

Introduction to HTML

Introduction to HTML – Study Notes

1. What is HTML?

- **Acronym:** HyperText Markup Language
 - **Purpose:** The standard language for creating and structuring web pages and web applications.
 - **Role in the web stack:**
 - **HTML** – defines the content and structure.
 - **CSS** – handles presentation (layout, colors, fonts).
 - **JavaScript** – adds interactivity and dynamic behavior.
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2. Basic Concepts

Concept	Description	Example
Element	The building block of an HTML document, consisting of a start tag, content, and an end tag.	<code><p>Hello world</p></code>
Tag	The markup that tells the browser how to treat the enclosed content.	<code><h1></code> , <code></h1></code>
Attribute	Provides additional information about an element (e.g., id, class, src).	<code></code>
Document Type Declaration (Doctype)	Informs the browser which version of HTML is used.	<code><!DOCTYPE html></code>
Nested Elements	Elements can contain other elements, forming a hierarchy.	<code>Item</code>

3. Anatomy of an HTML Document

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```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Page Title</title>
  <!-- Optional: link CSS, scripts, meta tags -->
</head>
<body>
  <!-- Visible content goes here -->
  <h1>Welcome to My Site</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

- **<!DOCTYPE html>** – declares HTML5.
 - **<html>** – root element; lang attribute specifies language.
 - **<head>** – metadata (charset, viewport, title, links to CSS/JS).
 - **<body>** – all content displayed in the browser.
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4. Common HTML Elements

Category	Elements	Typical Use
Headings	<h1> – <h6>	Section titles; <h1> is most important.
Paragraph	<p>	Blocks of text.
Lists	, ,	Unordered (bullets) or ordered (numbers) lists.
Links		Hyperlinks to other pages or resources.
Images		Embeds raster graphics.
Tables	<table>, <tr>, <th>, <td>	Tabular data.
Forms	<form>, <input>, <textarea>, <select>, <button>	Collect user input.

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Category	Elements	Typical Use
Semantic containers	<code><header></code> , <code><nav></code> , <code><main></code> , <code><section></code> , <code><article></code> , <code><aside></code> , <code><footer></code>	Describe the role of page sections, improving accessibility and SEO.
Multimedia	<code><audio></code> , <code><video></code> , <code><source></code>	Embed sound or video.
Metadata	<code><meta></code> , <code><title></code> , <code><link></code>	Provide information about the document.

5.