98point6 Drop Token

Problem Statement

We would like you to implement a command line program that allows two people to play a game of 9dt, or 98point6 drop token. This should allow the players to alternate turns, tell a player that they won with the last move, and print out the board on demand.

Rules of the Game

Drop Token takes place on a 4x4 grid. A token is dropped along a column (labeled 1-4) and said token goes to the lowest unoccupied row of the board. A player wins when they have 4 tokens next to each other either along a row, in a column, or on a diagonal. If the board is filled, and nobody has won then the game is a draw. Each player takes a turn, starting with player 1, until the game reaches either win or draw. If a player tries to put a token in a column that is already full, that results in an error state, and the player must play again until the play a valid move.

Interface

CLI that loops over stdIn taking commands, and prints out responses based on those commands.

Commands

- PUT <column> ➜ (OK | ERROR | WIN | DRAW)
- GET ➜ List of columns that have been successfully put to
- BOARD ➜ a 4x4 matrix that shows the board state

```
| 0 0 0 0
| 0 0 0 0
| 2 2 0 0
| 1 1 1 2
+--------
```

```
  1 2 3 4
```

Where 0 is unfilled, 1 is player 1, and 2 is player 2.

- EXIT ➜ ends the program.

Example game

Lines prefixed with `>` indicate input from the user(s). All other lines are output from the program.

```
> GET
> BOARD
| 0 0 0 0
| 0 0 0 0
| 0 0 0 0
| 0 0 0 0
+--------
  1 2 3 4
> PUT 1
OK
> PUT 4
OK
> PUT 2
OK
> PUT 3
OK
> BOARD
| 0 0 0 0
| 0 0 0 0
| 0 0 0 0
| 1 1 2 2
```

```
+--------
  1 2 3 4
> PUT 1
OK
> PUT 1
OK
> PUT 1
OK
> PUT 1
ERROR
> BOARD
| 1 0 0 0
| 2 0 0 0
| 1 0 0 0
| 1 1 2 2
+--------
  1 2 3 4
> PUT 3
OK
> PUT 2
OK
> PUT 3
OK
> PUT 2
OK
> PUT 3
WIN
> BOARD
| 1 0 2 0
| 2 1 2 0
| 1 1 2 0
| 1 1 2 2
```

```
+--------
  1 2 3 4
> GET
1
4
2
3
1
1
1
3
2
3
2
3
> EXIT
```

Submitting your solution

Please submit your source code and instructions for building/running it to your 98point6 contact.

To submit the source code, the preferred way is to share a Github or BitBucket repository with us. Alternatively, we can accept compressed tarballs or zip archives. We cannot accept those over email, though, so we recommend a file sharing service like Google Drive, Dropbox, or similar.