

Introduction to JavaScript

JavaScript

JavaScript is the programming language used on the Web. Every application you use, including Facebook, Twitter, Instagram, and YouTube, use JavaScript heavily.

However, the Web can run just fine without JavaScript. In fact, when the Web was invented in 1990, it didn't include JavaScript, or any programming language at all. All it had was HTML. It wasn't until 1995 when JavaScript was first invented by **Brendan Eich** (You can follow him on Twitter @BrendanEich).

We can think of JavaScript as being the “mind” of a Web page. If a human being was suddenly transformed into a

living Web page, their face's movements would be defined using JavaScript.

HTML

HTML or HyperText Markup Language is the language of the Web that defines the parts and structure of a Web page. It denotes the information both inside and about a Web page.

HTML was derived from another language, XML or eXtensible Markup Language. HTML was invented by the man who invented the World Wide Web itself, Sir Tim Berners-Lee (who you can follow on Twitter, too, @timberners_lee)

When talking about its functionality, we can think of HTML as being the shape of a face of a person. If a person was suddenly transformed into a Web page, that person's facial structure would be defined using HTML

CSS

CSS or Cascading Style Sheets is a language that defines how a Web page would look like. It is a very powerful language. In fact, it is much more powerful than MS Word, Adobe Photoshop, or some other design software. This is because designs created using HTML and CSS works across many devices, including desktop, laptop, mobile devices, smart watches, Internet-enabled appliances, and many more.

We can think of CSS as being the cosmetics and accessories of a person. If a human being was suddenly transformed into a living Web page, their make-up,

accessories like earrings, etc. would be defined using CSS.

What can JavaScript do?

JavaScript, like many programming languages, can be used to create useful software. This can be done by doing a mix-and-match of a few features in JavaScript. It can store useful information in variables. It can operate on pieces of text, that in programming we call as **strings**. And it can, most importantly, run code in response to whatever a user does in the Web page.

JavaScript generally runs in a top-to-bottom manner.

Interpreted Code

JavaScript is an **interpreted programming language**. This means that the code is run from top to bottom and the result is immediately returned as soon as the computer goes

through each and every line of code.

Compiled Code

A lot of programming languages, on the other hand,

are **compiled programming languages**. This means that the code has to be transformed first into another form before the computer can run it as a program.

Additional Information

Activities, assignments, additional study materials, and tools can be found at <https://bit.ly/gapc-g10>

Submission of Assignments

Assignments and activities should be submitted at <https://bit.ly/gapc-g10-submissions>

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