COSC 1560 – Computer Programming II

Assignment 4
Deadline September 25, 2023

In main(), declare an array of 5 integers called ‘numbers’. Initialize the array with the integer values (10, 22, 34, 48, 59). Declare a ‘pointer to int’ and assign the pointer variable to point to the first element of the array.

The requirements for functions are described below. These functions should be written and called from ‘main’.

1) Write two different functions, ‘f1’ and ‘f2’. The function ‘f1’should take the array of ‘int’ as the first argument, and the function ‘f2’ should take the pointer as the first argument. The size of the array should be passed as a second argument to each function. In each function, print out all the **values** stored in the array, and all the **memory addresses** of each of the elements in the array.

2) Write a function ‘f3’, taking an array of ‘int’ as the first argument and the size of the array as the second argument. Within the function declare a ‘pointer to int’. The user should be prompted to input three different integer values. Each value should be within the range of indices of the array. If a value input by the user is outside the range, then the user should be asked to re-enter until a valid entry is provided. For each integer that is input, move the pointer to the corresponding element the array and print out the memory address, and the value stored.

3) Write a function ‘f4’, taking an array of ‘int’ as the first argument and the size of the array as the second argument. Within the function define two ‘pointer to int’ variables. Input two integer values from the user to represent two indices of the array. If a value input by the user is outside the range of indices in the array, then the user should be asked to re-enter until a valid entry is provided. Assign the pointers to point to those two array elements. Using the pointers, add the two values stored at those two locations and print the result.

THE DEPARTMENT STANDARDS FOR “STYLE GUIDELINES” SHOULD BE FOLLOWED IN ALL CODE.