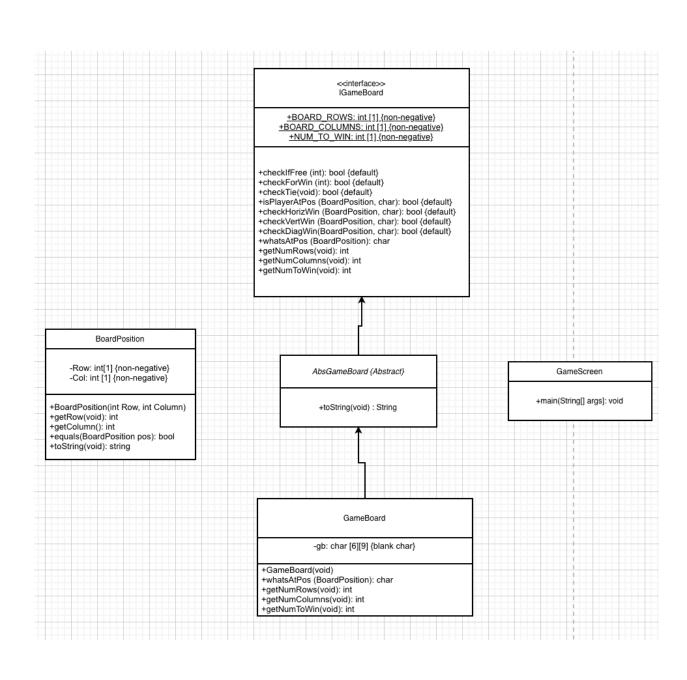
#### **Extended ConnectX**

**Project 2 Report** 

**Rob Hughes** 

## **UML Diagrams**



### Requirements Analysis

### Functional Requirements (User Stories)

### Non-Functional Requirements

- As a user, I must be able to pick my column, so I can place my token
- As a user, I must be able to see the board so I know where I stand.
- As a user, I must be prompted so that I know I incorrectly selected a column.
- As a user, I must be prompted to see that I won. Due to out of bounds
- As a user, I must be prompted to see that I lost. Horizontally.
- As a user, I must be shown the columns so I what to choose from.
- As a user, I must be prompted so that I know when to make my move.
- As a user, I must be prompted so that I can play again.
- As a user, I must be prompted so that I can quit playing.

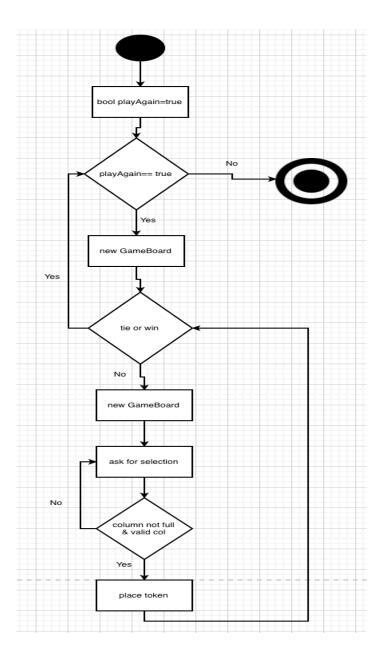
- 0,0 is bottom left of board
- Project runs on Unix
- Player X must go first.
- The program must be written in Java.
- The board must be 6x9.
- Player needs 5 in a row to win.
- There must only be two players.
- There must be javadoc comments.
- There must be contracts for each method

- As a user, I must be prompted so that I incorrectly selected a column due to the column being full.
- As a user, I must be prompted to see that I won diagonally.
- As a user, I must be prompted to see that I won vertically.

# **Activity Diagrams**

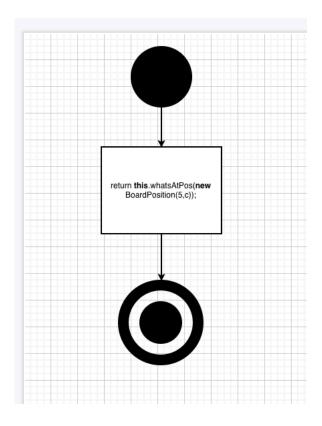
# GameScreen.java

## main

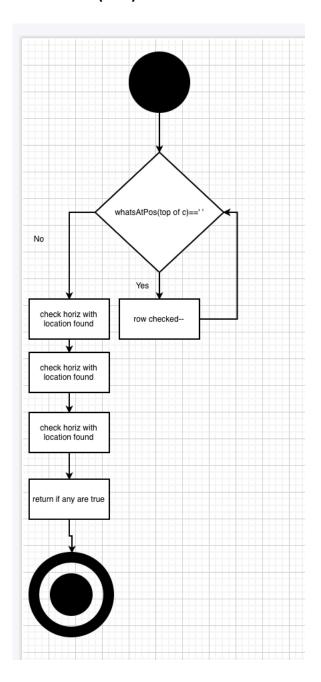


# GameBoard.java

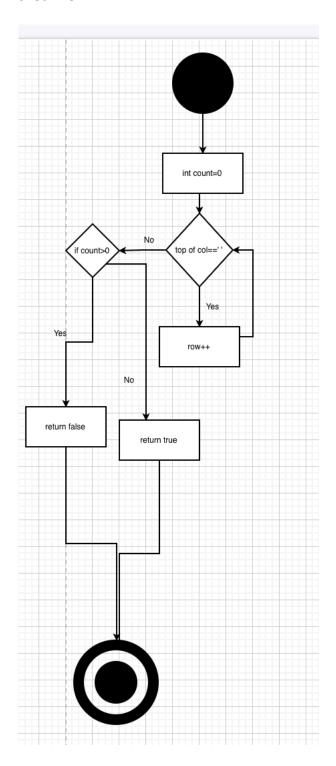
checkIfFree(int c)



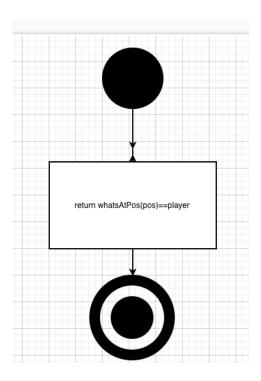
### checkForWin(int c)



#### checkTie



### isPlayerAtPos(Boardposition pos, char player\_



- 1. checkHorizWin
- 2. checkVertWin
- 3. checkDiagonalWin
- 4. whatsAtPos
- 5. placeToken
- 6. findNumRows
- 7. findNumColumns
- 8.findNumToWin

