Software Development Report: Reversi GUI
CSC 321 Programming III **3.19.23**

Problem Summary:

Create a functional GUI for the Reversi Game.

Implementation Requirements:

- Include use of buttons or text entries for the board
- Doesn't have to correctly implement the board or any part of the game.

System Design:

- UML of GUI

GUI
#Boolean[][] gameboard #JPanel boardPanel
+GUI() Set title, size, location, and default close operation. Instantiate gameboard Boolean[][] Assign starting positions true/false based on color Instantiate boardPanel For each location on the board Add button If it is one of the starting locations change the background color to corresponding color Else change it to green Set button commands and action listener Create menubar, menu, menu items Add action listeners to each button type + actionPerformed(ActionEvent e) Get the row and column Set the background color. + main New GUI()

Execution Instructions:

All it should need to run is instantiating the GUI class at some point.

Testing Report:

Case #, Description	Input	Expected Output*	Output*	Correct?
Save Game	Menu -> Save Game	Message of saved game	Nothing	No
Reset Game	Menu -> Reset Game	Reset of board	Reset of board	Yes

End Game	Menu -> End Game	Application closes	Application closes	Yes
Board Buttons	Click of a button	Turns white or black	Nothing	No

Analysis of Time Used:

- Considering we all wrote code for the GUI, I would estimate the total time is around 5-10 hours.
- Roughly an hour so far for the software development report

Outside Resources:

I'm assuming some outside resources with java syntax help were used.

Security Report:

No security problems at the moment since it is a simple GUI without any real purpose at the moment.

Ethical Report:

Possible ethical problems with limited color options, or limited accessibility for users that have trouble with certain computer actions.

Future improvements:

- Implement it with the board so that game is playable

Lessons Learned:

- Learned how to make a GUI with buttons to represent a board.
- Further learned how to use an action listener.