



Front End Technologies Week 11 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

HTML

```
C:\Users> austi > Desktop > Developer Course > Week 11 > index.html > html > body > div > p#turn
1  <!doctype html>
2  <html lang="en">
3    <head>
4
5      <meta charset="utf-8">
6      <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
7
8      <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css"
9      integrity="sha384-ggOyR0iXCbMQV3Iipma34MD+dH/1fQ784/j6cY/iJTQUOhcWR7x9JvoRXT2MzW1T" crossorigin="anonymous">
10     <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
11     crossorigin="anonymous"></script>
12     <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js"
13     integrity="sha384-UO2eT0CphqdsJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1" crossorigin="anonymous"></script>
14     <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js"
15     integrity="sha384-JjSmVgyd0p3pXB1rRibZUAYoIIy60rQ6VrjIEeAeff/nJGzIxFSf4x0xIM+B07jRM" crossorigin="anonymous"></script>
16
17     <script src="tictactoe.js"></script>
18     <link rel="stylesheet" href="stylesheet.css">
19
20     <style>
21
22
23   </style>
24
25   <h1>TIC TAC TOE</h1>
26   <br>
27   <p>To start, tap any box.</p>
28   <p>Player 1 is X <br> Player 2 is O</p>
29
30 </head>
31 <body>
32
33   <div class= "grid">
34     <!--tic tac toe grid-->
35
36     <input type="text" id="box1" onclick=
37     | | "myfunction3(); myfunction();" readonly>
```



PROMINEO TECH

```
38
39     <input type="text" id="box2" onclick=
40         "myfunction4(); myfunction();" readonly>
41
42     <input type="text" id="box3" onclick=
43         "myfunction5(); myfunction();" readonly>
44
45     <input type="text" id="box4" onclick=
46         "myfunction6(); myfunction();" readonly>
47
48     <input type="text" id="box5" onclick=
49         "myfunction7(); myfunction();" readonly>
50
51     <input type="text" id="box6" onclick=
52         "myfunction8(); myfunction();" readonly>
53
54     <input type="text" id="box7" onclick=
55         "myfunction9(); myfunction();" readonly>
56
57     <input type="text" id="box8" onclick=
58         "myfunction10();myfunction();" readonly>
59
60     <input type="text" id="box9" onclick=
61         "myfunction11();myfunction();" readonly>
62
63     <br><br>
64     <!--Reset Button-->
65     <button id="reset" onclick="myfunction2()">
66     RESET
67     </button>
68
69 </div>
70
71 <div>
72
73     <br><br>
```



PROMINEO TECH

```
71     <div>
72
73         <br><br>
74
75         <!--Show player's turn-->
76         <p id="turn"></p>
77
78     </div>
79
80
81
82
83
84 </body>
85
86
87
88
89 </html>
```

CSS



PROMINEO TECH

```
1  h1 {
2    color: hotpink;
3    font-size: 50px;
4    text-align: center;
5  }
6
7  p {
8    color: darkslategray;
9    font-size: 20px;
10   text-align: center;
11 }
12
13 /*grid*/
14
15 .grid {
16   margin: 0 auto;
17   display: grid;
18   grid-template-columns: repeat(3, 100px);
19   grid-template-rows: repeat(3, 100px);
20   justify-content: center;
21 }
22
23
24 #box1, #box2, #box3, #box4, #box5,
25 #box6, #box7, #box8, #box9 {
26   width: 80px;
27   height: 80px;
28   margin: auto;
29   border: 2px solid hotpink;
30   border-radius: 4px;
31   font-size: 30px;
32   text-align: center;
33   font-color: hotpink;
34 }
35
36 #reset {
37   display: flex;
```



PROMINEO TECH

```
38     margin: auto;
39     justify-content: center;
40     align-items: center;
41     width: 80px;
42     height: 40px;
43     border: none;
44     border-radius: 4px;
45     background-color: hotpink;
46     font-size: 20px;
47     text-align: center;
48     justify-content: center;
49 }
50
51
52
53
```

JS



PROMINEO TECH

```
1  function myfunction() {
2
3
4      var box1, box2, box3, box4, box5, box6, box7, box8, box9;
5      box1 = document.getElementById("box1").value;
6      box2 = document.getElementById("box2").value;
7      box3 = document.getElementById("box3").value;
8      box4 = document.getElementById("box4").value;
9      box5 = document.getElementById("box5").value;
10     box6 = document.getElementById("box6").value;
11     box7 = document.getElementById("box7").value;
12     box8 = document.getElementById("box8").value;
13     box9 = document.getElementById("box9").value;
14
15     // If player 1 wins
16     if ((box1 == 'x' || box1 == 'X') && (box2 == 'x' ||
17         box2 == 'X') && (box3 == 'x' || box3 == 'X')) {
18         document.getElementById('turn')
19             .innerHTML = "Player 1 Wins!";
20         document.getElementById("box4").disabled = true;
21         document.getElementById("box5").disabled = true;
22         document.getElementById("box6").disabled = true;
23         document.getElementById("box7").disabled = true;
24         document.getElementById("box8").disabled = true;
25         document.getElementById("box9").disabled = true;
26         window.alert('Player 1 Wins!');
27     }
28     else if ((box1 == 'x' || box1 == 'X') && (box4 == 'x' ||
29         box4 == 'X') && (box7 == 'x' || box7 == 'X')) {
30         document.getElementById('turn')
31             .innerHTML = "Player 1 Wins!";
32         document.getElementById("box2").disabled = true;
33         document.getElementById("box3").disabled = true;
34         document.getElementById("box5").disabled = true;
35         document.getElementById("box6").disabled = true;
36         document.getElementById("box8").disabled = true;
37         document.getElementById("box9").disabled = true;
```



PROMINEO TECH

```
39     window.alert('Player 1 Wins!');
40 }
41 else if ((box7 == 'x' || box7 == 'X') && (box8 == 'x' ||
42     box8 == 'X') && (box9 == 'x' || box9 == 'X')) {
43     document.getElementById('turn')
44         .innerHTML = "Player 1 Wins!";
45     document.getElementById("box1").disabled = true;
46     document.getElementById("box2").disabled = true;
47     document.getElementById("box3").disabled = true;
48     document.getElementById("box4").disabled = true;
49     document.getElementById("box5").disabled = true;
50     document.getElementById("box6").disabled = true;
51     window.alert('Player 1 Wins!');
52 }
53 else if ((box3 == 'x' || box3 == 'X') && (box6 == 'x' ||
54     box6 == 'X') && (box9 == 'x' || box9 == 'X')) {
55     document.getElementById('turn')
56         .innerHTML = "Player 1 Wins!";
57     document.getElementById("box1").disabled = true;
58     document.getElementById("box2").disabled = true;
59     document.getElementById("box4").disabled = true;
60     document.getElementById("box5").disabled = true;
61     document.getElementById("box7").disabled = true;
62     document.getElementById("box8").disabled = true;
63     window.alert('Player 1 Wins!');
64 }
65 else if ((box1 == 'x' || box1 == 'X') && (box5 == 'x' ||
66     box5 == 'X') && (box9 == 'x' || box9 == 'X')) {
67     document.getElementById('turn')
68         .innerHTML = "Player 1 Wins!";
69     document.getElementById("box2").disabled = true;
70     document.getElementById("box3").disabled = true;
71     document.getElementById("box4").disabled = true;
72     document.getElementById("box6").disabled = true;
73     document.getElementById("box7").disabled = true;
74     document.getElementById("box8").disabled = true;
```




PROMINEO TECH

```
75     window.alert('Player 1 Wins!');
76 }
77 else if ((box3 == 'x' || box3 == 'X') && (box5 == 'x' ||
78     box5 == 'X') && (box7 == 'x' || box7 == 'X')) {
79     document.getElementById('turn')
80         .innerHTML = "Player 1 Wins!";
81     document.getElementById("box1").disabled = true;
82     document.getElementById("box2").disabled = true;
83     document.getElementById("box4").disabled = true;
84     document.getElementById("box6").disabled = true;
85     document.getElementById("box8").disabled = true;
86     document.getElementById("box9").disabled = true;
87     window.alert('Player 1 Wins!');
88 }
89 else if ((box2 == 'x' || box2 == 'X') && (box5 == 'x' ||
90     box5 == 'X') && (box8 == 'x' || box8 == 'X')) {
91     document.getElementById('turn')
92         .innerHTML = "Player 1 Wins!";
93     document.getElementById("box1").disabled = true;
94     document.getElementById("box3").disabled = true;
95     document.getElementById("box4").disabled = true;
96     document.getElementById("box6").disabled = true;
97     document.getElementById("box7").disabled = true;
98     document.getElementById("box9").disabled = true;
99     window.alert('Player 1 Wins!');
100 }
101 else if ((box4 == 'x' || box4 == 'X') && (box5 == 'x' ||
102     box5 == 'X') && (box6 == 'x' || box6 == 'X')) {
103     document.getElementById('turn')
104         .innerHTML = "Player 1 Wins!";
105     document.getElementById("box1").disabled = true;
106     document.getElementById("box2").disabled = true;
107     document.getElementById("box3").disabled = true;
108     document.getElementById("box7").disabled = true;
109     document.getElementById("box8").disabled = true;
110     document.getElementById("box9").disabled = true;
111     window.alert('Player 1 Wins!');
```



PROMINEO TECH

```
112 }
113
114 // checking for player 2 win
115 else if ((box1 == '0' || box1 == 'X') && (box2 == '0' ||
116 box2 == 'X') && (box3 == '0' || box3 == 'X')) {
117     document.getElementById('turn')
118         .innerHTML = "Player 2 Wins!";
119     document.getElementById("box4").disabled = true;
120     document.getElementById("box5").disabled = true;
121     document.getElementById("box6").disabled = true;
122     document.getElementById("box7").disabled = true;
123     document.getElementById("box8").disabled = true;
124     document.getElementById("box9").disabled = true;
125     window.alert('Player 2 Wins!');
126 }
127 else if ((box1 == '0' || box1 == 'X') && (box4 == '0' ||
128 box4 == 'X') && (box7 == '0' || box7 == 'X')) {
129     document.getElementById('turn')
130         .innerHTML = "Player 2 Wins!";
131     document.getElementById("box2").disabled = true;
132     document.getElementById("box3").disabled = true;
133     document.getElementById("box5").disabled = true;
134     document.getElementById("box6").disabled = true;
135     document.getElementById("box8").disabled = true;
136     document.getElementById("box9").disabled = true;
137     window.alert('Player 2 Wins!');
138 }
139 else if ((box7 == '0' || box7 == 'X') && (box8 == '0' ||
140 box8 == 'X') && (box9 == '0' || box9 == 'X')) {
141     document.getElementById('turn')
142         .innerHTML = "Player 2 Wins!";
143     document.getElementById("box1").disabled = true;
144     document.getElementById("box2").disabled = true;
145     document.getElementById("box3").disabled = true;
146     document.getElementById("box4").disabled = true;
147     document.getElementById("box5").disabled = true;
148     document.getElementById("box6").disabled = true;
```



PROMINEO TECH

```
149     window.alert('Player 2 Wins!');
150 }
151 else if ((box3 == '0' || box3 == '0') && (box6 == '0' ||
152     box6 == '0') && (box9 == '0' || box9 == '0')) {
153     document.getElementById('turn')
154         .innerHTML = "Player 2 Wins!";
155     document.getElementById("box1").disabled = true;
156     document.getElementById("box2").disabled = true;
157     document.getElementById("box4").disabled = true;
158     document.getElementById("box5").disabled = true;
159     document.getElementById("box7").disabled = true;
160     document.getElementById("box8").disabled = true;
161     window.alert('Player 2 Wins!');
162 }
163 else if ((box1 == '0' || box1 == '0') && (box5 == '0' ||
164     box5 == '0') && (box9 == '0' || box9 == '0')) {
165     document.getElementById('turn')
166         .innerHTML = "Player 2 Wins!";
167     document.getElementById("box2").disabled = true;
168     document.getElementById("box3").disabled = true;
169     document.getElementById("box4").disabled = true;
170     document.getElementById("box6").disabled = true;
171     document.getElementById("box7").disabled = true;
172     document.getElementById("box8").disabled = true;
173     window.alert('Player 2 Wins!');
174 }
175 else if ((box3 == '0' || box3 == '0') && (box5 == '0' ||
176     box5 == '0') && (box7 == '0' || box7 == '0')) {
177     document.getElementById('turn')
178         .innerHTML = "Player 2 Wins!";
179     document.getElementById("box1").disabled = true;
180     document.getElementById("box2").disabled = true;
181     document.getElementById("box4").disabled = true;
182     document.getElementById("box6").disabled = true;
183     document.getElementById("box8").disabled = true;
184     document.getElementById("box9").disabled = true;
185     window.alert('Player 2 Wins!');
```



PROMINEO TECH

```
185     window.alert('Player 2 Wins!');
186 }
187 else if ((box2 == '0' || box2 == '0') && (box5 == '0' ||
188     box5 == '0') && (box8 == '0' || box8 == '0')) {
189     document.getElementById('turn')
190         .innerHTML = "Player 2 Wins!";
191     document.getElementById("box1").disabled = true;
192     document.getElementById("box3").disabled = true;
193     document.getElementById("box4").disabled = true;
194     document.getElementById("box6").disabled = true;
195     document.getElementById("box7").disabled = true;
196     document.getElementById("box9").disabled = true;
197     window.alert('Player 2 Wins!');
198 }
199 else if ((box4 == '0' || box4 == '0') && (box5 == '0' ||
200     box5 == '0') && (box6 == '0' || box6 == '0')) {
201     document.getElementById('turn')
202         .innerHTML = "Player 2 Wins!";
203     document.getElementById("box1").disabled = true;
204     document.getElementById("box2").disabled = true;
205     document.getElementById("box3").disabled = true;
206     document.getElementById("box7").disabled = true;
207     document.getElementById("box8").disabled = true;
208     document.getElementById("box9").disabled = true;
209     window.alert('Player 2 Wins!');
210 }
211
212 //checking for tie
213 else if ((box1 == 'X' || box1 == '0') && (box2 == 'X'
214     || box2 == '0') && (box3 == 'X' || box3 == '0') &&
215     (box4 == 'X' || box4 == '0') && (box5 == 'X' ||
216     box5 == '0') && (box6 == 'X' || box6 == '0') &&
217     (box7 == 'X' || box7 == '0') && (box8 == 'X' ||
218     box8 == '0') && (box9 == 'X' || box9 == '0')) {
219     document.getElementById('turn')
220         .innerHTML = "TIE";
221     window.alert('TIE');
```



PROMINEO TECH

```
222     }
223     else {
224
225         //Showing player's turn
226         if (flag == 1) {
227             document.getElementById('turn')
228                 .innerHTML = "Player 1's Turn";
229         }
230         else {
231             document.getElementById('turn')
232                 .innerHTML = "Player 2's Turn";
233         }
234     }
235 }
236
237 // Function to reset game
238 function myfunction2() {
239     location.reload();
240     document.getElementById('box1').value = '';
241     document.getElementById("box2").value = '';
242     document.getElementById("box3").value = '';
243     document.getElementById("box4").value = '';
244     document.getElementById("box5").value = '';
245     document.getElementById("box6").value = '';
246     document.getElementById("box7").value = '';
247     document.getElementById("box8").value = '';
248     document.getElementById("box9").value = '';
249
250 }
251
252 // check players turn and when to put X or O
253 flag = 1;
254 function myfunction3() {
255     if (flag == 1) {
256         document.getElementById("box1").value = "X";
257         document.getElementById("box1").disabled = true;
258         flag = 0;
```



PROMINEO TECH

```
259     }
260     else {
261         document.getElementById("box1").value = "0";
262         document.getElementById("box1").disabled = true;
263         flag = 1;
264     }
265 }
266
267 function myfunction4() {
268     if (flag == 1) {
269         document.getElementById("box2").value = "X";
270         document.getElementById("box2").disabled = true;
271         flag = 0;
272     }
273     else {
274         document.getElementById("box2").value = "0";
275         document.getElementById("box2").disabled = true;
276         flag = 1;
277     }
278 }
279
280 function myfunction5() {
281     if (flag == 1) {
282         document.getElementById("box3").value = "X";
283         document.getElementById("box3").disabled = true;
284         flag = 0;
285     }
286     else {
287         document.getElementById("box3").value = "0";
288         document.getElementById("box3").disabled = true;
289         flag = 1;
290     }
291 }
292
293 function myfunction6() {
294     if (flag == 1) {
295         document.getElementById("box4").value = "X";
```



PROMINEO TECH

```
295     document.getElementById("box4").value = "X";
296     document.getElementById("box4").disabled = true;
297     flag = 0;
298 }
299 else {
300     document.getElementById("box4").value = "0";
301     document.getElementById("box4").disabled = true;
302     flag = 1;
303 }
304 }
305
306 function myfunction7() {
307     if (flag == 1) {
308         document.getElementById("box5").value = "X";
309         document.getElementById("box5").disabled = true;
310         flag = 0;
311     }
312     else {
313         document.getElementById("box5").value = "0";
314         document.getElementById("box5").disabled = true;
315         flag = 1;
316     }
317 }
318
319 function myfunction8() {
320     if (flag == 1) {
321         document.getElementById("box6").value = "X";
322         document.getElementById("box6").disabled = true;
323         flag = 0;
324     }
325     else {
326         document.getElementById("box6").value = "0";
327         document.getElementById("box6").disabled = true;
328         flag = 1;
329     }
330 }
```



PROMINEO TECH

```
332 ✓ function myfunction9() {
333 ✓   if (flag == 1) {
334       document.getElementById("box7").value = "X";
335       document.getElementById("box7").disabled = true;
336       flag = 0;
337   }
338 ✓   else {
339       document.getElementById("box7").value = "0";
340       document.getElementById("box7").disabled = true;
341       flag = 1;
342   }
343 }
344
345 ✓ function myfunction10() {
346 ✓   if (flag == 1) {
347       document.getElementById("box8").value = "X";
348       document.getElementById("box8").disabled = true;
349       flag = 0;
350   }
351 ✓   else {
352       document.getElementById("box8").value = "0";
353       document.getElementById("box8").disabled = true;
354       flag = 1;
355   }
356 }
357
358 ✓ function myfunction11() {
359 ✓   if (flag == 1) {
360       document.getElementById("box9").value = "X";
361       document.getElementById("box9").disabled = true;
362       flag = 0;
363   }
364 ✓   else {
365       document.getElementById("box9").value = "0";
366       document.getElementById("box9").disabled = true;
367       flag = 1;
368   }
```




Screenshots of Running Application:

TIC TAC TOE

To start, tap any box.

Player 1 is X

Player 2 is O



Player 1 Wins!

TIC TAC TOE

To start, tap any box.

Player 1 is X

Player 2 is O



Player 2 Wins!



PROMINEO TECH

TIC TAC TOE

To start, tap any box.

Player 1 is X

Player 2 is O

X	X	O
O	O	X
X	O	X

RESET

TIE

URL to GitHub Repository:

<https://github.com/alexlaurencarey/week-11-coding-assignment.git>