세계 속의 빛 이공계 대학

Computer Programming

Lab10

May 27, 2025

Submission

- **Submit to server**

Lab #

Class #

At the end of the Lab10, submit your C sources file by typing

~gs1401/bin/submit Lab10_2 ex10_1.c ex10_2.c // by Thur. 11:50

~gs1401/bin/submit Lab10_3 ex10_1.c ex10_2.c // by Friday 10:50

~gs1401/bin/submit Lab10_4 ex10_1.c ex10_2.c // by Friday 11:50

~gs1401/bin/submit Lab10_5 ex10_1.c ex10_2.c // by Friday 13:50

You may check that you have submitted your source code correctly by typing

~gs1401/bin/submit -check

Ex1

- Write the following program.
  - Read a 3×4 array of integers from the user.
  - Print the array in matrix form.
  - Print the sum of all the elements.
  - Print the average of all the elements, rounded to two decimal places.

Ex1

- **Program output**

```
[ohyong@cse ~/cp/Lab10]$ vi ex10_1.c
[ohyong@cse ~/cp/Lab10]$ gcc ex10_1.c -o ex10_1
[ohyong@cse ~/cp/Lab10]$ ./ex10_1
Enter a 3x4 array of integers:
Element [0][0]: 1
Element [0][1]: 2
Element [0][2]: 3
Element [0][3]: 4
Element [1][0]: 5
Element [1][1]: 6
Element [1][2]: 7
Element [1][3]: 8
Element [2][0]: 9
Element [2][1]: 10
Element [2][2]: 11
Element [2][3]: 12

You entered:
   1   2   3   4
   5   6   7   8
   9  10  11  12

Total sum: 78
Average: 6.50
```

Ex2

- Write a program that reads two 2×3 matrices from the user and prints their sum.

Ex2

- **Program output**

```
[ohyong@cse ~/cp/Lab10]$ vi ex10_2.c
[ohyong@cse ~/cp/Lab10]$ gcc ex10_2.c -o ex10_2
[ohyong@cse ~/cp/Lab10]$ ./ex10_2
Enter elements of matrix A (2x3):
A[0][0]: 1
A[0][1]: 2
A[0][2]: 3
A[1][0]: 4
A[1][1]: 5
A[1][2]: 6
Enter elements of matrix B (2x3):
B[0][0]: 7
B[0][1]: 8
B[0][2]: 9
B[1][0]: 10
B[1][1]: 11
B[1][2]: 12

Sum of matrices A and B:
   8  10  12
  14  16  18
```