Alex Antaki Dr. Rivas Software Development I Milestone

Checkers

The project I am going to do for this class is a game of checkers using JavaFX. The reason I am doing checkers is to familiarize myself with multi-dimensional arrays, object/classes, and JavaFX. This project will force me to utilize these key aspects of programming and will further my skills as a Software Developer.

This UML diagram explains the class I have called Pieces. This class will have two components, a piece belonging to player one and a piece belonging to player two. The constructor will be called Pieces() and it will have one method in it called movePiece. The method will take one parameter that must be of type int.

Pieces
int: playerOnePiece
int: playerTwoPiece
Pieces()
movePiece(int)

This UML diagram explains the class I have called Players. This class will have two components, player one and player two. The player's names will be stored in strings. There will also be a constructor component in it. This constructor will also have a method called setPlayerToPiece(). This method will assign the pieces to player one and the others to player two.

Players
String: playerOne
String: playerTwo
Players()
setPlayerToPiece()

The requirements for this system will be a computer, a mouse, an operating that supports Java 8 such as MacOS, Windows, and Linux. The main item that will be required is a mouse to play the game, but you will also need a computer to play the game and an operating system that supports it.

There are many checkers games out there and mine is very standard. There may not be much that separates mine from others, but this is also something I've never done before. I decided to do this to challenge myself and I would also have a game I could play whenever I want to.

In order to play the game, you must enter in the names of the two players. Player one's name will be entered first, followed by player two. Player one will go first and you can click on the screen to move the piece. Abiding by standard checkers rules, if you hop over your opponent's piece, then those piece(s) are gone. There will be a counter to show how many pieces you have left as well. If you go backwards, and the piece is not a "king" an error message will pop up and say you cannot make that move. If your piece is a "king" then the moves available will change, for example, you can now move backwards. For now, the game will only work with two people playing, but I will hopefully be able to make an AI to play against, therefore, you can play by yourself if you desire.

The significance of this project is to enhance my knowledge of multi-dimensional arrays, JavaFX, and object/classes.