

Homework Program Set Ch 8

Complete these programs on the system and turn them in using the turn in command. These are homework programs and should be completed outside of class. Post any questions on the discussion forum. Although you may use code from the book to get ideas for your program, your program should be your own original program and not copied from a book or website.

Filename: hw8-1.cpp

Write a program that will read in a list of 20 numbers. Your program should print out the initial list of numbers, then sort the list, then print out the list sorted. You may use a bubble sort or selection sort. You should specify the algorithm used in a comment in the program.

Filename: hw8-2.cpp

Write a program that will implement a binary search. Your program should store 40 numbers. The 40 numbers will be initialed in an array (See Below). Your program should read in each number, call a binary search, and indicate if the number is found and if so where or if it is not in the list. Your program should also print the number before the number that was found and the number. For example, if you search for 31, then your program should display that 31 was found and the number before it is 29 and the number after it is 33.

```
int list[20] { 1, 4, 5, 6, 9, 11, 14, 17, 19, 20, 22, 24, 25, 29, 31, 33, 35, 38, 40, 43, 45, 47, 49, 50, 51, 55, 57, 59, 61, 63, 67, 69, 70, 72, 74, 77, 79, 80, 85, 92 };
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