Core Java Operators

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What is Operators in Core Java

- Operator is a type of symbol which is used for perform operations in various condition.

  Like Example: +, -, *, and so more.

Types of Operators in Core Java

- Arithmetic Operator
- Assignment Operator
- Bitwise Operator
- Logical Operator
- Relational Operator
- Shift Operator
- Ternary Operator
- Unary Operator

Arithmetic Operator,

- It's use for perform simple arithmetic operations on primitive data types.

Operator	Name	Description	Example
+	Addition	Adds together two values	x + y
-	Subtraction	Subtracts one value from second value	x - y
*	Multiplication	Multiplies two numbers	x * y
/	Division	Divides one value by second value	x / y
%	Modulus	Returns the division remainder(LCM remaining)	x %y
++	Increment	Increases value by 1	x++
--	Decrement	Decreases value by 1	y--

Assignment Operator.

- It's used to assign the value on its right to the operand on its left.

Operator	Name	Example	Same As
=	equal	x = 5	x = 5
+=	adding equal	x += 3	x = x + 3
-=	subtracting equal	x -= 3	x = x - 3
*=	multiplying equal	x *= 3	x = x * 3
/=	Dividing equal	x /= 3	x = x / 3
%=	Modulo equal	x %= 3	x = x % 3
&=	And equal	x &= 3	x = x & 3
|=	Or equal	x |= 3	x = x | 3
^=	Power equal	x ^= 3	x = x ^ 3

Bitwise Operator

- It's use to perform manipulation of individual bits of a number.
- & : Bitwise AND
- | : Bitwise OR operator:
- ^ : Bitwise XOR operator:
- ~ : Bitwise Complement Operator:

Logical Operator

- It's used to perform "logical AND" and "logical OR" operation
- && : AND
- || : OR
- ! : NOT

Comparison / Relational Operator

- It's use to check for relations like equality, greater than, less than and return Boolean result.

Operator	Name	Example
==	Equal to	x == y
!=	Not equal	x != y
>	Greater than	x > y
<	Less than	x < y
>=	Greater than or equal to	x >= y
<=	Less than or equal to	x <= y

Bitwise / Shift Operator

- It's used to shift the bits of a number left or right and multiplying or dividing the number by two respectively.
- << : Left shift operator
- >> : Signed Right shift operator
- >>> : Unsigned Right shift operator

Ternary Operator

- It is a shorthand version of if-else statement.

It has three operands and hence the name ternary.

Syntax –

condition ? if true then print : if false then print

Unary Operator

- It's use for increment, decrement or negate a value.

Operator	Name	Details
+	Plus Unary	Used for positive values
-	Minus Unary	Used for negative values
Increment operator		
X++	Post-Increment	Increases value by 1 after
++X	Pre-Increment	Before increment value by 1
Decrement operator		
X--	Post-Decrement	Decreases value by 1 after
--X	Pre-Decrement	Before Decreases value by 1