

```
1 # Function to perform addition
2 def add(x, y):
3     return x + y
4
5 # Function to perform subtraction
6 def subtract(x, y):
7     return x - y
8
9 # Function to perform multiplication
10 def multiply(x, y):
11     return x * y
12
13 # Function to perform division
14 def divide(x, y):
15     if y == 0:
16         return "Error: Division by zero"
17     return x / y
18
19 while True:
20     print("Options:")
21     print("Enter 'add' for addition")
22     print("Enter 'subtract' for subtraction")
23     print("Enter 'multiply' for multiplication")
24     print("Enter 'divide' for division")
25     print("Enter 'quit' to end the program")
26
27     user_input = input(": ")
28
29     if user_input == "quit":
30         break
31     elif user_input in ("add", "subtract", "multiply",
32 , "divide"):
33         num1 = float(input("Enter first number: "))
34         num2 = float(input("Enter second number: "))
35
36         if user_input == "add":
37             print("Result: " + str(add(num1, num2)))
38         elif user_input == "subtract":
39             print("Result: " + str(subtract(num1,
num2)))
40         elif user_input == "multiply":
```

```
40         print("Result: " + str(multiply(num1,
    num2)))
41     elif user_input == "divide":
42         print("Result: " + str(divide(num1, num2
    )))
43     else:
44         print("Invalid input. Please try again.")
45
46
47
```