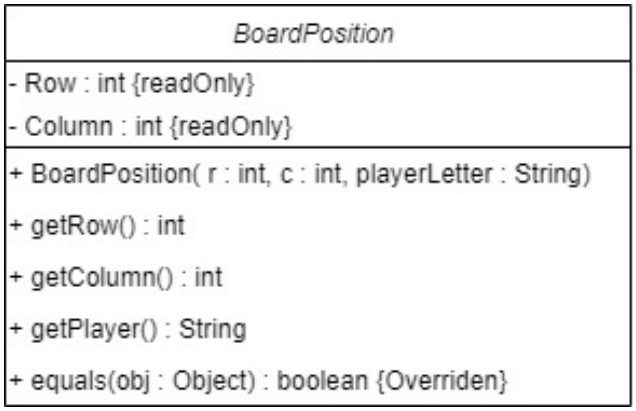
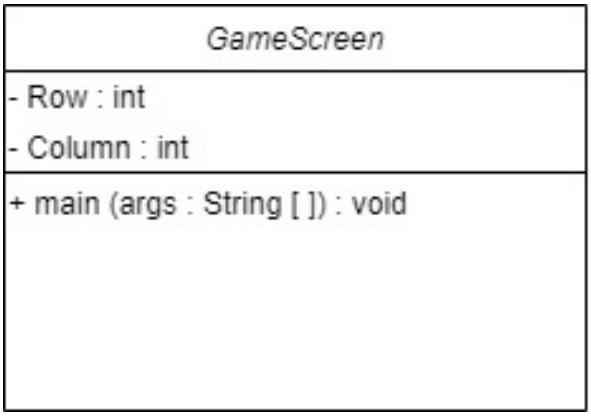
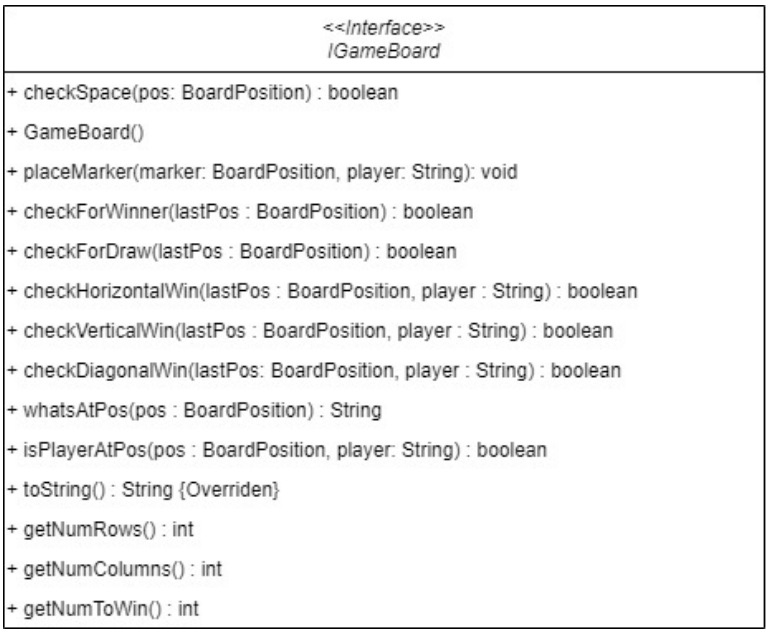
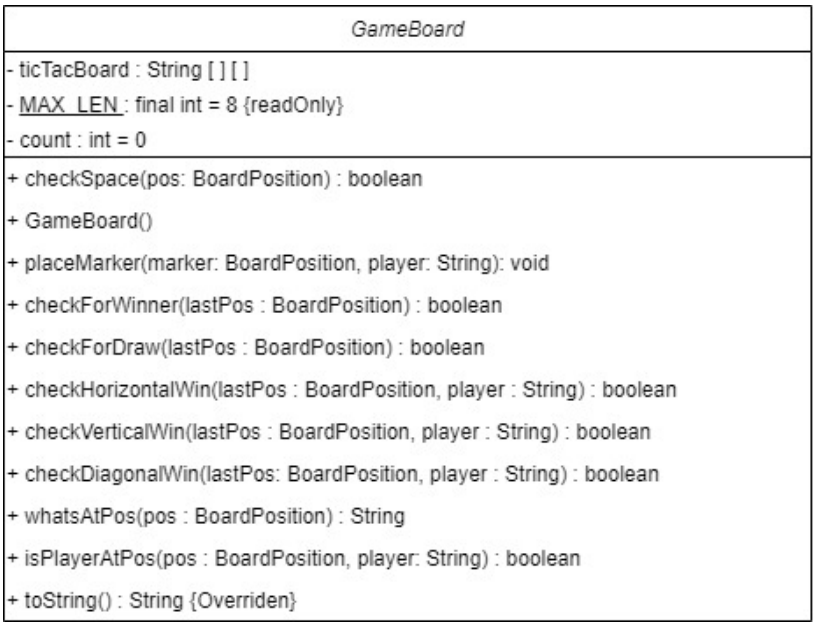
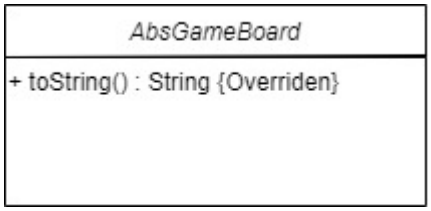
Kellen Haas
6/2/20
CPSC 2150 Project 2



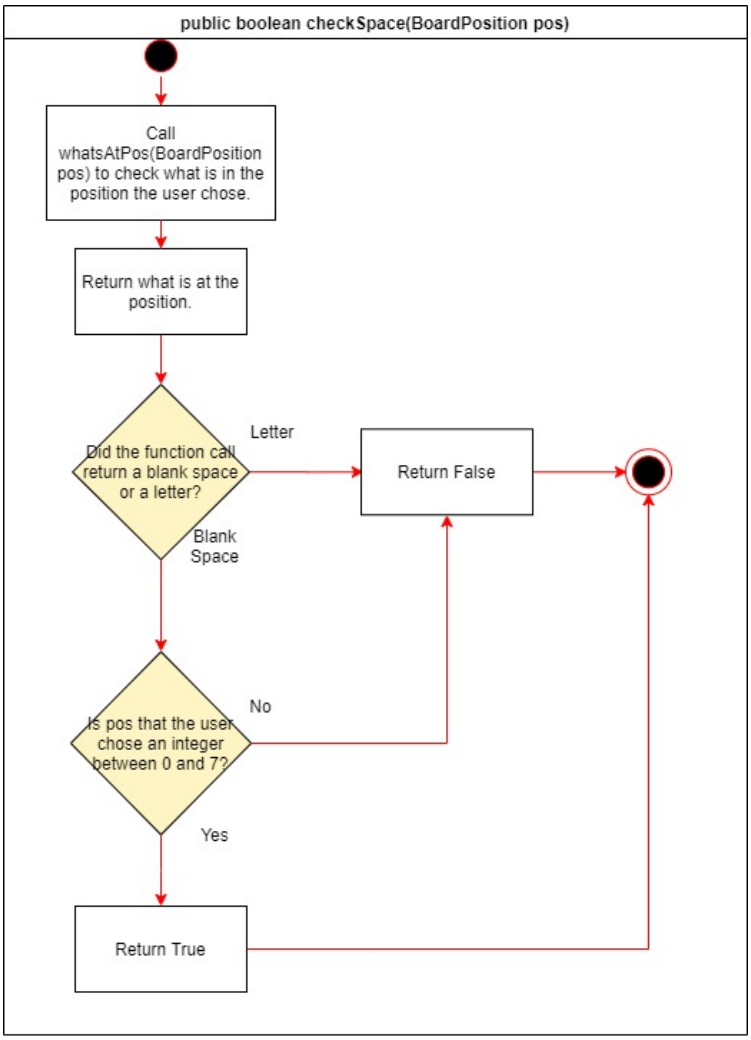


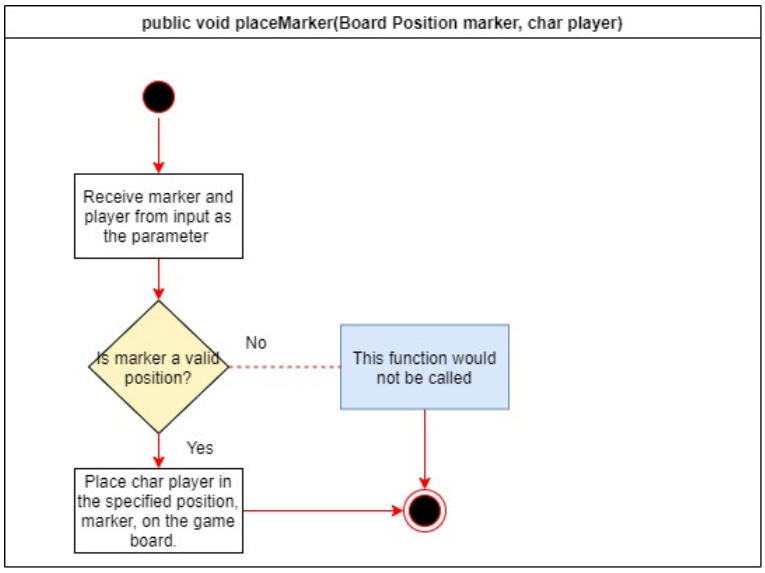


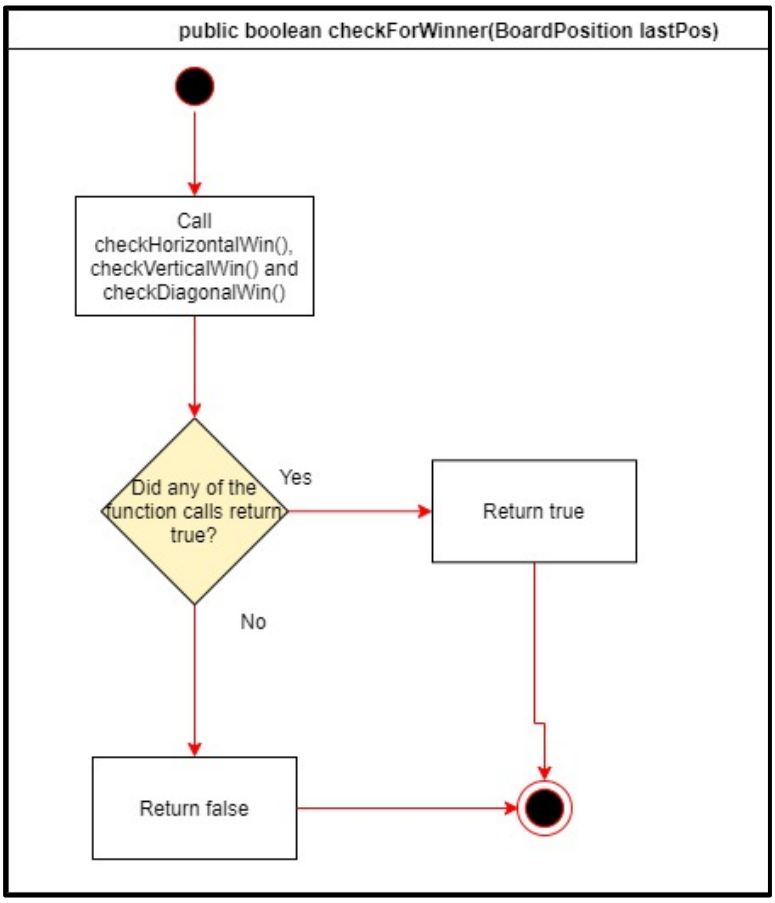


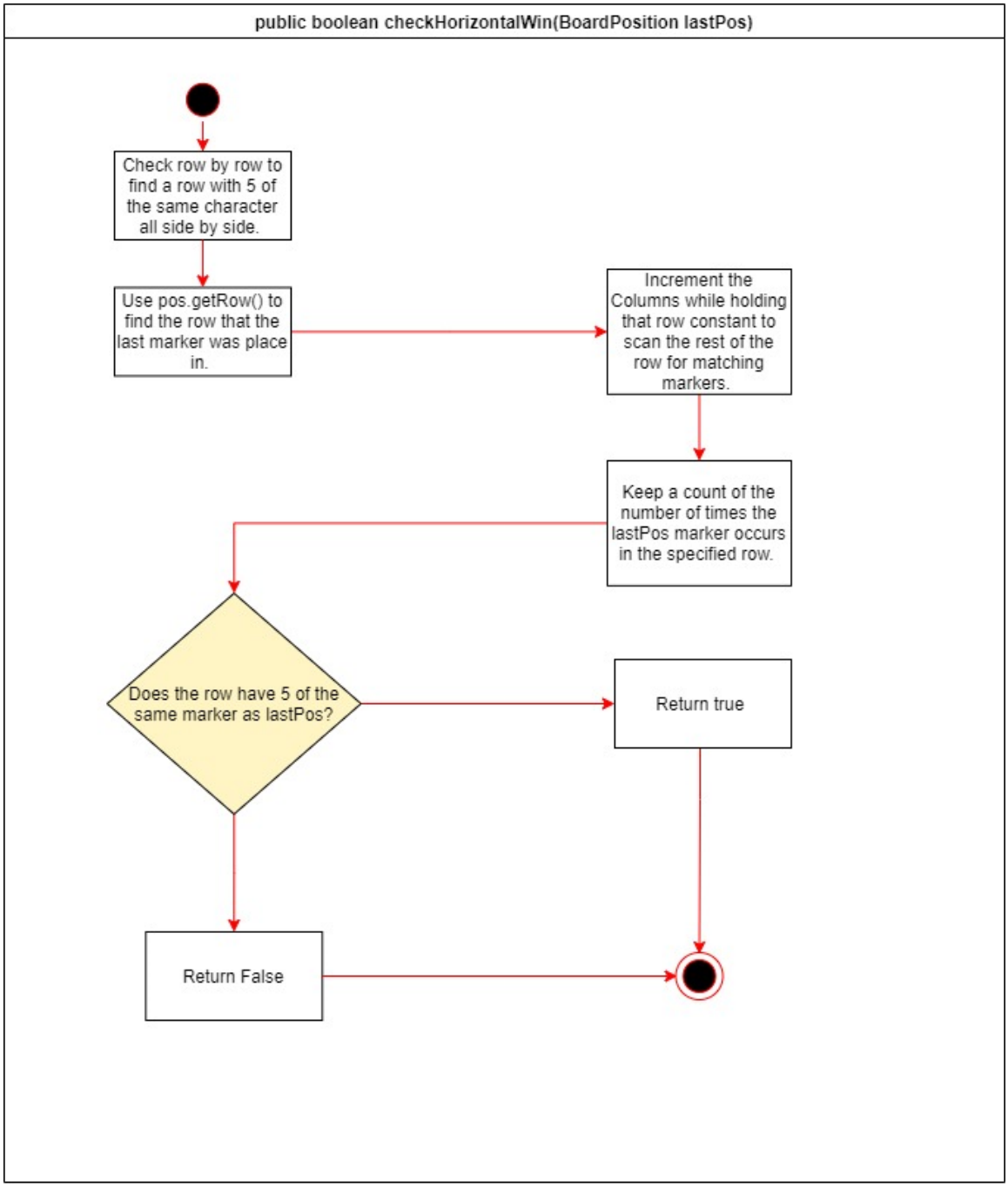


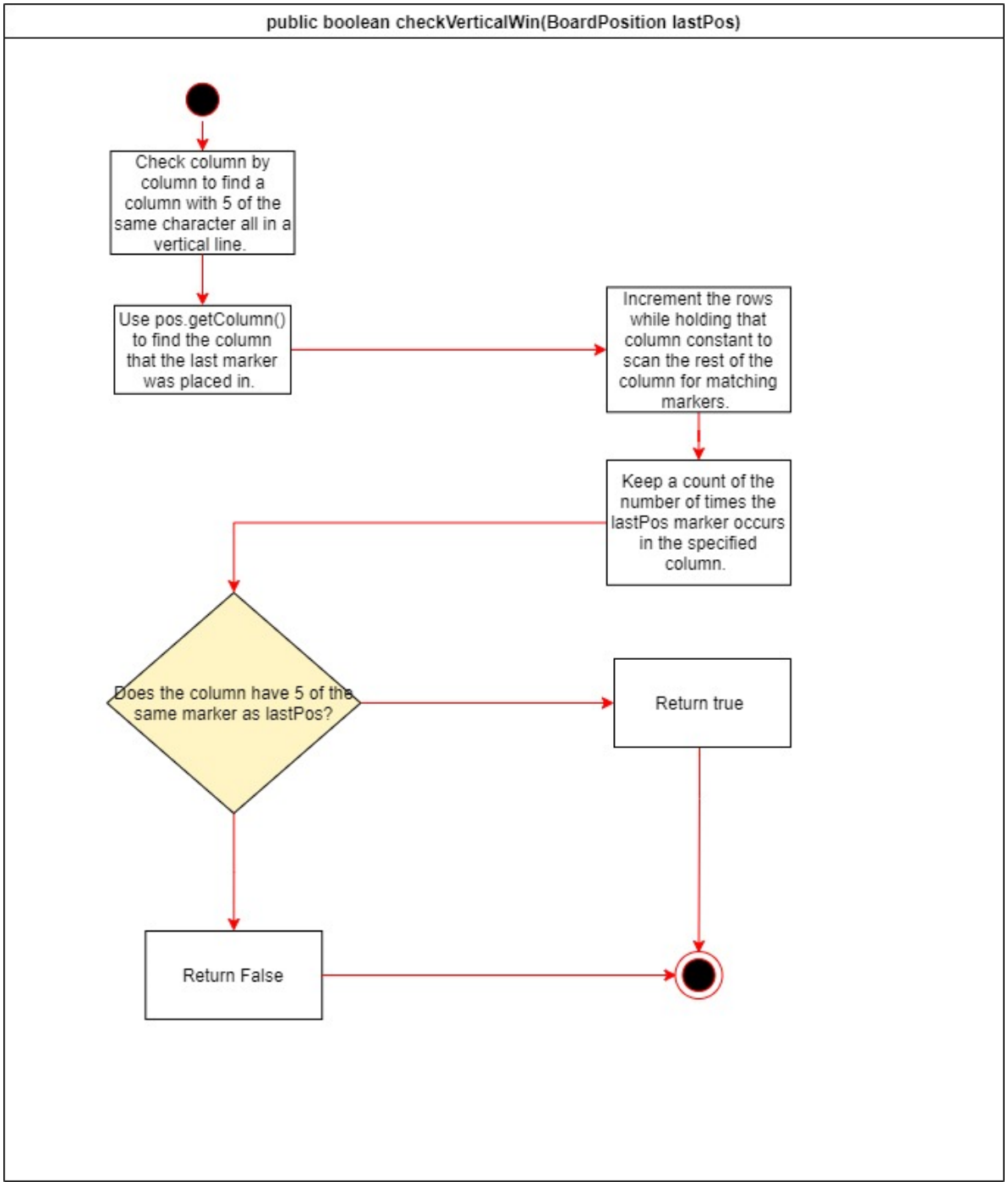
GameBoard Activity Diagrams:

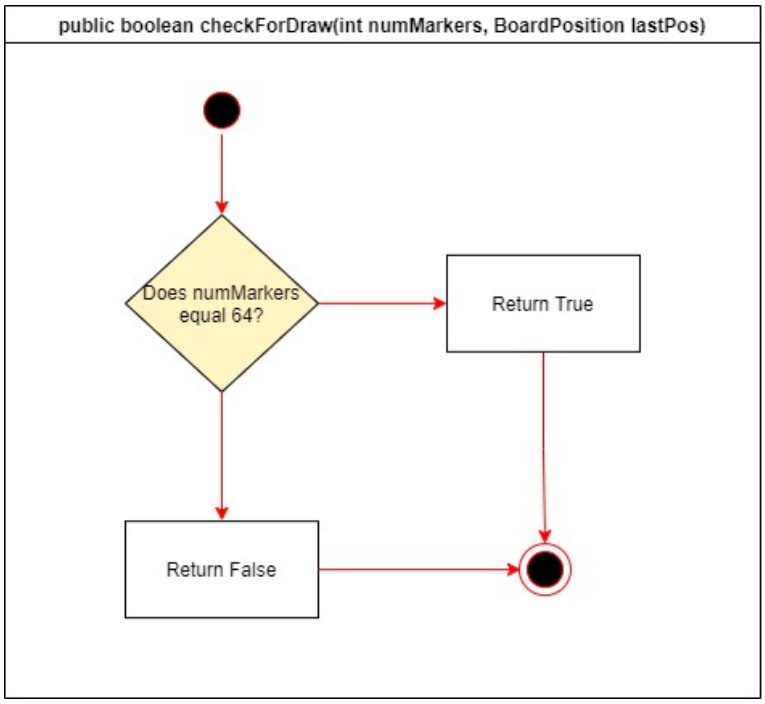


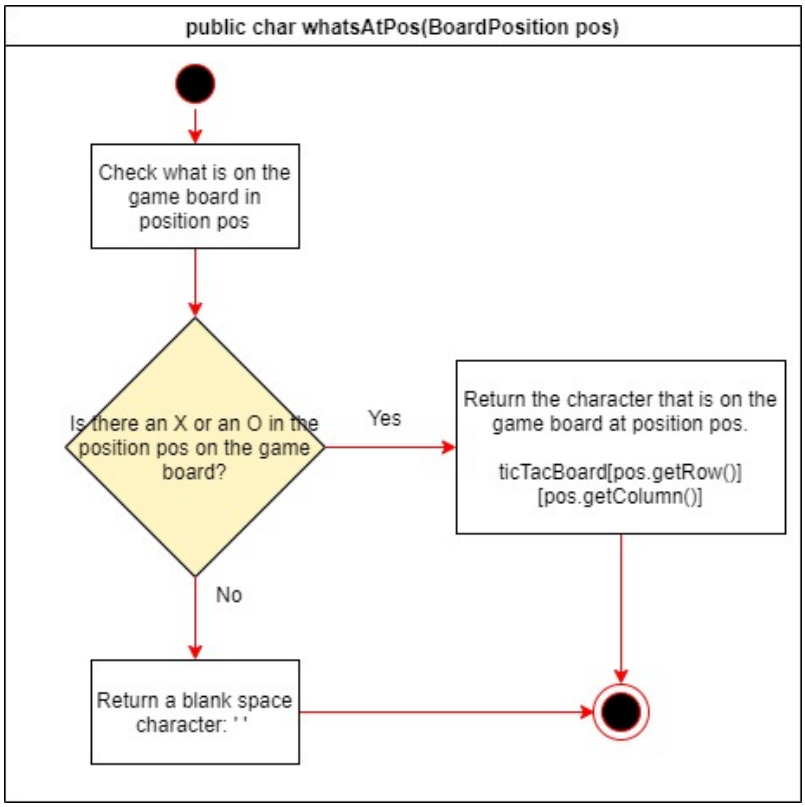


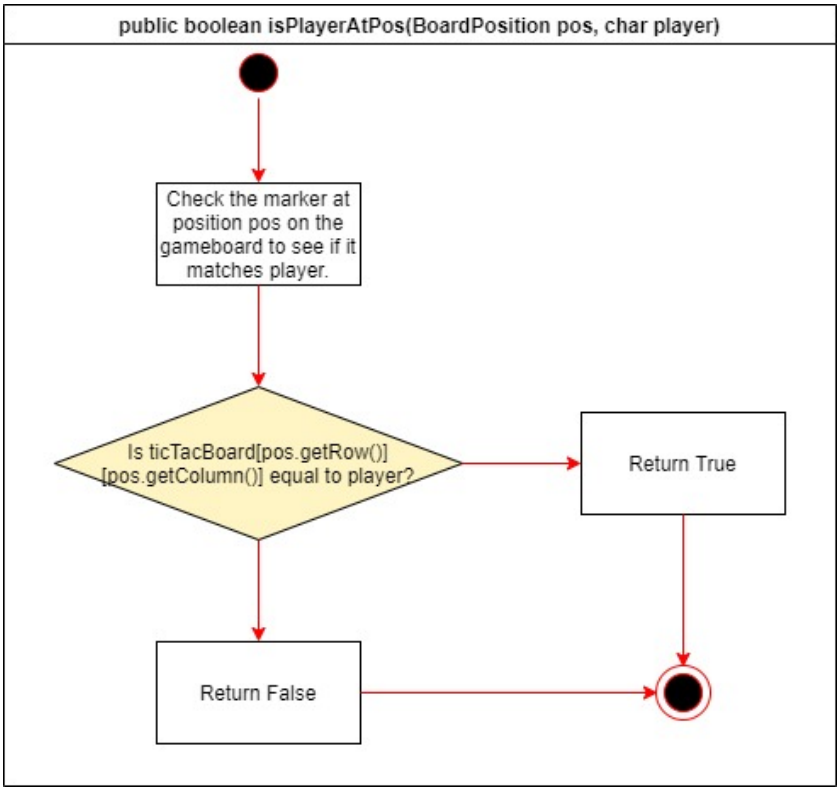
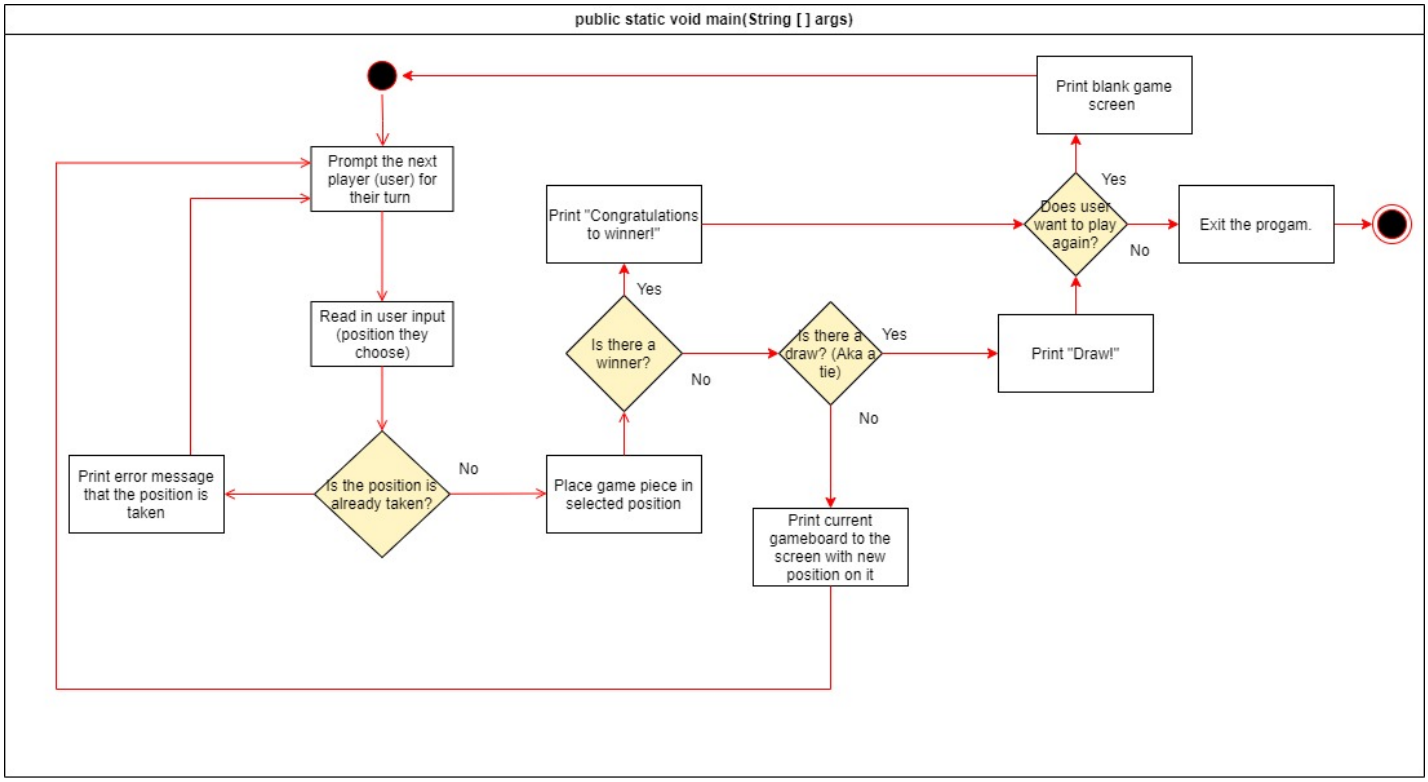



public boolean checkHorizontalWin(BoardPosition lastPos)
Check row by row to find a row with 5 of the same character all side by side.
Use pos.getRow() to find the row that the last marker was place in.
Increment the Columns while holding that row constant to scan the rest of the row for matching markers.
Keep a count of the number of times the lastPos marker occurs in the specified row.
Does the row have 5 of the same marker as lastPos?
Return true
Return False


public boolean checkVerticalWin(BoardPosition lastPos)
Check column by column to find a column with 5 of the same character all in a vertical line.
Use pos.getColumn() to find the column that the last marker was placed in.
Increment the rows while holding that column constant to scan the rest of the column for matching markers.
Keep a count of the number of times the lastPos marker occurs in the specified column.
Does the column have 5 of the same marker as lastPos?
Return true
Return False


public boolean checkForDraw(int numMarkers, BoardPosition lastPos)
Does numMarkers equal 64?
Return True
Return False


public char whatsAtPos(BoardPosition pos)
Check what is on the game board in position pos
Is there an X or an O in the position pos on the game board?
Yes
Return the character that is on the game board at position pos.
ticTacBoard[pos.getRow()] [pos.getColumn()]
No
Return a blank space character: ' '


public boolean isPlayerAtPos(BoardPosition pos, char player)
Check the marker at position pos on the gameboard to see if it matches player.
Is ticTacBoard[pos.getRow()] [pos.getColumn()] equal to player?
Return True
Return False

GameScreen Activity Diagrams: