

# TIC TAC TOE GAME

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#include <iostream>
using namespace std;

char square[10] = {'o','1','2','3','4','5','6','7','8','9'};

int checkwin();
void board();

int main()
{
    int player = 1,i,choice;

    char mark;
    do
    {
        board();
        player=(player%2)?1:2;

        cout << "Player " << player << ", enter a number:
";
        cin >> choice;

        mark=(player == 1) ? 'X' : 'O';

        if (choice == 1 && square[1] == '1')
            square[1] = mark;
        else if (choice == 2 && square[2] == '2')
            square[2] = mark;
        else if (choice == 3 && square[3] == '3')
            square[3] = mark;
        else if (choice == 4 && square[4] == '4')
            square[4] = mark;
        else if (choice == 5 && square[5] == '5')
            square[5] = mark;
        else if (choice == 6 && square[6] == '6')
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        square[6] = mark;
    else if (choice == 7 && square[7] == '7')

        square[7] = mark;
    else if (choice == 8 && square[8] == '8')

        square[8] = mark;
    else if (choice == 9 && square[9] == '9')

        square[9] = mark;
    else
    {
        cout<<"Invalid move ";

        player--;
        cin.ignore();
        cin.get();
    }
    i=checkwin();

    player++;
}while(i!=-1);
board();
if(i==1)

    cout<<"==>\aPlayer "<<--player<<" win ";
else
    cout<<"==>\aGame draw";

cin.ignore();
cin.get();
return 0;
}

/*****

    FUNCTION TO RETURN GAME STATUS
    1 FOR GAME IS OVER WITH RESULT
    -1 FOR GAME IS IN PROGRESS
    0 GAME IS OVER AND NO RESULT
    *****/

int checkwin()
{

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        if (square[1] == square[2] && square[2] == square[3])

            return 1;
        else if (square[4] == square[5] && square[5] ==
square[6])

            return 1;
        else if (square[7] == square[8] && square[8] ==
square[9])

            return 1;
        else if (square[1] == square[4] && square[4] ==
square[7])

            return 1;
        else if (square[2] == square[5] && square[5] ==
square[8])

            return 1;
        else if (square[3] == square[6] && square[6] ==
square[9])

            return 1;
        else if (square[1] == square[5] && square[5] ==
square[9])

            return 1;
        else if (square[3] == square[5] && square[5] ==
square[7])

            return 1;
        else if (square[1] != '1' && square[2] != '2' &&
square[3] != '3'
                                && square[4] != '4' && square[5] != '5' &&
square[6] != '6'
                                && square[7] != '7' && square[8] != '8' &&
square[9] != '9')

            return 0;
        else
            return -1;
    }

```

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/*****
*****
        FUNCTION TO DRAW BOARD OF TIC TAC TOE WITH PLAYERS MARK
*****
*****/

```

```

void board()
{
    system("cls");
    cout << "\n\n\tTic Tac Toe\n\n";

    cout << "Player 1 (X)  -  Player 2 (O)" << endl << endl;
    cout << endl;

    cout << "      |      |      " << endl;
    cout << "      " << square[1] << "      |      " << square[2] << "
|      " << square[3] << endl;

    cout << "_____|_____|_____" << endl;
    cout << "_____|_____|_____" << endl;

    cout << "      " << square[4] << "      |      " << square[5] << "
|      " << square[6] << endl;

    cout << "_____|_____|_____" << endl;
    cout << "_____|_____|_____" << endl;

    cout << "      " << square[7] << "      |      " << square[8] << "
|      " << square[9] << endl;

    cout << "      |      |      " << endl << endl;
}

```