
 Marwadi University Marwadi Chandarana Group		Marwadi University Faculty of Technology Department of Information and Communication Technology	
Subject: Internet and Web Technology (01CT0408)		Aim: Design and Implement Tic-Tac-Toe game using HTML, CSS and JavaScript.	
Experiment No:- 09	Date:- 06-04-2024	Enrollment No:- 92200133030	

Objective:- Design and Implement Tic-Tac-Toe game using HTML, CSS and JavaScript.

HTML Code :-


```
<!DOCTYPE html>
<html lang="en">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <head>
    <title>Tic Tac Toe</title>
    <link href="https://fonts.googleapis.com/css2?family=Raleway:wght@700&display=swap" rel="stylesheet">
    <link rel="stylesheet" href="/style.css">
  </head>
  <body>
    <div class="wrapper">
      <div class="container">
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
        <button class="button-option"></button>
      </div>
      <button id="restart">Restart</button>
    </div>
    <div class="popup hide">
      <button id="new-game">New Game</button>
    </div>
    <script src="/script.js"></script>
  </body>
</html>
```

CSS Code :-

```
* {
  padding: 0;
  margin: 0;
  box-sizing: border-box;
  font-family: "Raleway", sans-serif;
}

body {
  height: 100vh;
  background: linear-gradient(135deg, #8052ec, #d161ff);
}

html {
```

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```

font-size: 16px;
}

.wrapper {
position: absolute;
transform: translate(-50%, -50%);
top: 50%;
left: 50%;
}



.container {
width: 70vmin;
height: 70vmin;
display: flex;
flex-wrap: wrap;
gap: 2vmin;
}

.button-option {
background: #ffffff;
height: 22vmin;
width: 22vmin;
border: none;
border-radius: 8px;
font-size: 12vmin;
color: #d161ff;
box-shadow: 0 0 15px rgba(0, 0, 0, 0.1);
}

#restart {
font-size: 1.3em;
padding: 1em;
border-radius: 8px;
background-color: #0a0027;
color: #ffffff;
border: none;
position: relative;
margin: 1.5em auto 0 auto;
display: block;
}

.popup {
background: linear-gradient(135deg, #8052ec, #d161ff);
height: 100%;
width: 100%;
position: absolute;
display: flex;
z-index: 2;
align-items: center;
justify-content: center;
flex-direction: column;

```

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```

gap: 1em;
font-size: 12vmin;
}

#new-game {
  font-size: 0.6em;
  padding: 0.5em 1em;
  background-color: #0a0027;
  color: #ffffff;
  border-radius: 0.2em;
  border: none;
}

#message {
  color: #ffffff;
  text-align: center;
  font-size: 1em;
}

.popup.hide {
  display: none;
}

```

JavaScript Code :-

```

let btnRef = document.querySelectorAll(".button-option");
let popupRef = document.querySelector(".popup");
let newgameBtn = document.getElementById("new-game");
let restartBtn = document.getElementById("restart");
let msgRef = document.getElementById("message");



let winningPattern = [[0, 1, 2],[0, 3, 6],[2, 5, 8],[6, 7, 8],[3, 4, 5],[1, 4, 7],[0, 4, 8],[2, 4, 6].];
let xTurn = true;
let count = 0;

const disableButtons = () => {
  btnRef.forEach((element) => (element.disabled = true));
  popupRef.classList.remove("hide");
};

const enableButtons = () => {
  btnRef.forEach((element) => {
    element.innerText = "";
    element.disabled = false;
  });
  popupRef.classList.add("hide");
};

const winFunction = (letter) => {
  disableButtons();
}

```

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```

if (letter == "X") {
    msgRef.innerHTML = "&#x1F389; <br> 'X' Wins";
} else {
    msgRef.innerHTML = "&#x1F389; <br> 'O' Wins";
}
};


const drawFunction = () => {
    disableButtons();
    msgRef.innerHTML = "&#x1F60E; <br> It's a Draw";
};

newgameBtn.addEventListener("click", () => {
    count = 0;
    enableButtons();
});
restartBtn.addEventListener("click", () => {
    count = 0;
    enableButtons();
});

const winChecker = () => {
    for (let i of winningPattern) {
        let [element1, element2, element3] = [
            btnRef[i[0]].innerText,
            btnRef[i[1]].innerText,
            btnRef[i[2]].innerText,
        ];
        if (element1 != "" && (element2 != "") & (element3 != "")) {
            if (element1 == element2 && element2 == element3) {
                winFunction(element1);
            }
        }
    }
}

btnRef.forEach((element) => {
    element.addEventListener("click", () => {
        if (xTurn) {
            xTurn = false;
            element.innerText = "X";
            element.disabled = true;
        } else {
            xTurn = true;
            element.innerText = "O";
            element.disabled = true;
        }
        count += 1;
        if (count == 9) {
            drawFunction();
        }
    });
});

```

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```

winChecker();
});
});

window.onload = enableButtons;

```

Output :-

