23/7/25 Task 1:- Running Python Script and various Expression in An interactive Interpreter.

(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. Performs:
   - 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:"))
num 2 = float (input ("Enter second value:"))
Print ("Addition:", num 1 + num2)
print ("subtraction:", num 1 - num2)
Print ("Multiplication:", num 1 * num 2)
Print ("Division:", num 1 / num 2)
```

Result:-

The Program successfully performed all arithmetic operations on the given inputs and display the Results.

Output:-

Enter first value: 100

Enter second value: 20

Addition: 120.0

Subtraction: 80.0

Multiplication: 2000.0

Division: 5.0

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

23/9/25

(6). Evaluate Relational Expressions.

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 (>=)
   - 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)
print("a<=b:", a<=b)
```

Result:-

The Program correctly evaluated all the relational Expressions between the two given inputs.

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

23/7/25

(c) 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 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:-

```
test 1 = int(input("Enter marks for Test 1:"))
test 2 = int(input("Enter marks for Test 2:"))
test 3 = int(input("Enter marks for Test 3:"))
print("Passed all tests:", test1>40 and test2>40 and test
      3>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	

Result:-

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