

🌟 HTML Master Practice Guide (Teaching + Interview Ready)

A clear, structured HTML guide for teaching, revision and interviews.

This follows your **original chapter style**, now with **short definitions and use cases** added. No CSS, only pure HTML.

🐣 Chapter 1: What Is HTML?

Definition: HTML (HyperText Markup Language) is the standard language used to create webpages.

- **HyperText** → text with links to other pages or sections.
- **Markup** → special tags that describe the structure of content.
- **Language** → a set of rules that browsers understand.

Use case: Use HTML whenever you want to build the structure of any website.

🐣 Chapter 2: Understanding Tags

Definition: A tag is a keyword inside angle brackets that tells the browser how to display something.

- **Opening tag:** starts an element. Example: `<p>`
- **Closing tag:** ends an element. Example: `</p>`
- **Element:** complete unit → opening tag + content + closing tag. Example: `<p>Hello</p>`
- **Self-closing tag:** has no closing tag. Example: `
`, `<hr>`, ``

Use case: Every piece of HTML structure is written using tags and elements.

🐣 Chapter 3: Basic HTML Document Structure

Definition: Every HTML file follows a standard outer structure.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Document</title>
</head>
<body>
  <h1>Welcome</h1>
```

```
</body>
</html>
```

- `<!DOCTYPE html>` → tells the browser we are using HTML5.
- `<html>` → root element; everything is inside this.
- `lang="en"` → page language is English.
- `<head>` → page settings and meta-data (not visible on screen).
- `<meta charset="UTF-8">` → supports different characters (English, symbols, etc.).
- `<meta name="viewport" ...>` → makes layout better on mobile.
- `<title>` → text shown on browser tab.
- `<body>` → everything visible to the user.

Use case: Every HTML page you create should start with this structure.

Chapter 4: Anchor Tag (Links)

Definition: The `<a>` tag creates clickable links.

Common Attributes

- `href` → the URL or id to go to.
- `target` → where to open the link.
- `_self` → same tab (default, does not open new tab).
- `_blank` → new tab.

Same-page navigation (no redirection to new tab)

```
<a href="page2.html" target="_self">Open Page 2</a>
```

Link to a section in the same page

```
<a href="#about">Go to About Section</a>
```

```
<h2 id="about">About Section</h2>
```

Use case: Menus, navigation bars, jumping to sections, linking to other pages. **Interview tip:** Use `target="_self"` when you do not want a new tab.

Chapter 5: Image Tag (img)

Definition: The `` tag displays an image on the page. It is self-closing.

Important Attributes

- `src` → path or URL of the image.

- `alt` → text shown if the image fails; used by screen readers.
- `width` / `height` → control image size.

Example

```

```

Use case: Logos, product images, banners, icons. **Interview tip:** `alt` is important for accessibility and SEO.

Chapter 6: Text Formatting Tags

Definition: These tags control how text appears.

- `<h1>` – `<h6>` → headings (from biggest to smallest).
- `<p>` → paragraph of normal text.
- `` → bold text.
- `<i>` → italic text.
- `
` → line break (new line).
- `<hr>` → horizontal line (divider).

Example

```
<h1>Main Title</h1>
<p>This is a paragraph.</p>
<b>Bold Text</b>
<i>Italic Text</i>
Hello<br>World
<hr>
```

Use case: To structure content into titles and readable blocks of text.

Chapter 7: Lists (ul, ol, li)

Definition: Lists show multiple items in an organised way.

Unordered List ``

Definition: A bullet list where order does not matter.

```
<ul>
  <li>Apple</li>
  <li>Banana</li>
</ul>
```

Ordered List ``

Definition: A numbered list where order matters.

```
<ol>
  <li>Step 1</li>
  <li>Step 2</li>
</ol>
```

- `` → list item tag used inside both `` and ``.

Use case: Menus, steps, lists of features, topics, etc.

Chapter 8: Tables

Definition: Tables display data in rows and columns.

Basic Tags

- `<table>` → main table container.
- `<tr>` → table row.
- `<th>` → header cell (title of column).
- `<td>` → normal data cell.

Example

```
<table>
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Rahul</td>
    <td>21</td>
  </tr>
</table>
```

Use case: Student records, product lists, price charts.

Chapter 9: Containers (div & span)

`<div>` Tag

Definition: Block-level container used to group larger sections.

```
<div>
  <h2>Student Info</h2>
  <p>Name: Rahul</p>
</div>
```

Use case: Grouping parts of the layout (header, footer, sections) so they can be handled together.

`` **Tag**

Definition: Inline container used to group or highlight small parts of text.

```
<p>My favourite color is <span>Blue</span>.</p>
```

Use case: Highlighting part of a sentence, wrapping small text for styling later.



Chapter 10: Form Elements (Input and Friends)

Definition: Form elements allow users to enter data.

`<input>` **Tag**

Definition: A flexible field used for many types of input.

Common `type` values: - `text` → single line text - `email` → email input - `password` → hidden characters - `number` → numeric input

```
<input type="text" placeholder="Enter name">
<input type="email" placeholder="Enter email">
<input type="password" placeholder="Enter password">
<input type="number" placeholder="Enter age">
```

Checkbox

Definition: Allows selecting multiple options.

```
<input type="checkbox"> Accept Terms
```

Radio Button

Definition: Allows selecting exactly one option in a group.

```
<input type="radio" name="gender"> Male  
<input type="radio" name="gender"> Female
```

Dropdown `<select>`

Definition: A compact list of options that opens on click.

```
<select>  
  <option>India</option>  
  <option>USA</option>  
</select>
```

`<textarea>`

Definition: Multi-line text box.

```
<textarea rows="4" cols="30"></textarea>
```

`<button>`

Definition: Clickable button.

```
<button>Submit</button>
```

Use case: Forms, login pages, registration pages, search boxes.

Chapter 11: Semantic Tags

Definition: Semantic tags describe *meaning* of sections instead of just appearance.

- `<header>` → top area of page or section.
- `<nav>` → navigation links.
- `<section>` → major section of a page.
- `<article>` → independent piece of content (news, blog, post).
- `<footer>` → bottom area (contact, copyright, etc.).

Example

```
<header>My Website</header>  
<nav>  
  <a href="#home">Home</a>  
  <a href="#news">News</a>
```

```
</nav>
<section id="home">
  <h2>Welcome Home</h2>
</section>
<footer>© 2025 MySite</footer>
```

Use case: Building clean, meaningful layouts that are easier to maintain and understand. **Interview tip:** Semantic tags improve accessibility and SEO.

Chapter 12: Example Exercises (Clean, No "Generic" Wording)

These are simple practice tasks for any learner.

1. **Basic Page:** Create a page with a heading, paragraph, line break and horizontal line.
 2. **Navigation:** Create a header with a nav bar using anchor tags that move to sections on the same page.
 3. **Images:** Add three images with proper `src` and `alt` attributes.
 4. **Form:** Build a registration form using text, email, password, radio, checkbox, select, textarea and a button.
 5. **Table:** Create a product table with columns for name, price and rating.
 6. **Mini Website:** Make a small page using `header`, `nav`, `section`, `article`, `footer` and internal links.
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