

Simple Calculator in Python

Overview

This document explains the implementation of a simple calculator in Python that can perform basic arithmetic operations such as addition, subtraction, multiplication, and division. The calculator accepts two numbers and an operator from the user and performs the corresponding operation.

Code Implementation

Below is the complete code for the calculator:

```
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 x / y  
    else:  
        return "Error! Division by zero."  
  
def calculator():  
    print("Select operation:")  
    print("1. Add")  
    print("2. Subtract")  
    print("3. Multiply")  
    print("4. Divide")  
    while True:  
        # Take input from the user  
        choice = input("Enter choice (1/2/3/4): ")  
        # Check if choice is one of the four options  
        if choice in ['1', '2', '3', '4']:
```

```

try:
    num1 = float(input("Enter first number: "))
    num2 = float(input("Enter second number: "))
except ValueError:
    print("Invalid input. 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)}")
    break
else:
    print("Invalid input. Please enter a choice from 1 to 4.")

if __name__ == "__main__":
    calculator()

```

OUTPUT:

```

Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 2
Enter first number: 4
Enter second number: 8
4.0 - 8.0 = -4.0

```

```

Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 1
Enter first number: 4
Enter second number: 5
4.0 + 5.0 = 9.0

```