

```

1  #include <iostream>
2  using namespace std;
3
4  char square[10] = {'o','1','2','3','4','5','6','7','8','9'};
5
6  int checkwin();
7  void board();
8
9  int main()
10 {
11     int player = 1,i,choice;
12
13     char mark;
14     do
15     {
16         board();
17         player=(player%2)?1:2;
18
19         cout << "Player " << player << ", enter a number: ";
20         cin >> choice;
21
22         mark=(player == 1) ? 'X' : 'O';
23
24         if (choice == 1 && square[1] == '1')
25             square[1] = mark;
26         else if (choice == 2 && square[2] == '2')
27             square[2] = mark;
28         else if (choice == 3 && square[3] == '3')
29             square[3] = mark;
30         else if (choice == 4 && square[4] == '4')
31             square[4] = mark;
32         else if (choice == 5 && square[5] == '5')
33             square[5] = mark;
34         else if (choice == 6 && square[6] == '6')
35             square[6] = mark;
36         else if (choice == 7 && square[7] == '7')
37             square[7] = mark;
38         else if (choice == 8 && square[8] == '8')
39             square[8] = mark;
40         else if (choice == 9 && square[9] == '9')
41             square[9] = mark;
42         else
43         {
44             cout<<"Invalid move ";
45
46             player--;
47             cin.ignore();
48             cin.get();
49         }
50         i=checkwin();
51
52         player++;
53     }while(i==1);
54     board();
55     if(i==1)
56     {
57         cout<<"==>\aPlayer "<<--player<<" win ";
58     }
59     else
60     {
61         cout<<"==>\aGame draw";
62     }
63
64     cin.ignore();
65     cin.get();
66     return 0;
67 }
68
69 /*****
70 FUNCTION TO RETURN GAME STATUS
71 1 FOR GAME IS OVER WITH RESULT
72 -1 FOR GAME IS IN PROGRESS
73 0 GAME IS OVER AND NO RESULT
74 *****/
75
76 int checkwin()
77 {
78     if (square[1] == square[2] && square[2] == square[3])
79         return 1;
80     else if (square[4] == square[5] && square[5] == square[6])
81         return 1;
82     else if (square[7] == square[8] && square[8] == square[9])
83         return 1;
84     else if (square[1] == square[4] && square[4] == square[7])
85         return 1;
86     else if (square[2] == square[5] && square[5] == square[8])
87         return 1;
88     else if (square[3] == square[6] && square[6] == square[9])
89         return 1;
90     else if (square[1] == square[5] && square[5] == square[9])
91         return 1;
92 }
93
94
95
96
97
98
99
100
101
102
103

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104     return 1;
105     else if (square[3] == square[5] && square[5] == square[7])
106
107         return 1;
108     else if (square[1] != '1' && square[2] != '2' && square[3] != '3'
109             && square[4] != '4' && square[5] != '5' && square[6] != '6'
110             && square[7] != '7' && square[8] != '8' && square[9] != '9')
111
112         return 0;
113     else
114         return -1;
115 }
116
117
118 /*****
119  FUNCTION TO DRAW BOARD OF TIC TAC TOE WITH PLAYERS MARK
120  *****/
121
122
123 void board()
124 {
125     system("cls");
126     cout << "\n\n\tTic Tac Toe\n\n";
127
128     cout << "Player 1 (X) - Player 2 (O)" << endl << endl;
129     cout << endl;
130
131     cout << "    |    |    " << endl;
132     cout << "    " << square[1] << "    " << square[2] << "    " << square[3] << endl;
133
134     cout << "_____|_____|_____" << endl;
135     cout << "    |    |    " << endl;
136
137     cout << "    " << square[4] << "    " << square[5] << "    " << square[6] << endl;
138
139     cout << "_____|_____|_____" << endl;
140     cout << "    |    |    " << endl;
141
142     cout << "    " << square[7] << "    " << square[8] << "    " << square[9] << endl;
143
144     cout << "    |    |    " << endl << endl;
145 }
146
147 /*****
148  END OF PROJECT
149  *****/

```

Result

sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

1	2	3
4	5	6
7	8	9

Player 1, enter a number: 2

sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

1	X	3
4	5	6
7	8	9

Player 2, enter a number: 4

sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

1	X	3
0	5	6
7	8	9

Player 1, enter a number: 1

Tic Tac Toe

Player 1 (X) - Player 2 (O)

X		
	X	3
0	5	6
7	8	9

Player 2, enter a number: sh: line 1: cls: command not found
3
sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

X		
	X	0
0	5	6
7	8	9

Player 1, enter a number: 5

Tic Tac Toe

Player 1 (X) - Player 2 (O)

X		
	X	0
0	X	6
7	8	9

Player 2, enter a number: sh: line 1: cls: command not found
7
sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

X		
	X	0
0	X	6
0	8	9

Player 1, enter a number: 9
sh: line 1: cls: command not found

Tic Tac Toe

Player 1 (X) - Player 2 (O)

X		
	X	0
0	X	6
0	8	X

==>•Player 1 win