

## Operators







### Introduction to Operators

one of the important reasons why programming is done is to operate on the values in the variables with high accuracy and faster speed.





### Operators

• Operators are symbols or keywords that represent specific actions or operations to be performed on one or more operands.





An **operand** is a data value that the operator will carry out the actions. It is the values on which we operate





### Different Types of Operators

- 1. Arithmetic Operators
- 2. Assignment Operator
- 3. Comparison Operator
- 4. Logical Operator
- 5. Unary Operator





### Arithmetic Operators

- 1. Addition(+)
- 2. Subtraction(-)
- 3. Multiplication(\*)
- 4. Division(/)
- 5. Modulus(%)
- 6. Exponentiation(\*\*)





### Increment and Decrement(post & pre)

The "++" operator is used for both pre-increment and post-increment operations and "--" operator is used for both pre-decrement and post-decrement.





### **Assignment Operator**

- **a.** Simple Assignment
- b. Compound Assignment





### Simple Assignment(=)

It is used to assign a single value to a variable. It takes the value on the right-hand side (RHS) and assigns it to the variable on the left-hand side (LHS).





### Compound Assignment

#### Some common compound assignment operators in JavaScript:

- 1. +=: Addition and assignment
- 2. -=: Subtraction and assignment
- 3. \*=: Multiplication and assignment
- 4. /=: Division and assignment
- 5. %=: Modulus and assignment (remainder after division)
- 6. \*\*=: Exponentiation and assignment





### Comparison Operator

Comparison Operators are used to compare values and return Boolean results (true or false) based on the comparison.





### Comparison Operators

- Equality (==) and Strict Equality (===)
- 2. Inequality (!=) and Strict Inequality (!==):
- 3. Greater than (>), Less than (<), Greater than or equal to (>=), Less than or equal to (<=)</p>





### Nullish Coalescing (??)

The nullish coalescing operator (??) is used to handle null or undefined values. It returns the right-hand operand if the left-hand operand is null or undefined; otherwise, it returns the left-hand operand.





### Logical operators

Logical operators perform logical operations and return a boolean value, either true or false.





### Types of Logical Operators

- 1. AND(&&)
- 2. OR(||)
- 3. NOT(!)





### **Unary Operator**

Unary operators are operators that perform actions on a single operand.





### Types of Unary Operator

- 1. Unary plus
- 2. Unary negation
- 3. Logical NOT
- 4. Increment & Decrement operators
- 5. Typeof
- 6. void
- 7. delete



# THANKYOU