



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.



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- d. When a player has won, or the board is full and the game results in a draw, a Bootstrap banner should appear across the screen announcing the winner.

Screenshots of Code:

```
1  <!DOCTYPE html>
2  <html lang = "en">
3    <head>
4      <meta charset="UTF-8primary">
5      <meta name="viewport" content="width=device-width",
6        initial-scale=1.0">
7      <title>Tic Tac Toe</title>
8      <link rel="stylesheet"
9        href="style.css">
10     <link rel="stylesheet"
11       href="node_modules/bootstrap/dist/css/bootstrap.css">
12   </head>
13   <body>
14     <nav class="navbar navbar-expand-sm navbar-dark bg-primary">
15       <a class="navbar-brand" href="#">
16         
17       </a>
18       <a class="navbar-brand" href="index.html">Tic Tac Toe</a>
19       <button class="navbar-toggler" type="button" data-toggle="collapse"
20         data-target="#navbarNavDropdown"
21         aria-controls="navbarNavDropdown"
22         aria-expanded="false"
23         aria-label="Toggle navigation">
24         <span class="navbar-toggler-icon"></span>
25       </button>
26       <div class="collapse navbar-collapse" id="navbarNavDropdown">
27         <ul class="navbar-nav">
28           <li class="nav-item">
29             <a class="nav-link" href="about.html">About</a>
30           </li>
31           <li class="nav-item">
32             <a class="nav-link" href="requestinfo.html">Request Info</a>
33           </li>
34           <li class="nav-item dropdown">
35             <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
36               role="button"
37               data-toggle="dropdown"
38               aria-haspopup="true"
39               aria-expanded="false">
40               Dropdown
41             </a>
42             <div class="dropdown-menu" aria-labelledby="navbarDropdown">
```



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```
21         <button type="button" class="btn btn-primary">
20             Profile <span class="badge badge-light">9</span>
19             <span class="sr-only">unread messages</span>
18         </button>
17     </li>
16 </ul>
15 </div>
14
13 </nav>
12
11 <main>
10     <div class="container">
9         <h1 id='header-1'> Tic Tac Toe </h1>
8         <h3 id='header-3'> X goes first...</h3>
7     </div>
6     <div class="container">
5         <div class="row">
4             <div class="col-xs">
3                 <button id='square1' class= "square-button btn btn-primary btn-lg
2                     square row1 col1 diag1"></button>
1             </div>
85
1             <div class="col-xs">
2                 <button id='square2' class= "square-button btn btn-primary btn-lg
3                     square row1 col2"></button>
4             </div>
5             <div class="col-xs">
6                 <button id='square3' class= "square-button btn btn-primary btn-lg
7                     square row1 col3 diag2"></button>
8             </div>
9         </div>
10        <div class="row">
11            <div class="col-xs">
12                <button id='square4' class= "square-button btn btn-primary btn-lg
13                    square row2 col1"></button>
14            </div>
15            <div class="col-xs">
16                <button id='square5' class= "square-button btn btn-primary btn-lg
17                    square row2 col2 diag1 diag2"></button>
18            </div>
19            <div class="col-xs">
20                <button id='square6' class= "square-button btn btn-primary btn-lg
21                    square row2 col3"></button>
```



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```
41         <button id='square6' class= "square-button btn btn-primary btn-lg
40         square row2 col3"></button>
39     </div>
38 </div>
37 <div class="row">
36     <div class="col-xs">
35         <button id='square7' class= "square-button btn btn-primary btn-lg
34         square row3 col1 diag2"></button>
33     </div>
32     <div class="col-xs">
31         <button id='square8' class= "square-button btn btn-primary btn-lg
30         square row3 col2"></button>
29     </div>
28     <div class="col-xs">
27         <button id='square9' class= "square-button btn btn-primary btn-lg
26         square row3 col3 diag1"></button>
25     </div>
24 </div>
23 </div>
22
21 <div class="container">
20 <div class="col-xs">
19     <button id='reset-board'>Start a New Game</button>
18 </div>
17 </div>
16
15 <br><br><br><br>
14 <div class="container">
13     <table class="table table-striped table-bordered tablehover">
12         <thead class="thead-dark">
11             <tr>
10                 <th>Project 5 Criteria</th>
9                 <th>Status</th>
8             </tr>
7         </thead>
6         <tr class="">
5             <td>A heading should say whether it is X's or O's turn
4             and change with each move made.</td>
3             <td> &check; </td>
2         </tr>
1         <tr class="">
146         <td>Create a tic-tac-toe grid using your HTML element of
1             choice. When a cell in the grid is clicked, an X or
```




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```
42     <table class="table table-striped table-bordered tablehover">
41       <thead class="thead-dark">
40         <tr>
39           <th>Project 5 Criteria</th>
38           <th>Status</th>
37         </tr>
36       </thead>
35       <tr class="">
34         <td>A heading should say whether it is X's or O's turn
33           and change with each move made.</td>
32         <td> &check; </td>
31       </tr>
30       <tr class="">
29         <td>Create a tic-tac-toe grid using your HTML element of
28           choice. When a cell in the grid is clicked, an X or
27           0 should appear in that spot depending on whose turn
26           it is.</td>
25         <td> &check; </td>
24       </tr>
23       <tr class="">
22         <td>A button should be available to clear the grid and
21           restart the game.</td>
20         <td> &check; </td>
19       </tr>
18       <tr class="">
17         <td>When a player has won, or the board is full and the
16           game results in a draw, a Bootstrap banner should
15           appear across the screen announcing the winner.</td>
14         <td> &check; </td>
13       </tr>
12     </table>
11   </div>
10
9   </main>
8
7   <script src="node_modules/jquery/dist/jquery.js"></script>
6   <script src="node_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>
5   <script src="tictactoev2.js"></script>
4   </body>
3
2
1
175 </html>
```

tictactoev2.html

175.1



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```
1  .square-button {  
  1    border: 1px outset blue;  
  2    background-color: lightBlue;  
  3    height:100px;  
  4    width:100px;  
  5    cursor:pointer;  
  6    margin: 10px;  
  7  }  
  8
```

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```
1 let h3 = $('#header-3');
1 let h1 = $('#header-1');
2
3 let column1 = $('.col1');
4 let column2 = $('.col2');
5 let column3 = $('.col3');
6 let row1 = $('.row1');
7 let row2 = $('.row2');
8 let row3 = $('.row3');
9 let diag1 = $('.diag1');
10 let diag2 = $('.diag2');
11 let squareClass = $('.square');
12 let currentMove = 'X';
13 let resetBoard = $('#reset-board');
14 let gameOver = false;
15
16
17 squareClass.click(function(){
18   if ($(this).text() == '' && !gameOver){
19     $(this).text(currentMove);
20     postMoveProcessing();
21   }
22 });
23
24 resetBoard.click(function(){
25   squareClass.text('');
26   currentMove = 'X';
27   h3.text('X goes first...');
28   $('.winner-alert').remove();
29   gameOver = false;
30 });
31
32 function postMoveProcessing(){
33   checkForWinner();
34   currentMove = flipXor0(currentMove);
35   changeHeader();
36 }
37
38 function changeHeader(){
39   h3.text(currentMove + " it's your turn.");
40 }
41
42 function checkForWinner(){
```

tictactoev2.js

1,1

"tictactoev2.js" 76L, 1910C



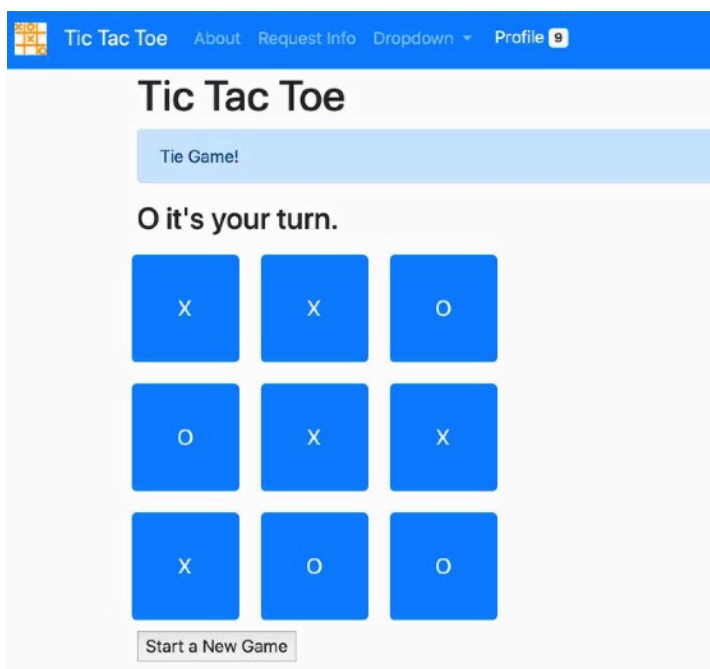
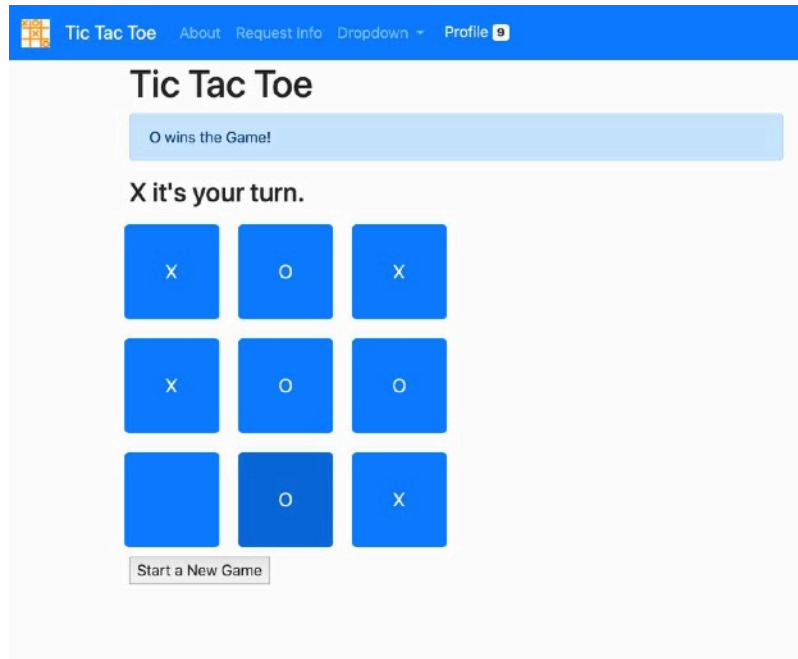
```
42     checkForWinner();
41     currentMove = flipXor0(currentMove);
40     changeHeader();
39 }
38
37 function changeHeader(){
36     h3.text(currentMove + " it's your turn.");
35 }
34
33 function checkForWinner(){
32     if(column1.text() == currentMove + currentMove + currentMove ||
31        column2.text() == currentMove + currentMove + currentMove ||
30        column3.text() == currentMove + currentMove + currentMove ||
29        row1.text() == currentMove + currentMove + currentMove ||
28        row2.text() == currentMove + currentMove + currentMove ||
27        row3.text() == currentMove + currentMove + currentMove ||
26        diag1.text() == currentMove + currentMove + currentMove ||
25        diag2.text() == currentMove + currentMove + currentMove){
24         gameOver = true;
23         announceWinner();
22     }
21     else if(column1.text().length == 3 &&
20             column2.text().length == 3 &&
19             column3.text().length == 3){
18         gameOver = true;
17         announceTie();
16     }
15 }
14 function announceTie(){
13     h1.after('<div class="alert winner-alert alert-primary" role="alert"> Tie Game!</div>');
12 }
11 function announceWinner(){
10     h1.after('<div class="alert winner-alert alert-primary" role="alert">'
9         + currentMove + ' wins the Game!</div>');
8 }
7 function flipXor0(currentMove){
6     if (currentMove == 'X'){
5         return 'O';
4     }
3     else {
2         return 'X';
1     }
76 }
```

tictactoev2.js 76,1 Bot



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Screenshots of Running Application:





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URL to GitHub Repository: <https://github.com/blentz100/Week5FrontEnd>