Operators

**Relational operators:** Relational operators are used to compare values and give true or false as a result.

**Code:**

a = 10  
b = 20

lessthan = a < b  
greaterthan = a > b  
lessthanqual = a <= b  
greaterthanequal = a >= b  
  
print(lessthan) # True  
print(greaterthan) # False  
print(lessthanqual) # True  
print(greaterthanequal) # False

**Arthemetic operators:** Athematic operators are used with some numeric values and perform common mathematical operations.

**Code:**

a = 10  
b = 20  
  
sum = a+b  
diff = a-b  
quotient = a/b  
  
print(sum) # 30

print(diff) # -10   
print(quotient) # 0.5

**Logical operators:** logical operators are used to perform some logical operationson Boolean values and gives true or false as a result.

And – gives true value as output if both the Boolean values are true else it return false.

Or – gives true if any one value is true else it returns false.

Not – gives opposite value of the given Boolean value.

Code:

x = True  
y = False  
  
print(x and y) # False  
print(x or y) # True  
print(not x) # False  
print(not y) # True

**Assignment operators:**

Assignment operators are used to assign values to variables.

**Code :**

a = 10

a += 10  
print(a) # 20  
  
a -= 2  
print(a) # 18   
  
a \*= 5  
print(a) # 90  
  
a /= 3  
print(a) # 30.0

**Bitwise operators:**

Used to compare binary operators

**Code:**

a=8  
b=2  
  
print(a&b) # 0  
print(a|b) #10  
print(a^b)#10  
print(~a)# -9  
print(a<<b)# 32  
print (a >> b) #2

**Identity operators:**

Used to compare the objects to determine whether two variables points to the same object in memory

**Code:**

my\_list = [1, 'gopi', 2.3, -20, 'puropale']  
b = my\_list  
print(my\_list is b) # true  
print(my\_list is not b) # false

**Membership operators:**

Membership operator is used to test. If a sequence is present in an object or not.

**Code:**

my\_list = [1, 'gopi', 2.3, -20, 'puropale']  
print('gopi' in my\_list) # true  
print(2.3 not in my\_list) # false

**Presedence:**

Operator precedence describe the order in which operators are performed.

### it follows BODMAS RULE ###