

Task 1: Running python script and various Expressions in an Interactive Interpreter

23/7/25

(a) Perform Basic Mathematical computations

Aim

To write a python program that accepts two numerical inputs and performs addition, subtraction, multiplication, and division operations.

Algorithm

1. Start the program.
2. Accept two numerical inputs from the user.
3. Perform:
 - Addition
 - Subtraction
 - Multiplication
 - Division (if second number is not zero).
4. Display the results.
5. End the program.

Program

```
num1 = float(input("Enter first value:"))
num2 = float(input("Enter second value:"))
print("Addition:", num1 + num2)
print("Subtraction:", num1 - num2)
print("Multiplication:", num1 * num2)
print("Division:", num1 / num2)
```

Result:

The program successfully performed all arithmetic operations on the given inputs and displayed the results.

Output

Enter first value: 100

Enter second value: 20

Addition: 120

Subtraction: 80

Multiplication: 2000

Division: 5.0

(6) Evaluate Relational Expressions

23/7/25

Aim

To develop a python program that compares two numeric values using relational operators and displays the result of each comparison.

Algorithm

1. Start the program
2. Accept two numbers from the user.
3. Apply the following relational operators:
 - Greater than ($>$)
 - Less than ($<$)
 - Equal to ($==$)
 - Not equal to ($!=$)
 - Greater than or equal to (\geq)
 - Less than or equal to (\leq)
4. End the program

Program

```
a = float(input("Enter first score:"))
b = float(input("Enter second score:"))
print("a > b:", a > b)
print("a < b:", a < b)
print("a == b:", a == b)
print("a != b:", a != b)
print("a >= b:", a >= b)
print("a <= b:", a <= b)
```

Result:-

The program correctly evaluated all the relational expressions between the two given inputs.

Output

Enter first score: 85
Enter second score: 90
 $a > b$: false
 $a < b$: True
 $a == b$: false
 $a != b$: True
 $a >= b$: false
 $a <= b$: True

Output

Enter marks for Test 1: 45

Enter marks for Test 2: 38

Enter marks for Test 3: 42

Passed all tests: false

Passed at least one test: true

Failed all tests: false

(C). Check logical conditions Across Multiple Inputs 23/7/25

Aim

To create a python program that uses logical operators (and, or, not) to evaluate conditions across three test scores.

Algorithm

1. Start the program
2. Accept three test scores from the user.
3. Use logical operators to evaluate:
 - If the candidate passed all tests (and)
 - If the candidate passed at least one test (or)
 - If the candidate failed all tests (not)
4. Display the results
5. End the program.

Program

```
test1 = int(input("Enter marks for Test 1:"))
test2 = int(input("Enter marks for Test 2:"))
test3 = int(input("Enter marks for Test 3:"))

Print("Passed all tests:", test1>40 and test2>40 and
      test3>40)
```

```
Print("Passed at least one test:",(test1>40 and test2>
      40 or test3>40))
```

```
Print("Failed all tests:", not (test1>40 or test2>40 or
      test3>40))
```

VEL TECH - CSE	
EX NO.	1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	

~~Result: The program effectively evaluated logical expressions and correctly identified pass/fail conditions based on test scores.~~