

## C:\turboc\Untitled-1.cpp

```
1  #include <iostream>
2  using namespace std;
3
4  // Function to draw the Tic-Tac-Toe board
5  void drawBoard(char board[3][3])
6  {
7      cout << "-----\n";
8      for (int i = 0; i < 3; i++) {
9          cout << "| ";
10         for (int j = 0; j < 3; j++) {
11             cout << board[i][j] << " | ";
12         }
13         cout << "\n-----\n";
14     }
15 }
16
17 // Function to check for a win
18 bool checkWin(char board[3][3], char player)
19 {
20     // Check rows, columns, and diagonals
21     for (int i = 0; i < 3; i++) {
22         if (board[i][0] == player && board[i][1] == player
23             && board[i][2] == player)
24             return true;
25         if (board[0][i] == player && board[1][i] == player
26             && board[2][i] == player)
27             return true;
28     }
29     if (board[0][0] == player && board[1][1] == player
30         && board[2][2] == player)
31         return true;
32     if (board[0][2] == player && board[1][1] == player
33         && board[2][0] == player)
34         return true;
35     return false;
36 }
37
38 int main()
39 {
40     // Initialize the board and players
41     char board[3][3] = { { ' ', ' ', ' ' },
42                          { ' ', ' ', ' ' },
43                          { ' ', ' ', ' ' } };
44     char player = 'X';
45     int row, col;
46     int turn; // Declare turn here
47
48     cout << "Welcome to Tic-Tac-Toe!\n";
49
50     // Game loop
51     for (turn = 0; turn < 9; turn++) {
52         // Draw the board
53         drawBoard(board);
54     }
```

```
55 // Prompt for valid input
56 while (true) {
57     cout << "Player " << player
58         << ", enter row (0-2) and column (0-2): ";
59     cin >> row >> col;
60
61     if (board[row][col] != ' ' || row < 0 || row > 2
62         || col < 0 || col > 2) {
63         cout << "Invalid move. Try again.\n";
64     }
65     else {
66         break; // Valid input, exit the loop.
67     }
68 }
69
70 // Make the move
71 board[row][col] = player;
72
73 // Check for a win after making a move
74 if (checkWin(board, player)) {
75     drawBoard(board);
76     cout << "Player " << player << " wins!\n";
77     break; // Exit the loop after a win.
78 }
79
80 // Switch to the other player
81 player = (player == 'X') ? 'O' : 'X';
82 }
83
84 // End of the game
85 drawBoard(board);
86
87 // Check for a draw
88 if (turn == 9 && !checkWin(board, 'X')
89     && !checkWin(board, 'O')) {
90     cout << "It's a draw!\n";
91 }
92
93 return 0;
94 }
```