CSCD 255
Lab 7

I have provided main.c. In this main are eight functions that you have to write. The specification for those functions is below.

- readInitialLength – reads the initial length of the array from the user; guarantees the length is one or greater.

- createAndFill – takes the value from readInitialLength and creates the array. It then fills the array with integers entered by the user. The newly created array is returned.

- menu – valid choices are
    - 1) printSortedArray – takes the array and the number of elements in the array – this function prints the elements in sorted ascending order. Note: I have provided the selectionSort function.

    - 2) addItem – takes the original array and the length of the original array (by reference) – makes a new array, copies over the old elements, and adds a new number (entered by the user) into the array. The new array is returned and the length is updated to represent the new length. You must cleanUp the old array in this function.

    - 3) readValue – reads a value from the user to find in this array – this value is returned from the function
      printIfFound – takes the value to find, the array, and the length of the array. Prints if the element was found in the array (first occurrence), and what location it was found at. If the item is not found – the appropriate error message is displayed.

    - 4) Quit
- cleanup – returns any dynamically allocated memory back to the system.

Specifics

- I have provided main.c, lab7.h and a basic lab7.c. You can't change main.c or lab7.h in any fashion
- You MAY NOT use static arrays
- You must use stdin to read the numbers
- All input scores will be integer values

To Turn In

A zip file containing:

- Containing all files necessary to compile and grade your code
- Include comments at the top of your functions source file that lists any known unsolved

problems or nothing to report if there are no unsolved problems.

- An output capture named cscd255lab7out.txt testing all aspects of your code
- An output capture name cscd255lab7val.txt showing a valgrind run of your program

Your zip will be named your last name first letter of your first name lab7.zip (Example: steinerslab7.zip)