```
#include <iostream>
using namespace std;
char board[3][3] = { {'1', '2', '3'}, {'4', '5', '6'}, {'7', '8', '9'} };
char currentMarker;
int currentPlayer;
void drawBoard() {
  cout << "----" << endl;
  for (int i = 0; i < 3; i++) {
     cout << "| ";
     for (int j = 0; j < 3; j++) {
       cout << board[i][j] << " | ";
     cout << endl << "-----" << endl;
  }
}
bool placeMarker(int slot) {
  int row = (slot - 1) / 3;
  int col = (slot - 1) \% 3;
  if (board[row][col] != 'X' && board[row][col] != 'O') {
     board[row][col] = currentMarker;
     return true;
  } else {
     return false;
  }
}
int checkWinner() {
  // Check rows
  for (int i = 0; i < 3; i++) {
     if (board[i][0] == board[i][1] && board[i][1] == board[i][2])
       return currentPlayer;
  }
  // Check columns
  for (int i = 0; i < 3; i++) {
     if (board[0][i] == board[1][i] && board[1][i] == board[2][i])
       return currentPlayer;
  // Check diagonals
```

```
if (board[0][0] == board[1][1] && board[1][1] == board[2][2])
     return currentPlayer;
  if (board[0][2] == board[1][1] && board[1][1] == board[2][0])
     return currentPlayer;
  return 0;
bool checkDraw() {
  for (int i = 0; i < 3; i++) {
    for (int j = 0; j < 3; j++) {
       if (board[i][j] != 'X' && board[i][j] != 'O') {
          return false;
       }
  return true;
}
void swapPlayerAndMarker() {
  if (currentMarker == 'X') {
     currentMarker = 'O';
  } else {
     currentMarker = 'X';
  if (currentPlayer == 1) {
     currentPlayer = 2;
  } else {
     currentPlayer = 1;
  }
}
void game() {
  cout << "Player 1, choose your marker (X or O): ";
  char markerP1;
  cin >> markerP1;
  currentPlayer = 1;
  currentMarker = markerP1;
  drawBoard();
```

```
int playerWon;
  while (true) {
    int slot;
    cout << "Player " << currentPlayer << ", enter your move (1-9): ";
    cin >> slot;
    if (slot < 1 |  slot > 9) {
       cout << "Invalid move. Please choose a slot between 1 and 9." << endl;
       continue;
    }
    if (!placeMarker(slot)) {
       cout << "Slot already occupied! Try again." << endl;
       continue;
    }
    drawBoard();
    playerWon = checkWinner();
    if (playerWon == 1) {
       cout << "Player 1 wins! Congratulations!" << endl;</pre>
       break;
    if (playerWon == 2) {
       cout << "Player 2 wins! Congratulations!" << endl;</pre>
       break;
    }
    if (checkDraw()) {
       cout << "It's a draw!" << endl;
       break;
    swapPlayerAndMarker();
int main() {
  game();
```

}

```
return 0;
}
output
Player 1, choose your marker (X or O): x
_____
|1|2|3|
|4|5|6|
_____
|7|8|9|
Player 1, enter your move (1-9): 1
-----
|x|2|3|
_____
|4|5|6|
|7|8|9|
Player 2, enter your move (1-9): 5
_____
|x|2|3|
|4|X|6|
|7|8|9|
-----
Player 1, enter your move (1-9): 6
-----
|x|2|3|
|4|X|O|
|7|8|9|
Player 2, enter your move (1-9): 4
```

```
|x|2|3|
-----
|X|X|O|
_____
|7|8|9|
Player 1, enter your move (1-9): 7
-----
|x|2|3|
_____
|X|X|O|
|O|8|9|
-----
Player 2, enter your move (1-9): 5
Slot already occupied! Try again.
Player 2, enter your move (1-9): 8
-----
|x|2|3|
|X|X|O|
|O|X|9|
_____
Player 1, enter your move (1-9): 2
-----
|x|0|3|
-----
|X|X|O|
_____
|O|X|9|
Player 2, enter your move (1-9): 3
|x|0|X|
```

Player 2, enter your move (1-9):