Tic Tac Toe Web Application

# Tic Tac Toe Web Application  
  
## Description  
A simple Tic Tac Toe game built using HTML, CSS, and JavaScript. Two players take turns marking X and O in a 3×3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row wins.  
  
## Features  
- Two-player support  
- Win detection logic  
- Reset functionality  
  
## Technologies Used  
- HTML  
- CSS  
- JavaScript

# HTML Code

<!DOCTYPE html>  
<html>  
<head>  
 <title>Tic Tac Toe</title>  
 <link rel="stylesheet" href="style.css">  
</head>  
<body>  
 <h1>Tic Tac Toe</h1>  
 <div id="board">  
 <div class="cell" onclick="makeMove(this, 0)"></div>  
 <div class="cell" onclick="makeMove(this, 1)"></div>  
 <div class="cell" onclick="makeMove(this, 2)"></div>  
 <div class="cell" onclick="makeMove(this, 3)"></div>  
 <div class="cell" onclick="makeMove(this, 4)"></div>  
 <div class="cell" onclick="makeMove(this, 5)"></div>  
 <div class="cell" onclick="makeMove(this, 6)"></div>  
 <div class="cell" onclick="makeMove(this, 7)"></div>  
 <div class="cell" onclick="makeMove(this, 8)"></div>  
 </div>  
 <p id="status">Player X's turn</p>  
 <button onclick="resetGame()">Reset</button>  
 <script src="script.js"></script>  
</body>  
</html>

# CSS Code

body {  
 text-align: center;  
 font-family: Arial, sans-serif;  
}  
  
#board {  
 display: grid;  
 grid-template-columns: repeat(3, 100px);  
 grid-template-rows: repeat(3, 100px);  
 gap: 5px;  
 margin: 20px auto;  
 width: max-content;  
}  
  
.cell {  
 width: 100px;  
 height: 100px;  
 background-color: #f0f0f0;  
 font-size: 2em;  
 display: flex;  
 justify-content: center;  
 align-items: center;  
 cursor: pointer;  
 border: 1px solid #333;  
}

# JavaScript Code

let board = ["", "", "", "", "", "", "", "", ""];  
let currentPlayer = "X";  
let statusText = document.getElementById("status");  
  
function makeMove(cell, index) {  
 if (board[index] === "" && !checkWinner()) {  
 board[index] = currentPlayer;  
 cell.innerText = currentPlayer;  
 if (checkWinner()) {  
 statusText.innerText = "Player " + currentPlayer + " wins!";  
 } else if (board.every(cell => cell !== "")) {  
 statusText.innerText = "It's a draw!";  
 } else {  
 currentPlayer = currentPlayer === "X" ? "O" : "X";  
 statusText.innerText = "Player " + currentPlayer + "'s turn";  
 }  
 }  
}  
  
function checkWinner() {  
 const winPatterns = [  
 [0, 1, 2], [3, 4, 5], [6, 7, 8],  
 [0, 3, 6], [1, 4, 7], [2, 5, 8],  
 [0, 4, 8], [2, 4, 6]  
 ];  
 return winPatterns.some(pattern => {  
 const [a, b, c] = pattern;  
 return board[a] && board[a] === board[b] && board[b] === board[c];  
 });  
}  
  
function resetGame() {  
 board = ["", "", "", "", "", "", "", "", ""];  
 currentPlayer = "X";  
 statusText.innerText = "Player X's turn";  
 document.querySelectorAll(".cell").forEach(cell => cell.innerText = "");  
}

# Sample Output

Below is an image showing a sample Tic Tac Toe game state:

