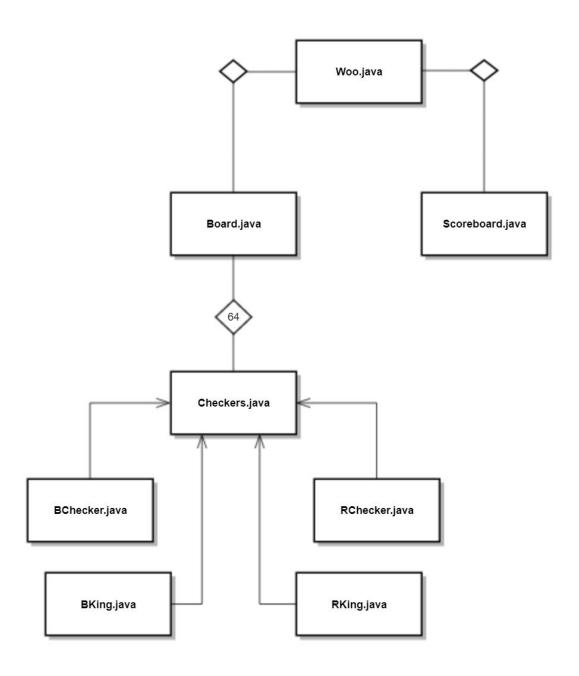
Final Project UML Checkers Board Game



### Class Woo

# Instance Variables:

- Boolean ingame
- Int xpos
- Int ypos
- InputStreamReader isr
- BufferedReader in
- String move //store the user input for movement (fl, fr, br, bl)
- Int numMove //store the number of moves the user made
- String userName1 //store the player's username to be displayed in scoreboard
- String userName2

#### Method

- + Default constructors
- + Int[] getPos()
- + Int getnumMove()
- + String getUserName
- + Void runGame()
- + boolean inBoardx(int x)
- + Boolean inBoardy(int y)
- + Void setColor(int x, int y, color)
- + Void getColor(intx, int y)

### Class Board:

# Instance Variables:

- Final static int SIZE = 8
- Checkers[][] board
- String whoseTurn
- Int rLeft
- Int bLeft

### Method

- + Default constructor
- + void initBoard(): populate the board with correct number of checkers on each side
- + void printBoard(): print the checker pieces and empty space. Add label to each column and row to insure clarity
- + Int getrLeft
- + Void setrLeft
- + Void setbLeft
- + Int getbLeft

# **Class Player**

Boolean isKing()

Boolean frValid(xpos, ypos)

Void frMove(xpos,ypos)

Boolean flValid(xpos,ypos)

Void flMove(xpos,ypos)

Boolean blValid(xpos,ypos)

Void blMove(xpos,ypos)

Boolean brValid(xpos,ypos)

Void brMove(xpos,ypos)

### **Class Checkers**

Instance Variables:

- Protected char color

#### Method

- + Default constructor
- + String toString
- + char getColor()

### **Class RCheckers**

New Instance Variables:

- Can't think of any new ones

#### Method

+ Constructors

### **Class BCheckers**

New Instance Variables:

- Can't think of any right now

Method (different implementation from RCheckers):

+ constructors

# **Class BKings**

New Instance Variables:

- Can't think of any right now

# Method:

+ constructors

# **Class RKings**

New instance Variables:

- Can't think of any right now

#### Method:

+ constructors

# **Class Scoreboard**

New Instance Variables:

- Comparable hiScores[][] // for the current hiScores

### Method:

- + Void changeScores(userWin, userLose, numMoves) //puts the info into the scores.txt file in a format of "userWin beat userLose in numMoves moves" at the correct location to keep the scores sorted. Removes lowest score from the list to keep the amount of scores at 5.
- + String toString() //overloaded toString method