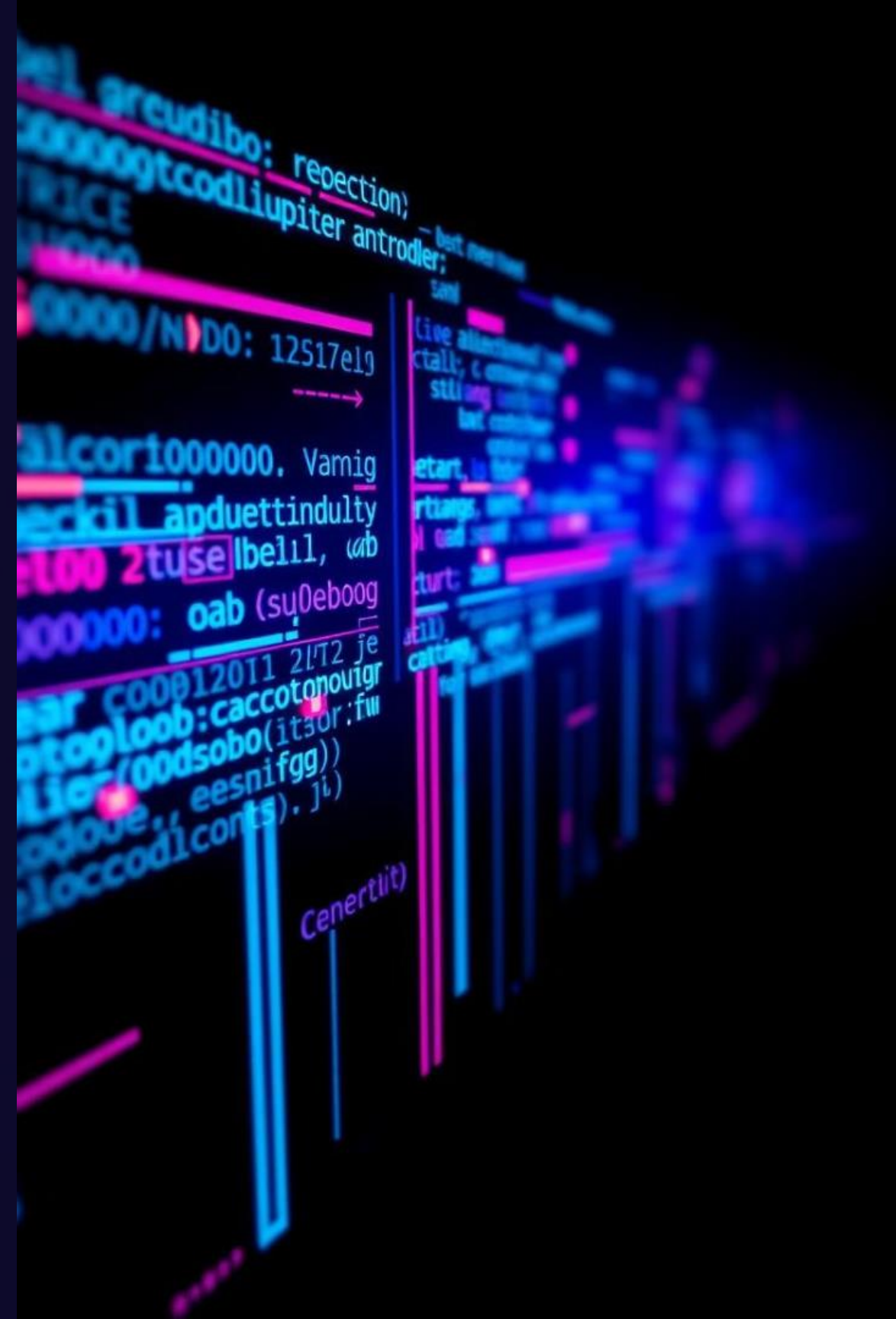


Python Operators: A Comprehensive Guide

This presentation explores the fundamental operators in Python, covering arithmetic, comparison, and logical operators. We'll delve into their functionalities and provide illustrative examples to solidify your understanding.



Arithmetic Operators

Addition

Adds two operands together.

Subtraction

Subtracts the second operand from the first.

Multiplication

Multiplies two operands.

Division

Divides the first operand by the second.

Floor Division

Divides two operands and returns the integer quotient.

Modulus

Returns the remainder of a division operation.

Exponentiation

Raises the first operand to the power of the second.

Example Code

```
a = 10
```

```
b = 5
```

```
print("Addition:", a + b)      # a + b
```

```
print("Subtraction:", a - b)   # a - b
```

```
print("Multiplication:", a * b) # a * b
```

```
print("Division:", a / b)      # a / b
```

```
print("Floor Division:", a // b) # a // b (integer division)
```

```
print("Modulus:", a % b)       # a % b
```

```
print("Exponentiation:", a ** b) # a raised to the power of b
```

```
1 Repetitoonr / Articles)
2 (
3 Comptartiefistfore: Pyllonollenerapy.fiblesl)(Untfaction, compoertiallignsl.pdf).
4
5 Bettorha( Inta Veet tati)
7 Puppocf:(ill.fartisalefc.== Besferfituortes. (Tallettiort, sanpulll)
4
5 Clanculef Dunggertreioh, In MetecPartaivers=(alvistet)=
9
6 Paapullc(irtilleseteroye, In Rentircfentfjvcal (ickuppler, "laerwate attort).
6
7 supautentr: (latf ( Vartion Rether)).
8 Compulf.(iillanment, lith==lopetvartfervtia(,il, artilect, inopurtclaciert hget).
18 suyp);
19 usn: Puteel);
17 Gargulef.(ill(ect,atide, != Confectionation, ie( snalteal)
10 suyp);
10 taxt: (tarf ( "ndelloq, nocfione thof Retherll);
17 = Ueseariferemertied, trertlogis).
10 Compoert(fenader. ffabled, = upportas soynal)
11 Unlmaster rarser ( niaction 'upportell);
10 cncftrients to "replestion ingfagge ate wethell).
1 = Paporttation, = illehell),
10 = Repoartsflt, attent.(letlogal wathell)
11 PulupCattertle;
10 = Reppertifontatiler.(licflopel, mptl).
13
31
upliry
```

Comparison Operators

Less Than or Equal to

Returns True if the first operand is less than or equal to the second.

Greater Than or Equal to

Returns True if the first operand is greater than or equal to the second.

Equal to

Returns True if both operands are equal.

Not Equal to

Returns True if both operands are not equal.

Less Than

Returns True if the first operand is less than the second.

Greater Than

Returns True if the first operand is greater than the second.

Example Code

```
a = 10
```

```
b = 5
```

```
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)
```

```
1 Repetitoon / Articles)
2 (
3 Comptartiefistfore: Pyllonollenerapy.fiblesl)(Untfaction, compoertiallagel.pdf).
4
5 Bettorha( Inta Veet tati)
7 Puppocf:(ill.fartisalefc.== Besferfituortes. (Tallettiort, sanpulll)
4
5 Clanculef Dunggertreioh, In MetecPartaivers=(alvistet)=
9
6 Paapullc(irtilleseteroye, In Rentircfentfjvcal (ickuppler, "laerwate attort).
6
7 supautentr: (latf ( Vartion Retherl).
8 Compulf.(iillanment, lith==lopetvartfervtia(,il, artilect, inaportclaciert hgetl).
18 suyp);
19 usn: Puteel);
11 Gangulef.(ill(ect,atide, != Confectionation, ie( snalteal)
17 suyp);
10 taxt: (tarf ( "ndelloq, nocfione thof Retherl);
10 = Ueseariferemertied, trertlogis).
1 Compoert(fenader. ffabled, = upportas soynal)
10 Unlmaster rarser ( nirection 'upportell).
1 cncfatients to "replestion ingfagge ata wathell).
1 = Paporttation, = illehell),
10 = Repoartsflt, attent.(letlogal wathell)
11 PulupCattertle;
10 = Reppertifontatiler.(licflopel, mptl).
13
31
upliry
```


Combining Operators

Logical operators can be used in conjunction with comparison operators to create complex conditions.



Logical Operators

1

AND

Returns True if both operands are True.

2

OR

Returns True if at least one operand is True.

3

NOT

Reverses the logical state of an operand.

Example Code

```
a = 10
```

```
b = 5
```

```
c = 20
```

```
# Combining comparisons with logical operators
```

```
print("a > b and a < c:", a > b and a < c) # True
```

```
print("a == b or b < c:", a == b or b < c) # True
```

```
print("not (a < b):", not (a < b)) # True
```

```
1 Repetitoonr / Articles)
2 (
3
4 Comptartiefistfore: Pyllonollenerapy.fiblesl)(Untfaction, compoertialligal.pdf).
5
6 Bettorha( Inta Veet tati)
7 Puppocf:(ill.fartisalefc.== Besferfituortes. (Tallettiort, sanpulll)
4
5 Clanculef Dunggertreioh, In MetecPartaivers=(alvistet)=
9
6 Paapullc(irtilleseteroye, In Rentircfenvjval (ickuppler, "laerwate attort).
6
7 supautentr: (latf ( Vartion Retherl).
8 Compulf.(iillament, lith==lopetvartfervtia(,il, artilect, inaportclaciert hupl).
18 suyp);
19 usn: Puteel);
17 Gangulef.(ill(ect,atide, != Confectionation, ie( snalteal)
10 suyp);
10 taxt: (tarf ( "ndelloq, nocfione thof Retherl);
17 = Ueseariferemertied, trertlogis).
10 Compoert(fenader. ffabled, = upportas soynal)
10 Unlmaster rarser ( nirection 'upportell).
1 cncfatients to "replestion ingfagge ata wathell).
1 = Paporttation, = illehell),
10 = Repoartsflt, attent.(letlogal wathell)
11 PulupCattertle;
10 = Reppertifontatiler.(licflopel, mupl).
13
31
upliry
```