HTML was **invented by Tim Berners-Lee** in **1991**. 🌍

### Who is Tim Berners-Lee?

* A British computer scientist
* Worked at **CERN** (European Organization for Nuclear Research)
* He's also credited with inventing the **World Wide Web** 🌐

### 🕰️ A Quick History:

**1989**: Berners-Lee proposed a system to share information over the internet.

**1990**: He developed the first web browser and web server.

**1991**: He wrote the first version of **HTML** and launched the **first website**.

### 💬 Why did he create HTML?

He wanted a simple way for scientists to:

* Share research documents
* Link between them using "hypertext"
* Access everything through the internet

### What is HTML?

**HTML** stands for **HyperText Markup Language**.  
It’s the **standard language used to create and structure content** on the web.

Think of HTML as the **skeleton** of a web page—it defines things like:

* Headings (<h1>, <h2>, etc.)
* Paragraphs (<p>)
* Images (<img>)
* Links (<a>)
* Tables, forms, buttons, etc.

### Why Do We Use HTML?

* **To structure content** on a web page
* **To display text, images, videos, forms, and more**
* It's the **foundation** of any website
* Works **hand-in-hand** with:
* **CSS** for styling
* **JavaScript** for interactivity

### Is Coding Possible Without HTML?

It depends on **what kind of coding** you're talking about:

#### ✅ Yes – If you mean programming in general:

* You can code in Python, Java, C++, etc., without ever using HTML.
* These are used for **software, games, data science, machine learning**, and more.

#### 🚫 No – If you're building a website:

* You **must** use HTML (at least indirectly).
* Even frameworks like React, Angular, or Vue still **generate HTML under the hood**.

**Doctype**

The HTML document type declaration, also known as DOCTYPE , is the first line of code required in every HTML or XHTML document. The DOCTYPE declaration is an instruction to the web browser about what version of HTML the page is written in.

**What is the difference between HTML and DOCTYPE HTML?**

An <html> tag is a root element, holding all the content of an HTML document, and it also tells the browser that you're using HTML. The <! DOCTYPE> tag tells the browser which version of HTML you're using.

**What is a child tag?**

The 'sub-tag' or 'child tag' is a tag that is more specific and can be categorized under a 'parent tag'.

**Meta Tag**

* Meta tag is represented by the <meta> tag.
* The <meta> tag provides information about the html document
* The contents of the <meta> tag are not displayed in the web page
* Meta data is used by browsers and search engine.
* Gets information about search engines and browsers web page through <meta> tag.

**Description**

We can provide description of web page by <meta> tag

**Keywords**

You can provide information about keywords related to your web pages to search engines by using <meta> tag

From keywords, search engine which topic related information is provided on a particular page

**Author**

The information of the author or the web pages is also provided by the <meta> tag

**Character Set**

You can also provide the character encoding information that is used in the document by <meta> tag.

To providing these information we need to use some attributes:

* Name
* Content
* Charset
* http-equiv

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<meta name="description" content="understand html meta tag" >

<meta name="keywords" content="graphics, audio, video, vfx" >

<meta name="author" content="anurag" >

<meta http-equiv="refresh" content="5; url=http://www.google.com" >

**Viewport:**

The viewport meta tag is used to control the layout of a web page on different devices and screen sizes. For example, setting the viewport to width=device-width makes the page match the width of the device screen.

**Charset:**

The charset attribute specifies the character encoding for the HTML document. The HTML5 specification encourages web developers to use the UTF-8 character set, which covers almost all of the characters and symbols in the world.

**Elements and Attributes:**

HTML tags are used to hold the HTML element. HTML element holds the content. HTML attributes are used to describe the characteristic of an HTML element in detail. HTML tag starts with < and ends with > Whatever written within a HTML tag are HTML elements.

**Sementic and Non-Sementic tags:**

Semantic HTML tags are used to define the meaning of the content they contain. Tags like <header>, <article>, and <footer> are semantic HTML tags, they specify the role of the content present on them. While <div> and <span> are typical examples of non-semantic HTML elements.

**Id and Class:**

**Id:**

* The id attribute specifies a unique id for an HTML element.
* The value of the id attribute must be unique within the HTML document.
* The id attribute is used to point to a specific style declaration in a style sheet.
* It is also used by JavaScript to access and manipulate the element with the specific id.

**Class:**

The HTML class attribute specifies one or more class names for an element. Classes are used by CSS and JavaScript to select and access specific elements. The class attribute can be used on any HTML element.

**Difference between Class and ID:**

While an ID is specific to a single element, classes can be assigned to multiple elements on a page or throughout the website. They are not unique. And while a single element can only have one ID, it can have multiple classes.

**Comments:**

The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers. You can use comments to explain your code.

<!-- -->

**Meter tag:**

The <meter> tag defines a scaler measurement within a known range or a fiction value. This is also known as gauge.

<meter value="85" low="20" high="80" min="0" max="100" optimum="50"></meter>

**Progress tag:**

The <progress> tag represents the progress of a task.

Use progress tag with javascript to display the progress of a task.

<progress value="30" max="100"></progress>

**Audio tag:**

<audio controls preload="metadata" src="simple-beat-188057.mp3" ></audio>

Attributes:

Src

Controls

Preload

Muted

Loop

**Video tag:**

<video src="river\_creek\_stream\_nature\_flowing\_821.mp4" controls height="200px" width="200px" loop poster="download.jpg"> </video>

Embed tag:

The <embed> tag defines a container for an external application or interactive content.

<embed src="river\_creek\_stream\_nature\_flowing\_821.mp4" type="video/mp4" width="500px" height="200px">

Src=” .swf ” Type=” application/x-shockwave-flash”

Select tag:

The <select> tag is used to create a dropdown list.

Option tag:

The <option> tag defines an option in a select list.

Optgroup tag:

The <optgroup> tag is used to group related options in a dropdown list.

1. <select>

<option>maruti suzuki</option>

<option>honda</option>

<option>wolkswagon</option>

<option>Kia</option>

</select>

1. <select multiple>

<optgroup label="Maruti car" disabled>

<option label="swift">Maruti Suzuki-swift</option>

<option label="dzire">Maruti Suzuki-dzire</option>

<option label="vitara">Maruti Suzuki-vitara</option>

<option label="vitara">Maruti Suzuki-grand vitara</option>

</optgroup>

<optgroup label="mahindra car">

<option disabled> XUV 700 </option>

<option> XUV 500 </option>

<option selected> XUV 300 </option>

</optgroup>

</select>

**Difference between <b> tag and <strong> tag:**

**<b> tag:**

The <b> tag is a non-semantic element that represents text in a bold font without conveying any specific importance or emphasis. Historically, it has been used solely for stylistic purposes to make text visually bold.

Example:

<b>This text is bold</b>

**<strong> tag:**

The <strong> tag is a semantic element that represents text of strong importance, emphasis, or relevance. It conveys that the enclosed text is particularly important or significant, typically for the reader or for the document's meaning or structure.

Example:

<strong>This text is important</strong>

**Detail Tag:-**

<details>

<summary>Click to expand</summary>

<p>This is hidden content inside a collapsible area.</p>

</details>

**Marquee Tag:-**  
  
<marquee behavior="scroll" direction="left">Text</marquee>  
· direction="left|right|up|down"

· behavior="scroll|slide|alternate"

· scrollamount="number" (speed)

· loop="number" (times to repeat)  
  
**Mark tag:-**  
  
<p>Use <mark>strong passwords</mark> to stay secure.</p>

**Small tag:-**  
  
<p>All rights reserved. <small>Terms and conditions apply.</small></p>  
  
**Title attribute:-**  
  
<button title="Click to submit the form">Submit</button>

**Datalist Tag:-**  
<input list="browsers" name="browser" id="browser">

<datalist id="browsers">

<option value="Chrome">

<option value="Firefox">

<option value="Safari">

<option value="Edge">

</datalist>