

Day 1: The Absolute Basics of HTML 🏠

Welcome to your first day of web development! Today, we're starting with **HTML**, which is the fundamental building block of every single website you've ever visited.

What is HTML?

Think of a house. Before you can paint the walls (CSS) or install an electric garage door (JavaScript), you need to build the frame, the walls, and the roof. **HTML is the frame and structure of a webpage.**

HTML stands for **HyperText Markup Language**. Let's break that down:

- **HyperText:** This refers to the "links" that connect web pages to one another, forming the "web."
 - **Markup Language:** This means you use a special syntax to "mark up" your plain text to tell the browser how to display it. For example, you mark some text as a heading, some as a paragraph, and some as an image. It describes content; it's not a programming language with logic.
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The Building Blocks: Tags, Elements, and Attributes

HTML works by using "tags" to wrap around your content.

- **Tags:** These are keywords surrounded by angle brackets, like `<p>`. They usually come in pairs: an **opening tag** (`<h1>`) and a **closing tag** (`</h1>`). The closing tag has a forward slash (`/`).
- **Elements:** An element is the complete package: the opening tag, the content inside, and the closing tag.

`<p>`This is the content of the paragraph element`</p>`

- **Attributes:** These provide extra information about an element. They are always included in the **opening tag** and are made up of a name and a value in quotes, like `name="value"`. We'll see an example with links later.
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The Basic HTML Document Structure

Every HTML document, no matter how complex, follows this same basic structure. Think of it as the boilerplate or template you'll start every project with.

HTML

```
<!DOCTYPE html>
<html>
  <head>
    <title>My First Webpage</title>
  </head>
  <body>
  </body>
</html>
```

Let's look at each line:

1. **<!DOCTYPE html>**: This is a required declaration. It's always the very first line and it tells the browser, "Hey, I'm an HTML5 document!" The **<!DOCTYPE>** declaration represents the document type, and helps browsers to display web pages correctly.

✚ It must only appear once, at the top of the page (before any HTML tags).

✚ The **<!DOCTYPE>** declaration is not case sensitive.

✚ The **<!DOCTYPE>** declaration for HTML5 is:

<!DOCTYPE html>

2. **<html>**: This is the **root element**. All other elements on the page are nested inside this one.
 3. **<head>**: This section contains **metadata**—data about your webpage. This information is not displayed on the actual page. It includes things like the page title, links to stylesheets (CSS), and character sets.
 4. **<title>**: The only thing you'll see from the **<head>** section. The text here appears in the browser tab.
 5. **<body>**: This is where the magic happens! **All visible content**—headings, paragraphs, images, links, forms—goes inside the **<body>** tags.
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