Date:- 23/07/25.

Task 1: Running Python script and various Expressions in an interactive interpreter.

(a) perform basic mathematical computations.

Aim: To write a python program that accepts two numerical input 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:

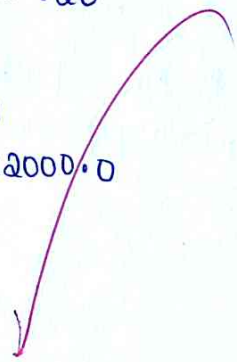
```
num1 = float(input("Enter first value:"))
num2 = float(input("Enter Second value:"))
print("Addition:", num1+num2)
print("Subtraction:", num1-num2)
print("multiplication:", num1*num2)
print("Division:", num1/num2)
```

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:120.0
Subtraction:80.0
Multiplication:2000.0
division:5.0



b) evaluate relational Expression

Aim: To develop a python program that compares two numeric values using relational operators and displays the result of 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 (>=)
   - less than or equal to (<=)
4. display the results
5. 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)
```

Result:

The program correctly evaluated all the relation Expressions between the two given inputs.

output:

enter first score:85

enter second score:90

a>b:false

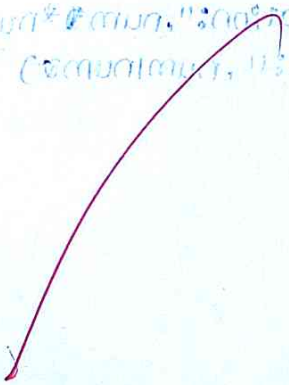
a<b:True

a==b:false

a!=b:True

a>=b:false

a<=b:True



Check logical conditions across multiple inputs.

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 operator 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 or 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)	—
TOTAL (20)	15
SIGN WITH DATE	

13/08/25

Result:

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

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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