

Day-4 4/11/25

* Operators (7 types of operators)

- are special symbols or keyword that perform operation on values

Ex: $a+b$

(+) - operator

a,b - operands.

1. Arithmetic operators:

Used for numeric calculation

+ , Addition $a+b$

- , Subtraction $a-b$

* , Multiplication $a*b$

/ , Division a/b

//, Floor Division $a//b$ (It gives rounded value)

%, modulus $a \% b$ (It gives remainder)

** Exponentiation $a^{**}b \rightarrow a^b$.

2. Comparison (Relational) operators (Returns Boolean values)

$= =$, \neq , $>$, $<$, \geq , \leq

3. Logical Operators

Used for Boolean logic

1. And

2 Or

3. Not

4) Bitwise operators

operate on binary values

& - bitwise And

| (or) - bitwise Or

\wedge - Bitwise XOr

\sim - Bitwise Not

<< - Left Shift

>> - Right Shift

5) Assignment operators

Assign and optionally modify values

= - assignment

$a = b$

$+ =$ Add + assign

$a + = 3$

$- =$ Sub + assign

$a - = 3$

$* =$ mul + assign

$a * = 3$

$// =$ div + assign

$a // = 3$

$/ =$

$% =$

$** =$

$\& =$

$\wedge =$, $\gg =$

6. Membership operators

Checks presence in sequence or collection

i. in

Present

'd' in list

ii. not in

not Present

not in data

7. Identity operators

i. Check object identity (memory address)

a is

Same object

a is b

a is not

Different object

a is not b