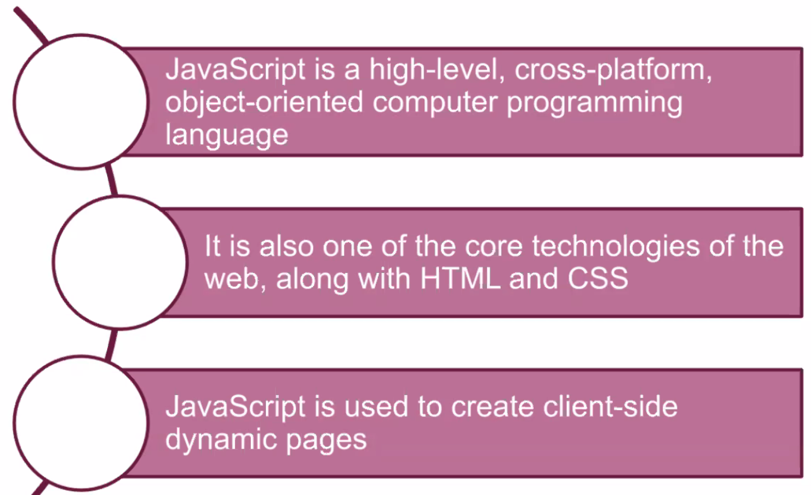


# What is Javascript?



**➤** **JavaScript** is a high-level, cross-platform, object-oriented computer programming language.

**➤** It is also one of the core technologies of the web, along with **HTML** and **CSS**.

**➤** **JavaScript** is the most commonly used to create client-side dynamic pages.

**➤** Today, **JavaScript** can execute not only in the browser, but also on the server, or actually on any device that has a special program called the JavaScript engine.

**⚜️ Why is it called *Java*Script?:**

When JavaScript was created, it initially had another name: **“LiveScript”**. But Java was very popular at that time, so it was decided that positioning a new language as a “younger brother” of Java would help.  
But as it evolved, JavaScript became a fully independent language with its own specification called **ECMAScript**, and now it has no relation to Java at all.

## Placement

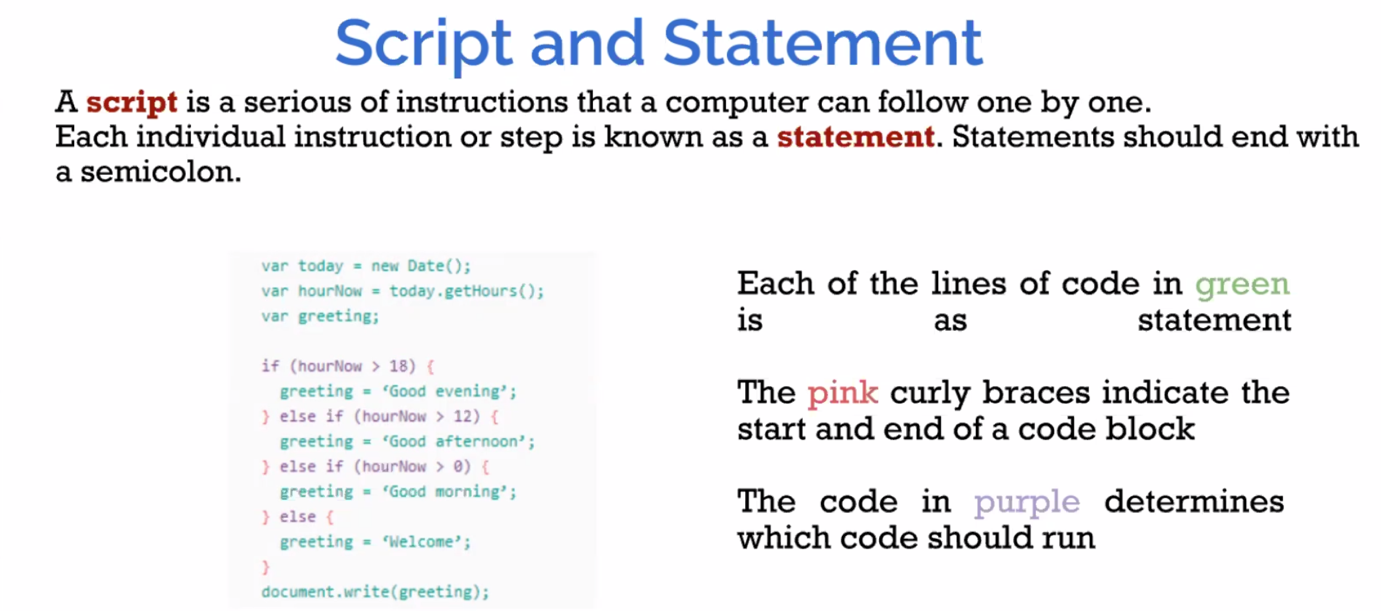
**➤** A **script** is a serious of instructions that a computer can follow one by one.

**➤** Each individual instruction or step is known as a **statement**.  **Statements** should end with a **semicolon**.

**➤** In **HTML**, **JavaScript** code must be inserted between <script> and </script> tags.

**➤** You can place any number of scripts in an **HTML** document.

**➤** **Script** tags can be inserted in the **HTML** page's <body>, or <head> sections, or in both.



## External JavaScript

**➤** **Scripts** can be located in **external files**.

**➤** External **scripts** are useful when the same code is used on many different web pages.

**➤** To include an external **JavaScript** file in your **HTML** code, it is necessary to put the name of the **script** file in the **src** attribute of a **<script>** tag.

**➤** An external **script** reference can be located in the **<head>** or **<body>** section of an **HTML** page.

**➤** The file extension of **JavaScript** files is **.js**.

<script src = "myScript.js" ></script>

## Output

There are different ways to **"display"** data in **JavaScript**.

**➤** document.write().  
**➤** window.alert().  
**➤** console.log().

## Comments

**●** a single line comments after a double slash //  
**●** and multi-line comments between /\* ....... \*/

## ECMAScript 2015 (ES6)

**➤** **ECMAScript (ES)** is a scripting language specification intended to standardize **JavaScript**.

**➤** **ECMAScript 2015**, which is also known as **ECMAScript 6** and **ES6**, is the sixth edition of the **ECMAScript Language Specification** standard.

**➤** **ES6** provides a new set of features and fixes to **JavaScript**.

**★** We’re going to dive into what' difference between ES6 and before its.

**⚡ Commonly Asked Questions:**

* How do I get JavaScript?
* Where can I download JavaScript?
* Is JavaScript Free?

You don't have to get or download JavaScript.  
JavaScript is already running in your browser on your computer, on your tablet, and on your smart-phone.  
Free to use for everyone.

# JS Variables

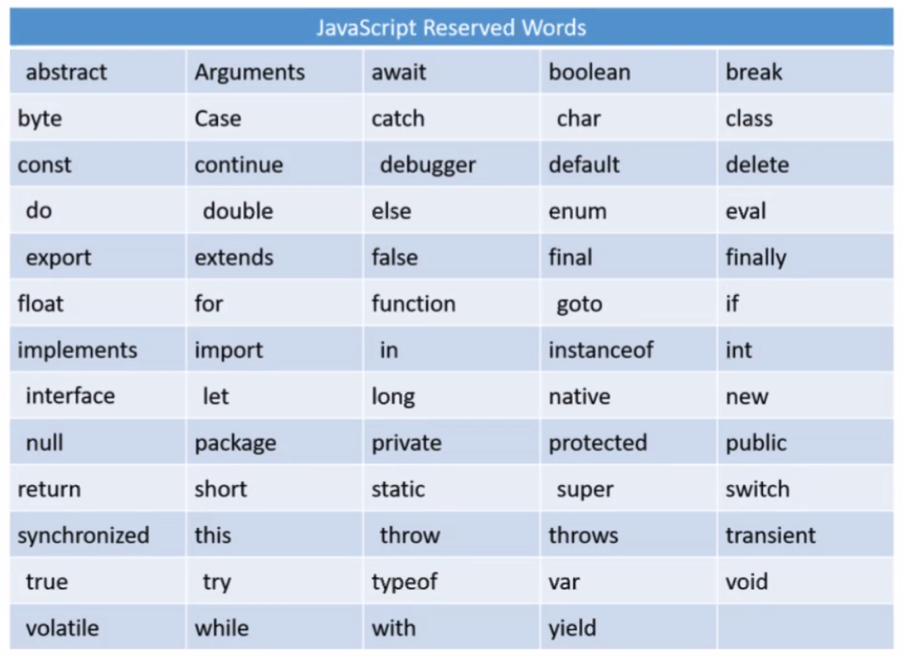
## Naming Rules

The general rules for defining names for **variables**:

**➤** Names can composed of letters, digits, underscores, and dollar signs.  
**➤** Numbers are not allowed as the first character.  
**➤** The first character must be;  
   **●**a letter  
   **●**an underscore ( **\_** )  
   **●**a dollar sign (**$**)

**➤** JavaScript names must not contain spaces, mathematical or logical operators.

**➤** Reserved words cannot be used as names



## JavaScript let and const

**➤** Before **ES6** we used to define a variable using the **var** keyboard.

**➤** **let** and **const** keyboards are added to **JavaScript** with **ES6**.

### let

**➤** The let statement enables you to declare a variable with **block scope**.

**➤** Scope is the fundamental concept that defines a variable's visibility in all programming languages.

Example

var a = 10;

{

let b = 3;

}

console.log ("a = " + a);

console.log ("b = " + b); //generates an error

Output:

a = 10  
ReferenceError: b is not defined

### **const**

**const** variables are similar to **let** variables, except that **const** variables are **immutable.** They are not allowed to be reassigned.

Example

const x = 5;

x = 7; //generates an error

Output:

TypeError: Assignment to constant variable