

What is JavaScript

JavaScript is a dynamic programming language that's used for web development, in web applications, game development, server-side and desktop application.

JavaScript engines were originally used only in web browsers to bring the possibility to implement complex and dynamic features on web pages that cannot be done with only HTML and CSS, since then , it has grown far beyond its original goal, so that, nowadays, apps like Netflix, PayPal, LinkedIn chose to use Node.js for the back-end implementation.

JavaScript is an interpreted language, not a compiled language. A program such as C++ or Java needs to be compiled before it is run. The source code is passed through a program called a compiler, which translates it into bytecode that the machine understands and can execute. In contrast, JavaScript has no compilation step.

Instead, an interpreter in the browser reads over the JavaScript code, interprets each line, and runs it. More modern browsers use a technology known as Just-In-Time (JIT) compilation, which compiles JavaScript to executable bytecode while the script is being used, so that it can be run as quickly as possible. However, JavaScript is still considered an interpreted language, since the compilation is handled at run time, rather than ahead of time.

Basically, the Java script can run on any device that has the JavaScript runtime environment and interpreter engine embedded. The browser has an embedded engine sometimes called a “JavaScript virtual machine”. Different browsers have different engines. For example:

- V8 – in Chrome, Opera and Edge.
- SpiderMonkey – in Firefox.
- Chakra - for IE,
- JavaScriptCore - for Safari, etc.

A Brief History of JavaScript

- **1993** => Was released the first web browser with a graphical user interface called Mosaic.
- **1994** => Lead developers of Mosaic founded Netscape (now Mozilla) and released a more elegant browser called Netscape Navigator
- **1995** => At the time web pages were only static, with no capability for dynamic behavior and interactivity. As a result, there was an urge in the web development community to eliminate this limitation. This led Netscape to the decision to add a scripting language to the Navigator browser. In September, a Netscape programmer named Brendan Eich developed a new scripting language in just 10 days. It was originally called Mocha, but quickly became known as LiveScript and, later, JavaScript and was official released in December.
- **1996** => In November Netscape submitted JavaScript to ECMA International (European Computer Manufacturers Association), as the starting point for a standard specification that all browser vendors could conform to.
- **1997** => In June was the official release of the first ECMAScript language specification.
- **1998** => ECMAScript 2 released in June
- **1999** => ECMAScript 3 released in December
- **2000** => ECMAScript 4 never released
- **2009** => ECMAScript 5 released
- **2015** => ECMAScript 6 released