

What is JavaScript?

Before 1995, web pages could only be static, meaning that they lacked dynamic behavior after the page was loaded. To remove this limitation, Brendan Eich was employed by Netscape to create JavaScript in 1995.

JavaScript is most famously used for adding interactivity to web pages. Here are a few examples of what you can do with JavaScript:

- adding a countdown timer to the screen
- changing the background color after the user presses a key
- adding or changing text when the user clicks a button
- having the user guess a random number
- adding features like text-to-speech

As of 2024, 98.9% of websites use JavaScript, including Google, Facebook, Netflix, YouTube, and basically all of the other most popular ones. JavaScript itself is very useful and flexible, but a lot of sites and applications also use tools created by other developers to add more functionality (one of these tools is called React, which we'll learn about next module). Even though it's mainly used for web development, you can create video games, 2D/3D graphics, database-driven applications, and a lot more.

JavaScript is technically a scripting language, but it's also one of many programming languages. Some other ones you may have heard of are C++, C#, Python, and Java (which is different from JavaScript). The fundamentals of all these languages are the same, so if you wanted or needed to learn a different one, it wouldn't be too difficult once you understand the basics of JavaScript. Even though many programming languages share features and functionality, different programming languages are usually used for different purposes - there are some examples below.

Do not confuse JavaScript and Java. Despite the name, JavaScript has only a few similarities to the Java programming language. Java started as a project in 1991 and released in 1995, and was very popular, so it may have been a marketing tactic for Netscape to name their language after Java.

Most common uses for different programming languages

JavaScript: Heavily used for web development. Can also be used for other types of software, but not as common.

Java: Released in 1995, and joked about as the 'banking application' language since it's commonly used for bank software. However, it's also used for many other types of business software, and it's popular as a backend language for servers.

C++: Created in 1979 as an upgrade to regular C programming. Most popularly used for building large software infrastructure, like operating systems, web browsers, machine learning, and scientific research. C++ is also popular in video game development and virtual reality, along with C#.

C#: The creators of Java tried to sue Microsoft for making changes to Java, so, in the year 2000, Microsoft decided to make their own language known as C#. It's a general purpose programming language, so it's pretty popular for any kind of software. It's used heavily in conjunction with the .NET framework, also made by Microsoft.

Python: Created in 1991, Python is a popular choice for programmers due to its relatively simplistic coding style. It's mostly used for automation and data analytics. Python can also be an alternative to JavaScript for web development, but JavaScript is far more common.

If you're curious which languages are the most popular at any given time, you can check out the [TIOBE Index](#) which is updated monthly.