import java.util.Scanner;

public class Tugas\_pemrog {

private static char[][] board = new char[3][3];

private static String playerXName = "Player X";

private static String playerOName = "Player O";

private static char currentPlayer = 'X';

private static int playerXScore = 0;

private static int playerOScore = 0;

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Welcome to Tic Tac Toe!");

System.out.print("Enter the name for Player X: ");

playerXName = scanner.nextLine();

System.out.print("Enter the name for Player O: ");

playerOName = scanner.nextLine();

boolean playAgain = true;

while (playAgain) {

initializeBoard();

playGame();

printScore();

System.out.print("Do you want to play again? (yes/no): ");

String playAgainResponse = scanner.next().toLowerCase();

playAgain = playAgainResponse.equals("yes");

}

System.out.println("Thanks for playing Tic Tac Toe!");

}

private static void initializeBoard() {

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

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

board[i][j] = ' ';

}

}

}

private static void printBoard() {

System.out.println("-------------");

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

System.out.print("| ");

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

System.out.print(board[i][j] + " | ");

}

System.out.println("\n-------------");

}

}

private static void playGame() {

boolean gameOver = false;

int moves = 0;

while (!gameOver) {

System.out.println("\nCurrent board:");

printBoard();

int[] move = getPlayerMove();

int row = move[0];

int col = move[1];

if (isValidMove(row, col)) {

board[row][col] = currentPlayer;

moves++;

if (checkWin(row, col)) {

System.out.println("\n" + getPlayerName(currentPlayer) + " wins this round!");

updateScore(currentPlayer);

gameOver = true;

} else if (moves == 9) {

System.out.println("\nIt's a draw!");

gameOver = true;

} else {

currentPlayer = (currentPlayer == 'X') ? 'O' : 'X';

}

} else {

System.out.println("\nInvalid move! Try again.");

}

}

}

private static int[] getPlayerMove() {

Scanner scanner = new Scanner(System.in);

int row, col;

do {

System.out.print("\n" + getPlayerName(currentPlayer) + ", enter your move (row and column): ");

row = scanner.nextInt();

col = scanner.nextInt();

} while (row < 0 || row >= 3 || col < 0 || col >= 3 || board[row][col] != ' ');

return new int[]{row, col};

}

private static boolean isValidMove(int row, int col) {

return row >= 0 && row < 3 && col >= 0 && col < 3 && board[row][col] == ' ';

}

private static boolean checkWin(int row, int col) {

return (board[row][0] == currentPlayer && board[row][1] == currentPlayer && board[row][2] == currentPlayer) ||

(board[0][col] == currentPlayer && board[1][col] == currentPlayer && board[2][col] == currentPlayer) ||

(row == col && board[0][0] == currentPlayer && board[1][1] == currentPlayer && board[2][2] == currentPlayer) ||

(row + col == 2 && board[0][2] == currentPlayer && board[1][1] == currentPlayer && board[2][0] == currentPlayer);

}

private static String getPlayerName(char player) {

return (player == 'X') ? playerXName : playerOName;

}

private static void updateScore(char player) {

if (player == 'X') {

playerXScore++;

} else {

playerOScore++;

}

}

private static void printScore() {

System.out.println("\n--- Game Score ---");

System.out.println(playerXName + ": " + playerXScore);

System.out.println(playerOName + ": " + playerOScore);

}

}