

Introduction to Web Development

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Overview

Web development is the process of creating websites and web applications. It is a broad term involving various technologies, including web design, web content management, web scripting, web server, and web browser. We can also refer to the web development process as the development of a website. This document contains a list of the most common web development technologies and tools.

Basic Concepts

What is Internet

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks -- a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers).

The Internet provides different online services. Some examples include: Web – a collection of billions of web pages that you can view with a web browser. Email – the most common method of sending and receiving messages online. Social media – websites and apps that allow people to share comments, photos, and videos.

What is WWW

The World Wide Web—commonly referred to as WWW, W3, or the Web—is an interconnected system of public web pages accessible through the Internet. The Web is not the same as the Internet: the Web is one of many applications built on top of the Internet.

What is URL

Just as buildings and houses have a street address, web pages also have unique addresses to help people locate them. On the Internet, these addresses are called URLs (Uniform Resource Locators).

What is a Web browser

A web browser is application software for accessing the World Wide Web or a local website. When a user requests a web page from a particular website, the web browser retrieves the necessary content from a web server and then displays the page on the user's device

What is Client and Client Side

It is simply a service consumer. In web development, 'client side' refers to everything in a web application that is displayed or takes place on the client (end user device). This includes what the user sees, such as text, images, and the rest of the UI, along with any actions that an application performs within the user's browser.

What is Server and Service Side

The server provides services to the client. A web server is software and hardware that uses HTTP (Hypertext Transfer Protocol) and other protocols to respond to client requests made over the World Wide Web. The main job of a web server is to display website content through storing, processing and delivering web pages to users.

What is HTTP/HTTPS

Hypertext Transfer Protocol Secure is an extension of the Hypertext Transfer Protocol. It is used for secure communication over a computer network, and is widely used on the Internet. In HTTPS, the communication protocol is encrypted using Transport Layer Security or, formerly, Secure Sockets Layer.

What is Web Development

Web development is the work involved in developing a website for the Internet. Web development can range from developing a simple single static page of plain text to complex web applications, electronic businesses, and social network services.

Subparts of Web development

- Frontend web development : It includes client side web development and writing the code that will be directly sent to the client's web browser for providing him services with a good user experience. It includes technologies such as :
 - HTML, CSS, Javascript, TypeScript, React, Angular
- Backend web development : It includes the business code like storing data of users, providing authentication and authorization to users and providing the services. It includes technologies like.

- Node JS, JavaScript, TypeScript, Express, Nest JS

Summary

Web development is filled with thousands of concepts, frameworks, services and paradigms. To learn web development, one must spend at least 4-6 hours everyday and search for various questions and find their answers. Making projects is the best way of learning web development as it makes us face new challenges every day and force us to find new answers.

Resources

<https://brainstation.io/career-guides/what-is-web-development>

https://www.tutorialspoint.com/web_developers_guide/web_basic_concepts.htm