Connect 4 Terminal Game Documentation

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1   Board Class

This class is the board, and where all the interaction will flow through. It has the following variables:

- state: a 2d array of integers representing the current game state (6x7)

- turn: dictates which player's turn it is

- players: a list of length 2 which stores the player objects

The Class has the following methods:

```
show() # prints game state to terminal
getBoard() # prints out a graphical representation of the board
changeTurn() # alternates the turn between 1 and 2
play() # takes as input the index of column and plays
checkWin() # checks for possible win by calling the following four
    methods:
rowWin() # horizontal
colWin() # vertical
diagWin() # both diagonal directions
restart() # resets the board for a new game
isFull() # returns true if board is full
```

2   HumanPlayer Class

This class is an actual human player. The Class has the following methods:

```
getInput() # asks for a play from the player and will only accept a
    valid response. Will ask again if necessary.
```

3   ComputerPlayer Class

This class is the computer player, with various playing algorithms. It has the following variables:

- difficulty: how smart or dumb this computer will play

The Class has the following methods:

```
getPlayDumb() # will make a random move
getPlaySmart() # tries to pick the best possible move
```