

Language selection and overview

I chose JavaScript as the language I'd like to learn for this project. Brendan Eich created the JavaScript language for NetScape Communications in 1995 in response to the need for the web to be more dynamic. JavaScript was pitched as a way for web designers to automate the interactions between components on a page.¹

JavaScript is a scripted programming language that supports both functional and object oriented programming.² It has always supported object oriented programming, but lambdas weren't added until 2018. Lambdas are a type of function that make expressions more succinct and allow the language to be used for functional programming.

JavaScript is an interpreted language; Compilation is not required in order for the code to run.³ JavaScript Engines are virtual machines, which allows functions to run properly regardless of the operating system on the host computer.⁴ This is important because JavaScript is primarily used for client side web development and web sites should be able to run on any computer that can support a browser. When a website is responsive without it having to reload, JavaScript is usually involved.

The most popular GitHub projects involving JavaScript (as of September 9th, 2020) are *FreeCodeCamp*, which is a web development curriculum, *vue*, which is a framework for creating user interfaces, and *facebook's react repository*.

Over the course of this project I will be getting most of my information on JavaScript from LinkedIn Learning's "JavaScript Essential Training," and W3 Schools.

LinkedIn Learning:

<https://www.lynda.com/JavaScript-tutorials/JavaScript-Essential-Training/574716-2.html?srchtrk=index%3a2%0alinktypeid%3a2%0aq%3ajavascript%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2>

W3 Schools:

<https://www.w3schools.com/js/DEFAULT.asp>

¹"Speaking JavaScript," O'Reilly Online Learning (O'Reilly Media, Inc.), accessed September 5, 2020, <https://www.oreilly.com/library/view/speaking-javascript/9781449365028/ch04.html>.

²Derek Austin, "What Are JavaScript Programming Paradigms?," Medium (JavaScript In Plain English, August 26, 2019), <https://medium.com/javascript-in-plain-english/what-are-javascript-programming-paradigms-3ef0f576dfdb>.

³"What Is JavaScript?," accessed September 5, 2020, <https://web.stanford.edu/class/cs98si/slides/overview.html>.

⁴Adam Conrad, "JavaScript and the Inner Workings of Your Browser," Software Engineering Daily, October 3, 2018, <https://softwareengineeringdaily.com/2018/10/03/javascript-and-the-inner-workings-of-your-browser/>.

Sources:

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- Conrad, Adam. "JavaScript and the Inner Workings of Your Browser." Software Engineering Daily, October 3, 2018.
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- "Speaking JavaScript." O'Reilly Online Learning. O'Reilly Media, Inc. Accessed September 5, 2020.
<https://www.oreilly.com/library/view/speaking-javascript/9781449365028/ch04.html>.
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