

# Complete HTML



**HTML (HyperText Markup Language)** is the standard language for creating web pages.

- It provides the **structure** of a webpage.
- Everything on the internet (websites, blogs, etc.) starts with HTML.
- Other famous Markup languages are LaTeX, XML etc.

## Basic Structure:

```
<!DOCTYPE html>  
<html lang="en">
```

```

<head>
  <meta charset="UTF-8" />
  <title>Page Title</title>
</head>
<body>
  <h1>Welcome to Web Development!</h1>
  <p>This is a paragraph.</p>
</body>
</html>

```

## Basic HTML Tags

Tag	Purpose
<h1> to <h6>	Headings (largest to smallest)
<p>	Paragraph
<a>	Anchor (links)
<img>	Insert images
<ul> , <ol> , <li>	Lists (unordered, ordered)
<div>	Block container
<span>	Inline container
  , <hr>	Line break, horizontal line
<i> , <u> , <em> , <strong> , <b>	Formatting tags

```

<h1>Hello, World!</h1>
<p>This is my first web page.</p>
<a href="https://www.google.com">Visit Google</a>


```

## Setup VS code

### Steps:

1. Download and install Visual Studio Code.

2. Install important extensions on VS Code:
  - **Live Server:** To see the updates using local host.
  - **Prettier:** It will format the code in better way.
3. Create a new folder for your project.
4. Open the folder in VS Code.
5. Create a file named `index.html` and let's start coding!

## Advanced HTML Tags: Forms, Tables, Semantic Elements

### Forms

Used to collect user input.

```
<form action="/submit" method="POST">
  <label>Name:</label>
  <input type="text" name="username" />
  <input type="submit" value="Submit" />
</form>
```

Common Form Elements:

- `<input>` — for text, email, password, etc.
- `<textarea>` — for multi-line text.
- `<button>` — for clickable buttons.
- `<select>` and `<option>` — dropdown lists.

For more detail about Form input methods visit official [mdn documentation](#).

### Tables

Used to display tabular data.

```
<table border="1">
  <tr>
```

```

<th>Name</th>
<th>Age</th>
</tr>
<tr>
<td>Alice</td>
<td>24</td>
</tr>
</table>

```

## Semantic Elements

HTML5 introduced elements that clearly describe their meaning:

Tag	Purpose
<code>&lt;header&gt;</code>	Top section of a page
<code>&lt;footer&gt;</code>	Bottom section of a page
<code>&lt;nav&gt;</code>	Navigation links
<code>&lt;section&gt;</code>	Defines sections in a page
<code>&lt;article&gt;</code>	Independent, self-contained content
<code>&lt;aside&gt;</code>	Content aside from the main content

### For Example:

```

<header>
  <h1>My Website</h1>
</header>
<nav>
  <a href="#home">Home</a> |
  <a href="#about">About</a>
</nav>
<section id="home">
  <h2>About Me</h2>
  <p>This is my story.</p>
</section>
<footer id="about">

```

```
<p>Copyright © 2025</p>
</footer>
```

## Introduction to HTML5 Tags

HTML5 brought many **new tags** for richer content and better structure.

New Tag	Purpose
<code>&lt;video&gt;</code>	Embeds video content
<code>&lt;audio&gt;</code>	Embeds sound content
<code>&lt;canvas&gt;</code>	Draw graphics on the fly using JavaScript
<code>&lt;section&gt;</code> , <code>&lt;article&gt;</code> , <code>&lt;header&gt;</code> , <code>&lt;footer&gt;</code> , <code>&lt;aside&gt;</code>	Structure content semantically
<code>&lt;figure&gt;</code> and <code>&lt;figcaption&gt;</code>	For images with captions
<code>&lt;main&gt;</code>	Main content of the document

### Video Tag Syntax:

```
<video controls>
  <source src="video.mp4" type="video/mp4" />
  You can write anything
</video>
```

```
<audio controls>
  <source src="audio.mp3" type="audio/mp3" />
  you can write anything
</audio>
```

### Image Tag Syntax:

```

```

## Quick Tip:

When working with **MERN Stack**, HTML is still very important because **React components** often generate HTML-like code (JSX).

Now, next step? — CSS