



Front End Technologies Week 5 Coding Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

Instructions: In VS Code, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your JavaScript project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

Coding Steps:

1. Using any of the tools you've worked with so far, create a game of tic-tac-toe.
 - a. A heading should say whether it is X's or O's turn and change with each move made.
 - b. Create a tic-tac-toe grid using your HTML element of choice. When a cell in the grid is clicked, an X or O should appear in that spot depending on whose turn it is.
 - c. A button should be available to clear the grid and restart the game.
 - d. When a player has won, or the board is full and the game results in a draw, a Bootstrap alert or similar Bootstrap component should appear across the screen announcing the winner.

Screenshots of Code:



PROMINEO TECH

```
File Edit Selection View Go Run Terminal Help
tictactoe.html - HTML Week 5 - Visual Studio Code

EXPLORER
HTML WEEK 5
  > vscode
  > node_modules
  > @popperjs
  > bootstrap
  > jquery
  > package-lock.json
  > package.json
  > tictactoe.html
  > tictactoe.js
  > tictactoe.css

tictactoe.html
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <link rel="stylesheet" href="tictactoe.css">
8   <link rel="stylesheet" href="node_modules/bootstrap/dist/css/bootstrap.css">
9   <title>Tic-Tac-Toe</title>
10 </head>
11 <body class="container">
12
13   <h2 style="text-align:center;">Does thou feel up for a game of...?</h2>
14
15   <h1 style="text-align:center;">TIC TAC TOE</h1>
16
17   <h3 style="text-align:center;">X has the first move.</h3>
18
19   <center><table id="tictactoe.Grid">
20     <tr>
21       <td>
22         <div class="square A1">
23           </div>
24         </td>
25       </tr>
26       <td>
27         <div class="square B1">
28           </div>
29         </td>
30       </tr>
31       <td>
32         <div class="square C1">
33           </div>
34         </td>
35       </tr>
36     </table>
37
38     <div class="square A2">
39       </div>
40     </td>
41     <td>
42       <div class="square B2">
43         </div>
44       </td>
45     </tr>
46     <td>
47       <div class="square C2">
48         </div>
49       </td>
50     </tr>
51     <td>
52       <div class="square A3">
53         </div>
54       </td>
55     </tr>
56     <td>
57       <div class="square B3">
58         </div>
59       </td>
60     </tr>
61     <td>
62       <div class="square C3">
63         </div>
64       </td>
65     </tr>
66     <td>
67       <div class="square B3">
68         </div>
69       </td>
70     </tr>
71     <td>
72       <div class="square B3">
73         </div>
74       </td>
75     </tr>
76     <td>
77       <div class="square C3">
78         </div>
79       </td>
80     </tr>
81   </table>
82   <button id="restart">Restart</button></center>
83
84   <script src="node_modules/jquery/dist/jquery.js"></script>
85   <script src="tictactoe.js"></script>
86   <script src="node_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>
87
88 </body>
89 </html>
```



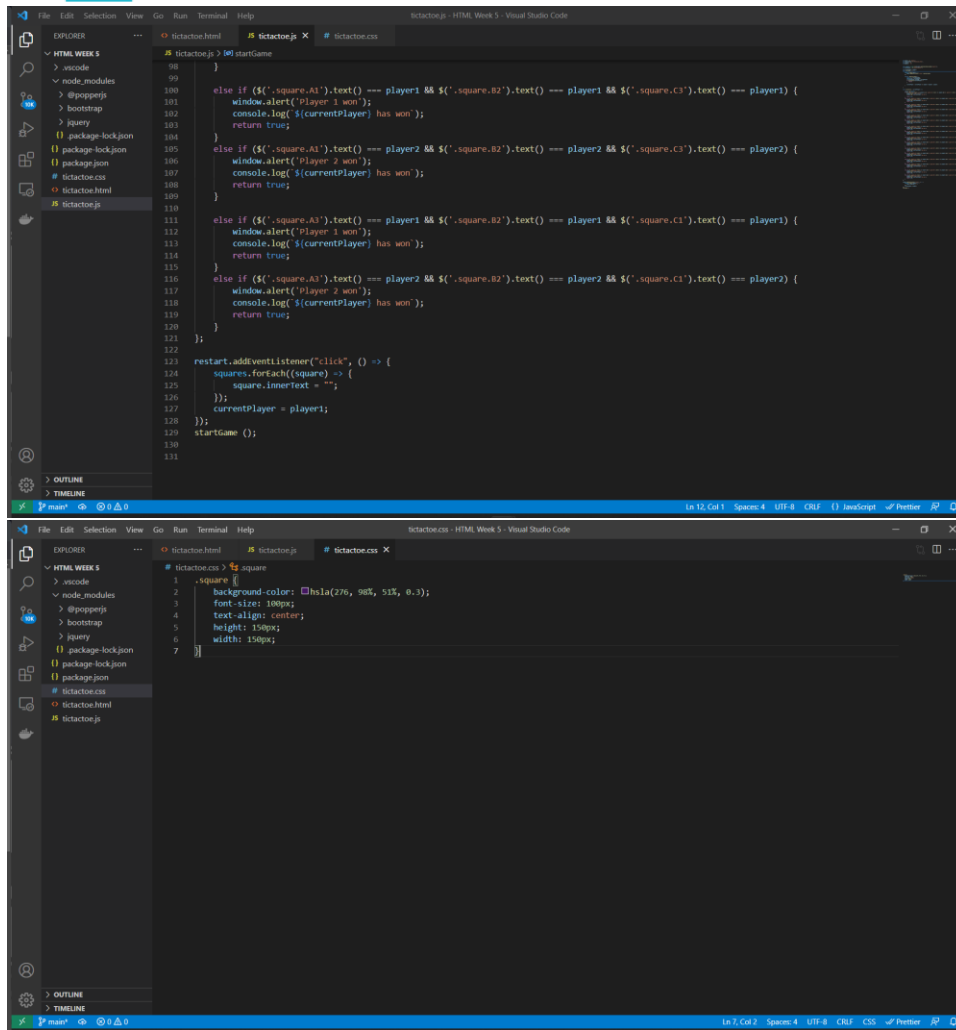
PROMINEO TECH

```

1  let square = $('#square');
2  let ticTacToeId = $('#ticTacToeGrid');
3  let player1 = 'X';
4  let player2 = 'O';
5
6
7  const squares = Array.from(document.getElementsByTagName("square"));
8  let winnerBanner = $('#winnerBanner');
9
10 let currentPlayer = player1;
11 const startGame = () => {
12
13   squares.forEach(square => {
14     square.addEventListener('click', squareClicked);
15   });
16
17   function squareClicked() {
18     const id = i.currentTarget;
19     squares[id] = currentPlayer;
20     i.currentTarget.innerHTML = currentPlayer;
21     if (isGameOver(currentPlayer)) {
22       return;
23     }
24     currentPlayer = currentPlayer === player1 ? player2 : player1;
25   }
26
27 }
28
29
30 const winScenario = (currentPlayer) => {
31
32   console.log(squares);
33   if ($('#square.A1').text() === player1 && $('#square.A2').text() === player1 && $('#square.A3').text() === player1) {
34     window.alert('Player 1 won');
35     console.log(`${currentPlayer} has won`);
36   }
37
38 }
39
40 else if ($('#square.A1').text() === player2 && $('#square.A2').text() === player2 && $('#square.A3').text() === player2) {
41   window.alert('Player 2 won');
42   console.log(`${currentPlayer} has won`);
43   return true;
44 }
45
46 else if ($('#square.B1').text() === player1 && $('#square.B2').text() === player1 && $('#square.B3').text() === player1) {
47   window.alert('Player 1 won');
48   console.log(`${currentPlayer} has won`);
49   return true;
50 }
51
52 else if ($('#square.B1').text() === player2 && $('#square.B2').text() === player2 && $('#square.B3').text() === player2) {
53   window.alert('Player 2 won');
54   console.log(`${currentPlayer} has won`);
55   return true;
56 }
57
58 else if ($('#square.C1').text() === player1 && $('#square.C2').text() === player1 && $('#square.C3').text() === player1) {
59   window.alert('Player 1 won');
60   console.log(`${currentPlayer} has won`);
61   return true;
62 }
63
64 else if ($('#square.C1').text() === player2 && $('#square.C2').text() === player2 && $('#square.C3').text() === player2) {
65   window.alert('Player 2 won');
66   console.log(`${currentPlayer} has won`);
67   return true;
68 }
69
70 else if ($('#square.A1').text() === player1 && $('#square.B1').text() === player1 && $('#square.C1').text() === player1) {
71   window.alert('Player 1 won');
72   console.log(`${currentPlayer} has won`);
73   return true;
74 }
75
76 else if ($('#square.A1').text() === player2 && $('#square.B1').text() === player2 && $('#square.C1').text() === player2) {
77   window.alert('Player 2 won');
78   console.log(`${currentPlayer} has won`);
79   return true;
80 }
81
82 else if ($('#square.A2').text() === player1 && $('#square.B2').text() === player1 && $('#square.C2').text() === player1) {
83   window.alert('Player 1 won');
84   console.log(`${currentPlayer} has won`);
85   return true;
86 }
87
88 else if ($('#square.A2').text() === player2 && $('#square.B2').text() === player2 && $('#square.C2').text() === player2) {
89   window.alert('Player 2 won');
90   console.log(`${currentPlayer} has won`);
91   return true;
92 }
93
94 else if ($('#square.A3').text() === player1 && $('#square.B3').text() === player1 && $('#square.C3').text() === player1) {
95   window.alert('Player 1 won');
96   console.log(`${currentPlayer} has won`);
97   return true;
98 }
99
100 else if ($('#square.A3').text() === player2 && $('#square.B3').text() === player2 && $('#square.C3').text() === player2) {
101   window.alert('Player 2 won');
102   console.log(`${currentPlayer} has won`);
103   return true;
104 }
105
106 else if ($('#square.A1').text() === player1 && $('#square.B2').text() === player1 && $('#square.C3').text() === player1) {
107   window.alert('Player 1 won');
108   console.log(`${currentPlayer} has won`);
109   return true;
110 }
111
112 else if ($('#square.A2').text() === player1 && $('#square.B3').text() === player1 && $('#square.C1').text() === player1) {
113   window.alert('Player 1 won');
114   console.log(`${currentPlayer} has won`);
115   return true;
116 }
117
118 else if ($('#square.A3').text() === player1 && $('#square.B1').text() === player1 && $('#square.C2').text() === player1) {
119   window.alert('Player 1 won');
120   console.log(`${currentPlayer} has won`);
121   return true;
122 }
123
124 else if ($('#square.A1').text() === player2 && $('#square.B2').text() === player2 && $('#square.C3').text() === player2) {
125   window.alert('Player 2 won');
126   console.log(`${currentPlayer} has won`);
127   return true;
128 }
129
130 else if ($('#square.A2').text() === player2 && $('#square.B3').text() === player2 && $('#square.C1').text() === player2) {
131   window.alert('Player 2 won');
132   console.log(`${currentPlayer} has won`);
133   return true;
134 }
135
136 else if ($('#square.A3').text() === player2 && $('#square.B1').text() === player2 && $('#square.C2').text() === player2) {
137   window.alert('Player 2 won');
138   console.log(`${currentPlayer} has won`);
139   return true;
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144 return true;
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```



PROMINEO TECH



Screenshots of Running Application:

I couldn't figure out how to get the header to change with every turn so had to settle for just announcing the first move.



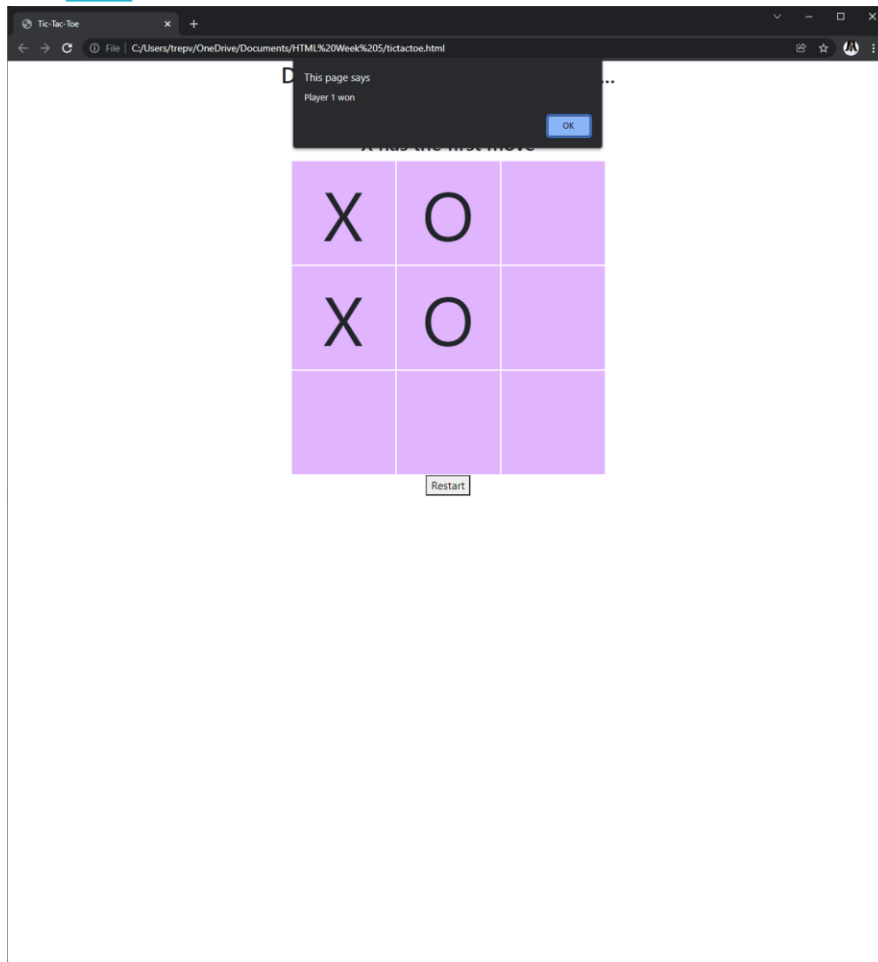
PROMINEO TECH



The prompt for the victory always popped after clicking but before it displayed on the square where the victory click took place.

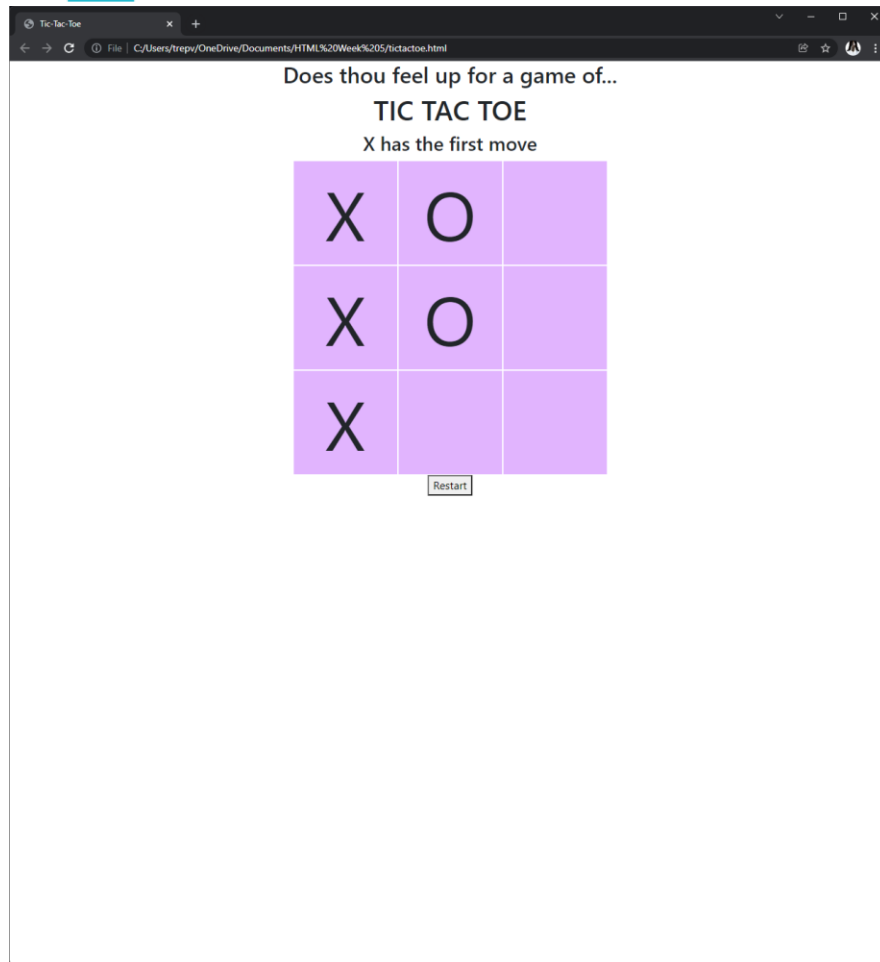


PROMINEO TECH



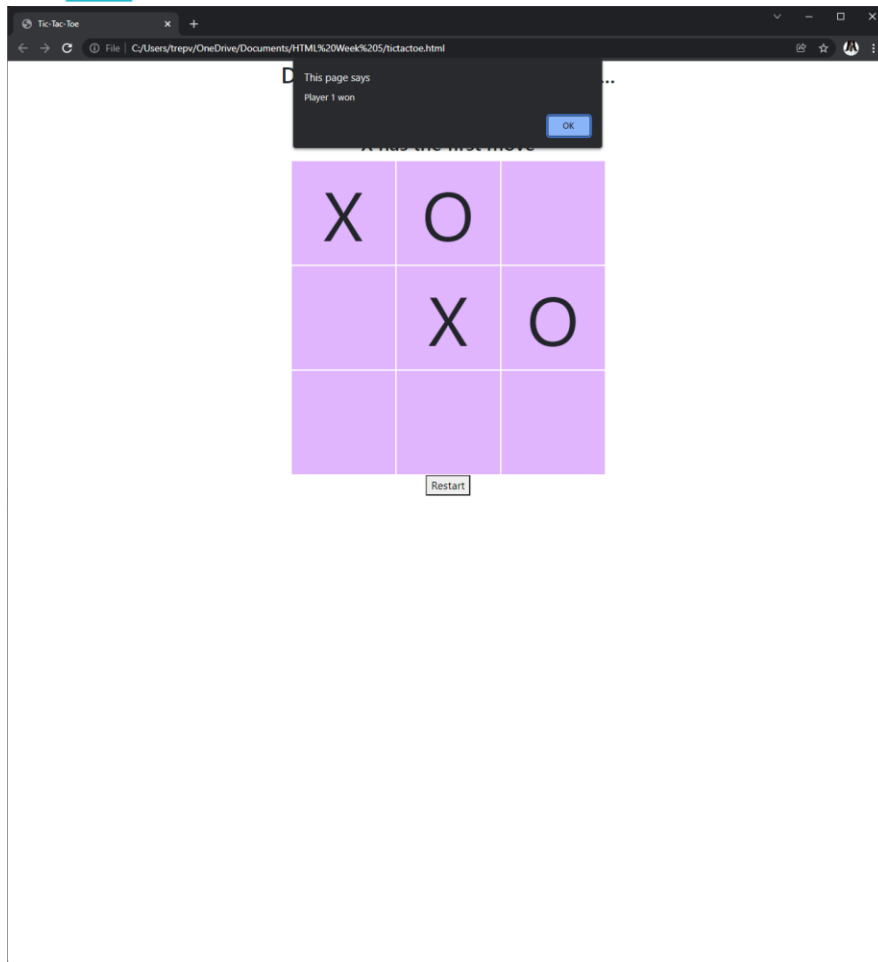


PROMINEO TECH



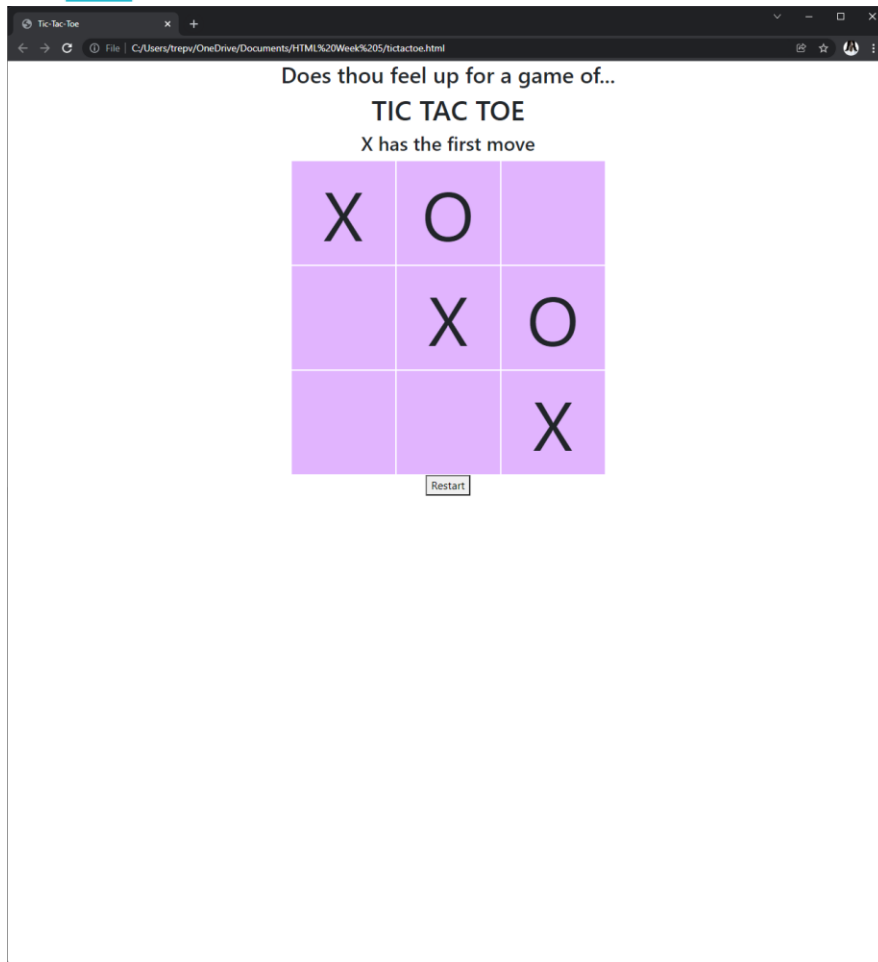


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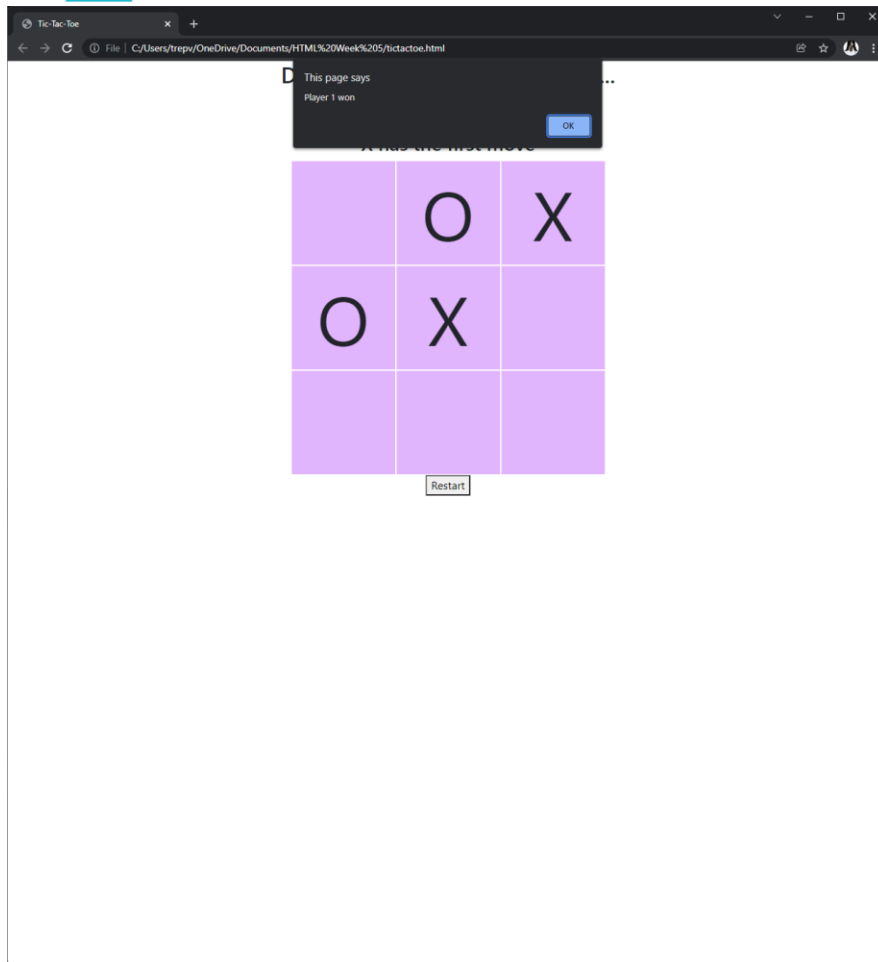


PROMINEO TECH



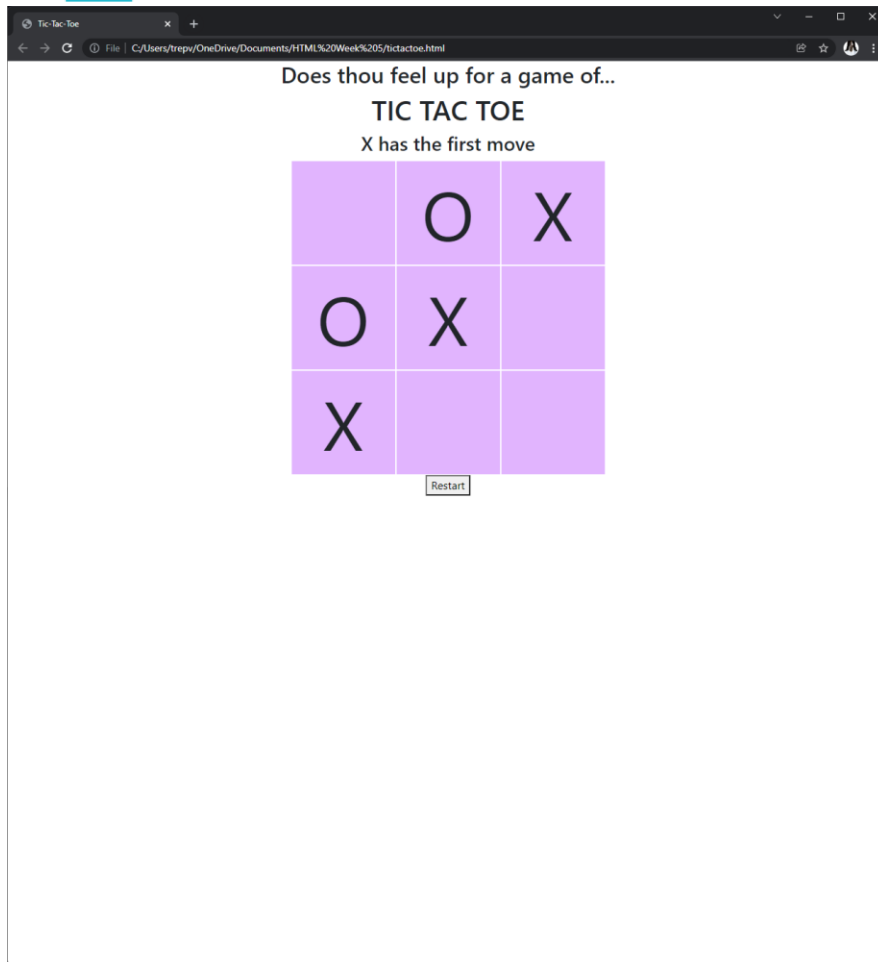


PROMINEO TECH



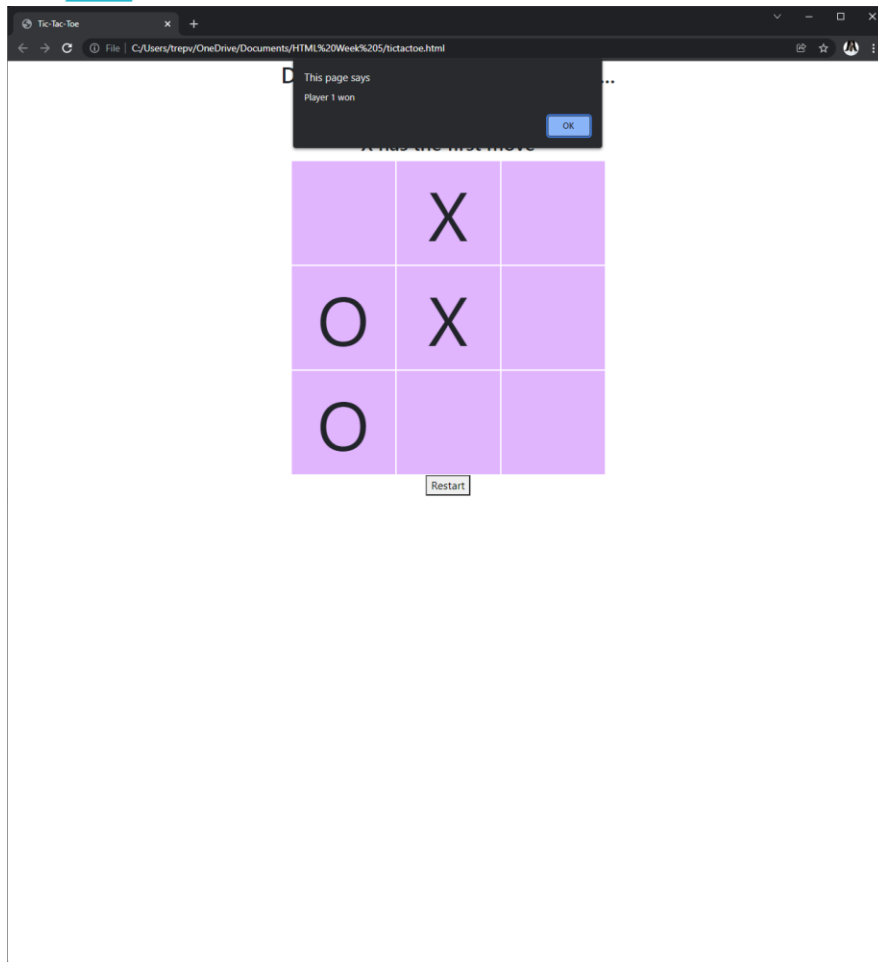


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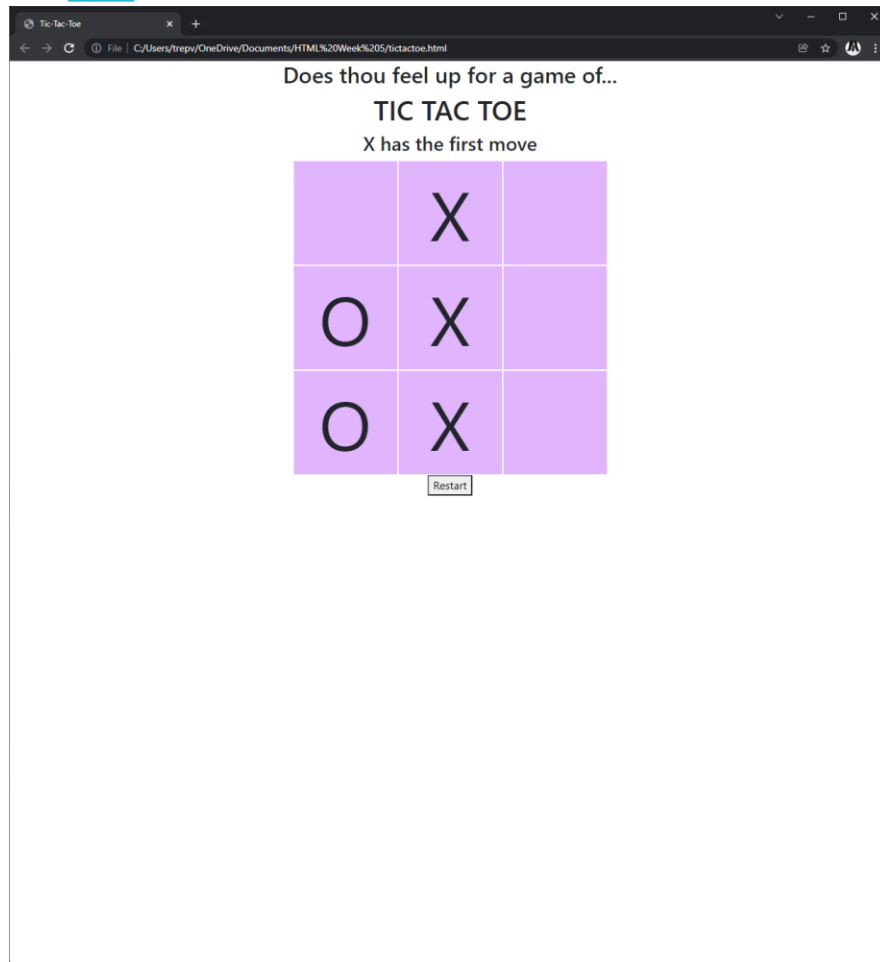


PROMINEO TECH



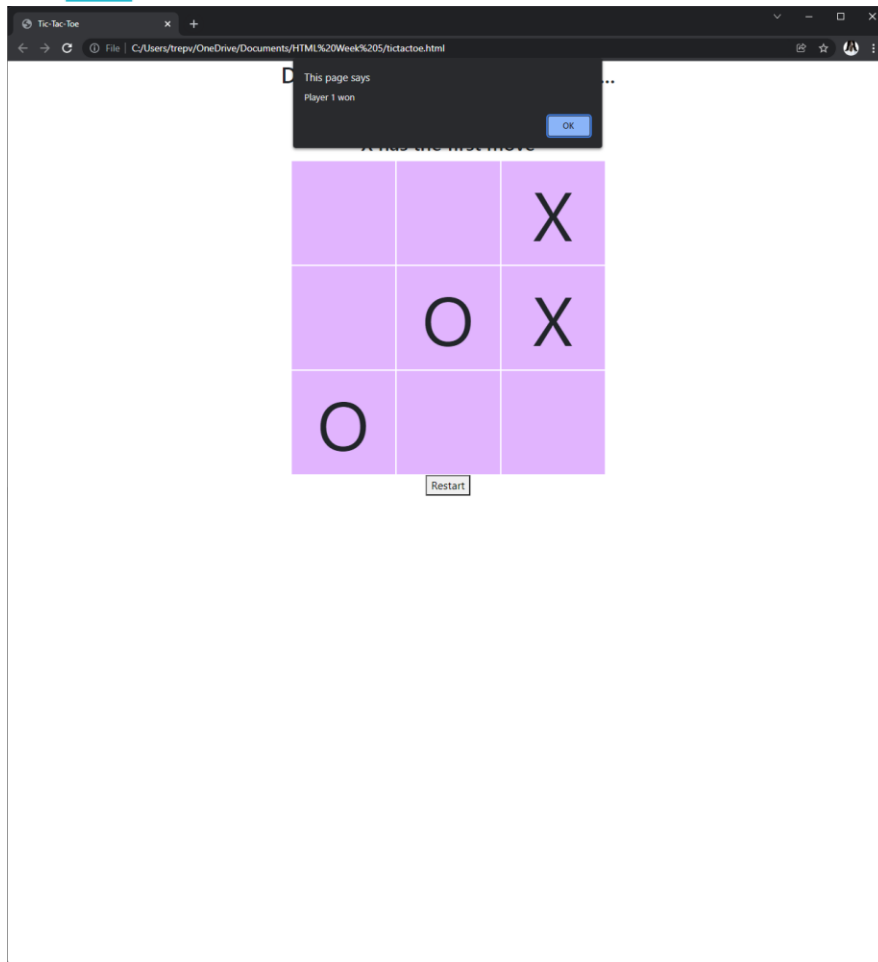


PROMINEO TECH



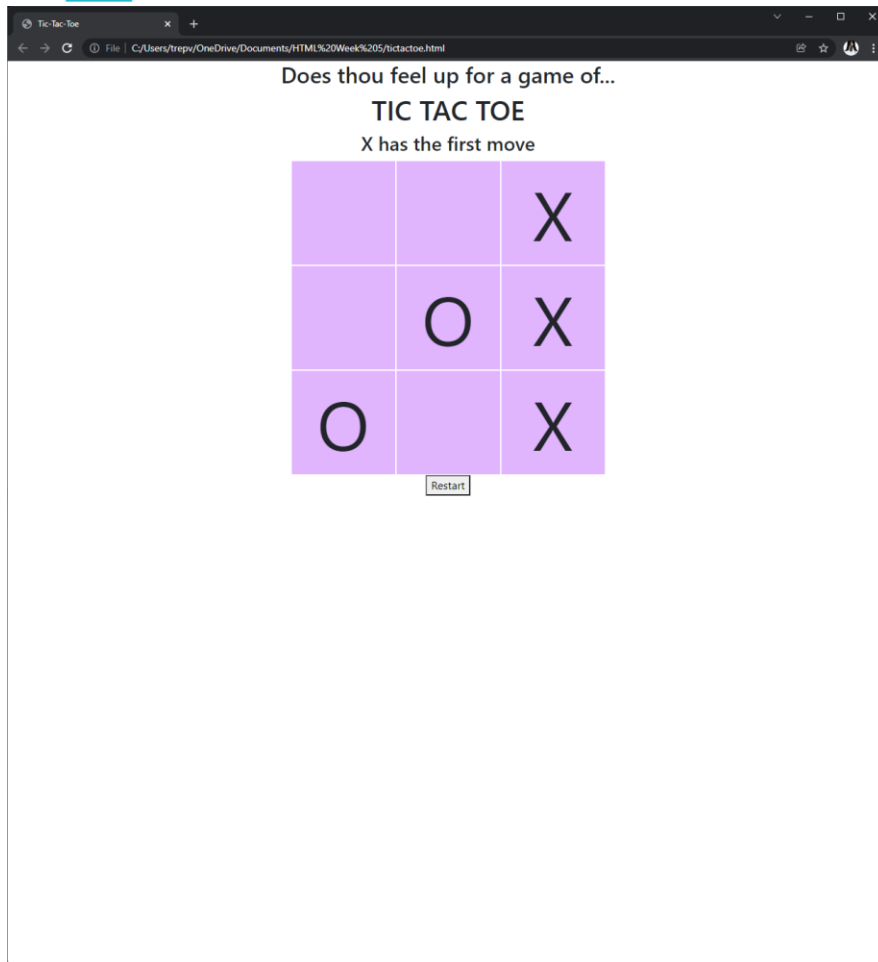


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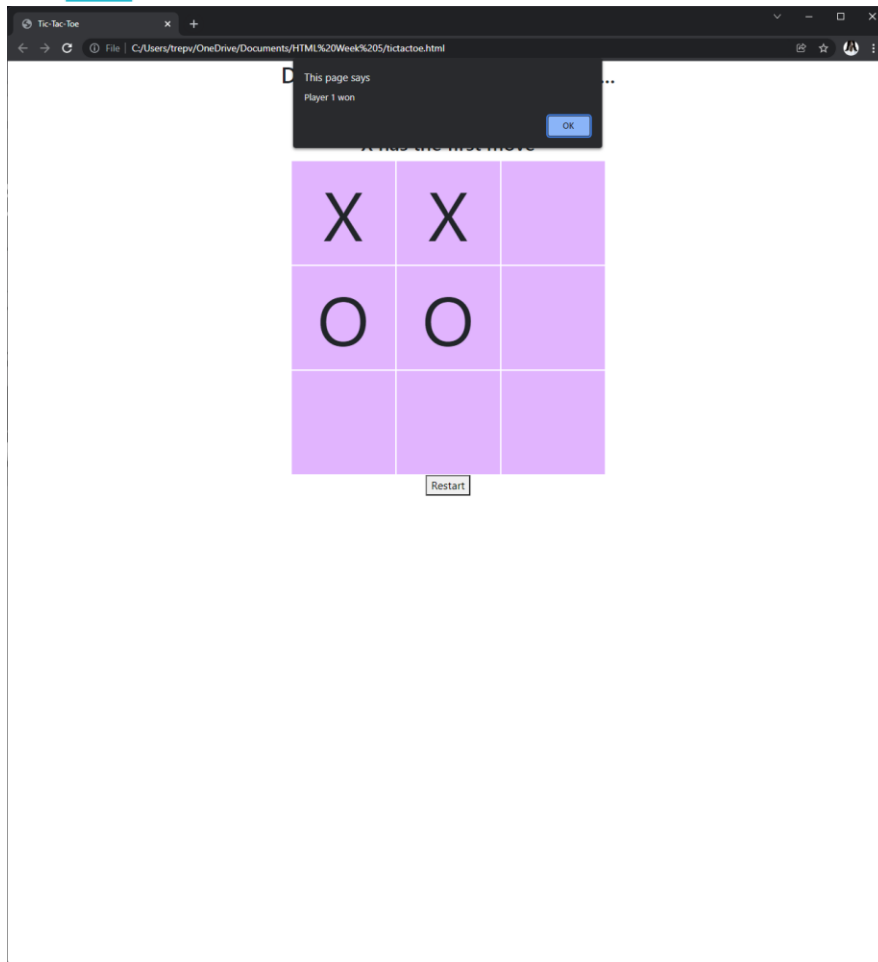


PROMINEO TECH



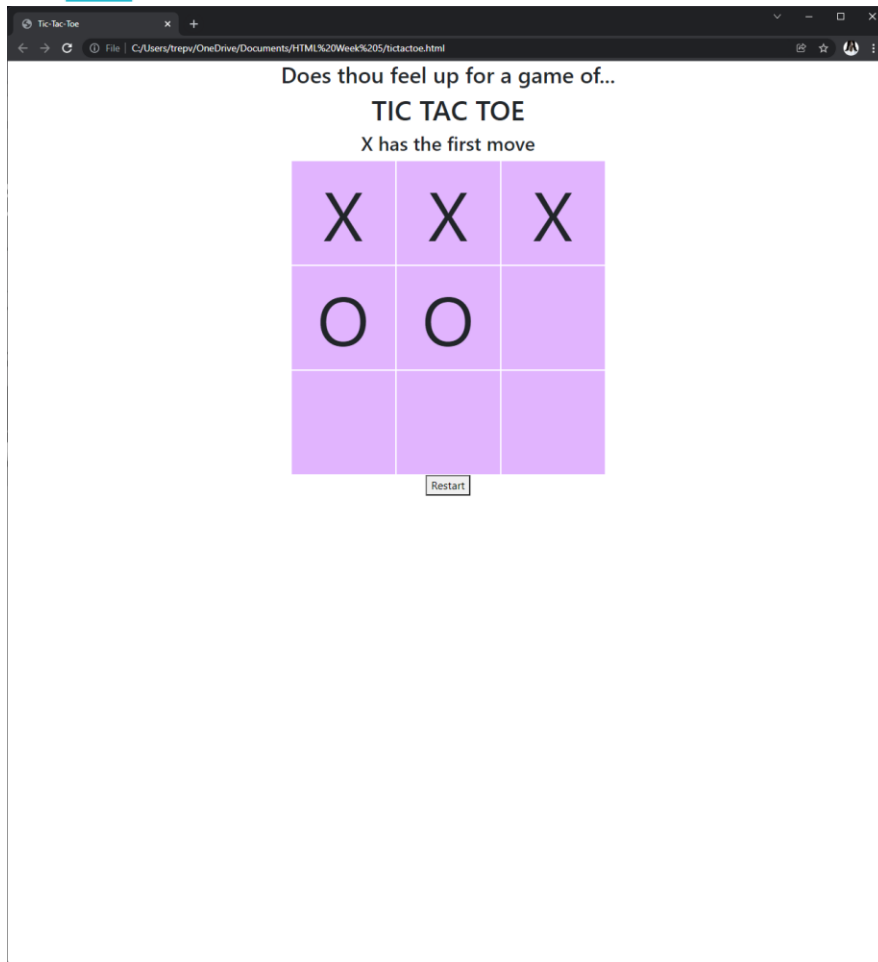


PROMINEO TECH



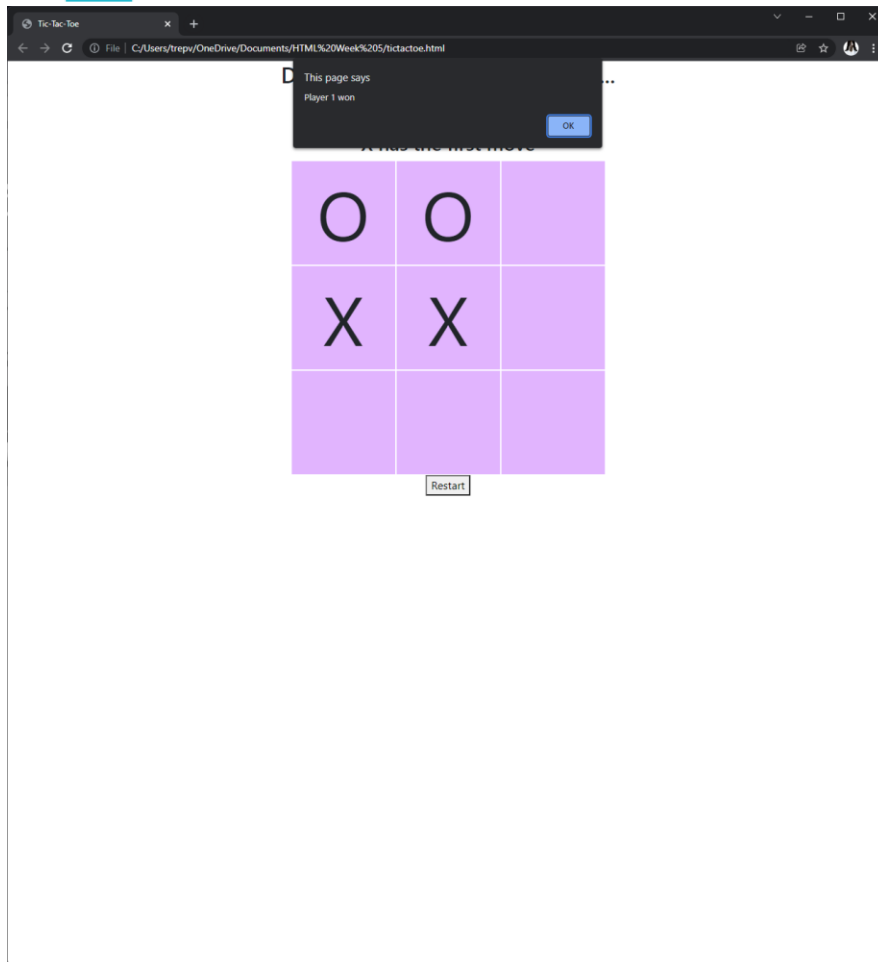


PROMINEO TECH



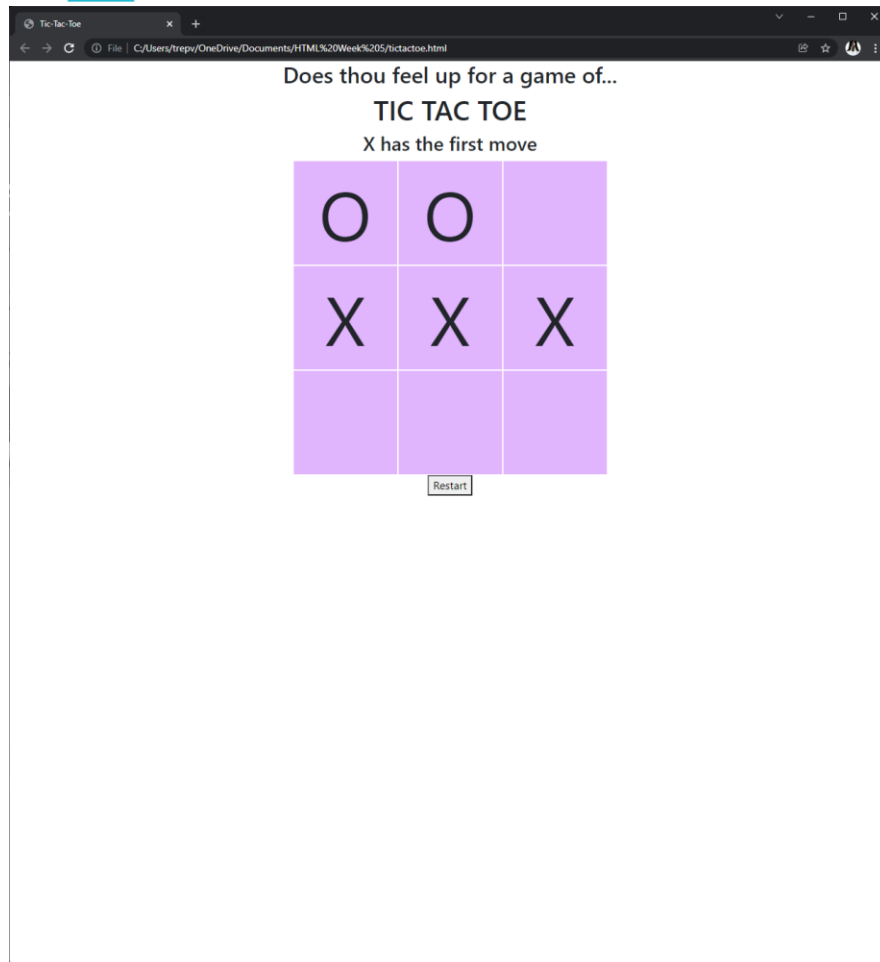


PROMINEO TECH



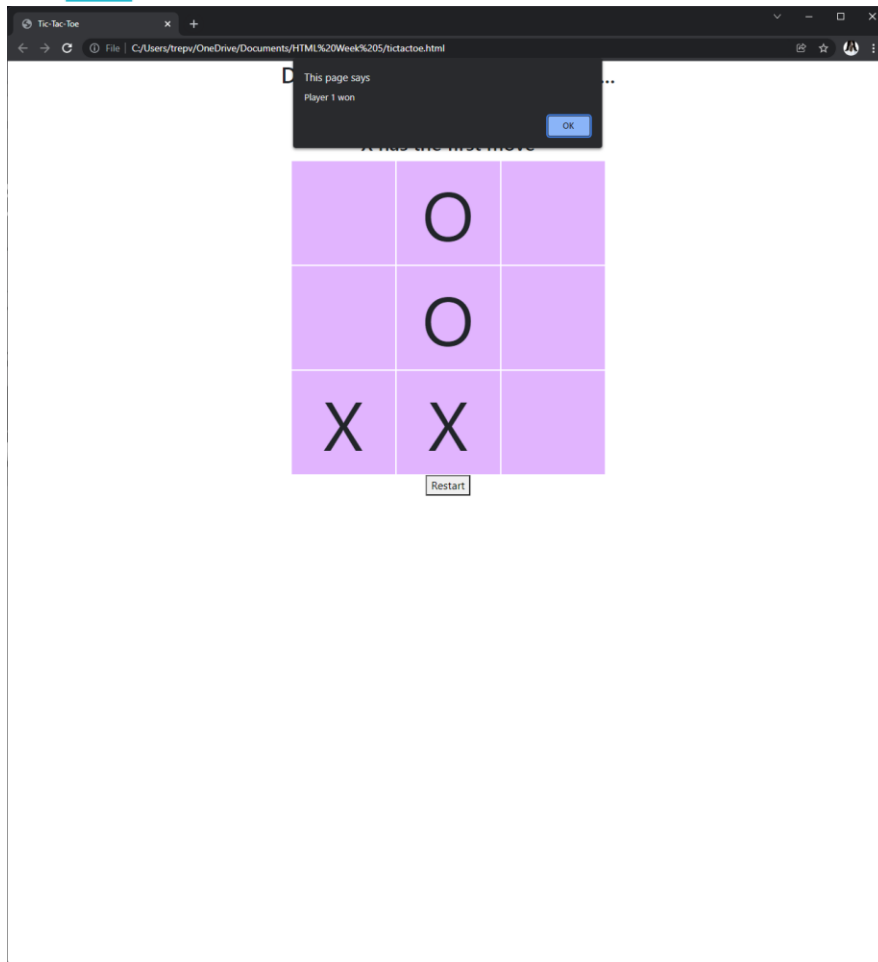


PROMINEO TECH



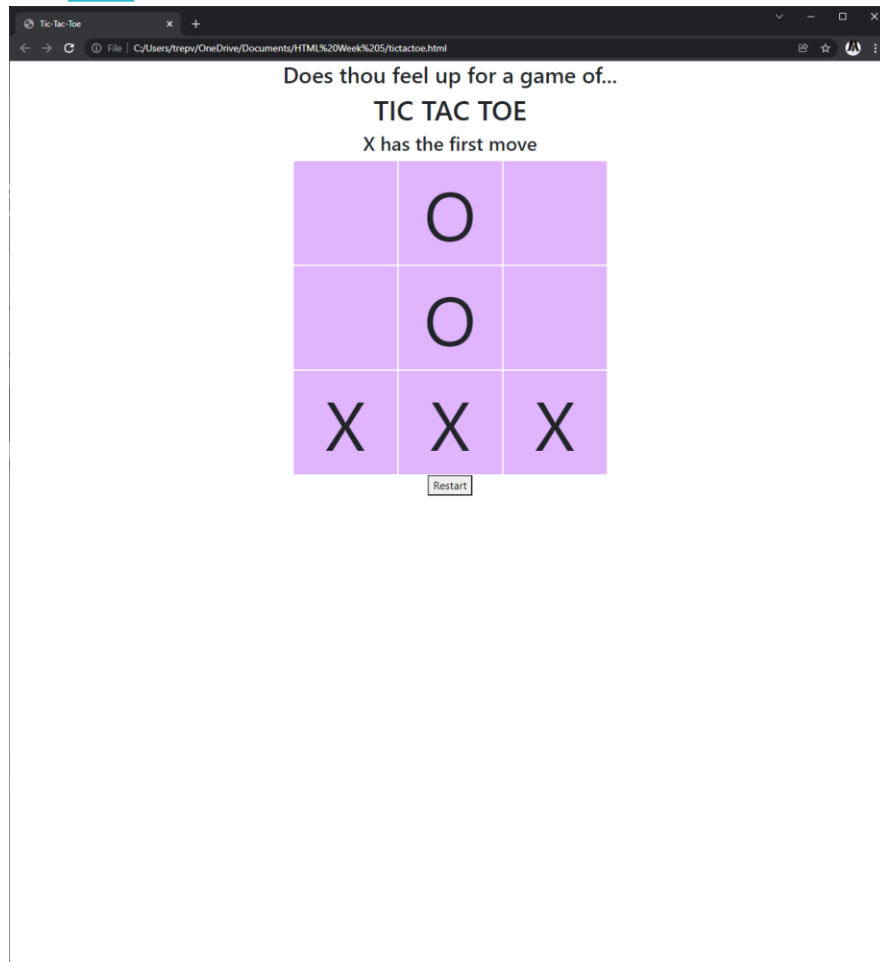


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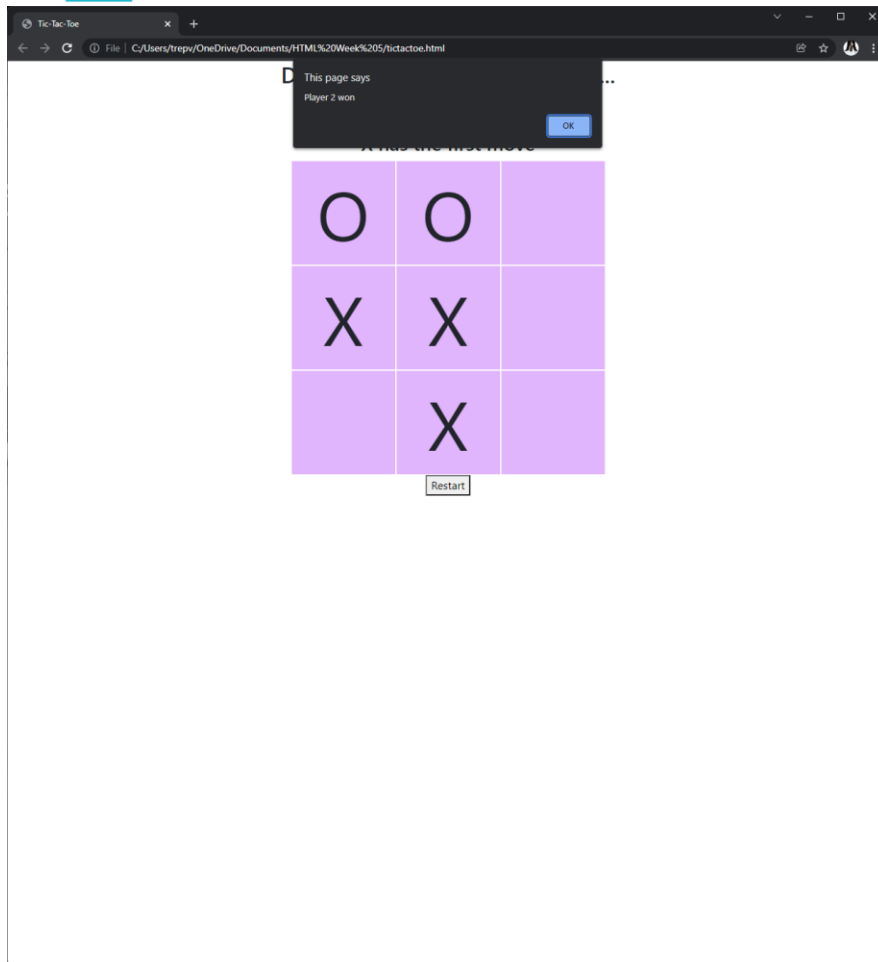


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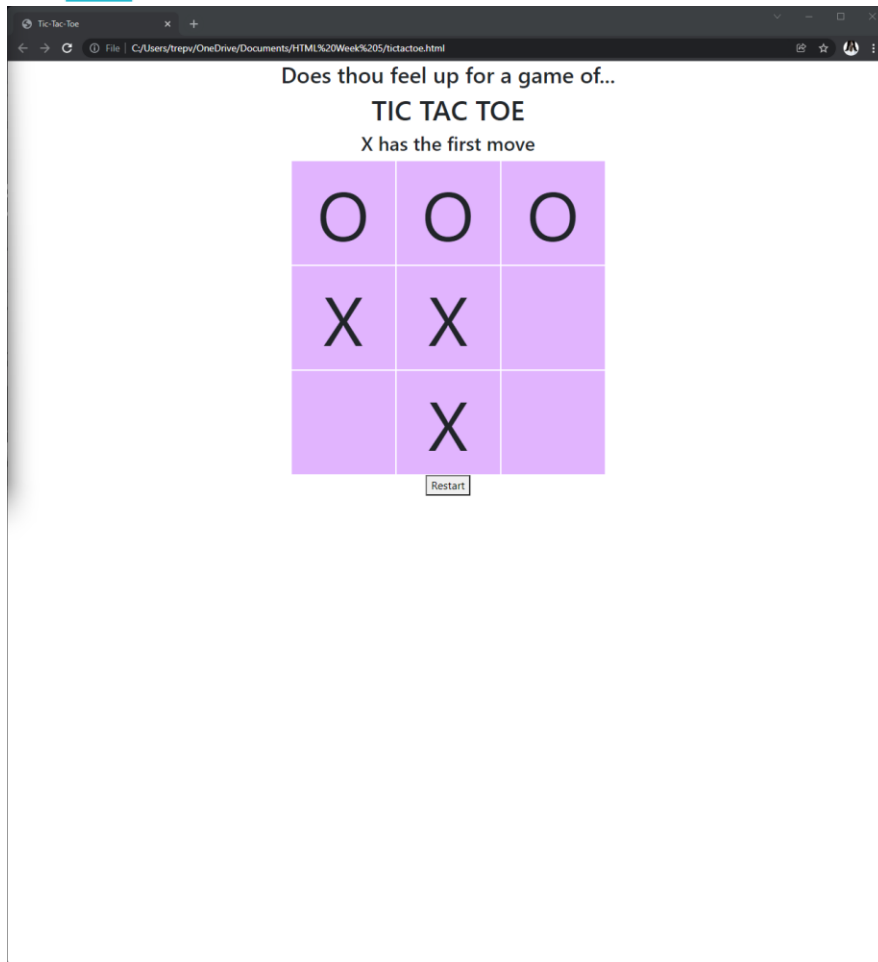


PROMINEO TECH



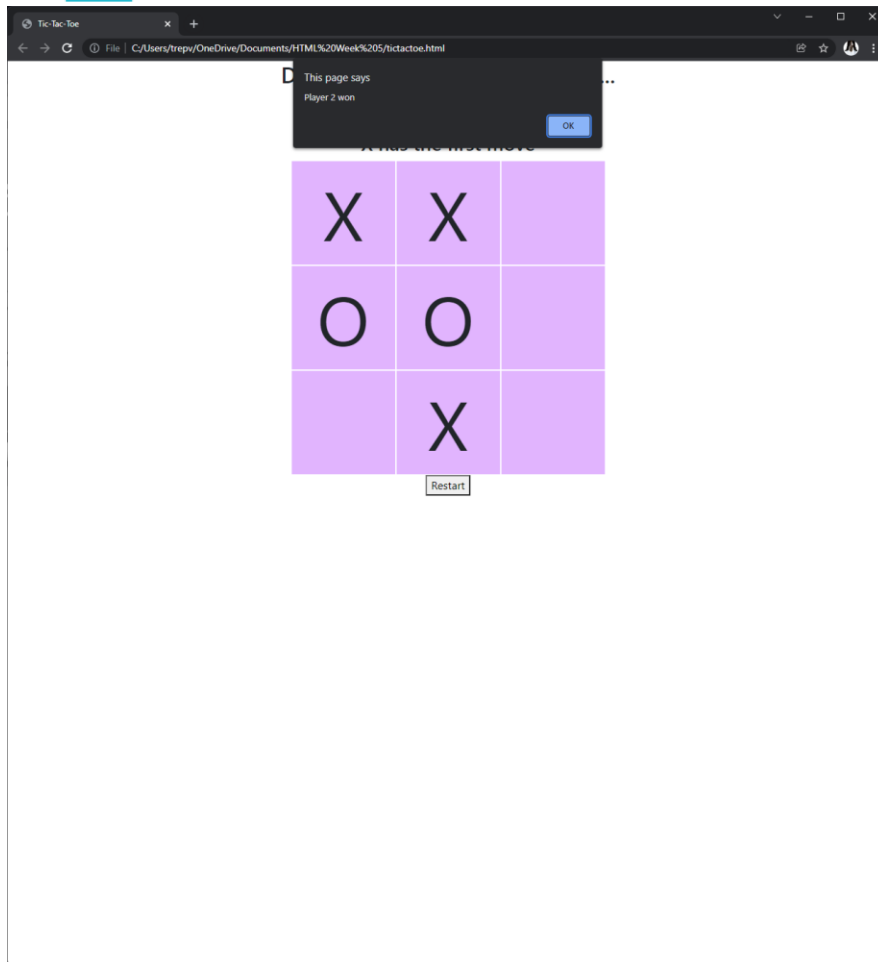


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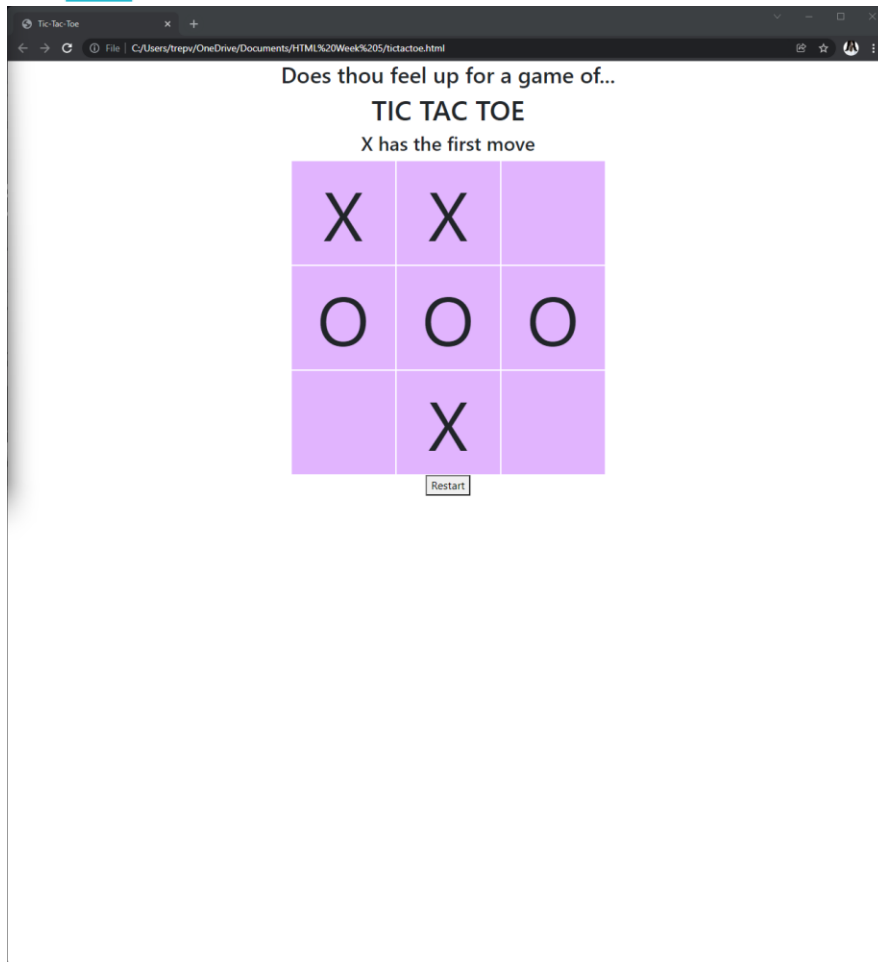


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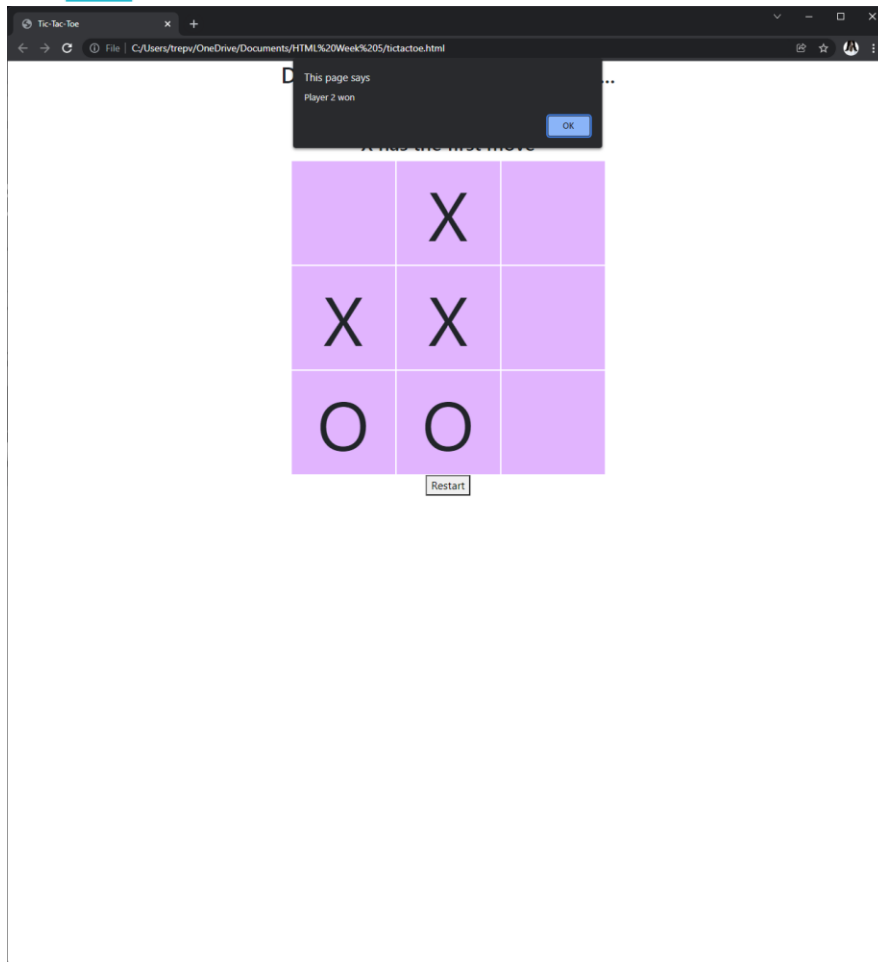


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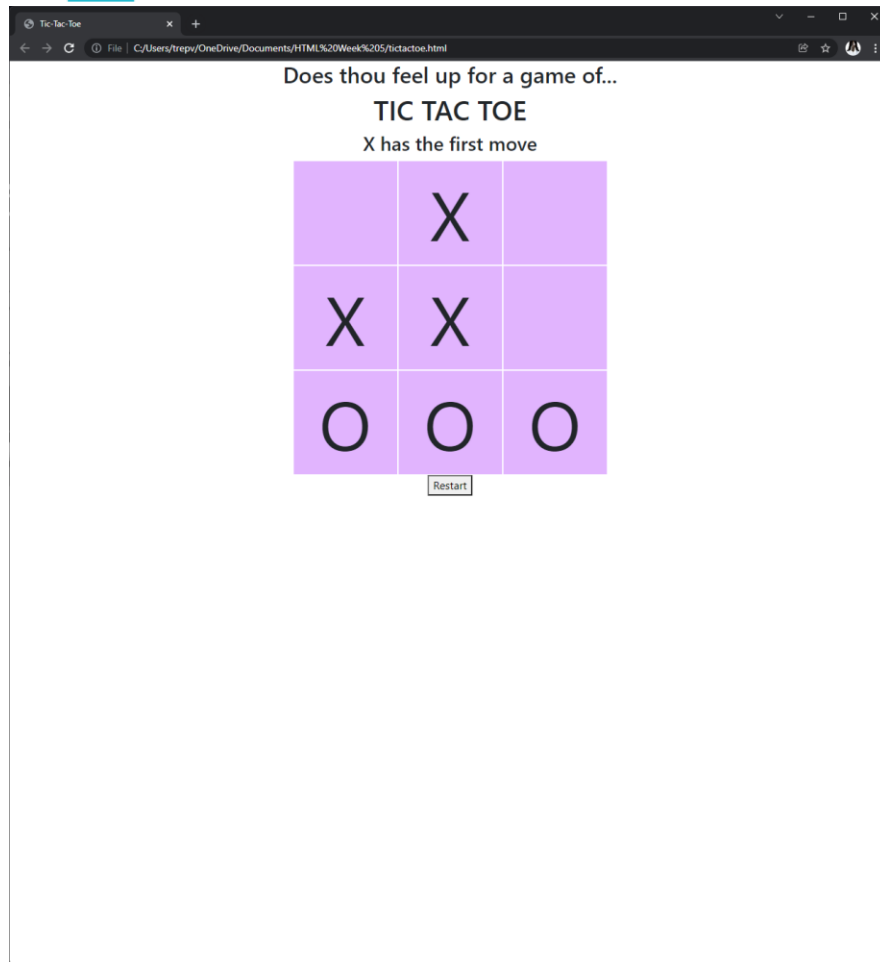


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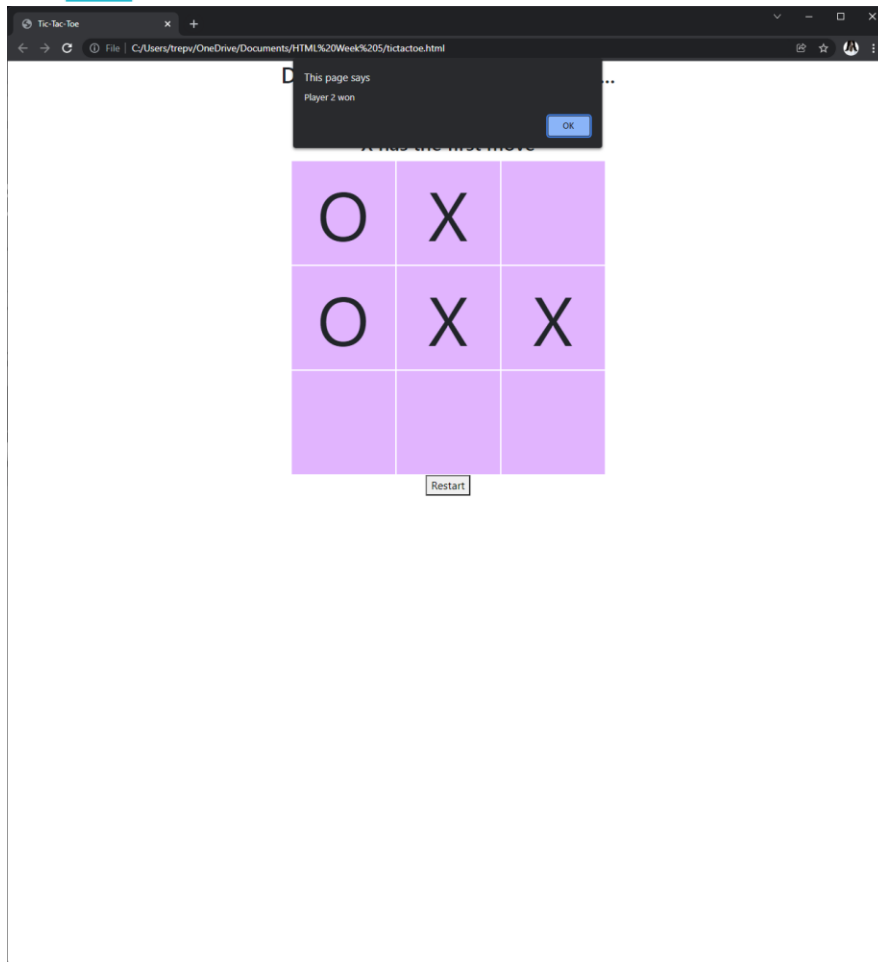


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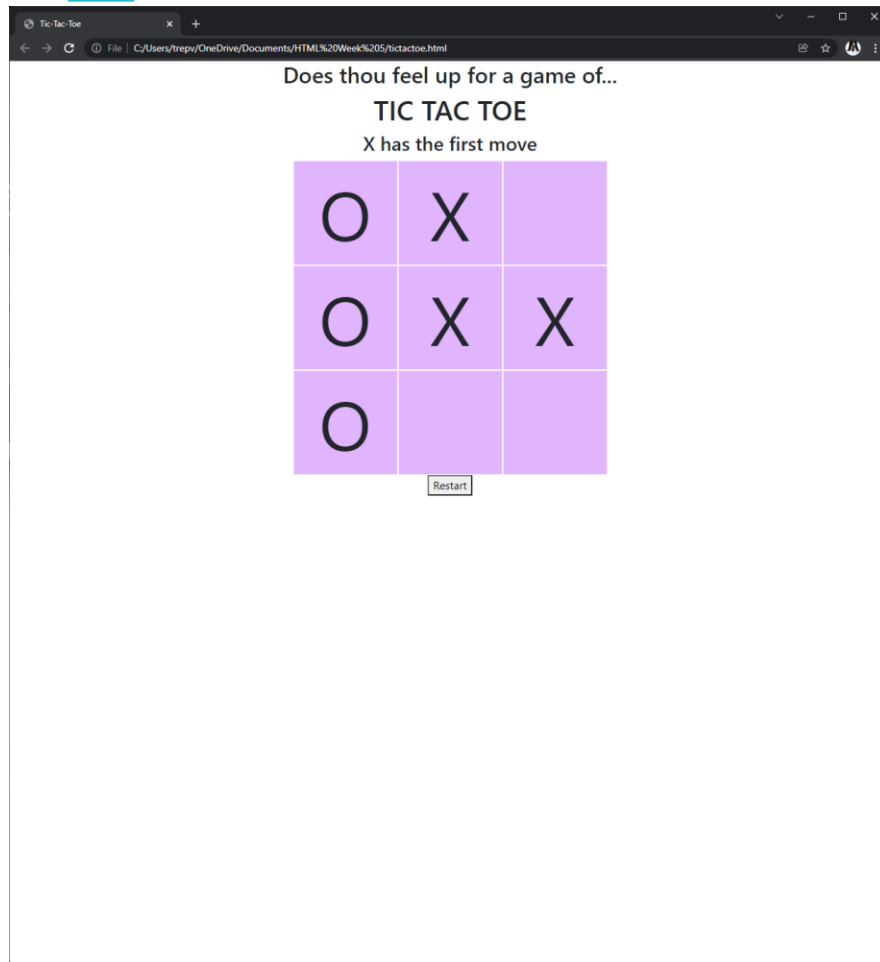


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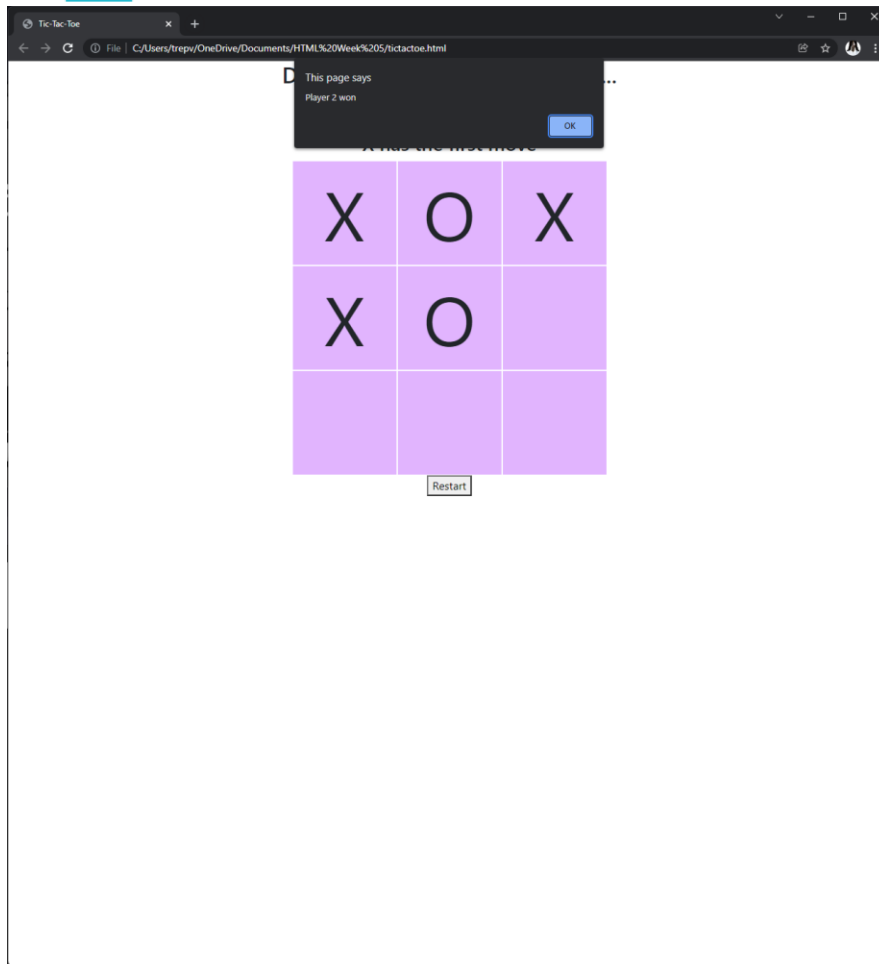


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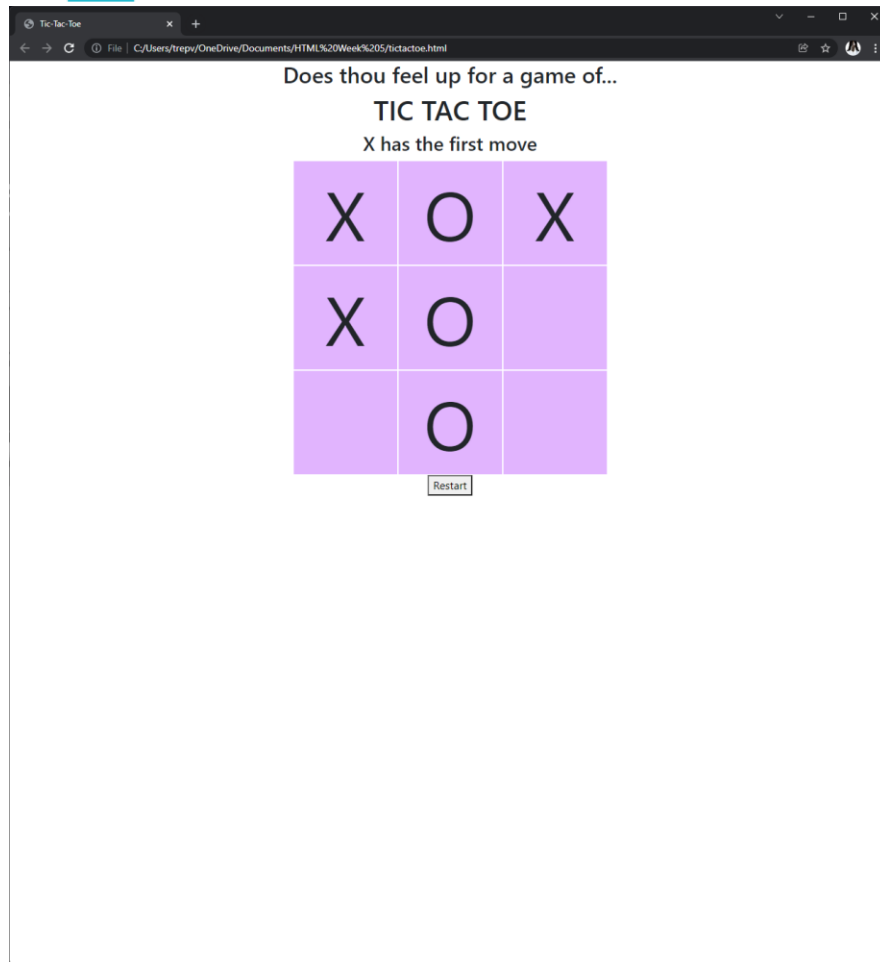


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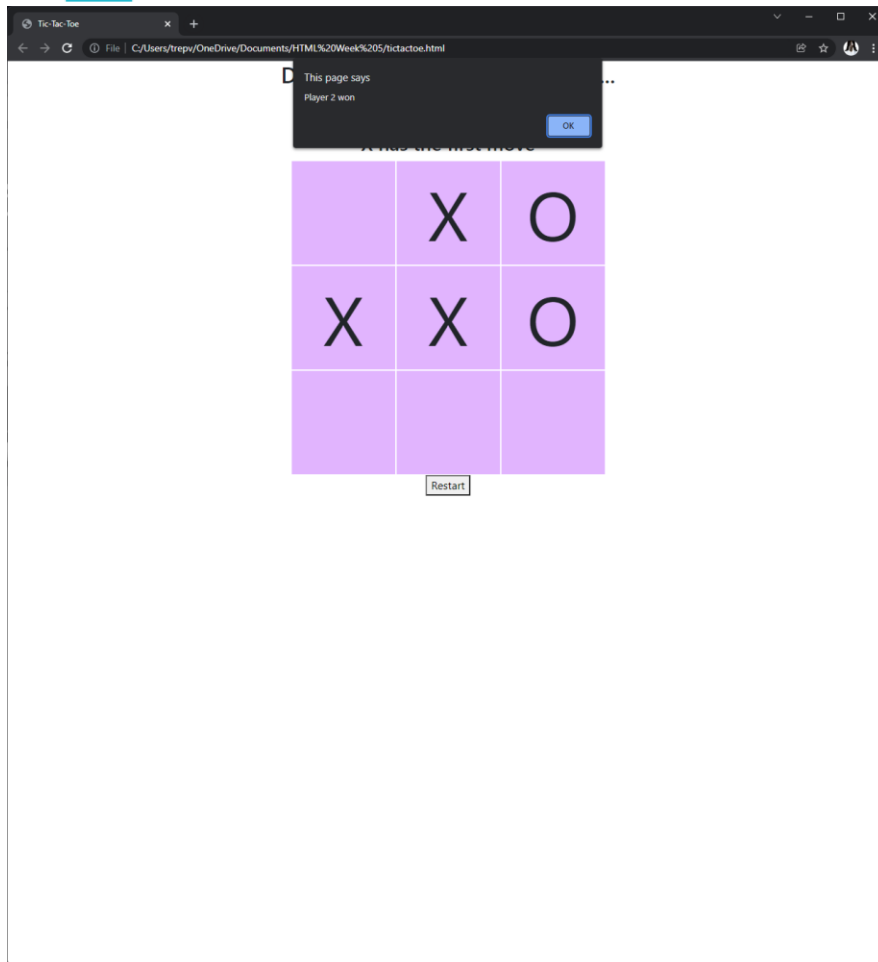


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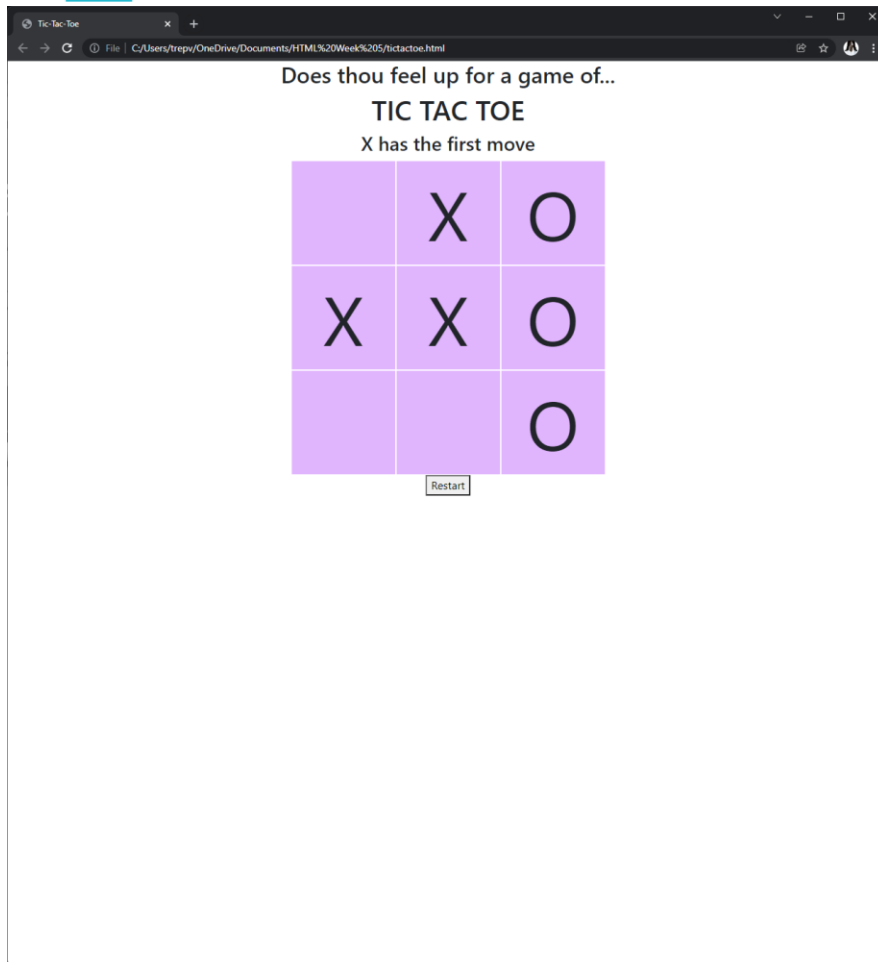


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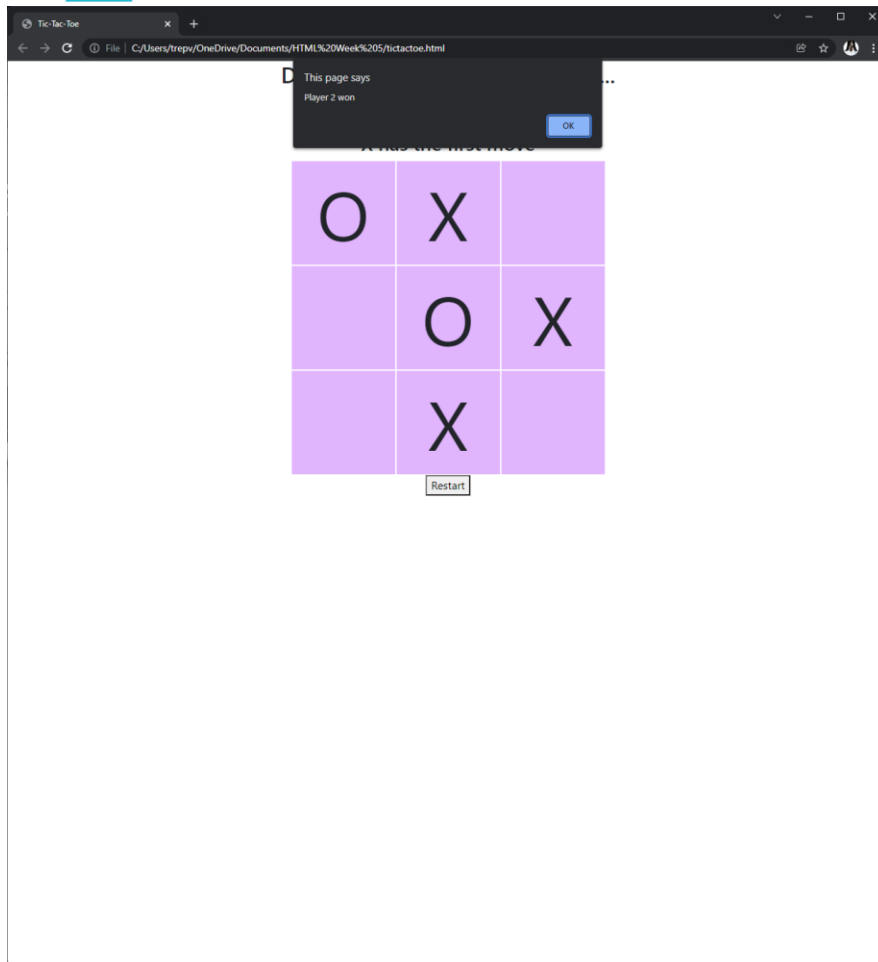


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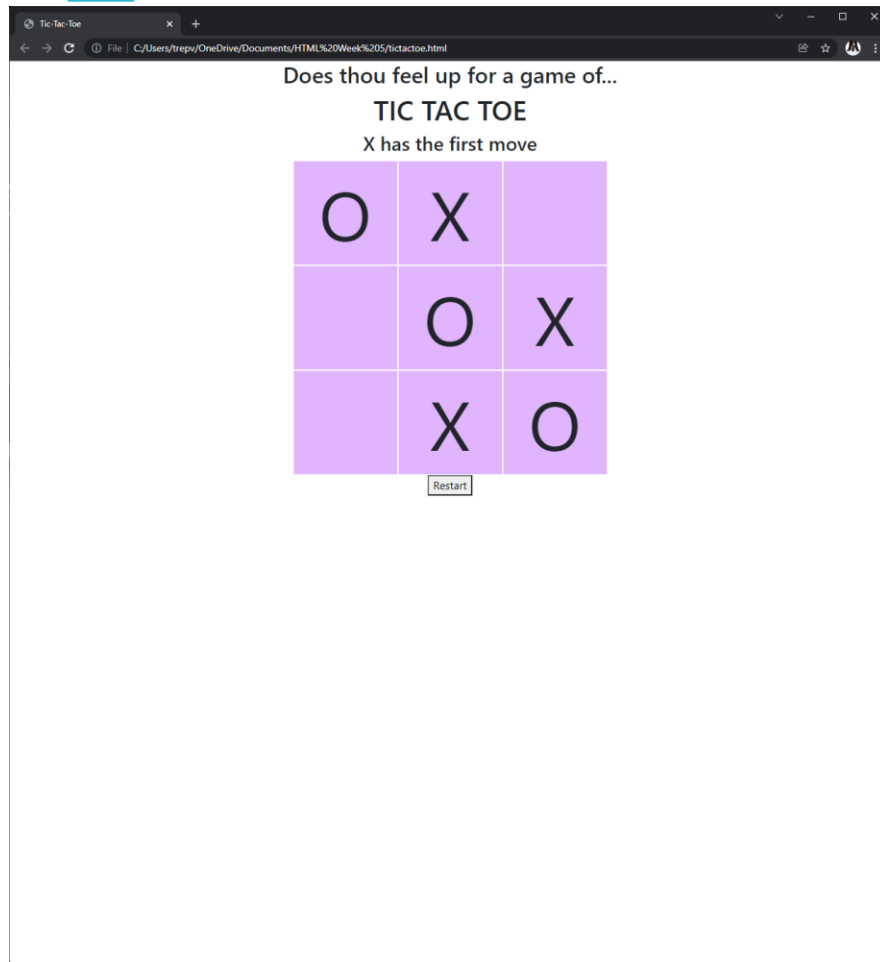


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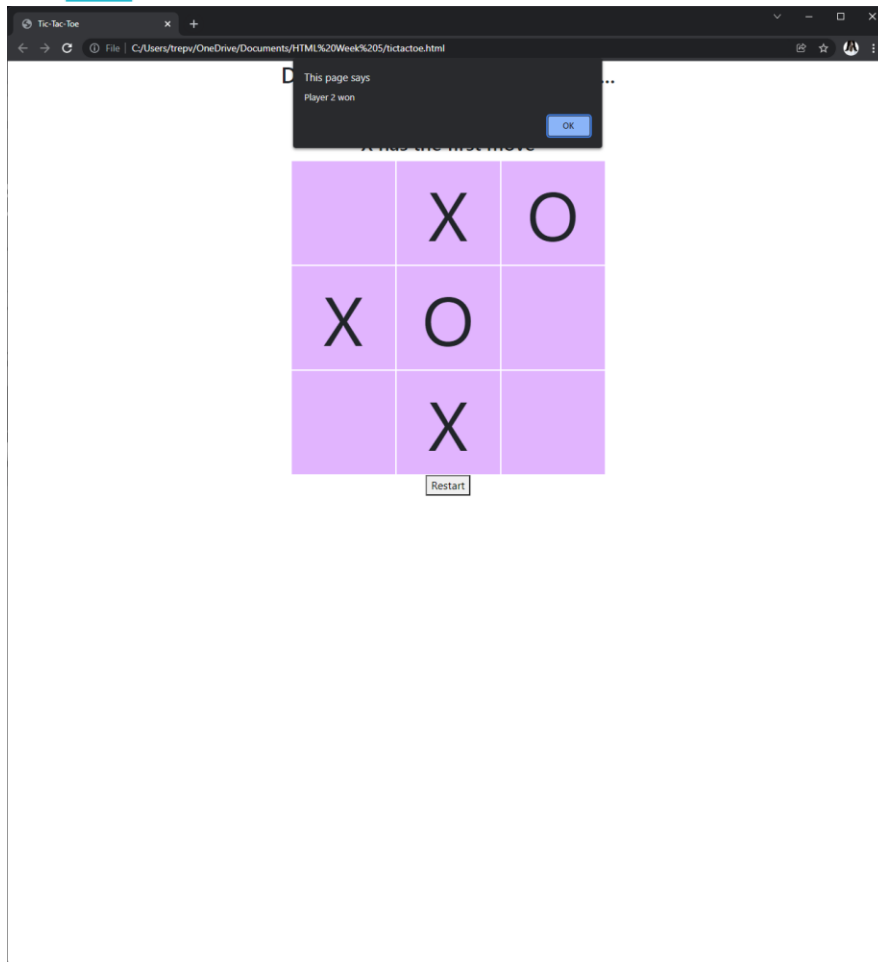


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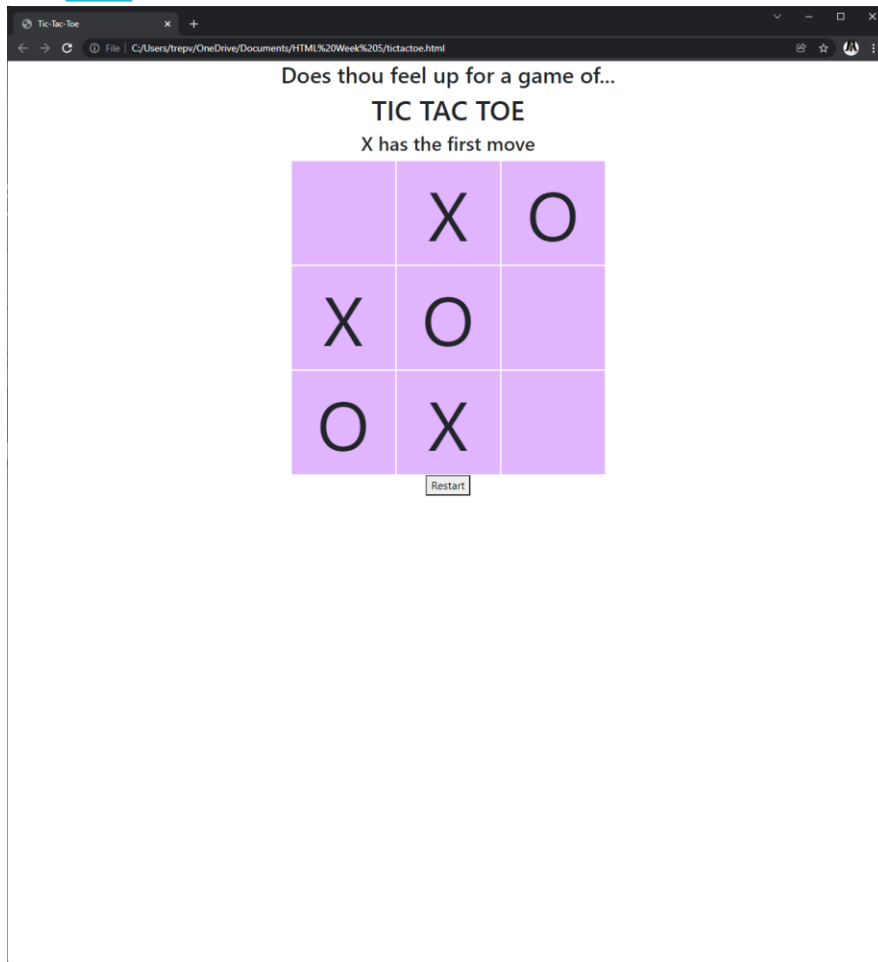


PROMINEO TECH





PROMINEO TECH



The draw part kept causing more errors so it had to be left out because of there being to many combinations to outline.

URL to GitHub Repository:

<https://github.com/trepvox/Week-5-Tic-Tac-Toe>