

## **TEAM DOGS**

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### **Functional Requirements (15)**

1. As a player, I can enter a row, and column.
2. As a player, I can win 5 in a row diagonally with either X's or O's.
3. As a player, I can win 5 in a row vertically with either X's or O's.
4. As a player, I can win 5 in a row horizontally with either X's or O's.
5. As a player, if I draw it will ask to play again.
6. As a player I can choose to play team O or team X.
- 7.) As a player, I can lose a game
- 8.) As a player, I can draw a game with either X's or O's.
- 9.) As a player, I can choose not to play again.
10. As a player, if I lose, I can play again.
11. As a player, the the position is taken, I have to chose another spot
12. As a player, I have to pick again if the column was non-existent
13. As a player, If my opponent did not win then I move again
14. As a user, I can enter a row number through 0-6.
15. 7. As a user, I can enter a Column number through 0-8.

### **Non-Functional Requirements (5)**

1. Must be able to run on a linux system.

2. The program must be able to read commands quickly.
3. The program must have enough RAM to run the program.
4. The program has to be in java.
5. The program has to be connected to the internet
6. The board size is 9X7
7. X will always go first
8. (0,0) is the bottom left corner

BoardPosition
-Row : int -Colum :int
+ BoardPosition(int r, int c) + getRow() : int + getColumn() : int + equals(Object): Boolean + toString():String

GameBoard
-board [ ] [ ] : char

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+GameBoard()

+checkIfFree(BoardPosition): boolean

+dropToken(BoardPosition , char ): void

+checkForWin(BoardPosition ): boolean

+checkTie() : boolean

+checkHorizonWin(BoardPosition , char): boolean

+checkVertWin(BoardPosition , char): boolean

+checkDiagWin(BoardPosition , char): boolean

+whatsAtPos(BoardPosition ): char

+isPlayerAtPos(BoardPosition , char): Default Boolean

+ toString():String

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GameScreen
<pre> + <u>Main (String args[] ): Void</u>  + <u>askPlayerforColumn:int</u> </pre>