

# TP1 HTML: Tags

## First-Level Tags

These tags are essential to start coding a web page in HTML. They indicate to web browsers that the content is HTML and separate the head from the body of the page.

- `<html>` - `</html>`: Main tag for all web pages.
- `<head>` - `</head>`: Page header.
- `<body>` - `</body>`: Page body.

## Header Tags

These tags are placed inside the `<head>` section. A closing tag is formed by adding a slash (/) before the tag name, e.g., `<head>` (opening tag) and `</head>` (closing tag). Some tags are self-closing, such as the `<img>` tag.

- `<link />`: Links to a stylesheet.
- `<meta />`: Page metadata (charset, keywords). Also includes the meta description tag, which is useful for SEO, although Google's algorithm does not directly interpret it.
- `<script>` - `</script>`: JavaScript code.
- `<style>` - `</style>`: CSS code.
- `<title>` - `</title>`: Page title. This tag is crucial for SEO.

## Text Structuring Tags

These tags allow for structuring text, images, or menus within the page.

- `<abbr>` - `</abbr>`: Abbreviation.
- `<blockquote>` - `</blockquote>`: Long quotation.
- `<q>` - `</q>`: Short quotation.
- `<cite>` - `</cite>`: Title of a work or event.
- `<sub>` - `</sub>`: Subscript.
- `<sup>` - `</sup>`: Superscript.
- `<h1>` - `<h6>`: Headings of different levels.
- `<img />`: Image (uses `src` for the image URL and `alt` for alternative text).
- `<mark>` - `</mark>`: Highlights text.
- `<strong>` - `</strong>`: Bold text.
- `<em>` - `</em>`: Italic text.
- `<figure>` - `</figure>`: Figure (image, code, etc.).
- `<figcaption>` - `</figcaption>`: Figure description.
- `<audio>` - `</audio>`: Audio element.
- `<video>` - `</video>`: Video element.
- `<source>` - `</source>`: Defines a format for `<audio>` and `<video>` elements.
- `<a>` - `</a>`: Hyperlink (`href` attribute specifies the URL).
- `<br />`: Line break.
- `<p>` - `</p>`: Paragraph.

- `<hr />`: Horizontal separator.
- `<address>` - `</address>`: Contact address.
- `<del>` - `</del>`: Deleted text.
- `<ins>` - `</ins>`: Inserted text.
- `<dfn>` - `</dfn>`: Definition.
- `<kbd>` - `</kbd>`: Keyboard input.
- `<progress>` - `</progress>`: Progress bar.
- `<time>` - `</time>`: Date or time.
- `<pre>` - `</pre>`: Preformatted text (typically used for code).

## List Tags

These tags allow the creation of ordered or unordered lists.

- `<ul>` - `</ul>`: Unordered list (bulleted).
- `<ol>` - `</ol>`: Ordered list (numbered).
- `<li>` - `</li>`: List item.
- `<dl>` - `</dl>`: Definition list.
- `<dt>` - `</dt>`: Definition term.

## Table Tags

These tags create structured tables with rows and columns.

- `<table>` - `</table>`: Table.
- `<caption>` - `</caption>`: Table title.
- `<tr>` - `</tr>`: Table row.
- `<th>` - `</th>`: Header cell.
- `<td>` - `</td>`: Data cell.
- `<thead>` - `</thead>`: Table header section.
- `<tbody>` - `</tbody>`: Table body section.
- `<tfoot>` - `</tfoot>`: Table footer section.

## Form Tags

These tags are used to create forms, such as contact forms.

- `<form>` - `</form>`: Defines a form (`method`: specifies the submission method, `action`: specifies the destination page after submission).
- `<fieldset>` - `</fieldset>`: Groups form elements.
- `<legend>` - `</legend>`: Title for a form group.
- `<label>` - `</label>`: Label for a form element.
- `<input />`: Input field (`type` attribute defines the field type).
- `<textarea>` - `</textarea>`: Multi-line input field (`rows` and `cols` define size).
- `<select>` - `</select>`: Dropdown list.
- `<option>` - `</option>`: Option in a dropdown list.
- `<optgroup>` - `</optgroup>`: Group of options in a dropdown list.

# Sectioning Tags

These tags define the structure of a website.

- `<header>` - `</header>`: Page header.
- `<nav>` - `</nav>`: Main navigation links.
- `<footer>` - `</footer>`: Page footer.
- `<section>` - `</section>`: Section of a page.
- `<article>` - `</article>`: Standalone content (e.g., blog post).
- `<aside>` - `</aside>`: Additional information (e.g., sidebar).

# Generic Tags

There are two generic tags: one inline and one block-level. These tags have no semantic meaning.

- `<span>` - `</span>`: Inline element.
  - Allows elements to be positioned next to each other.
  - Cannot be resized using `width` or `height`.
  - Respects left and right margins but not top and bottom margins.
- `<div>` - `</div>`: Block-level element.
  - Forces a line break.
  - Does not allow elements to be positioned next to it.
  - Can be resized using `width` and `height`.
  - Respects all margins.

# Attributes for Generic Tags

These attributes enhance the usefulness of generic tags:

- **class**: Specifies a CSS class to apply.
- **id**: Unique identifier for the tag (useful for linking, CSS styling, and JavaScript interactions).
- **style**: Applies inline CSS styles (but using an external stylesheet is recommended for easier maintenance).

Test each tag to see the actual result. Tags form the **skeleton** of HTML. Without them, the web page will collapse. Always close your tags properly!

Soon, you'll become proficient in web development with HTML. The next step is mastering CSS to style your HTML files as you like.

**Final Tip:** Always **indent** your code properly to keep it organized and readable.