

Tic Tac Toe

Code:

```
def print_board(board):
    for row in board:
        print(" | ".join(row))
        print("-" * 9)

def check_winner(board, player):
    for row in board:
        if all(cell == player for cell in row):
            return True
    for col in range(3):
        if all(board[row][col] == player for row in range(3)):
            return True
    if all(board[i][i] == player for i in range(3)) or all(board[i][2 - i] == player for i in range(3)):
        return True
    return False

def is_board_full(board):
    return all(all(cell != " " for cell in row) for row in board)

def play_game():
    board = [[" " for _ in range(3)] for _ in range(3)]
    current_player = "X"
    while True:
        print_board(board)
        row, col = map(int, input(f'{current_player}'s turn. Enter row and column (e.g., 1 2): ").split())
        if not (0 <= row < 3 and 0 <= col < 3) or board[row][col] != " ":
            print("Invalid move. Please try again.")
            continue
        board[row][col] = current_player
```

```
    if check_winner(board, current_player):
        print_board(board)
        print(f"{current_player} wins!")
        break
    if is_board_full(board):
        print_board(board)
        print("It's a tie!")
        break
    current_player = "O" if current_player == "X" else "X"

if __name__ == "__main__":
    play_game()
```

Output:

```

|   |
-----
|   |
-----
|   |
-----
X's turn. Enter row and column (e.g., 1 2): 1 2
|   |
-----
|   | X
-----
|   |
-----
O's turn. Enter row and column (e.g., 1 2): 0 0
O |   |
-----
|   | X
-----
|   |
-----
X's turn. Enter row and column (e.g., 1 2): 1 1
O |   |
-----
| X | X
-----
|   |
-----
O's turn. Enter row and column (e.g., 1 2): 0 1
O | O |
-----

```

```
O | O |
-----
  | X | X
-----
  |   |
-----
X's turn. Enter row and column (e.g., 1 2): 2 0
O | O |
-----
  | X | X
-----
X |   |
-----
O's turn. Enter row and column (e.g., 1 2): 2 1
O | O |
-----
  | X | X
-----
X | O |
-----
X's turn. Enter row and column (e.g., 1 2): 1 0
O | O |
-----
X | X | X
-----
X | O |
-----
X wins!
```