

Lab – 01

20/01/2025

Searching and Sorting

Note:

1. Use only visual studio code type your program and run your code.
2. Always follow industry coding best practices.
3. To compile your file, follow the steps below
 - Save your file as a .cpp file
 - Go to the location where you have stored the file via terminal
 - Compile as “**g++ -o objectfilename filename.cpp**”
 - Run as “**./objectfilename**”
1. Write a C++ menu-driven program to sort a given array in ascending order. Design proper functions, maintain boundary conditions and follow coding best practices. The menus are as follows,
 - a. Bubble Sort
 - b. Selection Sort
 - c. Insertion Sort
 - d. Exit
2. Convert the sorting program into a header file and include it into a new cpp file. Write a C++ menu-driven program for linear and binary search in this new cpp file. Utilize any of the sorting functions in the included header file to sort the input array before performing a binary search. Design proper functions, maintain boundary conditions and follow coding best practices. The menu-driven program supports,
 - a. Linear Search
 - b. Binary Search
 - c. Exit

Files to be submitted

1. Sort CPP file (.cpp)
2. Sort Header file (.h)
3. Search CPP file (.cpp)