EE 285 Lab 6

A. Arrays

Write a simple dice game program in which two sets of 5 dice are rolled. Rolling the first set of dice sets a mark, which is the sum total of the values of the dice. Rolling the second set determines the outcome of game — if the second total is bigger than first, the player wins. If the second total is less than or equal to the first, the player loses. In particular, your program should:

1. Use the random number generator to generate a combination of 5 dice values and store them in an array.
2. Print out the 5 values. Then ask if the player to place a bet. The bet can be any value between 0 and 10. (You can choose your favorite denomination.)
3. After the bet is placed, generate five more random dice values, store them in an array, and print them out.
4. Determine whether the player has won or not, and print out a statement telling them how much was won (or lost).

B. Sorting

Write a program that will sort an array using the bubble sort method. The program should:

1. Use the random number generator to produce an array of 25 integer integers, with values between –50 and +50.
2. Print the array for the user to view.
3. Ask the user if they would like the array sorted in ascending or descending order. The user answers with either ‘a’ or ‘d’.
4. Use the bubble sort to arrange the array items according to the user’s wishes.
5. Prints sorted array.

C. Strings

Write a program that will count the count the frequency of a particular letter in a string. You can use the functions available in `string.h`, if that helps. Your program should:

1. Ask the user to enter a string. (You should allow for up to 100 characters in the string.)
2. Ask the user for a character to check within the string.
3. Goes through the string and counts the number of characters.
4. Displays the result, in a decently formatted manner.

D. Quiz

As usual, there will be a short quiz — on arrays this time — to be taken at the beginning of the lab period.