JAVASCRIPT.PROGRAMMERS.IM

Java or JavaScript?

They share part of a name. They are not the same language.

MDN's glossary puts it plainly: JavaScript should not be confused with the Java programming language. The two are significantly different in their syntax, semantics, and use cases.[1]

	Java	JavaScript
What it is	Oracle describes Java technology as both a programming language and a platform.[2]	MDN describes JavaScript as a scripting or programming language that lets you implement complex features on web pages.[3]
How the code is run	Source is written in files ending `.java` and compiled by `javac` into `.class` files of bytecodes, "the machine language of the Java Virtual Machine." The `java` launcher then runs the application on a Java VM.[2]	MDN calls JavaScript a lightweight interpreted programming language. Most modern interpreters also use just-in-time compiling while the script is running. It is still considered interpreted, because that compilation happens at run time, not ahead of time.[4]
Typing	MDN's Java glossary: Java is statically typed.[5]	MDN: JavaScript is a "dynamically typed language", which means you do not need to specify what data type a variable will contain.[6]
Where it runs	Because a Java VM is available on many operating systems, the same `.class` files can run on Microsoft Windows, Solaris, Linux, or Mac OS.[2]	Used most often for dynamic client-side scripts on web pages, and also often on the server, with a runtime such as Node.js, Deno, or Bun.[1]
Typical work	Oracle's tutorial says the Java API spans basic objects, networking and security, XML generation and database access, and more. User-interface toolkits named on the same page include JavaFX, Swing and Java 2D.[7]	On MDN's beginner course, JavaScript can create dynamically updating content, control multimedia and animate images.[3]
The standard	Oracle treats the Java platform as a software-only platform, made of the Java Virtual Machine and the Java API, that runs on top of other hardware-based platforms.[2]	The standardized language is called ECMAScript and is specified under ECMA-262. MDN calls that standard a living standard, constantly updated and implemented.[1]

Quick quiz

1. Are Java and JavaScript the same programming language?
2. When a modern JavaScript engine compiles code to go faster, when does that compilation happen?
3. Where does MDN say JavaScript is used most often?

Answers. 1. No — they differ in syntax, semantics and use cases.[1] 2. At run time; JavaScript is still considered an interpreted language.[4] 3. For dynamic client-side scripts on web pages.[1]

Sources, checked 17 November 2026. Wording is kept with the document it comes from.
1. MDN Web Docs, Glossary: JavaScript. https://developer.mozilla.org/en-US/docs/Glossary/JavaScript
2. Oracle, The Java Tutorials, "About the Java Technology" (the published tutorial notes it was written for JDK 8). https://docs.oracle.com/javase/tutorial/getStarted/intro/definition.html
3. MDN Web Docs, Learn: What is JavaScript? https://developer.mozilla.org/en-US/docs/Learn_web_development/Core/Scripting/What_is_JavaScript
4. The same MDN Learn page, on interpreted language and just-in-time compiling.
5. MDN Web Docs, Glossary: Java. https://developer.mozilla.org/en-US/docs/Glossary/Java
6. MDN Web Docs, Learn: Variables, "Dynamic typing." https://developer.mozilla.org/en-US/docs/Learn_web_development/Core/Scripting/Variables
7. Oracle, The Java Tutorials, "What Can Java Technology Do?" https://docs.oracle.com/javase/tutorial/getStarted/intro/cando.html

ReallyByte — Fun. Educational. Useless.™ · javascript.programmers.im · Free educational fact sheet. Not affiliated with MDN, Mozilla, Ecma International or Oracle. MDN notes that "Java" and "JavaScript" are trademarks (or registered trademarks) of Oracle in the U.S. and other countries.[1]