Lab 3

Problem One

Write a C++ program that prompts the user to enter the number of credit hours earned sofar and displays his/her corresponding category:

Freshman: students with <= 15 credit hours earned
Sophomore: 15 < credit hours earned <= 45
Junior: 45 < credit hours earned <= 75
Senior: 75 < credit hours earned

If the user input is not valid, i.e., credit hours entered < 0, an error message should be displayed. You are required to use the multiway decision statement, i.e., the if-else if-else, statement for this problem.

Here are a few example runs of the program:

       Sample run 1

           Please enter your total credit hours earned: 30
           You are a Sophomore.

       Sample run 2

           Please enter your total credit hours earned: 82
           You are a Senior.

       Sample run 3

           Please enter your total credit hours earned: 12
           You are a Freshman.

       Sample run 4

           Please enter your total credit hours earned: -10
           Invalid input.

Problem Two

Write a C++ program that reads three integer values from the user (through keyboard entry), then order and display the three values in ascending order. For example, if the user entered 3 values: 84 3 130, the program should output the three values as: 3, 84, 130.

At the end of the program, the first value contains the smallest value, the second value contains the middle value, and the 3rd value has the largest value.

Here are a few example runs of the program:

Sample run 1

Please enter three integer values: 4 10 6
The three values in ascending order are: 4 6 10

Sample run 2

Please enter three integer values: 20 5 3
The three values in ascending order are: 3 5 20

Sample run 3

Please enter three integer values: 5 10 20
The three values in ascending order are: 5 10 20

Sample run 4

Please enter three integer values: 20 6 10
The three values in ascending order are: 6 10 20