**Tools List**

**Server-side programming Tools**

* PHP
* Apache

**Front-End Development Tools**

* HTML
* CSS
* JavaScript

**Back-End Database Programming Tools**

* MySQL
* phpMyAdmin

**IDEs**

* Adobe Dreamweaver
* Visual Studio Code

**Version Control Tools**

* Git
* GitHub

**Others**

* Draw.io
* Inkscape
* Adobe XD

**PHP: Hypertext Preprocessor**

PHP is a popular open-source general-purpose HTML-embedded server-side scripting language, which enables web developers to create dynamically generated web pages quickly**.** Php is a programming language that can do all sorts of things: evaluate form data sent from a browser, build custom web content to serve the browser, talk to a database, and even send and receive cookies (little packets of data that your brewer uses to remember things, like if you’re logged in to any website).

**HTML Hyper Text Markup Language**

HTML is the *language* for publishing web pages on the WWW (World-Wide Web, or World-Wide Wait?). HTML is a *Document Description Language* (aka *Document Markup Language*). HTML is NOT a programming language like C/C++/C#/Java, which is used to implement programming algorithm. An HTML document is a text document, and it is human-readable.

HTML uses *markup tags*, such as <p> (for Paragraph), <h1> to <h6> (for Heading Level 1 to 6), <img> (for Image), <a> (for Anchor or Hyperlink), to markup a document. HTML markup tags perform these functions:

1. Layout the documents, e.g., <p> (layout as a paragraph), <h1> to <h6> (layout as heading level 1 to 6), <br> (perform a line break), <hr> (draw a horizontal rule), <table> (tabulating data), <ol> (layout an ordered list).
2. Provide link (called *hyperlink*) to another HTML document, via the <a> (Anchor tag). These hyperlinks, a distinct feature in HTML, greatly help the users in navigating the web and enrich the users' experience. Hyperlinks make the HTML popular.
3. Embed images, audios, videos, programs (in JavaScript, VBScript, Applet, Flash, or MS ActiveX control), and objects within an HTML document. HTML is *multimedia*! The hypertext document may contain texts, images, audios, videos, and even programs.

HTML elements form the building blocks of all websites. HTML allows image and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, list, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of the HTML web pages.

**Cascading Style Sheets (CSS)**

Cascading Style Sheets (CSS) is a styles sheet language used for describing the look and formatting of a document written in the markup language.

Style Sheet Language called CSS (Cascading Style Sheet) for presentation and removing the presentation tags and attributes from HTML. CSS can be viewed as a *companion* of HTML. It allows web graphic designers to spice up the web pages, so that the content providers can focus on the document contents with HTML.

CSS is a cornerstone specification of THE web and almost all web pages use CSS style sheets to describe their presentation.

**JavaScript (JS)**

JavaScript is the most widely used *client-side* programming language that lets you supercharge your HTML with interactivity, animation and dynamic visual effect for better User Interface and User Experience (UI/UX). It is:

* a small, lightweight, object-oriented, cross-platform, special-purpose scripting language meant to be run under a host environment (typically a web browser).
* a *client-side scripting language* to enrich web user-interfaces and create dynamic web pages (e.g., form input validation, and immediate response to user's actions).
* the engine that supports AJAX (Asynchronous JavaScript and XML), which generate renew interest in JavaScript.

JavaScript works together with HTML/CSS. HTML provides the contents (or structure); CSS specifies the presentation; and JavaScript programs the behavior. Together, they enrich the UI/UX of the web users.

**MySQL**

 MySQL is a software system - a Relational Database Management System. MySQL is one of the most used, industrial-strength, open-source and free Relational Database Management System (RDBMS). MySQL is successful, not only because it is free and open-source (there are many free and open-source databases, such as PostgreSQL, Apache Derby (Java DB), mSQL (mini SQL), SQLite and Apache OpenOffice's Base), but also for its speed, ease of use, reliability, performance, connectivity (full networking support), portability (run on most OSes, such as Unix, Windows, macOS), security (SSL support), small size, and rich features.

On top that, it’s very commonly used in conjunction with PHP scripts to create powerful and dynamic server-side applications.

MySQL is easy to use, yet extremely powerful, secure, and scalable. And because of its small size and speed, it is the ideal database solution for web sites.

MySQL is often deployed in a LAMP (Linux-Apache-MySQL-PHP), WAMP (Windows-Apache-MySQL-PHP), or MAMP (macOS-Apache-MySQL-PHP) environment.

**Apache** **Webserver**

Apache Webserver is generally recognized as the world’s most popular Web server (HTTP server). Originally designed for UNIX environments, the Apache Web server has been ported to Window and other network operating systems. The name “Apache” derives from the word “patchy” that the Apache developers used to describe early versions of their software.

Apache Web server provide full range of Web server features, including CGI, SSL and virtual domains. Apache also supports plug-in modules for extensibility. Apache is free software, distributed by the Apache Software Foundation that promotes various free and open source advance Web technologies.

Apache features a modular design and supports dynamic selection of extension modules at runtime. Some of its strong points are its range of possible customization, dynamic adjustment of the number of server processes, and a whole range of available modules including many authentication mechanisms, server-parsed HTML, server-side includes access control, CERN http metafiles emulation, proxy caching, etc. Apache also supports multiple virtual homing. Separate Debi a package are available for PHP3, mod-Perl, Java Servlet support, Apache-SSL, and other common extensions

**Git**

GIT is a Version Control System (VCS) (aka Revision Control System (RCS), Source Code Manager (SCM)). A VCS serves as a *Repository* (or *repo*) of program codes, including all the historical revisions. It records *changes to files* at so-called *commits* in a *log* so that you can recall any file at any commit point.

**GitHub**

GitHub is a website and cloud-based service that helps developers store and manage their code, as well as track and control changes to their code. Git is a command-line tool, but the center around which all things involving Git revolve is the hub—GitHub.com—where developers store their projects and network with like-minded people.

**INKSCAPE**

**Inkscape** is an Imaging and Digital Photo application like PhotoScape, Optimizer, and ImageMagick from Inkscape Team. It has a simple and basic user interface, and most importantly, it is free to download. Inkscape is an efficient software that is recommended by many Windows PC users.

Inkscape is a very fast, small, compact and innovative Open Source Imaging and Digital Photo for Windows PC. It is designed to be uncomplicated for beginners and powerful for professionals. This app has unique and interesting features, unlike some other Imaging and Digital Photo apps. Inkscape works with most Windows Operating System, including Windows 7 64 / Windows 8 64 / Windows 10 64.

**ADOBE DREAMWEAVER**

Adobe Dreamweaver is a software tool for front-end developers and web designers. It blends a robust design surface and code editor that helps easily code, design, and manage sites. The user interface (UI) has been designed keeping usability in mind, with selectable light and dark themes, and modern web workflow support. Bootstrap integration permits users create responsive websites that scale and adapt to multiple browsers.