Logical Operators:

Logical operators are used to combine conditions and return either True or False (Boolean values).

Operator	Meaning	Example	Output
and	Returns True if both conditions are True	(5 > 2 and 10 > 3)	True
or	Returns True if at least one condition is True	(5 > 2 or 10 < 3)	True
not	Reverses the result (True → False, False → True)	not(5 > 2)	False

Importance:

- Used to check multiple conditions at once.
- Useful in decision making (complex if conditions).

Real-life examples:

- A student passes if marks > 40 and attendance > 75%.
- Login allowed if username is correct or email is correct.

Assignment Operators:

Assignment operators are used to assign values to variables. They can also perform operations and assign the result in one step.

Operator	Meaning	Example	Same as
=	Assign value	x = 5	_
+=	Add and assign	x += 3	x = x + 3
-=	Subtract and assign	x -= 2	x = x - 2
*=	Multiply and assign	x *= 4	x = x * 4
/=	Divide and assign	x /= 2	x = x / 2
//=	Floor divide and assign	x //= 3	x = x // 3
%=	Modulus and assign	x %= 3	x = x % 3
**=	Exponent and assign	x **= 2	x = x ** 2

Importance:

- Makes code shorter and cleaner.
- Useful when updating the same variable repeatedly.

Real-life examples:

- Adding marks to a student's score: score += 10
- Reducing stock in a shop: stock -= 1