Introduction to Programming

MTech CS, First Year, Indian Statistical Institute

Assignment 2: Pointers in C

Posted on 28 August 2014 | Due on 28 August 2014

Submission Policy

In-class assignment, to be completed within the class time of 3 hours on 28 August 2014.

Submit separate codes for each of the following problems, combined in a compressed folder {RR}_assign2_solutions.zip, where {RR} is your roll number (e.g., mtc1421). You should provide a README portion within each C source file, including the compilation and execution commands, and the input formats that a user should follow to execute the program.

Problem 1

Write a generic Linear Search program in C, which is capable of searching any generic data-type in an indexed collection of similar data-types. If the input data-type, called the *key*, is found within the indexed collection, the program should return either the index of its location within the collection, or the absolute memory address of the key data-type within the collection.

Problem 2

Write a generic Sorting program in C, which is capable of sorting an indexed collection of similar but generic data-types. The sorting algorithm may be any standard sorting algorithm of the programmer's choice, but the data-type and the indexed collection will be provided by the user.