TIC-TAC-TOE GAME

#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;

}

**int** main()

{

    cout<<"\t\t\t   Welcome  To  TIC  TAC  TOE\t\t\t";

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

    }

    else

    cout<<"\n\nGAME DRAW!!!nn";

}