CSE 5462: Lab7 (100 points)
TicTacToe – MultiPlayer – STREAM
Demo in Class or CL 112 April 5th (Thursday) Deadline: 9pm, April 5th

Important: You should work in teams of 2 for this lab. See me if you can't find a partner.

We will demo in class or in lab. For in class demos, we will go around the room. Be prepared to demo at the start of class. The submitted code will be used only to verify that you did not copy from others, to compile and re-run your program, to make sure you were indeed demonstrating your own code, and to grade for documentation of your code. You may be asked to connect your client/server to a client/server from another pair of students!
- For socket programming use can either use the CSE linux system (stdlinux) or your own machines. For your own machines, demo can be done in classroom.

In this lab, you will take Lab 6 and make it use STREAM sockets:
- Use select() to handle multitasking

The command line parameter to run the tictactoeServer program are:
- portnumber that the programs will communicate on,

The command line parameters to run the tictactoeClient program are:
- portnumber that the programs will communicate on,
- ip address of player 1

Submit well-documented and well indented code along with a README file explaining how to run the program. You must also submit a makefile. Submit it using GitHub, in a subdirectory called Lab7

The format of what is sent between client/server is:
4 bytes – representing the Command being given (NEWGAME, MOVE)
4 bytes – representing the square that player is moving to
4 bytes – representing the game number

The grading rubric is as follows:
1. Program correctness and robustness: 70% – it has to work to get these points
2. Coding style (e.g., comments, indentations): 20%
3. Documentation (the README file): 10%

What you should get from this lab?
Tools:
- Select()

Concepts:
- Handle a multitasked application
- Learn what data to keep separate