



COURSE: (CL-1004) OBJECT ORIENTED PROGRAMMING LAB

Task#3

Structures and Pointers

NOTE:

Only submit .cpp file of each question in a folder. Anyone who submits any other format file will get straight **ZERO**. Each question should have a separate .cpp file. Copy Paste or other UFM will also get **ZERO**. Use the following format for naming the folder Roll#_Name (P18-1234_NAME).

Q No.01: Structures

Create a structure called time. Its three members, all type int, should be called hours, minutes, and seconds. Write a program that prompts the user to enter a time value in hours, minutes, and seconds. The program should then store the time in a variable of type struct time, and finally print out the total number of seconds.

Q No.02: Structures

A point on the two-dimensional plane can be represented by two numbers: an x coordinate and a y coordinate. For example, (4,5) represents a point 4 units to the right of the vertical axis, and 5 units up from the horizontal axis. The sum of two points can be defined as a new point whose x coordinate is the sum of the x coordinates of the two points, and whose y coordinate is the sum of the y coordinates.

Write a program that uses a structure called point to model a point. Define three points, and have the user input values to two of them. Then set the third point equal to the sum of the other two, and display the value of the new point. Interaction with the program might look like this:

Enter coordinates for p1: 3 4

Enter coordinates for p2: 5 7

Coordinates of p1+p2 are: 8, 11

Q No.03: Pointers

Write a program that asks the user to enter integers as inputs to be stored in the variables 'a' and 'b' respectively. There are also two integer pointers named ptrA and ptrB. Assign the values of 'a' and 'b' to ptrA and ptrB respectively, and display them.

Q No.04: Pointers

Write a C++ program to find the max of an integral data set. The program will ask the user to input the number of data values in the set and each value. The program prints on screen a pointer that points to the max value.

Q No.05: Pointers

Take input in variable and display same value by pointer. Also display the memory address of the variable.