

## CSC-255 Lab #4

### Set Class

Write an implementation of the **Set** class, with associated iterator class, using a **BinarySearchTree** class.

See pseudocode in this folder. The document explaining pseudocode is also in D2L.

Complete TODO-s to make the program work. Also, note that each node in the binary tree has a link to the its parent node in addition to left and right child links.

The program has to consist of at least two files. The first file has to contain a driver source code, the second file has to contain source code of a one or more classes.

The driver has to read data from an input file and print results to an output file. The default input file name is in.txt, the default output file name is out.txt. Sample input and output files are provided in the folder.

The student may implement additional classes, methods, and functions, if so convenient. Each class shall be placed in a separate file unless it is an internal (nested) class. In the case of C++, place non-trivial function and methods declarations in a header file and their definitions in a separate source file.

The specific method/function names, their parameters, and returned values shall be per the language convention. If the language supports **const**, **final**, or similar qualifiers, use them to express that the parameters and/or this/self object are read only.