

Java Operators

Operator is a symbol which tells to the compiler to perform some operation. Java provides a rich set of operators to deal with various types of operations. Sometimes we need to perform arithmetic operations then we use plus (+) operator for addition, multiply(*) for multiplication etc.

Operators are always essential part of any programming language.

Java operators can be divided into some categories that is

- Arithmetic operators

- Assignment operators

- Compound Assignment Operator

- Concatenating Operator

- Unary Operator

- Equality and Relational Operator

- Conditional operators

- Type Comparison Operator

- Bitwise Operator

Arithmetic operators

Arithmetic operators are used to perform arithmetic operations like: addition, subtraction etc and helpful to solve mathematical expressions. In PPT I am listed all arithmetic operators.

Assignment & Compound Assignment Operators

Assignment operators are used to assign a value to a variable. It can also be used combine with arithmetic operators to perform arithmetic operations and then assign the result to the variable

concatenation operator

Java concatenation operator (+) is used to combine two string values to create one new string

Unary Operator

Unary operator needs only one operand to increment, decrement, etc. Here are various unary operators,

1. **Logical complement operator (!):** reverses logical state or value of operand. If the value is false, it converts value to true and vice versa.
2. **Unary minus (-):** converts positive value to negative value.
3. **Increment (++):** increments value of an integer. post and pre-increment.
4. **Decrement (- -):** decrements value of an integer. post and pre-decrement.
5. **Unary plus (+):** operator represents positive value. That is it makes all bits inverted, every 0 to 1 and every 1 to 0.

Equality & Relation operators

Relational operators are used to test comparison between operands or values. It can be use to test whether two values are equal or not equal or less than or greater than etc.

Conditional/Logical operators

Logical Operators are used to check conditional expression. For example, we can use logical operators in if statement to evaluate conditional based expression. We can use them into loop as well to evaluate a condition.

Type Comparison Operator

instanceOf is a java **keyword** and used to test whether the given **reference belongs to provided type** or not. Type can be a class or interface. **It returns either true or false.**

Bitwise operators

Bitwise operators are used to perform operations bit by bit.

Java defines several bitwise operators that can be applied to the integer types long, int, short, char and byte.

