

# Code Revival Challenge

## Welcome to the Code Revival Challenge!

Hello, budding programmers! In this challenge, you will debug two broken Python programs. Your task is to identify the bugs, fix the code, and make the programs work as intended. Read each problem carefully, test the code, and propose your fixes. Good luck!

### 1 Challenge 1: Broken Calculator (Basic Math Bug)

The following program is a simple calculator that performs basic arithmetic operations (add, subtract, multiply, divide) based on the input operation. However, it contains bugs that cause incorrect results.

#### Broken Code

```
def calculator(a, b, operation):
    if operation == 'add':
        return a - b
    elif operation == 'subtract':
        return a + b
    elif operation == 'multiply':
        return a * b
    elif operation == 'divide':
        return a / k
    else:
        return "Invalid operation"

print(calculator(10, 5, 'add'))
```

#### Task

- Identify the bugs in the code.
- Fix the code so that it performs the correct arithmetic operations.
- Ensure the program handles the operations 'add', 'subtract', 'multiply', and 'divide' correctly.

## 2 Challenge 2: Find the Largest of Three Numbers (Logic Issue)

This program is supposed to find the largest of three input numbers but returns incorrect results due to logical errors.

### Broken Code

```
def find_largest(a, b, c):  
    if a > b and a > c:  
        return b  
    elif b > a and b > C:  
        return b  
    else:  
        return C  
  
print(find_largest(5, 10, 3))
```

### Task

- Identify the bugs in the code.
- Fix the code to correctly return the largest of the three numbers.

### Instructions

- For each challenge, explain the bugs you found and how you fixed them.
- Submit your corrected code along with a brief explanation of the changes.
- Ensure your code is well-commented to show your understanding.
- Have fun debugging!