**Tic Tac Toe**

// C++ program to implement tic tac toe game

#include <iostream>

using namespace std;

// Function to draw the Tic-Tac-Toe board

void drawBoard(char board[3][3])

{

cout << "-------------\n";

for (int i = 0; i < 3; i++) {

cout << "| ";

for (int j = 0; j < 3; j++) {

cout << board[i][j] << " | ";

}

cout << "\n-------------\n";

}

}

// Function to check for a win

bool checkWin(char board[3][3], char player)

{

// Check rows, columns, and diagonals

for (int i = 0; i < 3; i++) {

if (board[i][0] == player && board[i][1] == player

&& board[i][2] == player)

return true;

if (board[0][i] == player && board[1][i] == player

&& board[2][i] == player)

return true;

}

if (board[0][0] == player && board[1][1] == player

&& board[2][2] == player)

return true;

if (board[0][2] == player && board[1][1] == player

&& board[2][0] == player)

return true;

return false;

}

int main()

{

// Initialize the board and players

char board[3][3] = { { ' ', ' ', ' ' },

{ ' ', ' ', ' ' },

{ ' ', ' ', ' ' } };

char player = 'X';

int row, col;

int turn; // Declare turn here

cout << "Welcome to Tic-Tac-Toe!\n";

// Game loop

for (turn = 0; turn < 9; turn++) {

// Draw the board

drawBoard(board);

// Prompt for valid input

while (true) {

cout << "Player " << player

<< ", enter row (0-2) and column (0-2): ";

cin >> row >> col;

if (board[row][col] != ' ' || row < 0 || row > 2

|| col < 0 || col > 2) {

cout << "Invalid move. Try again.\n";

}

else {

break; // Valid input, exit the loop.

}

}

// Make the move

board[row][col] = player;

// Check for a win after making a move

if (checkWin(board, player)) {

drawBoard(board);

cout << "Player " << player << " wins!\n";

break; // Exit the loop after a win.

}

// Switch to the other player

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

}

// End of the game

drawBoard(board);

// Check for a draw

if (turn == 9 && !checkWin(board, 'X')

&& !checkWin(board, 'O')) {

cout << "It's a draw!\n";

}

return 0;

}

**Output**

Welcome to Tic-Tac-Toe!

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Player X, enter row (0-2) and column (0-2): 0 1

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| | X | |

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| | | |

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| | | |

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Player O, enter row (0-2) and column (0-2): 1 1

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| | X | |

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| | O | |

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| | | |

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Player X, enter row (0-2) and column (0-2): 1 2

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| | X | |

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| | O | X |

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| | | |

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Player O, enter row (0-2) and column (0-2): 2 2

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| | X | |

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| | O | X |

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| | | O |

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Player X, enter row (0-2) and column (0-2): 0 2

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| | X | X |

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| | O | X |

-------------

| | | O |

-------------

Player O, enter row (0-2) and column (0-2): 0 0

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| O | X | X |

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| | O | X |

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| | | O |

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Player O wins!

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| O | X | X |

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| | O | X |

-------------

| | | O |

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=== Code Execution Successful ===