

```

#include <iostream>

#include <stdlib.h>

using namespace std;

char board[3][3] = {{'1','2','3'},{'4','5','6'},{'7','8','9'}};

int choice;

int row,column;

char turn = 'X';

bool draw = false;

void display_board()
{
    cout<<"PLAYER - 1 [X]\t PLAYER - 2 [O]\n\n";
//  cout<<"\t\t | | \n";

    cout<<"\t\t "<<board[0][0]<<" | "<<board[0][1]<<" | "<<board[0][2]<<" \n";
//  cout<<"\t\t |      |      \n";
//  cout<<"\t\t | | \n";

    cout<<"\t\t "<<board[1][0]<<" | "<<board[1][1]<<" | "<<board[1][2]<<" \n";
//  cout<<"\t\t |      |      \n";
//  cout<<"\t\t | | \n";

    cout<<"\t\t "<<board[2][0]<<" | "<<board[2][1]<<" | "<<board[2][2]<<" \n";
//  cout<<"\t\t | | \n";
}

void player_turn()
{
    if(turn == 'X')
    {
        cout<<"\n\tPlayer - 1 [X] turn : ";

    }
    else if(turn == 'O')
    {
        cout<<"\n\tPlayer - 2 [O] turn : ";

    }
}

```

```

cin>> choice;
switch(choice)
{
    case 1: row=0; column=0; break;
    case 2: row=0; column=1; break;
    case 3: row=0; column=2; break;
    case 4: row=1; column=0; break;
    case 5: row=1; column=1; break;
    case 6: row=1; column=2; break;
    case 7: row=2; column=0; break;
    case 8: row=2; column=1; break;
    case 9: row=2; column=2; break;
    default:
        cout<<"Invalid Move";
}
if(turn == 'X' && board[row][column] != 'X' && board[row][column] != 'O')
{
    board[row][column] = 'X';
    turn = 'O';
}
else if(turn == 'O' && board[row][column] != 'X' && board[row][column] != 'O')
{
    board[row][column] = 'O';
    turn = 'X';
}
else
{
    cout<<"Box already filled!\n Please choose another!!\n\n";
    player_turn();
}
display_board();

```

```

}

bool gameover()
{
    for(int i=0; i<3; i++)
    {
        if (board[i][0] == board[i][1] && board[i][0] == board[i][2] || board[0][i] == board[1][i]
&& board[0][i] == board[2][i])
        {
            return false;
        }
        if(board[0][0] == board[1][1] && board[0][0] == board[2][2] || board[0][2] == board[1][1]
&& board[0][2] == board[2][0])
        {
            return false;
        }
    }
    for(int i=0; i<3; i++)
    {
        for(int j=0; j<3; j++)
        {
            if(board[i][j] != 'X' && board[i][j] != 'O')
            {
                return true;
            }
            draw = true;
            return false;
        }
    }

}

//Main

```

```
int main()
{
    cout<<"\t\tT I C -- T A C -- T O E -- G A M E\t\t";

    cout<<"\n\t\t\tFOR 2 PLAYERS\n\t\t";

    while(gameover())
    {
        display_board();

        player_turn();

        gameOver();
    }

    if(turn == 'X' && draw == false)
    {
        cout<<"\n\nCongratulations!Player with 'O' has won the game";
    }

    else if(turn == 'O' && draw == false)
    {
        cout<<"\n\nCongratulations!Player with 'X' has won the game"<<endl;
    }

    else
    {
        cout<<"\n\nGAME DRAW!!!\n\n";
    }

    return 0;
}
```