// See https://aka.ms/new-console-template for more information

namespace TIC\_TAC\_TOE;

class Program

{

public static void Main(string[] args)

{

string[,] Board = new string[3, 3];

int Rows = 3;

int Columns = 3;

string Player1 = ".";

string Player2 = ".";

SetupGame(Board, Rows, Columns, ref Player1, ref Player2);

PrintBoard(Board, Rows, Columns);

while (!GameOver(Board, ref Player1) && !GameOver(Board, ref Player2))

{

PlayGame(Board, Rows, Columns, ref Player1, ref Player2);

PrintBoard(Board, Rows, Columns);

}

}

public static void SetupGame(string[,] board, int rows, int columns, ref string player1, ref string player2)

{

for (var i = 0; i < rows; i++)

{

for (var j = 0; j < columns; j++)

{

board[i, j] = ".";

}

}

Console.WriteLine("player 1 choose 'x' or 'o':");

player1 = Console.ReadLine();

Console.WriteLine("player 2 choose 'x or 'o':");

player2 = Console.ReadLine();

}

public static void PrintBoard(string[,] board, int rows, int columns)

{

for (var i = 0; i < rows; i++)

{

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

{

Console.Write(board[i, j]);

}

Console.WriteLine();

}

}

public static void PlayGame(string[,] board, int rows, int columns, ref string player1, ref string player2)

{

SetPosition(board, player1);

SetPosition(board, player2);

}

public static void SetPosition(string[,] board, string player)

{

Console.WriteLine($"player {player} choose a row (0-2):");

int playerRow = Convert.ToInt32(Console.ReadLine());

Console.WriteLine($"player {player} choose a column (0-2):");

int playerColumn = Convert.ToInt32(Console.ReadLine());

board[playerRow, playerColumn] = player;

}

public static bool GameOver(string[,] board, ref string player)

{

string TopRow = board[0, 0] + board[0, 1] + board[0, 2];

string MidRow = board[1, 0] + board[1, 1] + board[1, 2];

string BotRow = board[2, 0] + board[2, 1] + board[2, 2];

string FirCol = board[0, 0] + board[1, 0] + board[2, 0];

string SecCol = board[0, 1] + board[1, 1] + board[2, 1];

string ThiCol = board[0, 2] + board[1, 2] + board[2, 2];

string Diagon = board[0, 0] + board[1, 1] + board[2, 2];

string RevDia = board[0, 2] + board[1, 1] + board[2, 0];

string playerTriple = player + player + player;

if (TopRow.Equals(playerTriple)

|| MidRow.Equals(playerTriple)

|| BotRow.Equals(playerTriple)

|| FirCol.Equals(playerTriple)

|| SecCol.Equals(playerTriple)

|| ThiCol.Equals(playerTriple)

|| Diagon.Equals(playerTriple)

|| RevDia.Equals(playerTriple)

)

{

return true;

}

else

{

return false;

}

}

}