

Programming assignment 2:

Write a program to compare those two searching algorithms and also compare two sorting algorithms. You need to modify those codes in the book/slides to have some counters to count the number of comparisons and number of swaps. In the main function, you should have an ordered array of 120 integers in order to test searching algorithms, and the other two identical arrays of 120 integers not in order to test sorting algorithms. Display all counters in the main functions.

Counter for number of comparisons in linear search

Counter for number of comparisons in binary search

Counter for number of comparisons in bubble sort

Counter for number of swaps in bubble sort

Counter for number of comparisons in selection sort

Counter for number of swaps in selection sort

“modify those codes in the book/slides” means adding additional parameters for counters, and a few statements for increasement of counters. DO not delete any statement or change return type from the original functions.

No output in searching and sorting functions

No global variables are allowed except for constants.