

1.Implement Tic Tac Toe game.

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

def check_winner(board):
    for i in range(3):
        if board[i][0] == board[i][1] == board[i][2] != '_':
            return board[i][0]
        if board[0][i] == board[1][i] == board[2][i] != '_':
            return board[0][i]

    if board[0][0] == board[1][1] == board[2][2] != '_':
        return board[0][0]
    if board[0][2] == board[1][1] == board[2][0] != '_':
        return board[0][2]

    return None

def is_draw(board):
    for row in board:
        if '_' in row:
            return False
    return True

def tic_tac_toe():
    board = [['_' for _ in range(3)] for _ in range(3)]
    current_player = 'X'
```

```

while True:
    print_board(board)
    try:
        row = int(input(f'Player {current_player}, enter the row (0, 1, 2): '))
        col = int(input(f'Player {current_player}, enter the column (0, 1, 2): '))

        if row < 0 or row > 2 or col < 0 or col > 2 or board[row][col] != '_':
            print("Invalid move. Try again.")
            continue

        board[row][col] = current_player

        winner = check_winner(board)
        if winner:
            print_board(board)
            print(f'Player {winner} wins!')
            break

        if is_draw(board):
            print_board(board)
            print("It's a draw!")
            break

        # Switch players
        current_player = 'O' if current_player == 'X' else 'X'

    except ValueError:
        print("Please enter valid integers for row and column.")

if __name__ == "__main__":
    tic_tac_toe()

```

output:

```

- | - | -
- | - | -
- | - | -
Player X, enter the row (0, 1, 2): 0
Player X, enter the column (0, 1, 2): 0
X | - | -
- | - | -
- | - | -
Player O, enter the row (0, 1, 2): 1
Player O, enter the column (0, 1, 2): 0
X | - | -
O | - | -
- | - | -
Player X, enter the row (0, 1, 2): 0
Player X, enter the column (0, 1, 2): 1
X | X | -
O | - | -
- | - | -
Player O, enter the row (0, 1, 2): 1
Player O, enter the column (0, 1, 2): 1
X | X | -
O | O | -
- | - | -
Player X, enter the row (0, 1, 2): 0
Player X, enter the column (0, 1, 2): 2
X | X | X
O | O | -
- | - | -
Player X wins!
```

```

...
- | - | -
- | - | -
- | - | -
Player X, enter the row (0, 1, 2): 3
Player X, enter the column (0, 1, 2): 1
Invalid move. Try again.
- | - | -
- | - | -
- | - | -
Player X, enter the row (0, 1, 2): 
```



```
Player O, enter the row (0, 1, 2): 0
Player O, enter the column (0, 1, 2): 2
O | X | O
X | _ | _
_ | _ | _
Player X, enter the row (0, 1, 2): 2
Player X, enter the column (0, 1, 2): 0
O | X | O
X | _ | _
X | _ | _
Player O, enter the row (0, 1, 2): 1
Player O, enter the column (0, 1, 2): 1
O | X | O
X | O | _
X | _ | _
Player X, enter the row (0, 1, 2): 1
Player X, enter the column (0, 1, 2): 2
O | X | O
X | O | X
X | _ | _
Player O, enter the row (0, 1, 2): 2
Player O, enter the column (0, 1, 2): 1
O | X | O
X | O | X
X | O | _
Player X, enter the row (0, 1, 2): 2
Player X, enter the column (0, 1, 2): 2
O | X | O
X | O | X
X | O | X
It's a draw!
```