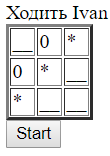
Задача. Гра «Хрестики нулики»



<!DOCTYPE html>

<html lang="en" xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta charset="utf-8" />

<title></title>

<script>

class TicTacToe {

constructor(player1Name, player2Name) {

this.Player1Name = player1Name;

this.Player2Name = player2Name;

this.gameField = [[-1, -1, -1],

[-1, -1, -1],

[-1, -1, -1]];

this.currentPlayer = 1;

this.stepsCount = 0;

}

isMainDiagonal() {

return this.gameField[0][0] == this.gameField[1][1] &&

this.gameField[0][0] == this.gameField[2][2];

}

isRightDiagonal() {

return this.gameField[0][2] == this.gameField[1][1] &&

this.gameField[0][2] == this.gameField[2][0];

}

isVerticalLine(col) {

return this.gameField[0][col] == this.gameField[1][col] &&

this.gameField[0][col] == this.gameField[2][col];

}

isHorizontalLine(row) {

return this.gameField[row][0] == this.gameField[row][1] &&

this.gameField[row][0] == this.gameField[row][2];

}

isWinner(row, col) {

return (row == col && this.isMainDiagonal()) ||

((row + col) == 2 && this.isRightDiagonal()) ||

this.isHorizontalLine(row) ||

this.isVerticalLine(col);

}

cellClick(event) {

var td = event.target; //Одержуємо посилання на об"єкт, який згенерува подію

var row = parseInt(td.getAttribute("r"));

var col = parseInt(td.getAttribute("c"));

if (this.gameField[row][col] != -1) {

alert("Комірка зайнята");

}

else {

this.stepsCount++;

td.innerText = this.currentPlayer == 1 ? "\*" : "0";

this.gameField[row][col] = this.currentPlayer;

if (this.isWinner(row, col)) {

let currentPlayerName = this.currentPlayer == 1 ? this.Player1Name : this.Player2Name;

alert("Переміг гравець" + currentPlayerName);

}

else {

if (this.stepsCount < 9) {

this.currentPlayer = 3 - this.currentPlayer;

let currentPlayerName = this.currentPlayer == 1 ? this.Player1Name : this.Player2Name;

document.getElementById("currentPlayer").innerText =

"Ходить " + currentPlayerName;

}

else {

alert("Нічия");

}

}

}

}

render(containerID) {

var container = document.getElementById(containerID);

var div = document.createElement("div");

div.setAttribute("id", "currentPlayer");

div.innerText = "Ходить" + this.Player1Name;

container.appendChild(div);

var table = document.createElement("table");

table.border = "2px solid black";

for (var i = 0; i < 3; i++) {

var tr = document.createElement("tr");

for (var j = 0; j < 3; j++) {

var td = document.createElement("td");

td.innerText = "\_\_";

td.setAttribute("r", i);

td.setAttribute("c", j);

td.onclick = this.cellClick.bind(this); // <-- Фіксуємо констекст

tr.appendChild(td);

}

table.appendChild(tr);

}

container.appendChild(table);

}

}

//-------------------------

function start() {

var game = new TicTacToe("Ivan", "Petro");

game.render("forGame");

}

</script>

</head>

<body>

<div id="forGame">

</div>

<input type="button" value="Start" onclick="start()" />

</body>

</html>