LOGICAL OPERATORS

CONDITIONAL STATEMENT

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TOPIC OUTLINE

Logical AND

Logical OR

Logical NOT

LOGICAL OPERATORS

LOGICAL OPERATORS

Logical operators are used to perform logical operations on Boolean expressions (i.e., expressions that evaluate to **`True`** or **`False`**). These operators are essential for controlling the flow of a program and making decisions.

LOGICAL AND

AND Truth Table		
a	b	y
0	0	0
0	1	0
1	0	0
1	1	1

The AND `(and)` operator returns true only if **both** operands are `True`.

```
a = True
b = True
if a and b:
    print("both are true")
```

LOGICAL OR

OR Truth Table		
a	b	y
0	0	0
0	1	1
1	0	1
1	1	1

The OR `(or)` operator returns true if **at least one** of the operands is **`True`**.

```
a = True
b = false
if a or b:
   print("at least one is true")
```

LOGICAL_NOT_

NOT Truth Table	
a	y
0	1
1	0

The NOT `(not)` operator is a unary operator that **negates** the value of its operand. If the operand is **`True`**, it returns **`False`**, and vice versa.

```
a = False

not a # evaluates to True


b = True

not b # evaluates to False
```

LABORATORY