 1: 87 67 92

Enter marks for student 2: 45 62 76

Enter marks for student 3: 57 86 97

Enter marks for student 4: 68 91 75

Enter marks for student 5: 71 55 42

*Sample Output:*

Average marks for student 1: 82

Average marks for student 1: 61

Average marks for student 1: 80

Average marks for student 1: 78

Average marks for student 1: 56

Maximum marks for subject 1: 87

Maximum marks for subject 1: 91

Maximum marks for subject 1: 97

United International University



Department of Computer Science and Engineering

CSI 122 Structured Programming Language Laboratory

Section A

Spring 2020

Lab 5(Home)

1. Suppose you want to store the attendance, class test, mid and final marks of multiple students in a 2-D array as follows:

Att. CT Mid Final

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student1 |  |  |  |  |
| Student2 |  |  |  |  |
| Student3 |  |  |  |  |
| Student4 |  |  |  |  |
| Student5 |  |  |  |  |

Now write a program to take 5 students’ marks as input and output the following:

Total marks of each student

Student with lowest total marks

Student with highest attendance

|  |  |
| --- | --- |
| *Sample Input:*  Enter student 1 marks:  8 12 20 35  Enter student 2 marks:  10 20 28 37  Enter student 3 marks:  6 14 23 34  Enter student 4 marks:  7 18 27 31  Enter student 5 marks:  8 15 10 25 | *Sample output:*  Total marks of student 1: 75  Total marks of student 2: 95  Total marks of student 3: 77  Total marks of student 4: 83  Total marks of student 5: 58  Student with lowest total marks: 5  Student with highest attendance: 2 |