8/12/24, 11:02 AM Untitled-2

## Untitled-2

```
1
   def print_board(board):
 2
        """Print the Tic-Tac-Toe board."""
 3
        for row in board:
 4
            print(" | ".join(row))
 5
            print("-" * 5)
6
7
   def check winner(board, player):
8
        """Check if the current player has won."""
9
        # Check rows
        for row in board:
10
11
            if all(cell == player for cell in row):
                return True
12
13
14
        # Check columns
        for col in range(3):
15
            if all(row[col] == player for row in board):
16
17
                return True
18
19
        # Check diagonals
20
        if all(board[i][i] == player for i in range(3)):
21
            return True
22
        if all(board[i][2 - i] == player for i in range(3)):
23
24
25
        return False
26
27
    def check draw(board):
28
        """Check if the board is full and there is no winner (draw)."""
        return all(cell in ['X', '0'] for row in board for cell in row)
29
30
31
   def play_tic_tac_toe():
        """Main function to play the Tic-Tac-Toe game."""
32
        board = [[' ' for _ in range(3)] for _ in range(3)]
33
        current player = 'X'
34
35
36
        while True:
37
            print board(board)
            print(f"Player {current_player}'s turn")
38
39
            # Get player's move
40
41
            try:
                row = int(input("Enter row (0, 1, 2): "))
42
43
                col = int(input("Enter column (0, 1, 2): "))
                if board[row][col] != ' ':
44
                    print("Cell already occupied! Try again.")
45
                    continue
46
47
                board[row][col] = current player
            except (IndexError, ValueError):
48
```

8/12/24, 11:02 AM Untitled-2

```
49
                print("Invalid input! Please enter numbers between 0 and 2.")
50
                continue
51
52
            # Check if the current player has won
53
            if check winner(board, current player):
54
                print_board(board)
                print(f"Player {current player} wins!")
55
                break
56
57
            # Check if the board is full (draw)
58
59
            if check_draw(board):
                print_board(board)
60
                print("It's a draw!")
61
62
                break
63
            # Switch player
64
            current_player = '0' if current_player == 'X' else 'X'
65
66
67
   # Run the game
68
    if __name__ == "__main__":
69
        play_tic_tac_toe()
70
```