

Programming Challenge: 5-in-a-Row

5-in-a-Row, a variation of the famous Connect Four game, is a two-player connection game in which the players first choose a color and then take turns dropping colored discs from the top into a nine-column, six-row vertically suspended grid. The pieces fall straight down, occupying the next available space within the column. The objective of the game is to be the first to form a horizontal, vertical, or diagonal line of five of one's own discs.

Using a client-server architecture, implement a plain text version of the game using Java or Python, unless otherwise instructed where:

- The server application holds the state and business logic of the game, receiving the movements from the players and deciding whether a player has won, or the game is over. The state of the game, and who's turn it is, will be returned to the client upon request. **The communication between the clients and the server should be over HTTP.**
- The server, upon start, waits for the two players to connect. If one of the players disconnects, the game is over.
- The client prompts the player to enter her name upon start, and displays whether it's waiting for a 2nd player, or the game can start.
- On each turn, the client displays the state of the board and prompts the corresponding player for input or displays that it's waiting for the other player's input (see example below).
- The client receives the input from the player from the standard input (stdin).
- The client displays when the game is over, and the name of the winner.
- Software engineering principles and test coverage is important to us.

The following is an example of what the client may display to the player, in this case John's client is waiting for input to place his disc during his turn:

```
[ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][o][ ][o][ ][ ][ ]
[ ][ ][x][x][ ][x][ ][o][ ]
[ ][x][o][o][o][x][x][o][x]
It's your turn John, please enter column (1-9):
```

- Aside from what is outlined above, you have free reign in any design decisions and implementation details. Please include instructions on how to run, or anything that we should note on your approach in a detailed README.

Code can be submitted via a link to a publicly accessible git repository (github, gitlab, bitbucket etc.)

*Please make the repository name a random string and avoid using the terms “Genesys” or “5 in a row” within the repo as much as reasonably possible to prevent others easily searching and finding your code in the future.