CPSC 349: Front-End Web Engineering – Fall 2020

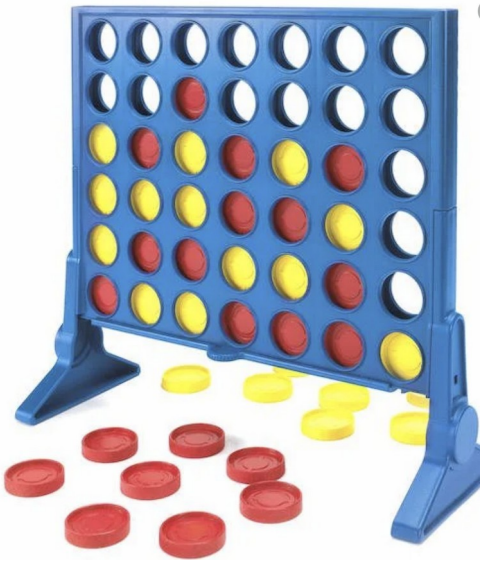
Homework 8, CONNECT FOUR game in REACT, due Mon, 23 Nov 2020

In the Tic-Tac-Toe tutorial you followed at the Reactjs.org site, you built a Tic-Tac-Toe game that calculated who was the winner, disallowed moves after someone had won, and had a time machine that allowed a user to back up and try different combinations of moves.

In doing so, you learned some basic features about ReactJS. The game, though, lacked some other basic features, such as:

1. It only allowed 3 x 3 grids (which IS the standard).
2. it didn't list the coordinates of each move (row, col).
3. It didn't **bold** the currently selected move in the move list.
4. It hardcoded the creation of the grid, instead of using two for loops.
5. It sorted the moves in descending order (which actually makes sense most of the time) It didn't highlight the squares that caused the winning move.
6. It didn't display a message about draws (aka Cats' games).

In this homework assignment, **you will create a similar game called Connect Four**. In this game, markers are dropped in from the top of a column and fall down to the first unfilled square in the column. The first person to get four-in-a-row (horizontally, vertically, or diagonally is the winner. Markers are typically red and yellow if the grid is blue. (there are other variations: e.g., red and black markers on a yellow grid.



For extra credit, you can add AI to your game so the computer plays against you. If you allow the computer to go first, the game will be more difficult for you to win.

Submission

Turn in the code for this homework by uploading your code to a public Github repository. You may discuss this homework assignment with others, however, the work you submit must have been completed by own.

To complete your submission, **print the following sheet**, fill out the spaces below, and submit it to the professor in class by the deadline. Failure to follow the instructions exactly will incur a 10% penalty on the grade for this assignment.

CPSC 349 Homework Submission 8, due Monday, 23 Nov 2020

Your name: Antonio Lopez

Portfolio: https://github.com/antonio-lopez/connect4-hw8 **.github.io**

Verify each of the following items and place a checkmark in the correct column. Each item incorrectly marked will incur a 5% penalty on the grade for this assignment

Finished	Not finished	
✓		Recreated a Connect Four game (similar to Tic-Tac-Toe, but with different height and width, and the object of the game is to connect four in a row, horizontally, vertically, or diagonally.
✓		Size of Connect-4 game is 7 squares wide and 6 squares high.
✓		Uses Red and Blue markers (not X's and O's).
✓		List the coordinates of each move in your Time machine in (row, col) format.
✓		**Bold** the currently selected move in the Time machine.
✓		Use two for loops to create the grid, instead of hardcoding it.
✓		Allow the option of sorting the Time machine in ascending/descending order.
✓		Highlight the squares that caused the winning move using a background color (not red or blue).
✓		Display the appropriate message if the game ends in a draw.
	✓	Add AI to your game so the computer plays against you. **(extra credit).**
✓		Your game runs with no run-time errors in the React developer tools console
	✓	Your code was built using Parcel.
✓		Push your code to a public Github repository.

Comments:

Fill out and print this page, and submit it on the day this project is due.