Task 1: Running Python Script and various expressions in an interactive interpreter

Aim:

To run python Script and various expressions in an interactive interpreter

a. Create a python program to enter two numbers and then performs and displays the results of the following operations: addition, subtraction, multiplication, and division.

Algorithm:

1.Start.
2.Get the two numbers and store it in variable x and y.
3.For Addition do ; x+y and print it.
4.For Subtraction do ; x-y and print it.
5.For Multiplication do ; x*y and print it.
6.For Division do; x/y and print it.
7.Stop

Program:

```python
x =int(input("Enter the First number:"))
y =int(input("Enter the Second number:"))

add = x + y
sub = x - y
pro = x * y
div = x / y

print("Addition:",add)
print("Subtraction :",sub)
print("Multiplication:",pro)
print("Division:",div)
```

Output:

```
=========== RESTART: C:\Users\91979\Desktop\t.py
Enter the First number:5
Enter the Second number:6
Addition: 11
Subtraction : -1
Multiplication: 30
Division: 0.8333333333333334
```

b. Create a python program to enter two numbers and then performs and displays the results of the following relational expression : >, <, ==, !=, >=, <=

Algorithm:
       1.Start
       2.Get the the input from the user and store it in a,b&c.
       3.Perform the relational operations(i.e, >,<.=,==,!=,>=,<=).
       4.Print the results.
       5.Stop.

Program:

```python
# Initializing the value of a, b, and c
a = int(input("Enter the First number: "))
b = int(input("Enter the Second number: "))
c = int(input("Enter the Third number: "))

# Using relational operators
print(a, ">", b, "is", a > b)
print(a, "<", b, "is", a < b)
print(c, "==", a, "is", c == a)
print(c, "!=", b, "is", c != b)
print(a, ">=", b, "is", a >= b)
print(b, "<=", a, "is", b <= a)
```

Output:

```
============= RESTART: C:\Us
Enter the First number: 5
Enter the Second number: 6
Enter the Third number: 7
5 > 6 is False
5 < 6 is True
7 == 5 is False
7 != 6 is True
5 >= 6 is False
6 <= 5 is False
```

c. Create a python program to enter three numbers and then performs and displays the results of the following Logical operations: and, or, not.

Algorithm:
1.Start.
2.Get the input from the user.
3.Perform the logical operations on the inputs.
4.Print the results.
5.Stop.

Program:

```python
# Taking three numbers as input
a = int(input("Enter the First number: "))
b = int(input("Enter the Second number: "))
c = int(input("Enter the Third number: "))

# Performing logical operations
print("\nLogical Operations Results:")
print((a > b) and (b > c))
print((a > b) or (b > c))
print(not(a > b))
print(not(b > c))
```

Output

```
============= RESTART: C:\Use
Enter the First number: 5
Enter the Second number: 6
Enter the Third number: 7

Logical Operations Results:
False
False
True
True
```

Result

Thus, the python program to run Python Script and various expressions in an interactive interpreter was don successfully and the output was verified.