**CSE 503**

**Summer 2024**

**Assignment 3**

**Please do the following problems**:

1. Implement insert() in tree.cpp and show the results of inserting 3, 2, 5, 6, 10, 4, 7, 8, 11, 15, 13 into an empty Binary search tree.
2. Start with the tree in problem 1 and implement delete\_node() and do:
   1. delete 5, then
   2. delete 8.
3. Start with the tree in problem 2 and implement search() and do:
   1. Search 7
   2. Search 5

**Turnins:**

All source code and report zipped.

**Please remember:**

All assignments and tests must be submitted on Blackboard.

All computer assignments and projects need to be written in C++ and will be submitted as follows:

1. **Visual Studio is not allowed *(IMPORTANT).***  You must use and IDE that allows you to compile and run individual C++ files. You may use Bloodshed Compiler from the link:

<http://www.bloodshed.net/dev/devcpp.html>

or any other similar environment. For linux/unix/mac users, you may use any text editor of your choice and the c/c++ compiler that comes with your system such as gcc.

1. All reports have to be submitted as a PDF report that contains:
   1. Title page with your name, assignment number and the day you are actually submitting this report (Not the assignment due date)
   2. A brief description of the assignment.
   3. A brief description of the logic employed and the needed input and expected output.
   4. A comprehensive set of snapshots showing the inputs submitted, outputs obtained in the case of a successful output or a failure.
   5. Any conclusions, analysis, or answers to any questions I as you as part of the assignment.
   6. A text file that contains all source code.
   7. Please zip both the PDF document with the source code and submit one zip file.