URL: https://mirarj.github.io/CS20/Assignment5_JS/

Questions:

1. What is the section of code you are most proud of (include the code in your answer).
   The section where I change the cursor image

```javascript
if (currturn=="O") {
    cells.forEach(element => {
        element.style.cursor = "url('o.png') 8 8,auto"
    });
}
else
{
    cells.forEach(element => {
        element.style.cursor = "url('x.png') 8 9,auto"
    });
}
```

Code:

```html
<!DOCTYPE html>
<html>
    <head>
        <title>Tic Tac Toe</title>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
        <meta name='viewport' content='width=device-width, initial-scale=1'/>

        <style>
            body {background-color: darkmagenta}
            body * {font-size: xx-large; text-align: center; max-width: 100%; color: white;
font-family: sans-serif;}
            input {color: darkmagenta;}
            table {margin: auto; text-align: center}
            td {width: 3em; height: 3em; text-align: center; padding: 0; margin: 0; border:
3px solid darkmagenta;}
            td > input {padding: 0; margin: 0; width: 100%; height: 100%; cursor:
url("x.png") 17 19,auto}
            #startover {width: 100%;}
            p {font-weight: bold;}
        </style>
    </head>

    <body>
        <!-- INITIAL LOAD PAGE -->
        <table>
```

```html
        <script>
            for (let i = 0; i < 3; i++) {
                document.write("<tr>\n")
                for (let j = 0; j < 3; j++) {
                    document.write(
                        "\t<td>\n\t\t<input type='button' class='cell' id='"+i+j+"'
value=' '>\n\t</td>\n")
                }
                document.write("</tr>\n")
            }
        </script>
    </table>
    <p id="turntxt">X's turn</p>
    <p id="wintxt"></p>
    <input type="button" value="Start Over" id="startover" style="display: none;">

    <!-- EVENTS -->
    <script>

        currturn = "X";
        canmove = true;

        cells = document.querySelectorAll("td input[type='button']");
        turntxt = document.getElementById("turntxt");
        wintxt = document.getElementById("wintxt");
        startover = document.getElementById("startover");


        function makeMove(button)
        {

            // enter value if cell is not empty and game is not over
            if (button.value != " " || !canmove) {return}
            button.value = currturn;

            // check if game is over
            if (checkWin(currturn))
            {
                canmove = false;
                wintxt.innerHTML = currturn + " wins!";
                startover.style.display="";
                return; // so winner goes first next time
            }
```

```javascript
        if (checkTie()) {
            canmove = false;
            wintxt.innerHTML = "You tied";
            startover.style.display="";
            return;
        }

        // switch turn
        if (currturn == "X") {currturn="O";}
        else if (currturn == "O") {currturn="X";}

        // display whose turn it is
        turntxt.innerHTML = currturn + "'s turn";

        // change cursor
        if (currturn=="O") {
            cells.forEach(element => {
                element.style.cursor = "url('o.png') 8 8,auto"
            });
        }
        else
        {
            cells.forEach(element => {
                element.style.cursor = "url('x.png') 8 9,auto"
            });
        }

    }

function checkWin(turn)
{
    winstates = ['012','345','678','036','147','258','048','246'];

    // for each possible win state
    for (let state = 0; state < winstates.length; state++)
    {
        won = true;
        // check if player hasn't filled any of the cells for that win state
        for (let i = 0; i < winstates[state].length; i++)
        {
            if (cells[winstates[state][i]].value != turn)
            {
```

```javascript
                            won = false;
                        }
                    }
                    if (won) {return true;}
                }
                return false;
            }

            function checkTie()
            {
                // check if all cells are not empty
                grid_full = true;
                cells.forEach(element => {
                    grid_full = grid_full && element.value!=" "
                });
                return grid_full;
            }

            cells.forEach(element => {
                element.addEventListener('click', function(){makeMove(element)});
            });


            // reset
            function clearAll()
            {
                cells.forEach(element => {element.value=" "});
                wintxt.innerHTML = "";
                startover.style.display="none"
                canmove = true;
            }
            startover.addEventListener('click', function(){clearAll()});

        </script>

    </body>
</html>
```