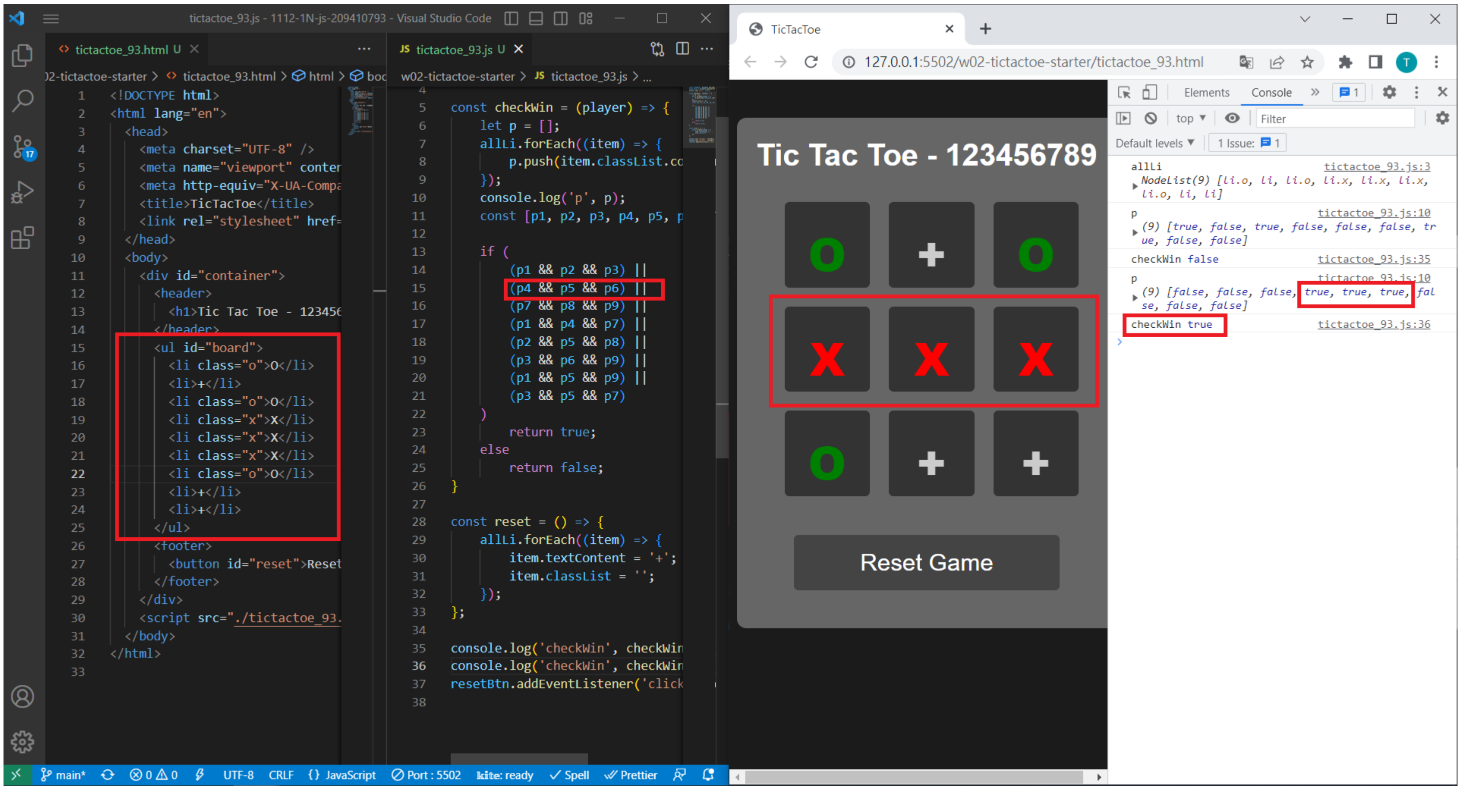
W02-P1: checkWin to determine who wins, you need to create four images as said in class



tictactoe_93.js - 1112-1N-js-209410793 - Visual Studio Code

tictactoe_93.html U

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" conten
    <meta http-equiv="X-UA-Compa
    <title>TicTacToe</title>
    <link rel="stylesheet" href=
  </head>
  <body>
    <div id="container">
      <header>
        <h1>Tic Tac Toe - 123456
      </header>
      <ul id="board">
        <li class="o">O</li>
        <li>+</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="x">X</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li>+</li>
        <li>+</li>
      </ul>
      <footer>
        <button id="reset">Reset
      </footer>
    </div>
    <script src="./tictactoe_93.
  </body>
</html>
```

tictactoe_93.js U

```javascript
const checkWin = (player) => {
    let p = [];
    allLi.forEach((item) => {
        p.push(item.classList.co
    });
    console.log('p', p);
    const [p1, p2, p3, p4, p5, p

    if (
        (p1 && p2 && p3) ||
        (p4 && p5 && p6) ||
        (p7 && p8 && p9) ||
        (p1 && p4 && p7) ||
        (p2 && p5 && p8) ||
        (p3 && p6 && p9) ||
        (p1 && p5 && p9) ||
        (p3 && p5 && p7)
    )
        return true;
    else
        return false;
}

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
    });
};

console.log('checkWin', checkWin
console.log('checkWin', checkWin
resetBtn.addEventListener('click
```

main* ⊗ 0 ⚠ 0 UTF-8 CRLF {} JavaScript Port : 5502 kite: ready ✓ Spell Prettier

TicTacToe

127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.html

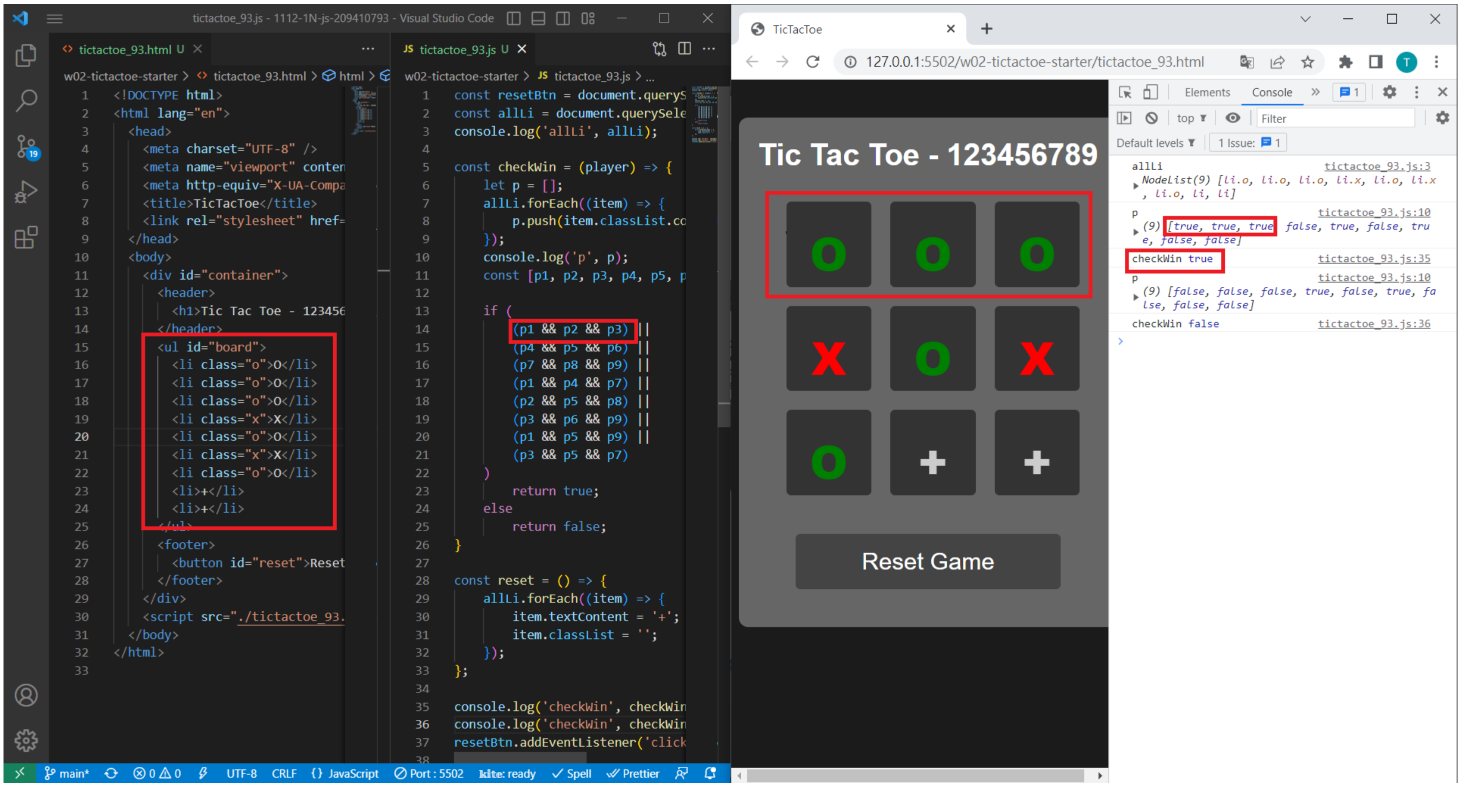
Tic Tac Toe - 123456789

O	+	O
X	X	X
O	+	+

Reset Game

Elements Console

```
allLi                                                   tictactoe_93.js:3
▸ NodeList(9) [li.o, li, li.o, li.x, li.x, li.x,
  li.o, li, li]
p                                                      tictactoe_93.js:10
▸ (9) [true, false, true, false, false, false, tr
  ue, false, false]
checkWin false                                         tictactoe_93.js:35
p                                                      tictactoe_93.js:10
▸ (9) [false, false, false, true, true, true, fal
  se, false, false]
checkWin true                                          tictactoe_93.js:36
```



tictactoe_93.js - 1112-1N-js-209410793 - Visual Studio Code

tictactoe_93.html U

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" conten
    <meta http-equiv="X-UA-Compa
    <title>TicTacToe</title>
    <link rel="stylesheet" href=
  </head>
  <body>
    <div id="container">
      <header>
        <h1>Tic Tac Toe - 123456
      </header>
      <ul id="board">
        <li class="o">O</li>
        <li class="o">O</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li>+</li>
        <li>+</li>
      </ul>
      <footer>
        <button id="reset">Reset
      </footer>
    </div>
    <script src="./tictactoe_93.
  </body>
</html>
```

tictactoe_93.js U

```javascript
const resetBtn = document.queryS
const allLi = document.querySele
console.log('allLi', allLi);

const checkWin = (player) => {
    let p = [];
    allLi.forEach((item) => {
        p.push(item.classList.co
    });
    console.log('p', p);
    const [p1, p2, p3, p4, p5, p

    if (
        (p1 && p2 && p3) ||
        (p4 && p5 && p6) ||
        (p7 && p8 && p9) ||
        (p1 && p4 && p7) ||
        (p2 && p5 && p8) ||
        (p3 && p6 && p9) ||
        (p1 && p5 && p9) ||
        (p3 && p5 && p7)
    )
        return true;
    else
        return false;
}

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
    });
};

console.log('checkWin', checkWin
console.log('checkWin', checkWin
resetBtn.addEventListener('click
```

main* ⊗ 0 ⚠ 0 UTF-8 CRLF {} JavaScript Port : 5502 kite: ready ✓ Spell Prettier

TicTacToe

127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.html

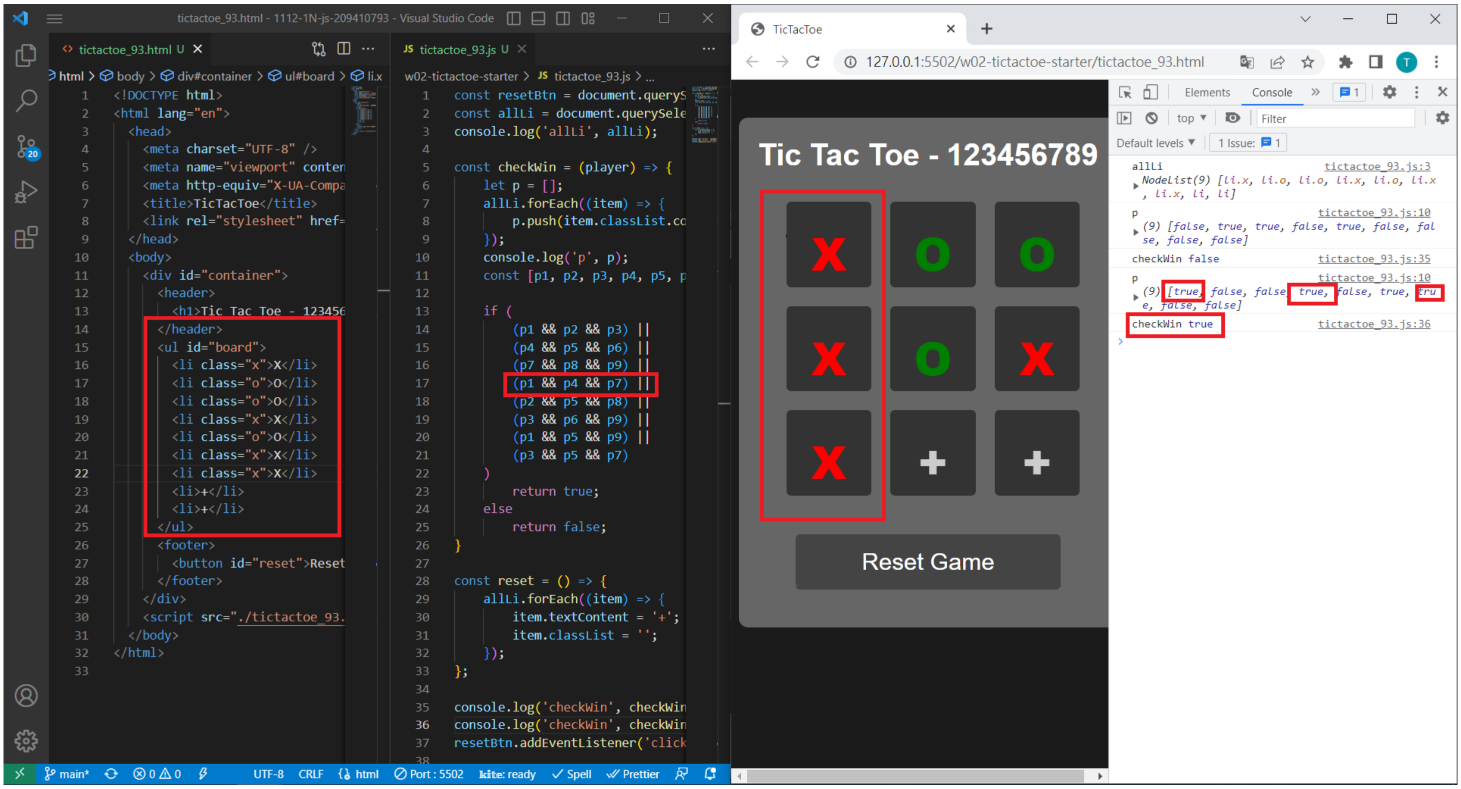
Tic Tac Toe - 123456789

O	O	O
X	O	X
O	+	+

Reset Game

Elements Console

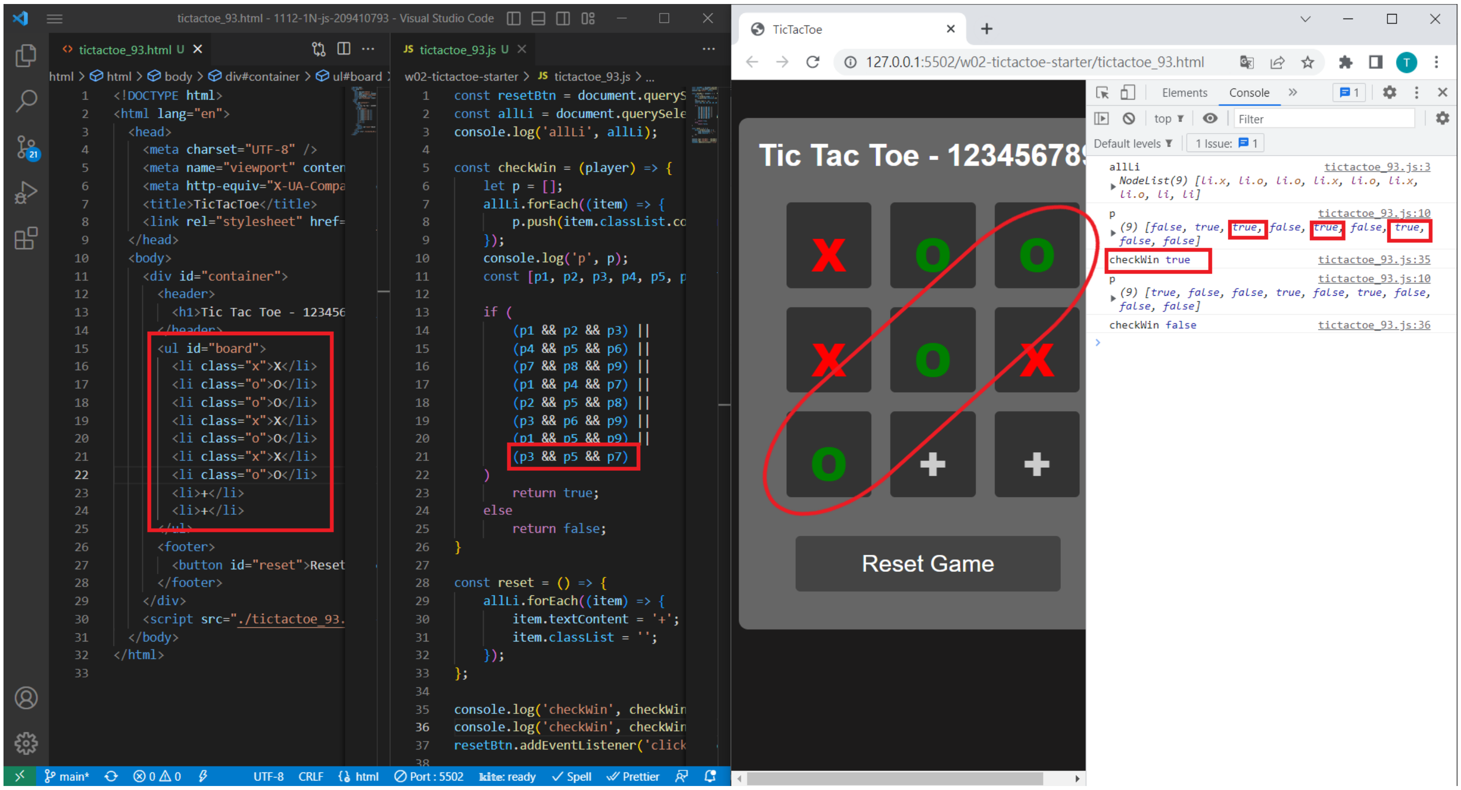
```
allLi                                                   tictactoe_93.js:3
▸ NodeList(9) [li.o, li.o, li.o, li.x, li.o, li.x
  , li.o, li, li]
p                                                      tictactoe_93.js:10
▸ (9) [true, true, true, false, true, false, tru
  e, false, false]
checkWin true                                          tictactoe_93.js:35
p                                                      tictactoe_93.js:10
▸ (9) [false, false, false, true, false, true, fa
  lse, false, false]
checkWin false                                         tictactoe_93.js:36
```


tictactoe_93.html - 1112-1N-js-209410793 - Visual Studio Code
tictactoe_93.html U
tictactoe_93.js U
html > body > div#container > ul#board > li.x
w02-tictactoe-starter > tictactoe_93.js > ...
main*
0 0
UTF-8
CRLF
html
Port : 5502
lite: ready
Spell
Prettier
TicTacToe
127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.html
Tic Tac Toe - 123456789
X
O
O
X
O
X
X
+
+
Reset Game
Elements
Console
top
Filter
Default levels
1 Issue: 1

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" conten
    <meta http-equiv="X-UA-Compa
    <title>TicTacToe</title>
    <link rel="stylesheet" href=
  </head>
  <body>
    <div id="container">
      <header>
        <h1>Tic Tac Toe - 123456
      </header>
      <ul id="board">
        <li class="x">X</li>
        <li class="o">O</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="x">X</li>
        <li>+</li>
        <li>+</li>
      </ul>
      <footer>
        <button id="reset">Reset
      </footer>
    </div>
    <script src="./tictactoe_93.
  </body>
</html>
```

```js
const resetBtn = document.queryS
const allLi = document.querySele
console.log('allLi', allLi);

const checkWin = (player) => {
    let p = [];
    allLi.forEach((item) => {
        p.push(item.classList.co
    });
    console.log('p', p);
    const [p1, p2, p3, p4, p5, p

    if (
        (p1 && p2 && p3) ||
        (p4 && p5 && p6) ||
        (p7 && p8 && p9) ||
        (p1 && p4 && p7) ||
        (p2 && p5 && p8) ||
        (p3 && p6 && p9) ||
        (p1 && p5 && p9) ||
        (p3 && p5 && p7)
    )
        return true;
    else
        return false;
}

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
    });
};

console.log('checkWin', checkWin
console.log('checkWin', checkWin
resetBtn.addEventListener('click
```

```
allLi                                                tictactoe_93.js:3
▸ NodeList(9) [li.x, li.o, li.o, li.x, li.o, li.x
  , li.x, li, li]
p                                                   tictactoe_93.js:10
▸ (9) [false, true, true, false, true, false, fal
  se, false, false]
checkWin false                                      tictactoe_93.js:35
p                                                   tictactoe_93.js:10
▸ (9) [true, false, false, true, false, true, tru
  e, false, false]
checkWin true                                       tictactoe_93.js:36
>
```

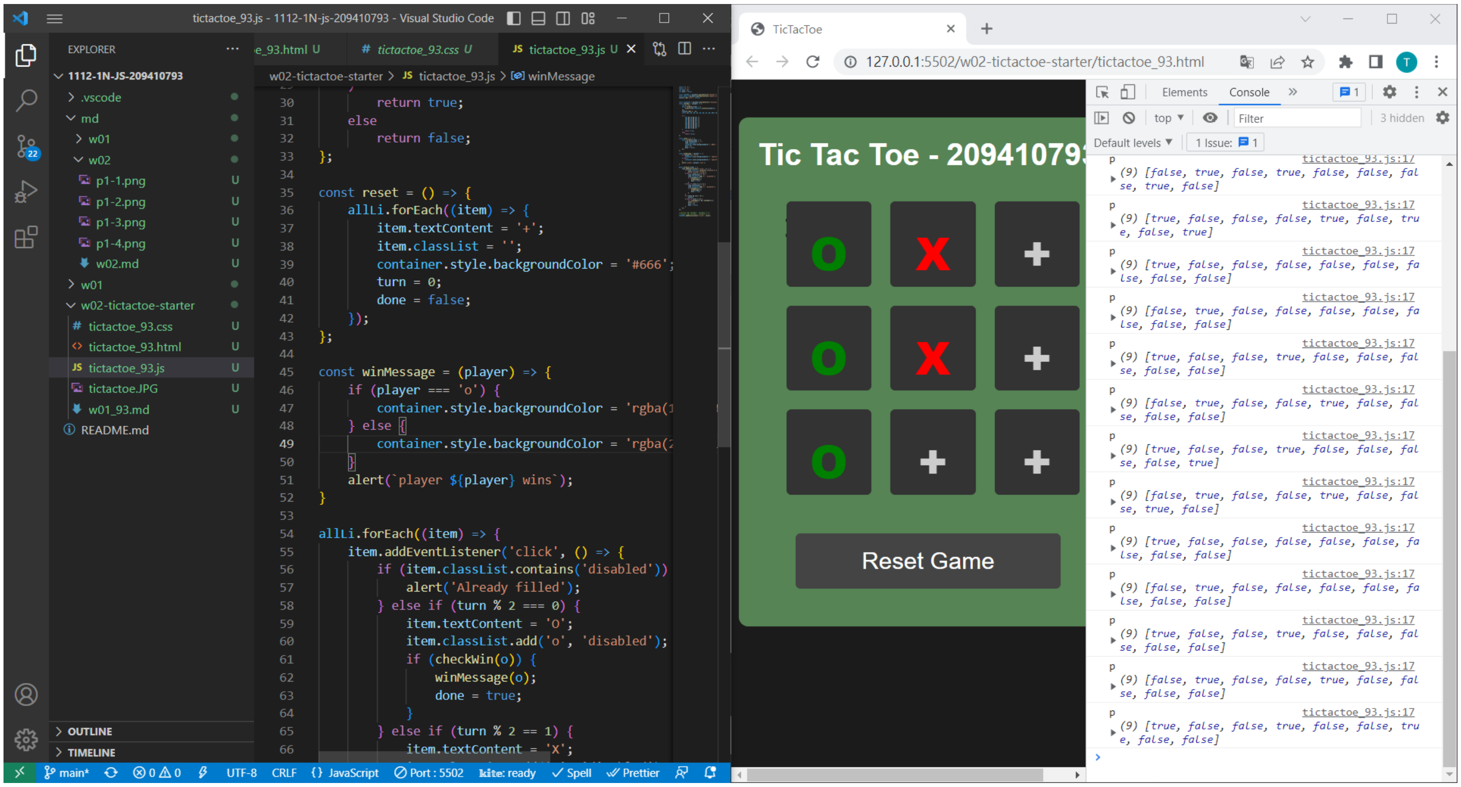

tictactoe_93.html - 1112-1N-js-209410793 - Visual Studio Code
tictactoe_93.html U
tictactoe_93.js U
html > html > body > div#container > ul#board
w02-tictactoe-starter > tictactoe_93.js > ...
main*
0 0
UTF-8
CRLF
html
Port : 5502
lite: ready
Spell
Prettier
TicTacToe
127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.html
Tic Tac Toe - 12345678
X
O
O
X
O
X
O
+
+
Reset Game
Elements
Console
top
Filter
Default levels
1 Issue: 1

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" conten
    <meta http-equiv="X-UA-Compa
    <title>TicTacToe</title>
    <link rel="stylesheet" href=
  </head>
  <body>
    <div id="container">
      <header>
        <h1>Tic Tac Toe - 123456
      </header>
      <ul id="board">
        <li class="x">X</li>
        <li class="o">O</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li class="x">X</li>
        <li class="o">O</li>
        <li>+</li>
        <li>+</li>
      </ul>
      <footer>
        <button id="reset">Reset
      </footer>
    </div>
    <script src="./tictactoe_93.
  </body>
</html>
```

```js
const resetBtn = document.queryS
const allLi = document.querySele
console.log('allLi', allLi);

const checkWin = (player) => {
    let p = [];
    allLi.forEach((item) => {
        p.push(item.classList.co
    });
    console.log('p', p);
    const [p1, p2, p3, p4, p5, p

    if (
        (p1 && p2 && p3) ||
        (p4 && p5 && p6) ||
        (p7 && p8 && p9) ||
        (p1 && p4 && p7) ||
        (p2 && p5 && p8) ||
        (p3 && p6 && p9) ||
        (p1 && p5 && p9) ||
        (p3 && p5 && p7)
    )
        return true;
    else
        return false;
}

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
    });
};

console.log('checkWin', checkWin
console.log('checkWin', checkWin
resetBtn.addEventListener('click
```

```
allLi                                                tictactoe_93.js:3
▸ NodeList(9) [li.x, li.o, li.o, li.x, li.o, li.x,
  li.o, li, li]
p                                                   tictactoe_93.js:10
▸ (9) [false, true, true, false, true, false, true,
  false, false]
checkWin true                                       tictactoe_93.js:35
p                                                   tictactoe_93.js:10
▸ (9) [true, false, false, true, false, true, false,
  false, false]
checkWin false                                      tictactoe_93.js:36
>
```

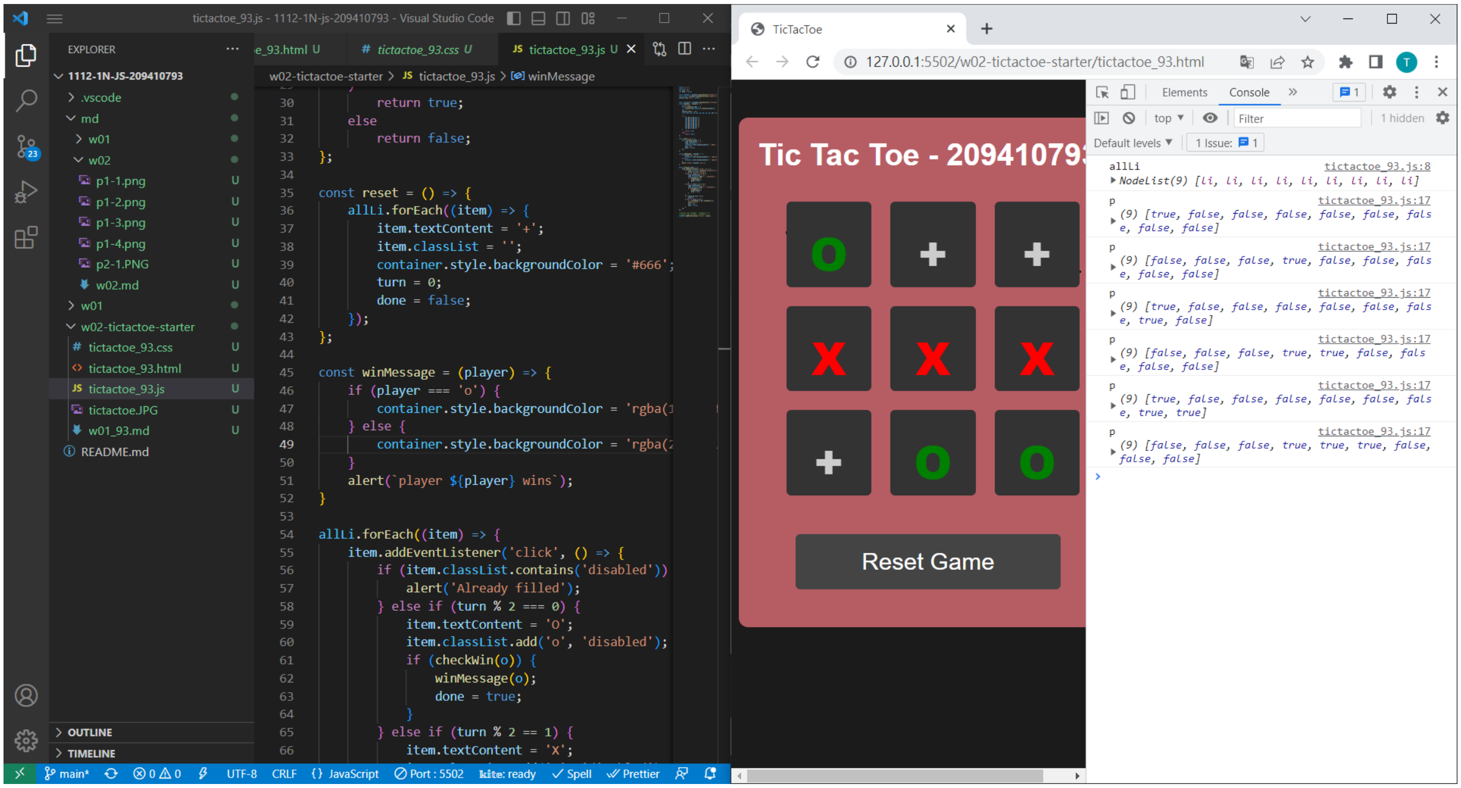
W02-P2: O win (9 times), X wins (8 times), tie (9 times)



```
        return true;
    else
        return false;
};

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
        container.style.backgroundColor = '#666';
        turn = 0;
        done = false;
    });
};

const winMessage = (player) => {
    if (player === 'o') {
        container.style.backgroundColor = 'rgba(1
    } else {
        container.style.backgroundColor = 'rgba(2
    }
    alert(`player ${player} wins`);
}

allLi.forEach((item) => {
    item.addEventListener('click', () => {
        if (item.classList.contains('disabled'))
            alert('Already filled');
        } else if (turn % 2 === 0) {
            item.textContent = 'O';
            item.classList.add('o', 'disabled');
            if (checkWin(o)) {
                winMessage(o);
                done = true;
            }
        } else if (turn % 2 == 1) {
            item.textContent = 'X';
```

O	X	+
O	X	+
O	+	+

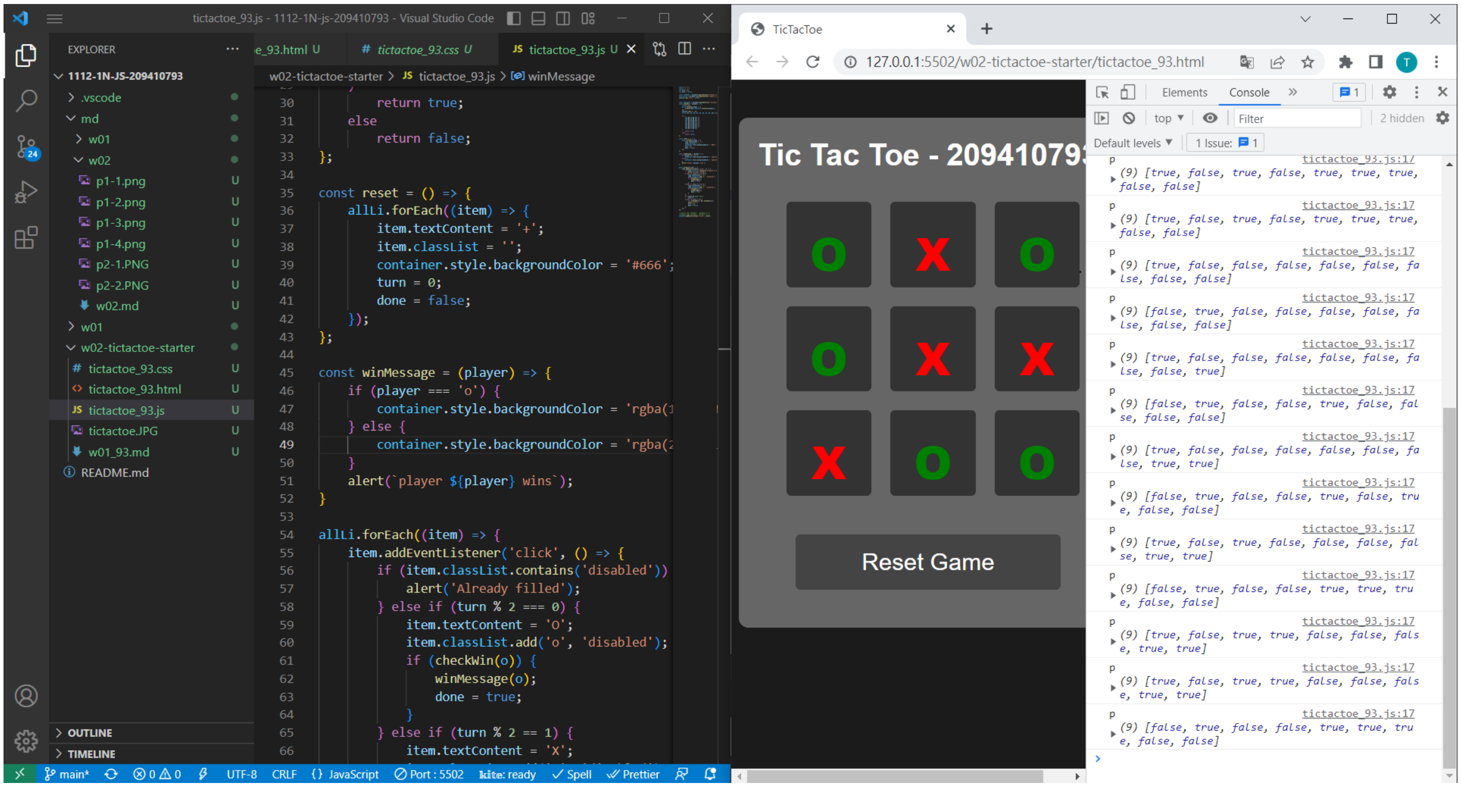
```
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, true, false, false, false, true, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, true, false, true, false, true]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, false, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, true, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, false, true, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, true, false, false, false, false, true]
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, false, true, false, false, true, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, false, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, true, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, true, false, false, true, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, true, false, false, true, false, false]
>
```



```
        return true;
    else
        return false;
};

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
        container.style.backgroundColor = '#666';
        turn = 0;
        done = false;
    });
};

const winMessage = (player) => {
    if (player === 'o') {
        container.style.backgroundColor = 'rgba(1
    } else {
        container.style.backgroundColor = 'rgba(2
    }
    alert(`player ${player} wins`);
}

allLi.forEach((item) => {
    item.addEventListener('click', () => {
        if (item.classList.contains('disabled'))
            alert('Already filled');
        } else if (turn % 2 === 0) {
            item.textContent = 'O';
            item.classList.add('o', 'disabled');
            if (checkWin(o)) {
                winMessage(o);
                done = true;
            }
        } else if (turn % 2 == 1) {
            item.textContent = 'X';
```

O	+	+
X	X	X
+	O	O

```
allLi                                                tictactoe_93.js:8
▸ NodeList(9) [li, li, li, li, li, li, li, li, li]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, false, false, true, false, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, true, false]
p                                                    tictactoe_93.js:17
▸ (9) [false, false, false, true, true, false, false, false, false]
p                                                    tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, true, true]
p                                                    tictactoe_93.js:17
▸ (9) [false, false, false, true, true, true, false, false, false]
>
```


tictactoe_93.js - 1112-1N-js-209410793 - Visual Studio Code

w02-tictactoe-starter > tictactoe_93.js > winMessage

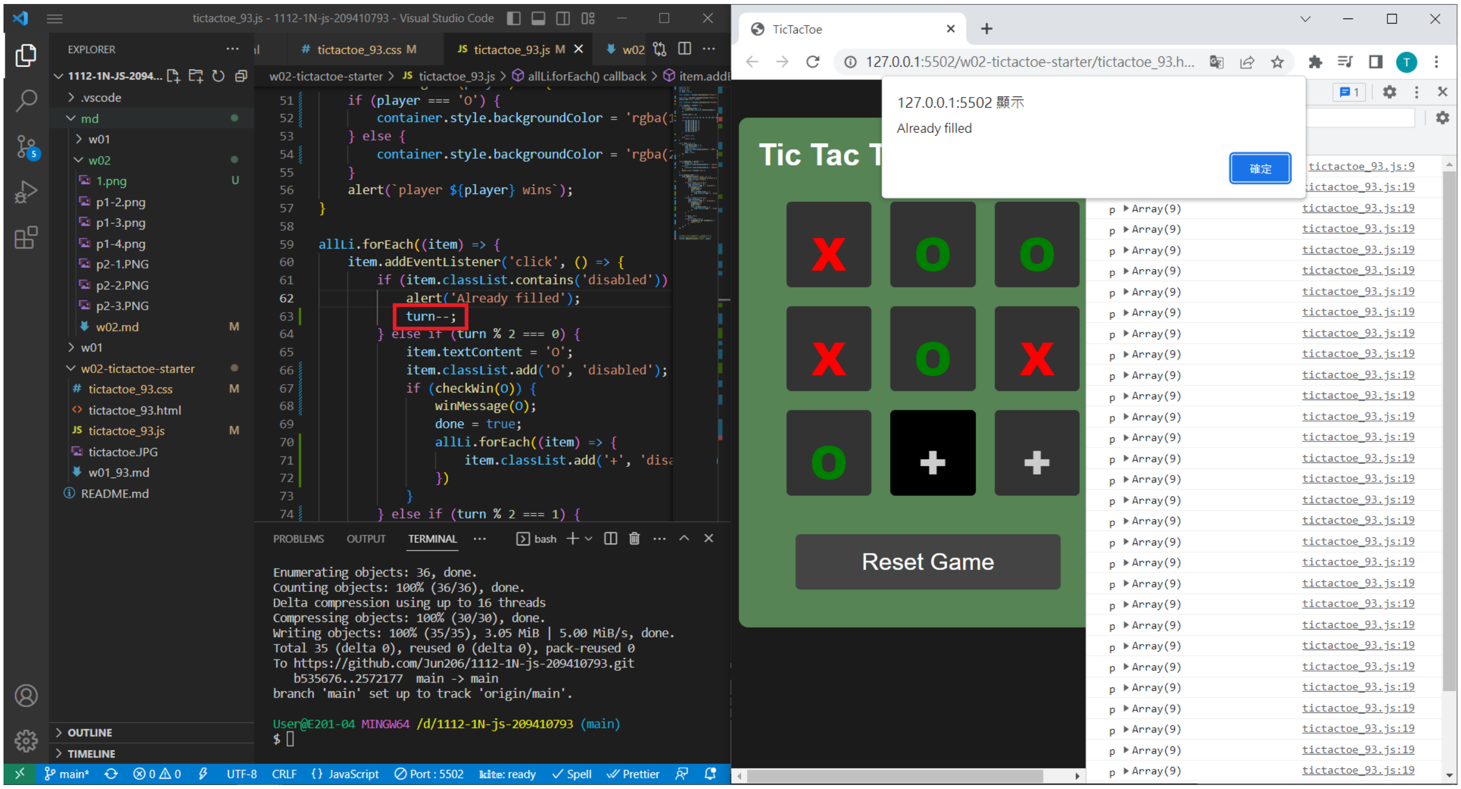
```
            return true;
        else
            return false;
};

const reset = () => {
    allLi.forEach((item) => {
        item.textContent = '+';
        item.classList = '';
        container.style.backgroundColor = '#666';
        turn = 0;
        done = false;
    });
};

const winMessage = (player) => {
    if (player === 'o') {
        container.style.backgroundColor = 'rgba(1
    } else {
        container.style.backgroundColor = 'rgba(2
    }
    alert(`player ${player} wins`);
}

allLi.forEach((item) => {
    item.addEventListener('click', () => {
        if (item.classList.contains('disabled'))
            alert('Already filled');
        } else if (turn % 2 === 0) {
            item.textContent = 'O';
            item.classList.add('o', 'disabled');
            if (checkWin(o)) {
                winMessage(o);
                done = true;
            }
        } else if (turn % 2 == 1) {
            item.textContent = 'X';
```

127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.html

Tic Tac Toe - 20941079

```
p                                                  tictactoe_93.js:17
▸ (9) [true, false, true, false, true, true, true, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, true, false, true, true, true, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [false, true, false, false, false, false, false, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, false, true]
p                                                  tictactoe_93.js:17
▸ (9) [false, true, false, false, true, false, false, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, false, false, false, false, false, true, true]
p                                                  tictactoe_93.js:17
▸ (9) [false, true, false, false, true, false, true, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, true, false, false, false, false, true, true]
p                                                  tictactoe_93.js:17
▸ (9) [false, true, false, false, true, true, true, false, false]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, true, true, false, false, false, true, true]
p                                                  tictactoe_93.js:17
▸ (9) [true, false, true, true, false, false, false, true, true]
p                                                  tictactoe_93.js:17
▸ (9) [false, true, false, false, true, true, true, false, false]
```

W02-P3: debug -- 已經走過的，不能走，但是 turn 加1，下一步還是同一個player


tictactoe_93.js - 1112-1N-js-209410793 - Visual Studio Code

w02-tictactoe-starter > tictactoe_93.js > allLi.forEach() callback > item.addE

```
    if (player === 'O') {
        container.style.backgroundColor = 'rgba(1
    } else {
        container.style.backgroundColor = 'rgba(2
    }
    alert(`player ${player} wins`);
}

allLi.forEach((item) => {
    item.addEventListener('click', () => {
        if (item.classList.contains('disabled'))
            alert('Already filled');
            turn--;
        } else if (turn % 2 === 0) {
            item.textContent = 'O';
            item.classList.add('O', 'disabled');
            if (checkWin(O)) {
                winMessage(O);
                done = true;
                allLi.forEach((item) => {
                    item.classList.add('+', 'disa
                })
            }
        } else if (turn % 2 === 1) {
```

```
Enumerating objects: 36, done.
Counting objects: 100% (36/36), done.
Delta compression using up to 16 threads
Compressing objects: 100% (30/30), done.
Writing objects: 100% (35/35), 3.05 MiB | 5.00 MiB/s, done.
Total 35 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Jun206/1112-1N-js-209410793.git
   b535676..2572177  main -> main
branch 'main' set up to track 'origin/main'.

User@E201-04 MINGW64 /d/1112-1N-js-209410793 (main)
$ 
```

127.0.0.1:5502/w02-tictactoe-starter/tictactoe_93.h...

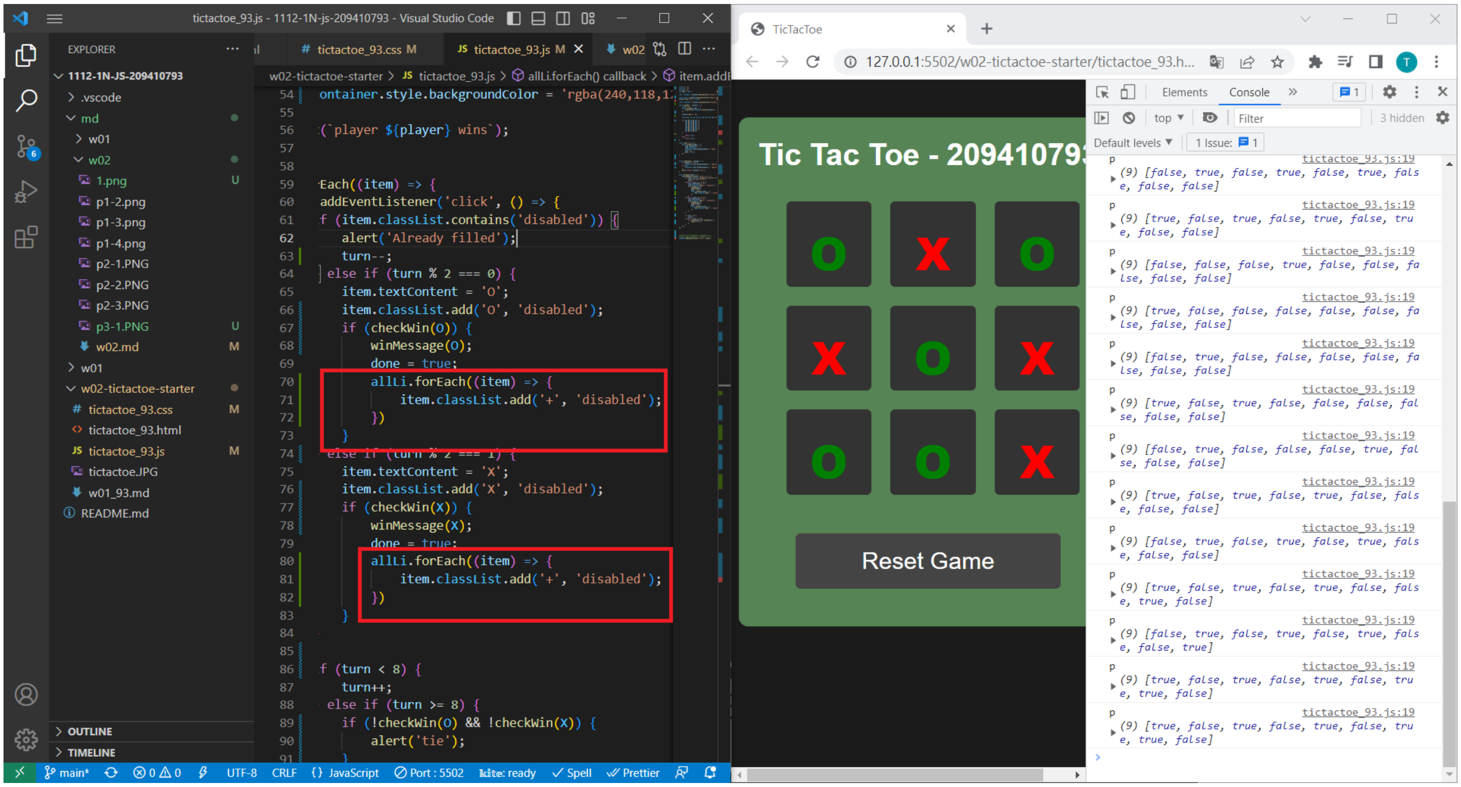
127.0.0.1:5502 顯示

Already filled

確定

```
                                   tictactoe_93.js:9
                                   tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
p ▸ Array(9)                       tictactoe_93.js:19
```

W02-P4: debug -- 已經贏了，還可以繼續往下玩

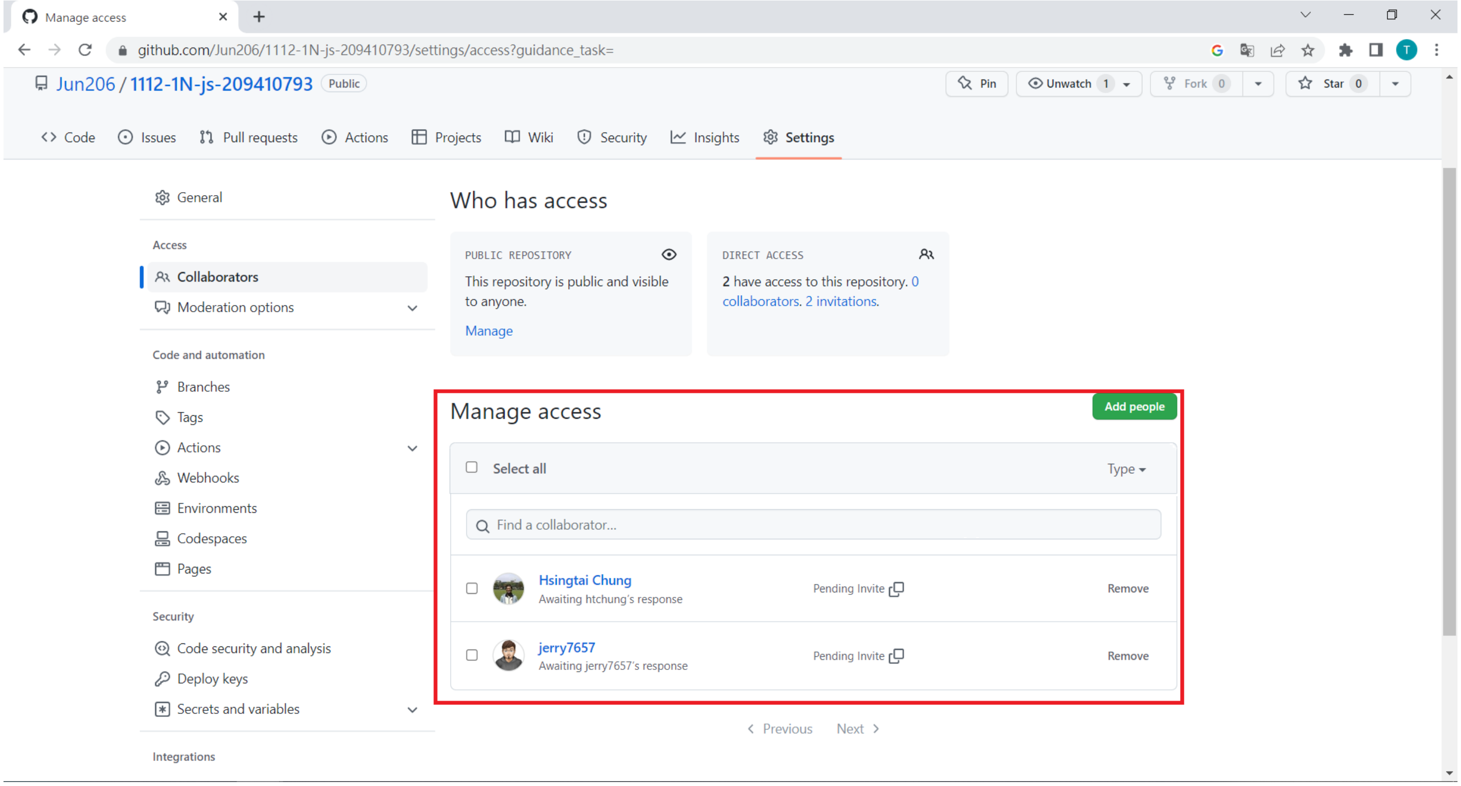


```
ontainer.style.backgroundColor = 'rgba(240,118,1

(`player ${player} wins`);


Each((item) => {
addEventListener('click', () => {
f (item.classList.contains('disabled')) {
   alert('Already filled');
   turn--;
 else if (turn % 2 === 0) {
   item.textContent = 'O';
   item.classList.add('O', 'disabled');
   if (checkWin(O)) {
       winMessage(O);
       done = true;
       allLi.forEach((item) => {
           item.classList.add('+', 'disabled');
       })
   }
 else if (turn % 2 === 1) {
   item.textContent = 'X';
   item.classList.add('X', 'disabled');
   if (checkWin(X)) {
       winMessage(X);
       done = true;
       allLi.forEach((item) => {
           item.classList.add('+', 'disabled');
       })
   }


f (turn < 8) {
   turn++;
 else if (turn >= 8) {
   if (!checkWin(O) && !checkWin(X)) {
       alert('tie');
   }
```

O	X	O
X	O	X
O	O	X

```
p                                          tictactoe_93.js:19
▶ (9) [false, true, false, true, false, true, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, true, false, true, false, false]
p                                          tictactoe_93.js:19
▶ (9) [false, false, false, true, false, false, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, false, false, false, false, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [false, true, false, false, false, false, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, false, false, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [false, true, false, false, false, true, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, true, false, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [false, true, false, true, false, true, false, false, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, true, false, false, true, false]
p                                          tictactoe_93.js:19
▶ (9) [false, true, false, true, false, true, false, false, true]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, true, false, true, true, false]
p                                          tictactoe_93.js:19
▶ (9) [true, false, true, false, true, false, true, true, false]
>
```

W02-P5: 邀請老師跟助教



Who has access

PUBLIC REPOSITORY

This repository is public and visible to anyone.

Manage

DIRECT ACCESS

2 have access to this repository. 0 collaborators. 2 invitations.

Manage access

□ Select all

Find a collaborator…

□ Hsingtai Chung
Awaiting htchung's response — Pending Invite

□ jerry7657
Awaiting jerry7657's response — Pending Invite