

## OPERATORS

### 1. What is an operator ?

An operator is an action performed between two operands

Example:  $2 + 3$  where '+' is the operator and 2 and 3 are the operands. Addition is the action performed in this operation.

### 2. What are the different types of operators ?

Operators are broadly classified into the following:

**1. Assignment Operator** ('=') => Assigns the value at the right hand side to the variable at the left hand side

#### 2. Arithmetic Operators

- Multiplication ('\*') => Returns the product of two operands. Example:  $3 * 3$  returns 9
- Division ('/') => Returns the quotient of two operands. Example:  $100/10$  returns 10
- Addition ('+') => Returns the sum of two operands. Example:  $2 + 2$  returns 4
- Subtraction ('-') => Returns the difference between two operands. Example:  $10 - 7$  return 3
- Modulo ('%') => Returns the remainder from the division performed between two operands. Example:  $10 \% 7$  returns 3

#### 3. Relational or Comparison Operators

- Equal to ('==') => Returns true if both the operands are equal.  
Example:  $(2 == 2)$
- Greater than ('>') => Returns true if operand 1 is greater than operand 2.  
Example:  $(1 > 2)$
- Lesser than ('<') => Returns true if operand 1 is lesser than operand 2.  
Example:  $(2 > 1)$
- Greater than or equal to ('>=') => Returns true if operand 1 is greater than or equal to operand 2. Example:  $(2 >= 2)$
- Lesser than or equal to ('<=') => Returns true if operand 1 is lesser than or equal to operand 2. Example:  $(2 <= 2)$
- Not equal to ('!=') => Returns true if operand 1 is not equal to operand 2.  
Example  $(2 != 3)$

#### 4. Logical Operators

- and => Returns true only if both the operands are true. Example:  $((5 > 3) \text{ and } (3 < 5))$
- or => Returns true if at least among the operands is true. Example:  $((5 < 3) \text{ or } (3 < 5))$
- not => Reverses the boolean value of the operand. Example  $\text{not}(5 < 3)$  returns True (reverse of False).