lec 14

Operators in Python

- Operators are used to perform some operations on values/variables.

  eg:- 2 + 3 [here '+' is operator & 2,3 are operands]

Operators are special symbols e.g:- +, - /, * etc.
& operand is the value on which the operators are applied.

Types of operators:-
* Arithmetic Operators
* Comparison (Relational) Operators
* Logical Operators
* Assignment Operators
* Bitwise Operators
* Special → identity Operators
  → Membership Operators

Arithmetic Operators:-

these are used to perform mathematical operations like add, subtract, multiply, divide.

+	addition
-	subtraction
*	multiplication
/	division
//	floor division
%	modulus
**	power [e.g:- 2**3 gives 8 (2^3)]

NOTE:-
in python 3.x, result of division is a floating point & to get integer result we use floor division

Precedence & Associativity - PEMDAS

Precedence

- Parenthesis ()
- Exponent & **
- Multiplication & division * / [having same precedence]
- Addition & Substraction + - [having same precedence]

But what if :-

$$5 + 2 * 3 - 1 + 10/5$$

here we have more than one operator of same precedence So here is confusion to solve which operator first (e.g. * or /) So here associativity comes into picture. Associativity for these operators are L → R

(exponent has R → L associativity)

$5 + 2 * 3 - 1 + 10/5 \Rightarrow 12.0$

$5 + 2 * (3 - 1) + 10/5 \Rightarrow 11.0$