

## Example Web Design Certificate

The goal of this post is to, in plain English, teach you with the basics of HTML, CSS, and one of the most common programming languages, JavaScript. But before we begin, let's get an idea of what programming languages actually are.

## What Is a Programming Language?

Programming, or coding, is like solving a puzzle. Consider a human language, like English or French. We use these languages to turn thoughts and ideas into actions and behavior. In programming, the goal of the puzzle is exactly the same -- you're just driving different kinds of behavior, and the source of that behavior isn't a human. It's a computer.

A programming language is our way of communicating with software. The people who use programming languages are often called programmers or developers. The things we tell software using a programming language could be to make a webpage look a certain way, or to make an object on the page move if the human user takes a certain action.

### Programming in Web Development

So, when a web designer is given an end goal like "create a webpage that has this header, this font, these colors, these pictures, and an animated unicorn walking across the screen when users click on this button," the web designer's job is to take that big idea and break it apart into tiny pieces, and then translate these pieces into instructions that the computer can understand -- including putting all these instructions in the correct order or syntax.

Every page on the web that you visit is built using a sequence of separate instructions, one after another. Your browser (Chrome, Firefox, Safari, and so on) is a big actor in translating code into something we can see on our screens and even interact with. It can be easy to forget that code without a browser is just a text file -- it's when you put that text file into a *browser* that the magic happens. When you open a web page, your browser fetches the HTML and other programming languages involved and interprets it.

HTML and CSS are actually not technically programming languages; they're just page structure and style information. But before moving on to JavaScript and other true languages, you need to know the basics of HTML and CSS, as they are on the front end of every web page and application.

In the very early 1990s, HTML was the only language available on the web. Web developers had to painstakingly code static sites, page by page. A lot's changed since then: Now there are many computer programming languages available.

In this post, I'll talk about HTML, CSS, and one of the most common programming languages: JavaScript.

## **HTML, CSS, & JavaScript: A Tutorial**

An overview:

HTML provides the *basic structure* of sites, which is enhanced and modified by other technologies like CSS and JavaScript.

CSS is used to control *presentation, formatting, and layout*.

JavaScript is used to control the *behavior* of different elements.