

THE BASIC SYNTAX OF JAVASCRIPT
THE ULTIMATE WEB DESIGNER • BRAD HUSSEY

Javascript Syntax

Javascript (or JavaScript) is a programming language. It's syntax has much in common with other major programming languages. Simply learning Javascript will make learning additional programming languages significantly easier.

Before we go any further, please understand that Javascript is ***NOT*** the same as Java. They are different programming languages and have nothing to do with each other.

Java is ***NOT*** short for Javascript. It's a very common misconception made by code noobz. You are not a code noob.

Statements

Computer programs are created by programming languages, like Javascript, and are given specific instructions to perform. Programming languages give computer programs instructions through *statements*.

Statements are separated by semicolons, like so:

```
var funMessage = "Hello!";  
window.alert(funMessage);
```

Statements

Statements in Javascript have five separate elements:

1. Values
2. Keywords
3. Expressions
4. Operators
5. Comments

Statements

VALUES

There are two types of values in Javascript:

Fixed

Variable

Statements

VALUES

LITERALS

Fixed Values (a.k.a. Literals)

Think of these values as something that doesn't change. Ever. Because it's been "hard coded".

Numbers such as 17.425 or 946

Strings are simply text, written in 'single' or "double quotes"

Expressions compute to values, like math: $10 * 4$ or $3.14 - 6$

Statements

VALUES

VARIABLES

Variable Values (a.k.a. Variables)

Variables are different from literals because the value can change. Variables are used to store data, such as numbers, strings, or expressions. Think of a variable as a **bucket that can have stuff in it.**

Javascript uses the keyword `var` to define a variable, then uses `=` to assign a value to the variable.

```
var myVariable;  
myVariable = 2 * 4;
```

Statements

OPERATORS

In Javascript, and many other programming languages, there are many different types of operators. Two of the most common operators are:

Arithmetic Operators

Assignment Operators

Statements

OPERATORS

ARITHMETIC

Arithmetic operators are used for math! Here are some of the most common arithmetic operators:

| Operator | Description | Example |
|----------|----------------|-------------------------------|
| + | Addition | <code>var a = 1 + 2;</code> |
| - | Subtraction | <code>var b = 10 - 8;</code> |
| * | Multiplication | <code>var c = a * b;</code> |
| / | Division | <code>var d = 100 / c;</code> |

Statements

OPERATORS

ASSIGNMENT

Assignment operators are used to assign values to variables.

| Operator | Example | Is the same as | What it does |
|----------|---------|----------------|----------------------------------|
| = | a = b | a = b | Assigns a value to a variable |
| += | a += b | a = a + b | Adds a value to a variable |
| -= | a -= b | a = a - b | Subtracts a value to a variable |
| *= | a *= b | a = a * b | Multiplies a value to a variable |
| /= | a /= b | a = a / b | Divides a value to a variable |

Statements

COMMENTS

You can *hide* statements from the computer program using comments, so the statements do not execute. There are two types of comments in Javascript:

```
// Single line comments
```

```
/* Multi line comments  
   that can take up  
   as many lines  
   as you want */
```

Case Sensitive

Javascript is case sensitive, meaning the following variables are entirely different:

```
yourName = "Brad Hussey";  
yourname = "Coding Cody";
```

That means the keyword **var** must always be typed in lowercase.

```
end();
```

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