

Introduction of web development

Web development refers to the creating, building, and maintaining of websites. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e. websites

The word Web Development is made up of two words, that is:

- **Web:** It refers to websites, web pages or anything that works over the internet.
- **Development:** It refers to building the application from scratch.

Web Development can be classified into two ways:

- **Frontend Development**
- **Backend Development**

Frontend Development

The part of a website where the user interacts directly is termed as front end. It is also referred to as the 'client side' of the application.

- **HTML:** HTML stands for Hyper Text Markup Language. It is used to design the front end portion of web pages using markup language. It acts as a skeleton for a website since it is used to make the structure of a website.
- **CSS:** Cascading Style Sheets fondly referred to as CSS is a simply designed language intended to simplify the process of making web pages presentable. It is used to style our website.
- **JavaScript:** JavaScript is a scripting language used to provide a dynamic behavior to our website.
- **Bootstrap:** Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular CSS framework for developing responsive, mobile-first websites. Nowadays, the websites are perfect for all browsers (IE, Firefox, and Chrome) and for all sizes of screens (Desktop, Tablets, and Phones).
 - Bootstrap 4
 - Bootstrap 5

HTML

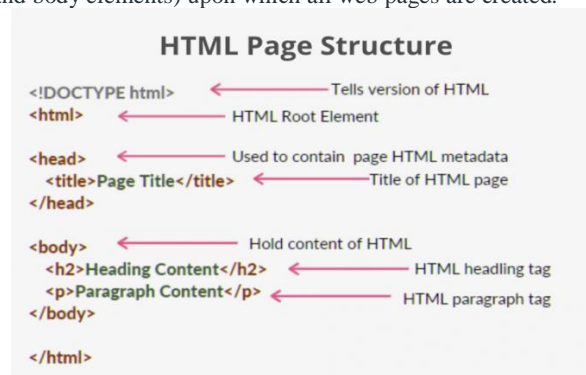
HTML, or **Hyper Text Markup Language**, is the standard markup language used to create web pages. It's a combination of Hypertext, which defines the link between web pages, and Markup language, which is used to define the text document within tags to structure web pages. This language is used to annotate text so that machines can understand and manipulate it accordingly. HTML is human-readable and uses tags to define what manipulation has to be done on the text.

Features of HTML

- It is easy to learn and easy to use.
- It is platform-independent.
- Images, videos, and audio can be added to a web page.
- Hypertext can be added to the text.
- It is a markup language.

HTML Page Structure

The basic structure of an HTML page is shown below. It contains the essential building-block elements (i.e. doctype declaration, HTML, head, title, and body elements) upon which all web pages are created.



- **<!DOCTYPE html>** – This is the document type declaration (not technically a tag). It declares a document as being an HTML document. The doctype declaration is not case-sensitive.
- **<html>** – This is called the HTML root element. All other elements are contained within it.
- **<head>** – The head tag contains the “behind the scenes” elements for a webpage. Elements within the head aren’t visible on the front end of a webpage. HTML elements used inside the <head> element include:
- **<style>** – This HTML tag allows us to insert styling into our web pages and make them appealing to look at with the help of CSS.
- **<title>** – The title is what is displayed on the top of your browser when you visit a website and contains the title of the webpage that you are viewing.
- **<base>** – It specifies the base URL for all relative URL’s in a document.
- **<noscript>** – Defines a section of HTML that is inserted when the scripting has been turned off in the user’s browser.
- **<script>** – This tag is used to add functionality to the website with the help of JavaScript.
- **<meta>** – This tag encloses the metadata of the website that must be loaded every time the website is visited. For eg:- the metadata charset allows you to use the standard UTF-8 encoding on your website. This in turn allows the users to view your webpage in the language of their choice. It is a self-closing tag.
- **<link>** – The ‘link’ tag is used to tie together HTML, CSS, and JavaScript. It is self-closing.
- **<body>** – The body tag is used to enclose all the visible content of a webpage. In other words, the body content is what the browser will show on the front end.

An HTML document can be created using an **HTML text editor**. Save the text file using the “.html” or “.htm” extension. Once saved as an HTML document, the file can be opened as a webpage in the browser.

Advantages of HTML

- HTML is used to build websites.
- It is supported by all browsers.
- It can be integrated with other languages like CSS, JavaScript, etc.

Disadvantages of HTML

- HTML can only create static web pages. For dynamic web pages, other languages have to be used.
- A large amount of code has to be written to create a simple web page.
- The security feature is not good.