

# **Web Development Programming Language**

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(Lecture 1)

## Web Development

**The web development** process includes web design, web content development, client-side/server-side and network security configuration, among other tasks. The Web development is known as website development.

Web developers do this by using a variety of coding languages such as (HTML: Styling a Website and JavaScript)

**HTML**: Web developer learning the basics of HTML that's the important language of the web.



Web development

### ➤ What does a Web developer do?

Web developers design and create websites. They are responsible for the look of the site and technical features, such as performance and size, which are measures of a website's speed. Also, Web developers use coding languages (HTML, CSS and JavaScript) to build websites and web applications.

- Web development includes two main sections (Front-end and Back-end).

## What is Front End?

Front end development refers to "client-side" development, where the focus is on what users visually see first in their browser or application. Front end developers are responsible for the look and feel of a site.

## What is Back End?

Back end development refers to the server side of an application. The back end usually consists of three parts: a server, an application, and a database. Users can't see the backend work, but this code is what communicates the database information to the browser.

## Front End Languages:

- HTML
- CSS
- JAVASCRIPT
- JQUERY

## Back End Languages:

- JAVA
- PHP
- RUBY ON RAILS
- PYTHON
- .NET

## Front End Programming Jobs:

- FRONT END DEVELOPER
- FRONT END ENGINEER
- WEB DESIGNER
- UX/UI DESIGNER

## Back End Programming Jobs:

- BACK END DEVELOPER
- JAVA DEVELOPER
- SOFTWARE DEVELOPER
- FULL STACK DEVELOPER



(Q). Explain is Web Development and what is role of Web developer?

## Concept of HTML and Front Page

### ➤ HTML is short for **Hyper Text Markup Language**.

- 1- HTML is used to create electronic documents (called pages) that are displayed on the **World Wide Web (WWW)**.
- 2- HTML is widely used language on the web.
- 3- We can create a static website by HTML only.
- 4- HTML is used to create web pages and web applications.
- 5- Each page contains a series of connections to other pages called **hyperlinks**.
- 6- Every web page you see on the Internet is written using one version of HTML code or another.

### ➤ **Advantages of HTML**

Advantages of HTML	
It is a very <b>easy and simple language</b> . It can be easily understood and modified.	It is very easy to display information because it has a lot of formatting tags.
It is a markup language, so it easy to design web pages with text.	It eases programmers to add a link on the web pages (by html <b>anchor</b> tag and <b>href</b> tag), so it becomes the interest to the user.
It is <b>platform-independent</b> because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.	It eases programmer to add <b>Graphics, Videos, and Sound</b> to the web pages which makes it more activities.
HTML is a letter-insensitive language, which means we can use tags in small letters or capital letters.	

### ➤ **HTML Editors**

Web pages can be created and modified by using professional HTML editors.

- For learning HTML, programmers recommend a simple text editor like Notepad (PC) or TextEdit (Mac).
- programmers trust in using a simple text editor is a good way to learn HTML.

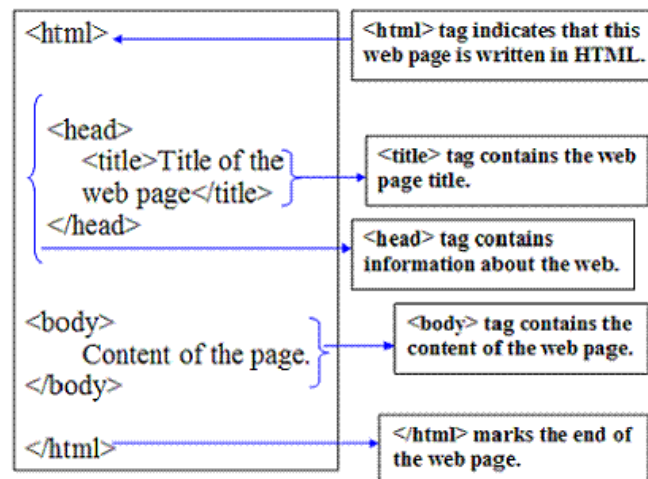
## ➤ How to create HTML Page

You can be created and viewed in any text in the browser as long as it is saved with a (.htm or .html) file extension. **However**, HTML is easier to design and create a web page using any editor support HTML. **At one time**, the HTML file is created it can be viewed locally or uploaded to a web server to be viewed online using a browser.

### Structure of HTML

A web page constructed using HTML has a basic and important structure. The page always begins with the start tag of the html element and always cancels with the end tag of the html element as follows:

Tag	Description
<code>&lt;!DOCTYPE&gt;</code>	It defines the document type in browser about the version of HTML.
<code>&lt;html&gt;</code> <code>&lt;/html&gt;</code>	This tag informs the browser that it is an HTML document. Text between html tag describes the web document
<code>&lt;head&gt;</code> <code>&lt;/head&gt;</code>	It should be the first element inside the <code>&lt;html&gt;</code> element, which contains the metadata (information about the document). It must be closed before the body tag opens.
<code>&lt;title&gt;</code> <code>&lt;/title&gt;</code>	As its name suggested, it is used to add title of that HTML page which display at the top of the browser window. It must be placed inside the head tag and should close.
<code>&lt;body&gt;</code> <code>&lt;/body&gt;</code>	Text between body tag describes the body content of the page that is visible to the end user. This tag contains the main content of the HTML document.
<code>&lt;&gt;</code>	Opening tag: This contains of the name of the element (html, p, etc), covered in opening angle brackets.
<code>&lt;/&gt;</code>	Closing tag: This is the same as the opening tag, except that it includes a forward slash before the element name.



The html element basically tells your computer that this is an HTML document. All other element tags within the start and end html tags. The web page is then added subdivided into two main sections which are the ('head' and the 'body'). The head section begins with the <head> start tag and terminates with the </head> end tag. Nearly following this comes the <body> start tag and just before the html end tag comes the </body> end tag. There is only one set of <html>...</html> tags, one set of <head>...</head> tags and one set of <body>...</body> tags. This basic HTML web page structure can be illustrated by the following example:

### ✓ Example

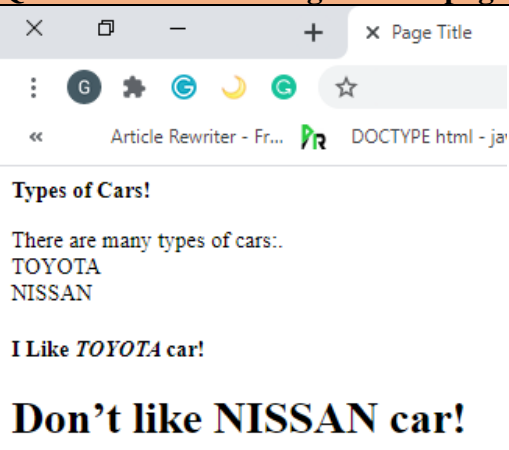
Code in Notepad	Result
<pre> &lt;!DOCTYPE&gt; &lt;html&gt;   &lt;head&gt;     &lt;title&gt; Page Title &lt;/title&gt;   &lt;body&gt;     &lt;h1&gt;My First Heading&lt;/h1&gt;     &lt;p&gt;My first paragraph.&lt;/p&gt;   &lt;/body&gt; &lt;/html&gt; </pre>	

## HTML Text Tags






The tags are so important for create any web page, each the tag has specific task and this ease to programmers to design web page, some of tags that can be to use: `<p>`, `<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>`, `<strong>` and `<em>`. All these tags must be end `</>`. Not this `<br>`.

Tag	description	Code
<code>&lt;p&gt;</code> ,	define a paragraph	<code>&lt;p&gt;This is some text in a paragraph.&lt;/p&gt;</code>
<code>&lt;h1&gt;</code> , <code>&lt;h2&gt;</code> , <code>&lt;h3&gt;</code> , <code>&lt;h4&gt;</code> , <code>&lt;h5&gt;</code> , <code>&lt;h6&gt;</code>	The <code>&lt;h1&gt;</code> to <code>&lt;h6&gt;</code> tags are used to define HTML headings	<code>&lt;h1&gt;This is heading 1&lt;/h1&gt;</code> <code>&lt;h2&gt;This is heading 2&lt;/h2&gt;</code> <code>&lt;h3&gt;This is heading 3&lt;/h3&gt;</code> <code>&lt;h4&gt;This is heading 4&lt;/h4&gt;</code> <code>&lt;h5&gt;This is heading 5&lt;/h5&gt;</code> <code>&lt;h6&gt;This is heading 6&lt;/h6&gt;</code>
<code>&lt;strong&gt;</code>	The <code>&lt;strong&gt;</code> tag is used to define text with strong importance. The content inside is typically displayed in <b>bold</b> .	<code>&lt;strong&gt;This text is important!&lt;/strong&gt;</code>
<code>&lt;em&gt;</code> ,	The <code>&lt;em&gt;</code> tag is used to define emphasized text. The content inside is typically displayed in <i>italic</i> .	<code>&lt;p&gt;You &lt;em&gt;have&lt;/em&gt; to car!&lt;/p&gt;</code>
<code>&lt;br&gt;</code>	tag inserts a single line break. And doesn't end	<code>&lt;p&gt;This is first text in a paragraph. &lt;br&gt; This is second text &lt;br&gt; This is third text &lt;/p&gt;</code>

Example: Use <code>&lt;h1&gt;</code> heading tag	Example: Use <code>&lt;h1&gt;</code> , <code>&lt;h2&gt;</code> , <code>&lt;h3&gt;</code> , <code>&lt;h4&gt;</code> , <code>&lt;h5&gt;</code> , <code>&lt;h6&gt;</code> , heading tags
<pre>&lt;!DOCTYPE&gt; &lt;html&gt;   &lt;head&gt;     &lt;title&gt;Page Title&lt;/title&gt;   &lt;/head&gt;   &lt;body&gt;     &lt;h1&gt;City&lt;/h1&gt;   &lt;/body&gt; &lt;/html&gt;</pre>	<pre>&lt;!DOCTYPE&gt; &lt;html&gt;   &lt;head&gt; &lt;title&gt;Page Title&lt;/title&gt; &lt;/head&gt;   &lt;body&gt;     &lt;h1&gt;City&lt;/h1&gt; &lt;h2&gt;City&lt;/h2&gt;     &lt;h3&gt;City&lt;/h3&gt; &lt;h4&gt;City&lt;/h4&gt;     &lt;h5&gt;City&lt;/h5&gt; &lt;h6&gt;City&lt;/h6&gt;   &lt;/body&gt; &lt;/html&gt;</pre>

Example: Use <strong> tag	Example: Use <em> tag
<pre>&lt;!DOCTYPE&gt; &lt;html&gt; &lt;head&gt; &lt;title&gt;Page Title&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;strong&gt;This text is important!&lt;/strong&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<pre>&lt;!DOCTYPE&gt; &lt;html&gt; &lt;head&gt; &lt;title&gt;Page Title&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;p&gt;You &lt;em&gt;have new &lt;/em&gt; car!&lt;/p&gt; &lt;/body&gt; &lt;/html&gt;</pre>
Example: Use   tag	
<pre>&lt;!DOCTYPE&gt; &lt;html&gt; &lt;head&gt; &lt;title&gt;Page Title&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;p&gt;This is first text in a paragraph. &lt;br&gt; This is second text &lt;br&gt; This is third text &lt;/p&gt; &lt;/body&gt; &lt;/html&gt;</pre>	
Q. Write code for Designed web page using <strong>, <p>,  , <h4> and <h1>?	
	<pre>&lt;!DOCTYPE&gt; &lt;html&gt; &lt;head&gt; &lt;title&gt;Page Title&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;strong&gt;Types of Cars!&lt;/strong&gt; &lt;p&gt;There are many types of cars:. &lt;br&gt; TOYOTA &lt;br&gt; NISSAN &lt;/p&gt; &lt;h4&gt;I Like &lt;em&gt;TOYOTA &lt;/em&gt; car!&lt;/h4&gt; &lt;h1&gt;Don't like NISSAN car!&lt;/h1&gt; &lt;/body&gt; &lt;/html&gt;</pre>

## ➤ Browser Support

				
Yes	Yes	Yes	Yes	Yes