Operators in JS

By CODEMIND Technology
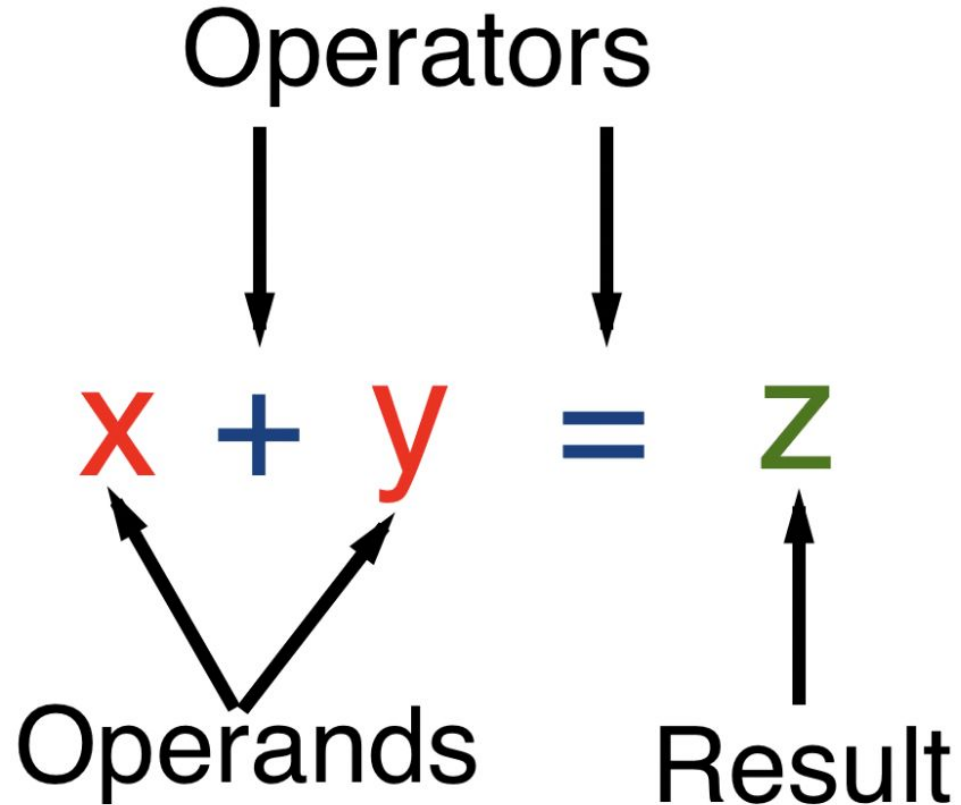
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Operators And String Template

- ★ Why Operators
- ★ Arithmetic Operator
- ★ Assignment Operator
- ★ Comparison Operator
- ★ Logical Operator
- ★ Special Operators
  - ○ Typeof operator
  - ○ Ternary or conditional operator
- ★ Assignments
- ★ String Template
- ★ Assignment - String template

Operator and Operands

An operator is a special symbol used to perform operations on operands that is values and varia...

- Unary Operator
- Binary Operator
- Ternary Operator

Different Operators

Arithmetic	
+	Addition
-	Subtraction
*	Multiplication
**	Exponentiation
/	Division
%	Modulus
++	Increment
--	Decrement

Assignment	
=	Assignment
+=	Compound addition
-=	Compound Subtraction
*=	Compound Multiplication
/=	Compound Division
%=	Compound Modulus

Comparison	
==	Equal
===	Strict equal
!=	Not Equal
!==	Strict not equal
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal

Logical	
&&	AND
||	OR
!	NOT

Other Operators:
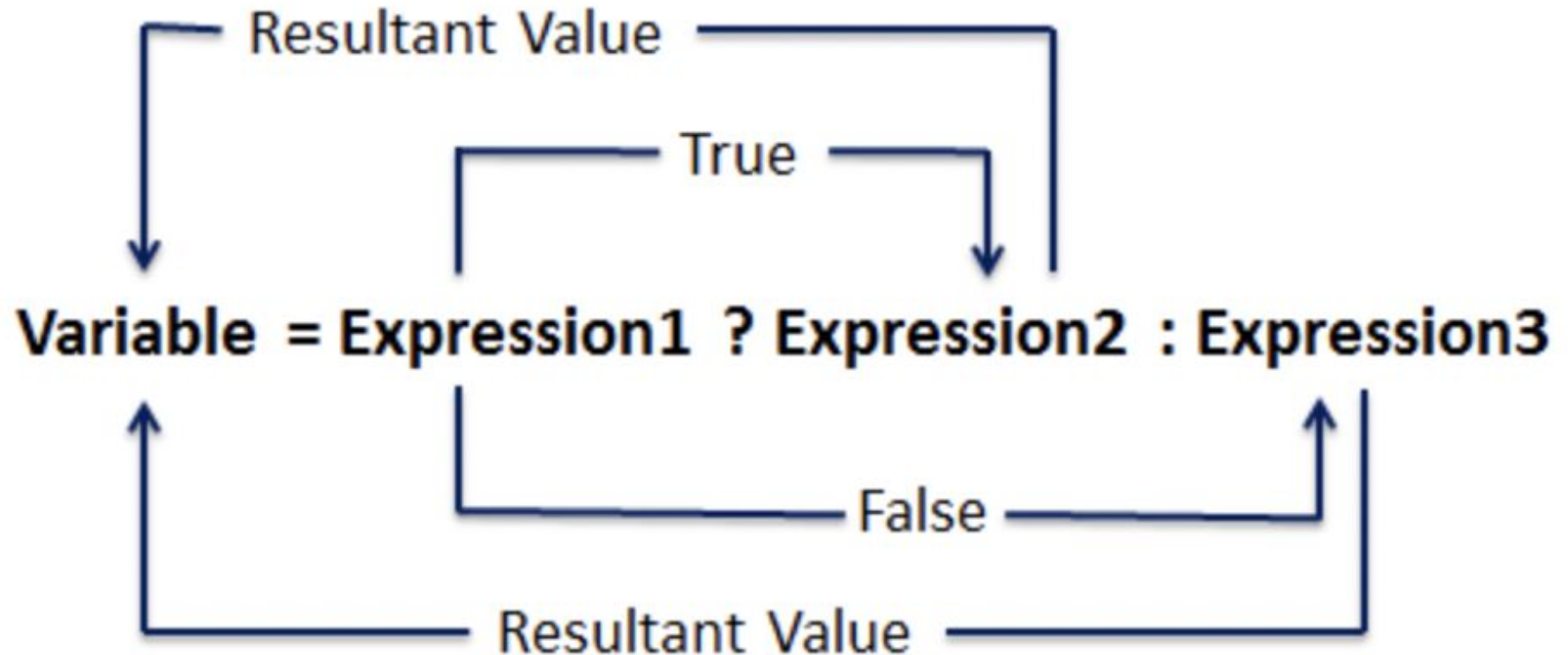- Ternary Operator or conditional operator
- typeof operator

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Logical Operators

Logical Operators

- A truth table shows all possible true-false combinations of the terms

- Since `&&` and `||` each have two operands, there are four possible combinations of conditions `a` and `b`

a	b	a && b	a || b
true	true	true	true
true	false	false	true
false	true	false	true
false	false	false	false

Conditional Operator or Ternary Operator

What is diff bet == and === ?

★   When we use '==' operator Js will try to convert them to the same type and then compare them

★   Example "5" == 5 JS converts the "5" to a number 2 before checking if they are equal which is why we get result as true.

★   Using '===' operator, it checks whether two numbers are equal by it's value and type as well.

Note: === is most favored instead ==

Examples:

Concatenation

★ Using '+' operator

★ We can use '+' operator to concat two strings

★ Example var result = "I am "+ "Angular Developer";

NaN - Not a Number

★ NaN is a number – typeof NaN return number

★ It is the result of numerical operations where result is not a number o NaN can occur in several ways like

★ Converting an invalid value to a number

Ex. → var fullName = "Hello"; var myNumber = new Number(fullName); console.log(myNumber);

★ Trying to do arithmetic with a non-numeric string will result in NaN (Not a Number)

★ Divide number by zero or zero by zero

★ If you use NaN in a mathematical operation, the result will also be NaN

Assignment: Make sure only use ternary operators

1. Find the greatest number amongst two number

2. Check → 29, 44 even or odd numbers and log result on console

3. Check → Is given number 132 greater than or equal to 132

4. Check these numbers are positive or negative -33, 179, 0, 45.89

5. If Male and age >=21 then

    5.1. Hey boy you are eligible for Marriage else Not eligible for Marriage

6. If Female and age>=18 then only

    6.1. Hey Girl you are eligible for Marriage else not eligible for marriage

7. If you Graduation score is 80% OR HSC 90% then only

    7.1. You are eligible for TCS interview. Else Not eligible for interview

Assignment:

1. Check out few interesting fact and log result on console with reason:
   - 0 == ' '
   - 0=='0'
   - 0==false
   - null==undefined
   - 1==[1]
   - 1==true
   - 1=='1'
2. Swap two variables without using using third variable (Will cover in session)
3. Find the greatest number amongst three numbers (Will cover in session)

String template

Use backticks (` `) characters to define string template.

Few usage of string template are:

1. In a string putting a word with double quote " "

```
var message = `Hello, Very Good Morning - "Sachin" `;
console.log(message);
```

2. Variable Substitution

```
var firstName = "Codemind";
var lastName = "Technology"
console.log(`First Name: ${firstName} and Last Name: ${lastName}`);
```

Note: `` (backticks) is different than ' ' (single quote)

Assignment: To log output on console only use string template

1. 'My dream company is "your dream company name"' log on console

2. Create variables for "My Hobbies are: ", "Your hobby1", "Your hobby2", "Your hobby3"

    2.1. Log all hobbies separately

    2.2. Concat them in a one sentence and log on console

3. Swap two variables without using third variable

    3.1. number1= 500; , number2= 700;

UI Assignments: Use your creativity and experience to design below pages

Note: Deadline is on or before 12th June

★ Design a Responsive calculator for addition, subtraction, multiplication and division.

○ Clear button to clear the result and number inputs

Assignment:

★   Create your own GitHub account

★   Start uploading your code and notes there with concept wise

★   Share the GitHub URL link

Thank you

CODEMIND action speaks not words…