

HTML5 Tags and their Types

HTML5 introduced a wide range of semantic and non-semantic tags. These tags can be grouped into several types based on their functionality. Here's a breakdown:

1. Structural/Sectioning Tags

These tags define the layout or sections of a webpage:

`<header>`: Represents introductory content or a set of navigational links.

`<footer>`: Defines the footer of a document or a section.

`<article>`: Specifies independent, self-contained content.

`<section>`: Groups related content or thematic sections.

`<nav>`: Defines navigation links.

`<aside>`: Represents a sidebar or content tangentially related to the main content.

`<main>`: Represents the main content of the document.

`<h1>` to `<h6>`: Headings, `<h1>` being the top-level heading.

2. Content Tags

These tags help in defining and organizing different types of content:

`<p>`: Paragraph.

`<blockquote>`: A section that is a quote from another source.

`<pre>`: Preformatted text.

`<code>`: Represents a fragment of computer code.

`<figure>`: Groups media content like images or diagrams with optional captions.

`<figcaption>`: Defines a caption for a `<figure>`.

`<div>`: Defines a division or a container (non-semantic).

3. Inline Text Tags

These tags are used for specific text formatting:

``: An inline container for text (non-semantic).

``: Indicates important or bold text.

``: Emphasizes text, typically rendered as italic.

`<mark>`: Highlights or marks text.

`<abbr>`: Defines an abbreviation or acronym.

`<time>`: Defines a date or time.

`<small>`: Smaller text, often for side notes.

``: Bold text without added importance.

`<i>`: Italic text without added emphasis.

4. Media Tags

These tags are for embedding and displaying multimedia content:

``: Embeds an image.

`<audio>`: Embeds sound content.

`<video>`: Embeds a video.

`<source>`: Specifies multiple media resources (used with `<audio>` and `<video>`).

`<track>`: Defines text tracks for `<video>` or `<audio>` (subtitles, captions).

5. Form-Related Tags

These tags are used to create forms and handle user input:

`<form>`: Defines an HTML form for user input.

`<input>`: Accepts various types of user input (text, number, password, checkbox, radio, etc.).

`<textarea>`: Multi-line text input.

`<button>`: Represents a clickable button.

`<select>`: A drop-down list of options.

`<option>`: Defines an option in a `<select>` list.

<label>: Represents a label for an input element.

<fieldset>: Groups form elements.

<legend>: Defines a title for the <fieldset>.

6. Interactive and Script Tags

These tags add dynamic and interactive features:

<details>: Creates a disclosure widget that users can open or close.

<summary>: Defines a visible heading for the <details> element.

<dialog>: Defines a dialog box or window.

<script>: Embeds or refers to client-side scripts.

<noscript>: Content for browsers that don't support scripting.

7. Table Tags

These tags are used for creating tables:

<table>: Defines a table.

<thead>: Groups the header content in a table.

<tbody>: Groups the body content in a table.

<tr>: Defines a row in a table.

<td>: Represents a data cell in a table.

<th>: Defines a header cell in a table.

<caption>: Provides a caption for a table.

8. Metadata and Document Tags

These tags provide metadata and manage the document structure:

<meta>: Defines metadata about an HTML document (charset, viewport, etc.).

<title>: Specifies the title of the document.

<link>: Defines the relationship between the current document and an external resource (stylesheets, icons).

`<style>`: Embeds CSS styles.

`<base>`: Specifies the base URL for all relative URLs in a document.

9. Scripting Tags

These handle interactions with external scripts and dynamic content:

`<canvas>`: A container for graphics, often rendered via JavaScript.

`<script>`: Defines a client-side script.

`<noscript>`: Fallback content for users with disabled JavaScript.

10. Miscellaneous Tags

Some tags that don't fall into specific categories:

`
`: Line break.

`<hr>`: Horizontal rule or thematic break.

`<wbr>`: Optional line break.

These tags help structure and organize content effectively while enhancing accessibility and SEO optimization.