

#DAY

9

DAY 9 OF 200 DAY'S PYTHON CHALLENGE



OPERATORS IN PYTHON

Operators in Python are special symbols that allow you to perform operations on variables and values.

Type	Operators
Arithmetic operators	+ , - , * , / , % , // , **
Comparison operators	> , < , == , != , >= , <=
Logical operators	and , or , not
Bitwise operators	& , , ~ , ^ , >> , <<
Assignment operators	= , += , -= , *= , /= , %= , //= , **= , &= , = , ^= , >>= , <<=
Identity operators	is , is not
Membership operators	in , not in

ARITHMATIC OPERATORS

Arithmetic operators in Python are used to perform mathematical operations on numeric values, such as integers and floats.

+ , - , * , / , % , ** , //



Day 4.py

```
print(6+8) # Addition - 14
print(9-3) # Subtraction - 6
print(5*4) # Multiplication - 20
print(6/2) # Division - 3.0
print(7%2) # Modulus - 1
print(3**2) # Exponent - 9
print(25//5) # Quotient - 5
```

ASSIGNMENT OPERATORS

Same as Arithmetic but it is assign the value.

= , += , -= , *= , /= , %= , **= , //=



Day 4.py

a = 16

b = 4 # Assignment Operator

a+=b# Addition Assignment - a = 20

a-=b # Subtraction Assignment - a = 12

a*=b # Multiplication Assignment - a = 64

a/=b # Division Assignment - a = 4

a% = b # Modulus Assignment - a = 0

a**=b # Exponent Assignment - a = 65,536

a//=b # Quotient Assignment - a = 4

COMPARISON OPERATORS

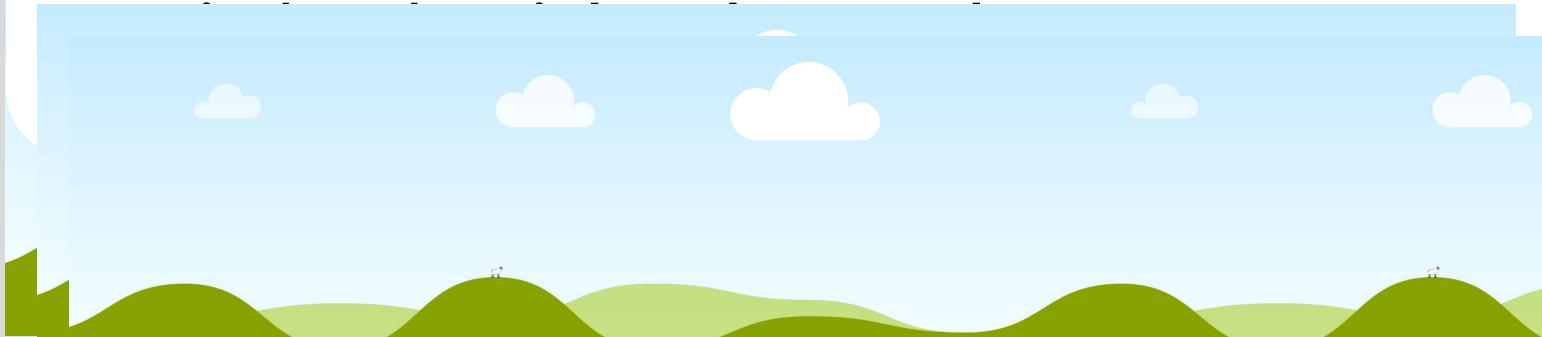
These operators can be used to compare any two values, including numbers, strings, and objects.

`== , != , <, > , <= , >=`



Day 4.py

```
x = 10
y = 10
print(x==y) # Is Equal to - True
print(x!=y) # Is not Equal to - False
print(x>y) # x is greater than y - False
print(x<y) # x is less than y - False
print(x>=y) # x is greater than equal to y - True
```



LOGICAL OPERATORS

Logical operators in Python are used to combine multiple conditions and evaluate them as a single boolean expression.

and , or, not



Day 4.py

```
x = 4
y = 6
print(x == y and x > y)
print(x!=y and x > y)
print(x == y and x < y)
print(x!=y and x<y)
print(x == y or x > y)
print(x!=y or x > y)
print(x == y or x < y)
print(x!=y or x<y)
print(not x)
```

BITWISE OPERATORS

Bitwise operators are used to perform bit-level operations on integers.

`&, |, ^, ~, >>, <<`



Day 4.py

```
a = 60 # 00111100 in binary
b = 13 # 00001101 in binary
print( a & b ) # Bitwise and
print( a | b ) # Bitwise or
print(a ^ b) # Bitwise xor
print(~a) # Bitwise not
print(a << 2 ) # Bitwise Left shift
print(a >> 2) # Bitwise Right shift
```

IDENTITY OPERATORS

The identity operator in Python is a comparison operator that is used to check whether two objects are pointing to the same memory location in the computer's memory or not

is, is not



Day 4.py

```
x = 5  
y = 5  
print(x is y)  
print(x is not y)
```

MEMBERSHIP OPERATORS

Membership operators in Python are used to test if a value is present in a sequence, such as a list, tuple, or string. They are also used in control statements to perform different actions based on the presence or absence of a specific element.

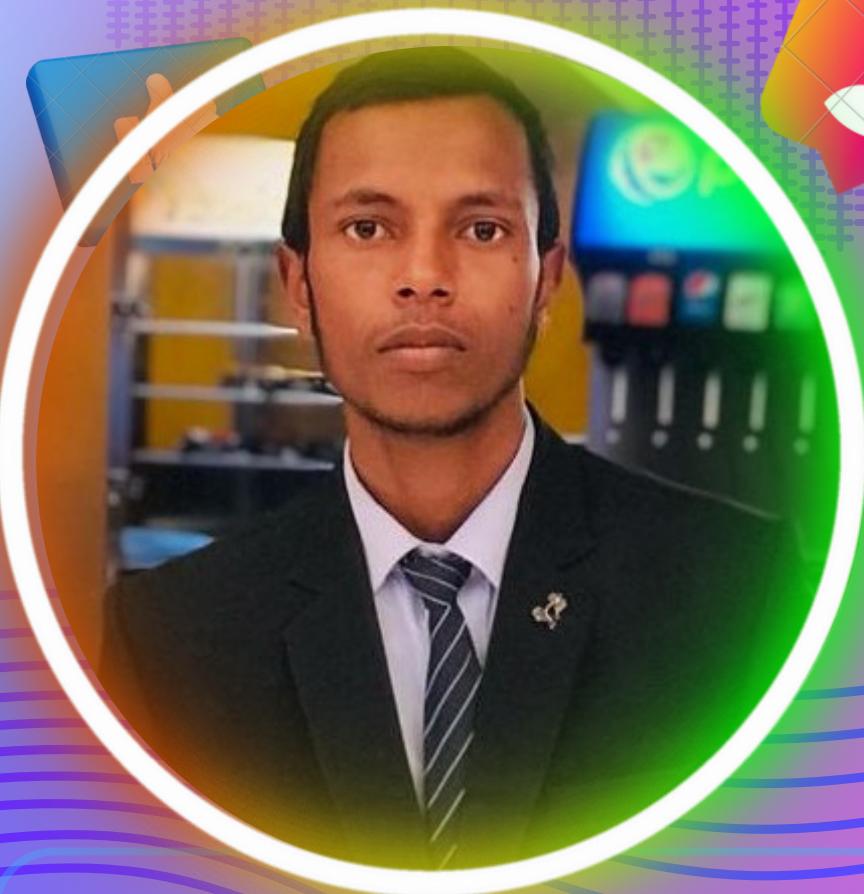
in, not in



Day 4.py

```
l = [34,23,5,'abhi','tech']
print('abhi' in l )
print('abhi' not in l )
```

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