

SOFTWARE DEVELOPMENT

WEB TECHNOLOGIES

Web development comes with a huge set of rules and techniques every website developer should know about. If you want a website to look and function as you wish them to, you need to get familiar with web technologies that will help you achieve your goal.

Developing an app or a website, even something simple as a bakery website, typically comes down to knowing 3 main languages: JavaScript, CSS, and HTML. And while it sounds quite complicated, once you know what you are doing, understanding web technology and the way it works becomes significantly easier. Since computers can't communicate with each other the way people do, they require codes instead. Web technologies are the markup languages such as HTML, XML, and XHTML and multimedia packages computers use to communicate.

The most important web technologies include:

- BROWSER
- HTML & CSS
- WEB DEVELOPMENT FRAMES
- PROGRAMMING LANGUAGES



BROWSER

Browsers request information and then they show us in the way we can understand. Think of them as the interpreters of the web.

Here are the most popular ones:

- Google Chrome – Currently, the most popular browser brought to you by Google
- Safari – Apple's web browser
- Internet Explorer – Microsoft's browser
- Firefox – Open-source browser supported by the Mozilla Foundation



1. Google Chrome

Today, Google Chrome has become the most used web browsers in the world. Google Chrome was released in the year 2008 as a freeware that was written in C++. The browser is known for its performance, ease of use, syncing with Google database, security, great support for WebKit, HTML5, CSS3, and other latest web standards

Even though the most used operating system is Windows that comes pre-installed with Internet Explorer, people have moved towards other high quality web browsers such as Google Chrome and Mozilla Firefox. Google Chrome has a usage percentage of close to 50 percent



2. Firefox

Firefox is the second most popular web browser in the world. Firefox is a freeware from Mozilla organization that was released in the year 2002 by the name —Phoenix. Even during its first release, Firefox proved to be a fast and secure browser by its testers and users. Mozilla Firefox is supported on OS such as Windows, Android, and iOS, Linux, Firefox OS and OS X. As of 2015, Firefox is the second most popular web browser in the world with a usage percentage of more than 11 percent. In certain countries still Firefox is the most popular desktop browsers.

Some of the main features of the browser include location-aware browsing, spell checking, incremental find, Firebug for debugging and live bookmarking.



4. Internet Explorer

As Windows Operating System is the most popular desktop Operating System in the world, Internet Explorer or simply IE is the default browser in Windows making this browser the fourth most popular and used browser in the world. This browser is not free as it requires a Windows license to use. The Internet Explorer today has added new features to support the latest web technologies.

It is semi active browser for Windows and remains discontinued for Unix and Mac. The UI of the browser been considerably improved when compared to its older versions. Now the browser is fast and smooth. The only downfall of Internet Explorer is even today is that some advanced features are not supported whereas such advanced web features are supported on Chrome and Firefox

4. Safari



Safari web browser is a freeware browser from the Apple Inc. Safari is the default web browser in Mac computers and in OS X and iOS Operating Systems. Safari was released in the year 2003. A version of the browser is available for Windows Operating System as well. Today, Safari is popular because of Apple products.

The web browser has some awesome iOS specific features such as printing the current web page using AirPrint and MDI-style browsing.

HTML and CSS

HTML is one of the first you should learn. Thanks to HTML, the web browsers know what to show once they receive the request. If you want to better understand how HTML works, you also need to know what CSS is.

CSS stands for Cascading Style Sheets and it describes how HTML elements are to be displayed on the screen. If you browse enough tutorials, you'll soon create CSS text effects, page transitions, image hover effects, and more.



HTML

HTML is the language for describing the structure of Web pages. HTML gives authors the means to:

- Publish online documents with headings, text, tables, lists, photos, etc.
- Retrieve online information via hypertext links, at the click of a button.
- Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It is often assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.



CSS

CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language. The separation of HTML from CSS makes it easier to maintain sites, share style sheets across pages, and tailor pages to different environments. This is referred to as the separation of structure (or: content) from presentation

CSS is designed to enable the separation of content and presentation, including layout, colors, and fonts. separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate.css file, which reduces complexity and repetition in the structural content; and enable the .css file to be cached to improve the page load speed between the pages that share the file and its formatting

WEB DEVELOPMENT FRAMES

Web development frameworks are a starting point of items that a developer can use to avoid doing the simple or mundane tasks, and instead get right to work. These include:

- Angular
- Ruby on Rails
- YII
- Meteor JS
- Express.js
- Zend



ANGULAR

Angular is one of the latest web technologies designed specifically for developing dynamic web applications. With this framework, you can easily create front-end based applications without needing to use other frameworks or plugins. The features include well-made templates, MVC architecture, code generation, code splitting etc. All the expressions are like code snippets that enclosed within curly braces and do not use any loops or conditional statements.

If you would like to start using Angular or to just quickly evaluate if this framework would be the right solution for your projects, you can check out this 3-hour training, published in June 2019 by Justin Schwartzberger, a Google Developer Expert. This course covers everything that's necessary to start using Angular, from basic architecture, work with DOM, data binding, routing, and components, to more advanced topics such as directives and pipes.



Ruby on Rails

Ruby on Rails is a server-side website technology that makes app development much easier and faster. The thing that really sets this framework apart is the reusability of the code as well as some other cool features that will help you get the job done in no time.

In the process of learning Ruby on Rails, you will end up learning a little about JavaScript, HTML/CSS, and Ruby programming languages. However, if you were to start learning any of these programming languages, you will not learn anything about Ruby on Rails.



METEOR JS

Meteor JS is written in Node.js and it makes it possible for you to create real-time web applications for different platforms. The framework for creating simple websites for personal use really stands out with Meteor JS.

This is an open-source isomorphic JavaScript web framework which also means that the webpage loading time is significantly shorter. JavaScript stack also makes it possible to get the same results with fewer lines of code than usual.

PROGRAMMING LANGUAGES

As we explained before, since computers don't use languages that are anything like human languages, they need a different way to communicate. Here are some of the most popular programming languages:

- Javascript – used by all web browsers, Meteor, and lots of other frameworks
- CoffeeScript – a —dialect of JavaScript. It is viewed as simpler but it converts back into JavaScript
- Python – used by the Django framework as well as in the majority of mathematical calculations
- Ruby – used by the Ruby on Rails framework
- PHP – used by WordPress to create those WYSIWYG editors that everyone is using now. It's also used by Facebook, Wikipedia, and other major sites
- Go – newer language, built for speed



JAVASCRIPT

According to StackOverflow's annual survey, JavaScript is the most popular programming language with 62.5% of respondents claiming to use it.

It is one of the core web technologies and if you want to learn more about it, you can start with this essential training that covers all the basics, working with functions and objects, interacting with DOM, etc. This course is recent – from April 2019 – Javascript evolves quickly, so it makes sure you leverage the newest language —perks! as you learn.



RUBY

The developers love Ruby – and for all the right reasons. Designed to be user-friendly and really easy to use, it's no wonder that this programming language is often called —a programmer's best friend. What you can expect from Ruby is a shorter, readable code. Unfortunately, that sometimes means lower efficiency compared to other programming languages – but it also means higher productivity.

If you are a beginner in the web development world, Ruby would be a great choice for the first programming language to learn. A well-written Ruby code can be almost as readable as the sentence in plain English language. But the real reason most people use Ruby is its popular framework — Ruby on Rails which we mentioned earlier in the text. The great productivity achieved with Rails makes it a common choice for startups who aim for a running start.

THANKYOU FOR VISITING THIS WEBSITE

Hope you learned well!!!