

```
#include <stdio.h>
```

```
char board[3][3];
```

```
char currentPlayer = 'X';
```

```
void initializeBoard() {  
    for (int i = 0; i < 3; i++)  
        for (int j = 0; j < 3; j++)  
            board[i][j] = '1' + i * 3 + j;  
}
```

```
void printBoard() {  
    printf("\n");  
    for (int i = 0; i < 3; i++) {  
        printf(" %c | %c | %c \n", board[i][0], board[i][1], board[i][2]);  
        if (i < 2) printf("---|---|---\n");  
    }  
    printf("\n");  
}
```

```
int checkWinner() {  
    for (int i = 0; i < 3; i++) {  
        // Check rows and columns  
        if ((board[i][0] == board[i][1] && board[i][1] == board[i][2]) ||  
            (board[0][i] == board[1][i] && board[1][i] == board[2][i]))  
            return 1;  
    }  
    // Check diagonals
```

```
    if ((board[0][0] == board[1][1] && board[1][1] == board[2][2]) ||
        (board[0][2] == board[1][1] && board[1][1] == board[2][0]))
        return 1;

    return 0;
}
```

```
int isDraw() {
    for (int i = 0; i < 3; i++)
        for (int j = 0; j < 3; j++)
            if (board[i][j] != 'X' && board[i][j] != 'O')
                return 0;

    return 1;
}
```

```
void switchPlayer() {
    currentPlayer = (currentPlayer == 'X') ? 'O' : 'X';
}
```

```
int main() {
    int move;

    initializeBoard();

    while (1) {
        printBoard();

        printf("Player %c, enter your move (1-9): ", currentPlayer);

        scanf("%d", &move);
```

```
if (move < 1 || move > 9) {  
    printf("Invalid move. Try again.\n");  
    continue;  
}
```

```
int row = (move - 1) / 3;  
int col = (move - 1) % 3;
```

```
if (board[row][col] == 'X' || board[row][col] == 'O') {  
    printf("Spot already taken. Try again.\n");  
    continue;  
}
```

```
board[row][col] = currentPlayer;
```

```
if (checkWinner()) {  
    printBoard();  
    printf("Player %c wins!\n", currentPlayer);  
    break;  
}
```

```
if (isDraw()) {  
    printBoard();  
    printf("It's a draw!\n");  
    break;  
}
```

```
switchPlayer();
```

```
}
```

```
return 0;
```

```
}
```