

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```
namespace TicTacToe
```

```
{
    class Program
    {

        public static char[,] board =
        {
            {'1', '2', '3'},
            {'4', '5', '6'},
            {'7', '8', '9'}
        };
        public static char[,] newBoard =
        {
            {'1', '2', '3'},
            {'4', '5', '6'},
            {'7', '8', '9'}
        };
        public static void Board()
        {
            Console.WriteLine("    |    |    ");
            Console.WriteLine(" {0} | {1} | {2} ", board[0, 0], board[0, 1], board[0, 2]);
            Console.WriteLine("-----|-----|-----");
            Console.WriteLine("    |    |    ");
            Console.WriteLine(" {0} | {1} | {2} ", board[1, 0], board[1, 1], board[1, 2]);
            Console.WriteLine("-----|-----|-----");
            Console.WriteLine("    |    |    ");
            Console.WriteLine(" {0} | {1} | {2} ", board[2, 0], board[2, 1], board[2, 2]);
            Console.WriteLine("    |    |    ");
        }
    }
}
```

```
public static void Main(string[] args)
{
    bool player1Turn = true;
    bool player2Turn = false;
    bool game = true;
    bool win = false;
    do
    {
        while(player1Turn == true)
        {
            bool wrongInput = false;
            wrongInputFix:
            try
            {
                Console.Clear();
                Board();
                Console.Write("Player 1: Choose your field! ");
                string player1Input = Console.ReadLine();
                int choice = int.Parse(player1Input);
                switch (choice)
                {
                    case 1:
                        if (board[0, 0] != 'O')
                        {
                            board[0, 0] = 'X';
                        }
                        else
                        {
                            Console.WriteLine("Pick a different box!");
                            Console.WriteLine("Press anything to continue.");
                            wrongInput = true;
                        }
                    }
                }
            }
            catch { }
        }
    }
}
```

```
    Console.ReadKey();
}
break;
case 2:
    if (board[0, 1] != 'O')
    {
        board[0, 1] = 'X';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 3:
    if (board[0, 2] != 'O')
    {
        board[0, 2] = 'X';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 4:
    if (board[1, 0] != 'O')
    {
        board[1, 0] = 'X';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 5:
    if (board[1, 1] != 'O')
    {
        board[1, 1] = 'X';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 6:
    if (board[1, 2] != 'O')
    {
        board[1, 2] = 'X';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
```

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Console.WriteLine("Press anything to continue.");
wrongInput = true;
Console.ReadKey();
}

break;
case 7:
if (board[2, 0] != 'O')
{
board[2, 0] = 'X';
}
else
{
Console.WriteLine("Pick a different box!");
Console.WriteLine("Press anything to continue.");
wrongInput = true;
Console.ReadKey();
}

break;
case 8:
if (board[2, 1] != 'O')
{
board[2, 1] = 'X';
}
else
{
Console.WriteLine("Pick a different box!");
Console.WriteLine("Press anything to continue.");
wrongInput = true;
Console.ReadKey();
}

break;
case 9:
if (board[2, 2] != 'O')
{
board[2, 2] = 'X';
}
else
{
Console.WriteLine("Pick a different box!");
Console.WriteLine("Press anything to continue.");
wrongInput = true;
Console.ReadKey();
}

break;
default:
Console.WriteLine("Please enter a number between 0-9");
Console.ReadKey();
break;
}
if (wrongInput == true)
{
wrongInput = false;
goto wrongInputFix;
}
foreach (char c in board)
{
if (((board[0, 0] == 'X') && (board[0, 1] == 'X') && (board[0, 2] == 'X'))
|| ((board[1, 0] == 'X') && (board[1, 1] == 'X') && (board[1, 2] == 'X'))
|| ((board[2, 0] == 'X') && (board[2, 1] == 'X') && (board[2, 2] == 'X'))
|| ((board[0, 0] == 'X') && (board[1, 0] == 'X') && (board[2, 0] == 'X'))
|| ((board[0, 1] == 'X') && (board[1, 1] == 'X') && (board[2, 1] == 'X'))
|| ((board[0, 2] == 'X') && (board[1, 2] == 'X') && (board[2, 2] == 'X'))
|| ((board[0, 0] == 'X') && (board[1, 1] == 'X') && (board[2, 2] == 'X'))

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    || ((board[2, 0] == 'X') && (board[1, 1] == 'X') && (board[0, 2] == 'X'))
    )
    {
        Console.Clear();
        Board();
        Console.WriteLine("Player 1 has won!");
        Console.WriteLine("Press anything to continue.");
        Console.ReadKey();
        win = true;
        player1Turn = false;
        break;
    }
    else if (choice >= 9)
    {
    }

    else
    {
        player2Turn = true;
        player1Turn = false;
        if (win == true)
        {
            player1Turn = false;
            player2Turn = false;
        }
    }
}
}
}
catch (FormatException)
{
    Console.WriteLine("Please enter a number between 0-9");
    Console.WriteLine("Press anything to continue.");
    Console.ReadKey();
    break;
}
}

while (player2Turn == true)
{
    bool wrongInput = false;
    wrongInputFix:

    try
    {
        Console.Clear();
        Board();
        string player2Input;
        Console.Write("Player 2: Choose your field! ");
        player2Input = Console.ReadLine();
        int choice = int.Parse(player2Input);
        switch (choice)
        {
            case 1:
                if (board[0, 0] != 'X')
                {
                    board[0, 0] = 'O';
                }
                else
                {
                    Console.WriteLine("Pick a different box!");
                    Console.WriteLine("Press anything to continue.");
                    wrongInput = true;
                    Console.ReadKey();
                }

                break;
            case 2:

```

```
if (board[0, 1] != 'X')
{
    board[0, 1] = 'O';
}
else
{
    Console.WriteLine("Pick a different box!");
    Console.WriteLine("Press anything to continue.");
    wrongInput = true;
    Console.ReadKey();
}

break;
case 3:
if (board[0, 2] != 'X')
{
    board[0, 2] = 'O';
}
else
{
    Console.WriteLine("Pick a different box!");
    Console.WriteLine("Press anything to continue.");
    wrongInput = true;
    Console.ReadKey();
}

break;
case 4:
if (board[1, 0] != 'X')
{
    board[1, 0] = 'O';
}
else
{
    Console.WriteLine("Pick a different box!");
    Console.WriteLine("Press anything to continue.");
    wrongInput = true;
    Console.ReadKey();
}

break;
case 5:
if (board[1, 1] != 'X')
{
    board[1, 1] = 'O';
}
else
{
    Console.WriteLine("Pick a different box!");
    Console.WriteLine("Press anything to continue.");
    wrongInput = true;
    Console.ReadKey();
}

break;
case 6:
if (board[1, 2] != 'X')
{
    board[1, 2] = 'O';
}
else
{
    Console.WriteLine("Pick a different box!");
    Console.WriteLine("Press anything to continue.");
    wrongInput = true;
    Console.ReadKey();
}
```

```

    break;
case 7:
    if (board[2, 0] != 'X')
    {
        board[2, 0] = 'O';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 8:
    if (board[2, 1] != 'X')
    {
        board[2, 1] = 'O';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
case 9:
    if (board[2, 2] != 'X')
    {
        board[2, 2] = 'O';
    }
    else
    {
        Console.WriteLine("Pick a different box!");
        Console.WriteLine("Press anything to continue.");
        wrongInput = true;
        Console.ReadKey();
    }

    break;
default:
    Console.WriteLine("Please enter a number between 0-9");
    Console.WriteLine("Press anything to continue.");
    Console.ReadKey();
    break;
}
if(wrongInput == true)
{
    wrongInput = false;
    goto wrongInputFix;
}
foreach (char c in board)
{
    if (((board[0, 0] == 'O') && (board[0, 1] == 'O') && (board[0, 2] == 'O'))
        || ((board[1, 0] == 'O') && (board[1, 1] == 'O') && (board[1, 2] == 'O'))
        || ((board[2, 0] == 'O') && (board[2, 1] == 'O') && (board[2, 2] == 'O'))
        || ((board[0, 0] == 'O') && (board[1, 0] == 'O') && (board[2, 0] == 'O'))
        || ((board[0, 1] == 'O') && (board[1, 1] == 'O') && (board[2, 1] == 'O'))
        || ((board[0, 2] == 'O') && (board[1, 2] == 'O') && (board[2, 2] == 'O'))
        || ((board[0, 0] == 'O') && (board[1, 1] == 'O') && (board[2, 2] == 'O'))
        || ((board[2, 0] == 'O') && (board[1, 1] == 'O') && (board[0, 2] == 'O'))))
    {

```

```

Console.Clear();
Board();
Console.WriteLine("Player 2 has won!");
Console.WriteLine("Press anything to continue.");
Console.ReadKey();
win = true;
player1Turn = false;
break;
}
else if (choice >= 9)
{ }

else
{
    player1Turn = true;
    player2Turn = false;
    if (win == true)
    {
        player1Turn = false;
        player2Turn = false;
    }

}
}
}
catch (FormatException)
{
    Console.WriteLine("Please enter a number between 0-9");
    Console.ReadKey();
    break;
}

}

if (win == true)
{

    Console.WriteLine("Press any key to play again or enter quit to end the game");
    string play = Console.ReadLine();
    if (play == "quit" || play == "Quit" || play == "QUIT")
    {
        Console.WriteLine("Thanks for playing!");
        Console.ReadKey();
        game = false;
    }
    else
    {
        Reset();
        Console.Clear();
        win = false;
        player1Turn = true;

    }
}

}
while (game);

```

```
}  
public static void Reset()  
{  
  
    board = newBoard;  
  
}  
}  
}
```