**Course:** ENSF 607 – Fall 2020

**Lab#:** 06

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**Due Date:** November 9th, 2020

# Exercise 1:

See below for example console output. See java files in git repo for details.Graphical user interface, text

Description automatically generated

# Exercise 2:

See below for example console output. See java files in git repo for details.

Graphical user interface, text

Description automatically generated

# Exercise 3:

See below for example console output. See java files in git repo for details.

Write Record output:

Text

Description automatically generated

Read Record output Using mySongs.ser and AllSongs.ser:

Text

Description automatically generated

# Exercise 4/5:

See below for example console output. See java files in git repo for details.

Games are Player 1 vs Player 2 and Player 3 vs Player 4.

A screenshot of a computer

Description automatically generated

Below Player 1 and 2’s game has finished while 3 and 4 are still playing.

Graphical user interface

Description automatically generated

For the GUI example the same server can be used and instead a TicTacToeGUI Client is launched. In an ideal world where I had more time to work on this, the client would work for both display types, and it would implement a GUI or a Console output class interface on user choice. For now there are two separate clients.

NOTE: The GUI I created uses an eclipse SWT resource manager. This package can be found in the git repo for this lab. You should be able to run this GUI without specifying a class path for the SWT Composite components. If for some reason the GUI will not launch and the errors are specific to the GUI constructor, please follow the link below to update your build settings to include the proper class path.

<https://www.oreilly.com/library/view/eclipse-cookbook/0596007108/ch08s04.html>

Graphical user interface, application

Description automatically generated

GUIs may be launched before the server is live. Attempts to connect are met with a server error message in the server message window. After connecting to the server, the X player is given the option to start the game. At which point their game board enables and allows input.

Graphical user interface, text, application

Description automatically generated

Every time a tile is selected it is disabled from play on the other players screen. When it is not a player’s turn their entire grid is disabled.

Graphical user interface, text, application

Description automatically generated

Finally, when a winning move is played a message is displayed to both players and both boards are disabled. Sockets are closed when the GUI is exited.

Graphical user interface, text, application

Description automatically generated