Assignment 04

DeadLine:1st feb,2014 Monday

Instructions

- **This is an individual assignment. You are NOT allowed to work/submit in form of group.**
- **Absolutely NO collaboration is allowed. Any traces of plagiarism/cheating would result in an "F" grade in this course.**
- **Do NOT copy even a single line of code from any other person or book or Internet or any other source.**
- **This assignment needs to be submitted in Soft Copy + Hard Copy(Hand written). See Submission Procedure at the end.**
- **Late submissions will NOT be accepted, in any case.**
- **Clearly mention your Name, Roll Number in comments at the top of each CPP file.**

Task-01:

Write a function named 'countOnes', which receives an integral value (base 10) and returns the number of ones in its binary patterns.

Task-02:

Write a program that contains a function int sum_of_digits(int) which takes an integer number as parameter and returns the sum of the digits of that integer number.

For example, when 234 is passed to the function and it returns 9.

Task-03

Write a program that generates a random number and asks the user to guess what the number. If the user's guess is higher than the random number, the program should display "Too high, try again." If the user's guess is lower than the random number, the program should display "Too low, try again." The program should ask number that repeats until the user correctly guesses the random number. When user guesses the correct number it should display the number of guesses.

Note: *your program should be divide in different fuction e.g*

Takeinput () , generateRandom () etc.

User can enter the number between 10 to 20 and you should generate the random number between 1 to 100.

Task-04:

A particular talent competition has five judges, each of whom awards a score between 0 and 10 to each performer. Fractional scores, such as 8.3, are allowed. A performer's final score is determined by dropping the highest and lowest score received, then averaging the three remaining scores. Write a program that uses this method to calculate a contestant's score. It should include the following functions:

- void getJudgeData() should ask the user for a judge's score, store it in a reference parameter variable, and validate it. This function should be called by main once for each of the five judges.
- void calcScore() should calculate and display the average of the three scores that remain after dropping the highest and lowest scores the performer received. This function should be called just once by main, and should be passed the five scores.

The last two functions, described below, should be called by calcScore, which uses the returned information to determine which of the scores to drop.

- int findLowest() should find and return the lowest of the five scores passed to it.
- int findHighest() should find and return the highest of the five scores passed to it.

Input Validation: Do not accept judge scores lower than 0 or higher than 10.

Submission procedure:

You are required to submit this assignment in soft copy format (in the specified folder). Put the four .CPP files (q1.cpp, q2.cpp, …, q4.cpp) in a folder (do NOT include any other files in your submission). The name of the folder should be your complete roll number (like BSEF14M004), then compress that folder, and copy the .RAR file in the specified submission folder for your section.

THE PRICE OF SUCCESS IS HARD WORK, DEDICATION TO THE JOB AT HAND, AND THE DETERMINATION THAT WHETHER WE WIN OR LOSE, WE HAVE APPLIED THE BEST OF OURSELVES TO THE TASK AT HAND.

Vince Lombardi