

# HTML : Hyper Text Markup Language

HTML stands for HyperText Markup Language. It is the standard language used to create and structure the content of a webpage.

- **HyperText:** This refers to the ability to create links that connect web pages to one another, making the web a connected "web" of information.
- **Markup Language:** This means you use "tags" to surround your content, giving that content meaning and structure. You are "marking up" a plain text document.

First Website: <https://info.cern.ch/hypertext/WWW/TheProject.html>

Install Required Software:

## 1. Install Visual Studio Code

This is a free piece of software from Microsoft that you will use to write your code.

<https://code.visualstudio.com/>

## 2: Install Visual Studio Code Extensions

[Live Preview](#)

[Prettier](#)

[Live Server](#)

## 1: The Heading (<h1> to <h6>)

**What it is:** Headings are tags used to define titles and subtitles on your page. They are crucial for creating a logical hierarchy and outline for your content.

```
<h1>Heading 1</h1> <h2>Heading 2</h2> <h3>Heading 3</h3> <h4>Heading  
4</h4> <h5>Heading 5</h5> <h6>Heading 6</h6>
```

- `<h1>`: The most important heading, typically used only once per page for the main title.
- `<h2>`: A major section heading.
- `<h3>`: A sub-section heading under an `<h2>`.
- ...and so on, down to `<h6>`, the least important heading.

**The Purpose:** To structure your document in a way that is understandable to both humans and machines (like search engines and screen readers). It is **not** just for making text big; it is for giving the text structural importance.

## 2. The Paragraph (`<p>`)

**What it is:** The paragraph tag is the most common tag you'll use. It's for grouping sentences and blocks of text together.

**The Tag:** `<p>`

**The Purpose:** To define a distinct paragraph of text. Browsers automatically add a little bit of space before and after a `<p>` element, separating it from other content. You should not use multiple line breaks; you should use multiple `<p>` tags.

```
<p>This is the first paragraph. It contains several sentences about a  
topic.</p> <p>This is a second, separate paragraph. The browser will  
display it with a space between it and the first one.</p>
```

### 3: HTML Horizontal Rules

The `<hr>` tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The `<hr>` element is used to separate content (or define a change) in an HTML page:

```
<p>This is the first topic.</p> <hr /> <p>This is a completely different topic.</p>
```

### 4. The Line Break Tag: `<br>`

This tag tells the browser, "Stop writing on this line and immediately start on the next one." It's like hitting the Enter key once in a poem or an address.

- **Purpose:** Creates a single line break.
- **Example:**codeHtml
- List

```
<p>221B Baker Street<br> London, England</p>
```

### 6. List Elements (`<ul>`, `<ol>`, `<li>`)

**What it is:** These tags are used to create lists. This is a perfect example of nesting.

**The Tags:**

- `<ul>`: An Unordered List. It creates a bulleted list.
- `<ol>`: An Ordered List. It creates a numbered list.
- `<li>`: A List Item. Each item in either type of list must be wrapped in an `<li>` tag.

**The Purpose:** To group related items together in a list format.

**Example (Nesting in action):**

The `<li>` elements are nested as children inside the `<ul>` parent.

```
<ul> <li>Tea Bag</li> <li>Water</li> <li>Sugar</li> <li>Milk</li> </ul>
<ol> <li>First, boil the water in a kettle.</li> <li>Add tea bag, sugar
and milk into it</li> <li>Keep boiling it for 5 minutes </li> <li>Serve
the tea by pouring it into cup</li> </ol>
```

## 7: The Anchor Tag (<a>)

**What it is:** The Anchor tag is what makes the web "hypertext." It is used to create a hyperlink to another webpage, a file, or a location within the same page.

**The Tag:** `<a>`

**The Purpose:** To make text (or an image) clickable, allowing users to navigate. It requires an **attribute** called href (hypertext reference) to specify the destination URL.

```
<a href="https://www.coderarmy.in/">Vist Coder Army</a>
```

### HTML Links - The target Attribute

By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.

The `target` attribute specifies where to open the linked document.

The `target` attribute can have one of the following values:

- `_self` - Default. Opens the document in the same window/tab as it was clicked
- `_blank` - Opens the document in a new window or tab

## 8. The Image Tag (<img>)

**What it is:** The Image tag is a **self-closing tag** used to embed an image onto your page.

**The Tag:** <img>

**The Purpose:** To display a visual image. It requires two main attributes:

- **src** (source): The path or URL to the image file. This is mandatory.
- **alt** (alternative text): A description of the image. This is vital for accessibility (screen readers for the visually impaired will read this out) and for when the image fails to load.

```

```