In [1]:
```python
# Question 1: Variables and Data Types

# Accept inputs from the user
string_input = input("Enter a string: ")
integer_input = int(input("Enter an integer: "))
float_input = float(input("Enter a float: "))
boolean_input = input("Enter a boolean (True/False): ").strip().capitalize() == "True"

# Print the values
print(f"String: {string_input}")
print(f"Integer: {integer_input}")
print(f"Float: {float_input}")
print(f"Boolean: {boolean_input}")

# Convert string to uppercase
print(f"Uppercase String: {string_input.upper()}")

# Check if integer is even or odd
if integer_input % 2 == 0:
    print(f"The number {integer_input} is Even")
else:
    print(f"The number {integer_input} is Odd")

# Multiply the float by 2
print(f"Doubled float: {float_input * 2}")
```

```
String: how are you
Integer: 2
Float: 3.5
Boolean: True
Uppercase String: HOW ARE YOU
The number 2 is Even
Doubled float: 7.0
```

In [2]:
```python
# Question 2: Operators

# Accept two numbers from the user
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

# Perform and print the result of all arithmetic operations
print(f"Addition: {num1 + num2}")
print(f"Subtraction: {num1 - num2}")
print(f"Multiplication: {num1 * num2}")
print(f"Division: {num1 / num2}")
print(f"Modulus: {num1 % num2}")
print(f"Flow Division: {num1 // num2}")

# Comparison operators
print(f"First number is greater than second: {num1 > num2}")
print(f"First number is equal to second: {num1 == num2}")

# Logical operators
print(f"Both conditions are true: {num1 > num2 and num2 < 10}")
```

```
Addition: 40.0
Subtraction: -10.0
Multiplication: 375.0
Division: 0.6
Modulus: 15.0
Flow Division: 0.0
First number is greater than second: False
First number is equal to second: False
Both conditions are true: False
```

In [3]:
```python
# Question 3: Loops

# Accept a list of integers from the user
input_list = list(map(int, input("Enter a list of numbers separated by spaces: ").spli

# Loop through the list and print each number
for num in input_list:
    print(num)

    # Skip the number if it is greater than 10
    if num > 10:
        print(f"Skipping {num}")
        continue

    # Break the loop if the number is 20
    if num == 20:
        print("Breaking at 20")
        break

# After the loop ends
print("Loop ended naturally")
```

```
5
5
6
8
4
6
8
7
9
Loop ended naturally
```