

COP4530 – Data Structures, Algorithms and Generic Programming
Recitation 12
Date: November 9 and 13, 2009

Lab topic:

- 1) **Take Quiz 10**
- 2) **Participate in the tic-tac-toe program competition.**
- 3) **Implement some features of a binary search tree. This will help you with assignment 5.**

Tic-tac-toe program competition

1. A match between two groups will be organized as follows. Let us say that team A and team B are playing against each other. Each of these teams will start their tic-tac-toe program. If team A makes the first move, then team A will specify to its program that the computer makes the first move, while team B will specify to its program that the human will make the first move. After team A's program makes its first move, team B will enter the same move into its program, as if that were the human's move. Team B's program will respond with its move. Team A will enter that move into its program as if it were the human's move. Play will continue in this manner until one team wins or the game gets tied. If a team's program incorrectly reports that it won or that it tied, then that team will forfeit that game. If a team's program takes more than five seconds for a move, then it will forfeit that game. If the two teams disagree on the results of any game, then they should replay the game in the presence of the TA.

A match will consist of a series of games. We will specify the board size and number of consecutive locations that constitute a win for each game. For each such specification, both teams will play two games, with each taking a turn making the first move.

Implementing a binary search tree

1. Implement the following features of the binary search tree for assignment 5: *push*, *Inorder*, *search* (with self-organization).