

Operators in JS

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<https://sakshat.ac.in>

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Learning Objectives

In this tutorial, we will learn about:



Learning Objectives

In this tutorial, we will learn about:

- ▶ **Different types of Operators in JS**



Learning Objectives

In this tutorial, we will learn about:

- ▶ **Different types of Operators in JS**
- ▶ **Their usage**



System Specifications

This tutorial is recorded using:



System Specifications

This tutorial is recorded using:

- ▶ **Ubuntu Linux OS version 18.04**



System Specifications

This tutorial is recorded using:

- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **Visual Studio Code version 1.51.1**
(code editor)



System Specifications

This tutorial is recorded using:

- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **Visual Studio Code version 1.51.1**
(code editor)
- ▶ **Firefox Web Browser**



Prerequisites



Prerequisites

- ▶ You should be familiar with writing and executing JS files



Prerequisites

- ▶ You should be familiar with writing and executing JS files
- ▶ If not, please go through the prerequisite tutorials on <https://spoken-tutorial.org>



Code Files

- ▶ **The files used in this tutorial are available in the `Code files` link on this tutorial page**



Code Files

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- ▶ **Please download and extract the files**



Code Files

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- ▶ Please download and extract the files
- ▶ **Make a copy and then use them for practicing**



Types of Operators



Types of Operators

▶ Assignment Operator



Types of Operators

- ▶ **Assignment Operator**
- ▶ **Arithmetic Operators**



Types of Operators

- ▶ **Assignment Operator**
- ▶ **Arithmetic Operators**
- ▶ **Comparison Operators**



Types of Operators

- ▶ **Assignment Operator**
- ▶ **Arithmetic Operators**
- ▶ **Comparison Operators**
- ▶ **Logical Operators**



Types of Operators

- ▶ **Assignment Operator**
- ▶ **Arithmetic Operators**
- ▶ **Comparison Operators**
- ▶ **Logical Operators**
- ▶ **Ternary Operator**



Assignment Operator



Assignment Operator

► = (Equal to)



Arithmetic Operators



Arithmetic Operators

▶ + (Addition)



Arithmetic Operators

- ▶ + (Addition)
- ▶ - (Subtraction)



Arithmetic Operators

- ▶ + (Addition)
- ▶ - (Subtraction)
- ▶ * (Multiplication)



Arithmetic Operators

- ▶ + (Addition)
- ▶ - (Subtraction)
- ▶ * (Multiplication)
- ▶ / (Division)



Arithmetic Operators

- ▶ + (Addition)
- ▶ - (Subtraction)
- ▶ * (Multiplication)
- ▶ / (Division)
- ▶ % (Modulo)



Comparison Operators



Comparison Operators

▶ > (Greater than)



Comparison Operators

▶ `>` (Greater than)

▶ `<` (Less than)



Comparison Operators

- ▶ `>` (Greater than)
- ▶ `<` (Less than)
- ▶ `>=` (Greater than or equal to)



Comparison Operators

- ▶ `>` (Greater than)
- ▶ `<` (Less than)
- ▶ `>=` (Greater than or equal to)
- ▶ `<=` (Less than or equal to)



Comparison Operators

- ▶ `>` (Greater than)
- ▶ `<` (Less than)
- ▶ `>=` (Greater than or equal to)
- ▶ `<=` (Less than or equal to)
- ▶ `==` (Equal to)



Comparison Operators

- ▶ `>` (Greater than)
- ▶ `<` (Less than)
- ▶ `>=` (Greater than or equal to)
- ▶ `<=` (Less than or equal to)
- ▶ `==` (Equal to)
- ▶ `===` (Equal value & equal type)



Comparison Operators

- ▶ `>` (Greater than)
- ▶ `<` (Less than)
- ▶ `>=` (Greater than or equal to)
- ▶ `<=` (Less than or equal to)
- ▶ `==` (Equal to)
- ▶ `===` (Equal value & equal type)
- ▶ `!=` (Not equal to)



Logical Operators



Logical Operators

▶ `&&` (Logical AND)



Logical Operators

- ▶ `&&` (Logical AND)
- ▶ `||` (Logical OR)



Logical Operators

- ▶ `&&` (Logical AND)
- ▶ `||` (Logical OR)
- ▶ `!` (Logical NOT)



Ternary Operator



Ternary Operator

Ternary operator **takes three operands**



Ternary Operator

Ternary operator **takes three operands**

- ▶ **A condition followed by a question mark**



Ternary Operator

Ternary operator **takes three operands**

- ▶ **A** condition **followed by a** question mark
- ▶ Expression 1 **to be executed if the** condition **is satisfied followed by a** colon



Ternary Operator

Ternary operator **takes three operands**

- ▶ **A condition followed by a question mark**
- ▶ **Expression 1 to be executed if the condition is satisfied followed by a colon**
- ▶ **Expression 2 to be executed if the condition is satisfied**



Ternary Operator

▶ `condition ? exp1 : exp2`



Summary

In this tutorial, we have learnt about:

- ▶ Assignment Operator
- ▶ Arithmetic Operators
- ▶ Comparison Operators
- ▶ Logical Operators
- ▶ Ternary Operator **in** JS



Assignment

- ▶ **Open the file `assignment.js` which you have created earlier**
- ▶ **Clear the existing code**
- ▶ **Create three variables `a`, `b` and `c`**
- ▶ **Assign two random numbers to `a` and `b`**



Assignment

- ▶ **Assign a boolean value to c**
- ▶ **Only if the sum of a and b is more than 20 and, c is true**
- ▶ **Log the sum of a and b**
- ▶ **Else log** unable to display result



Assignment

- ▶ **Open the file `MyPage.html` in a web browser**
- ▶ **Observe the output in the browser's console**



About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum for Specific Questions

- ▶ Do you have questions in THIS Spoken Tutorial?
- ▶ Please visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer
- ▶ You will have to register to ask questions



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- ▶ **Spoken Tutorial project is funded by Ministry of Education (MoE), Govt. of India**



Thank you

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