```
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."
   else:
       return x / y
print("Select operation:")
print("1. Add")
print("2. Subtract")
print("3. Multiply")
print("4. Divide")
while True:
   choice = input("Enter choice (1/2/3/4): ")
   if choice in ('1', '2', '3', '4'):
       num1 = float(input("Enter first number: "))
       num2 = float(input("Enter second number: "))
       if choice == '1':
           print("Result:", add(num1, num2))
       elif choice == '2':
            print("Result:", subtract(num1, num2))
       elif choice == '3':
            print("Result:", multiply(num1, num2))
       elif choice == '4':
            print("Result:", divide(num1, num2))
       break
   else:
       print("Invalid input")
```