Python Developer Internship – Calculator CLI App

Task 1: Build a Calculator CLI App

Intern Name: Soumen Das

Objective

To create a command-line calculator supporting basic operations (+, -, *, /), implemented using functions for each operation. The calculator will use user input for operation selection and number entry, looping until the user chooses to exit.

Hints/Mini Guide (Followed)

- Used functions for each operation: addition, subtraction, multiplication, and division.
- Used `input()` for all user interactions.
- Designed an infinite loop allowing repeated calculations until 'exit' is selected.
- Structured for clarity and robustness (input validation included).

Source Code: calculator.py

```
def add(x, y):
    return x + y

def subtract(x, y):
    return x - y

def multiply(x, y):
    return x * y

def divide(x, y):
    if y == 0:
        return 'Error! Division by zero.'
    return x / y

def main():
    print('Python CLI Calculator - Intern: Soumen Das')
    print('Operations:')
    print('1. Add (+)')
    print('2. Subtract (-)')
    print('3. Multiply (*)')
    print('4. Divide (/)')
    print('5. Exit')

    while True:
        choice = input('Enter choice (1/2/3/4/5): ')
        if choice == '5':
            print('Exiting calculator. Thank you!')
            break

        if choice not in ['1', '2', '3', '4']:
            print('Invalid input. Please try again.')
            continue

        try:
            num1 = float(input('Enter first number: '))
            num2 = float(input('Enter second number: '))
        except ValueError:
            print('Invalid number. Please enter numeric values.')
            continue

        if choice == '1':
            print(f'{num1} + {num2} = {add(num1, num2)}')
        elif choice == '2':
            print(f'{num1} - {num2} = {subtract(num1, num2)}')
        elif choice == '3':
            print(f'{num1} * {num2} = {multiply(num1, num2)}')
        elif choice == '4':
            print(f'{num1} / {num2} = {divide(num1, num2)}')

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

Usage Guide

1. Run `calculator.py` in the terminal.
2. Enter operation choice (1/2/3/4/5).
3. Enter numeric operands as prompted.
4. Get result; repeat until exit chosen.

Outcome

A well-structured, functional Python CLI calculator, as demonstrated above. Suitable for internship evaluation.