

# HTML TAGS AND FEATURES - ANNOTATED GUIDE

## Basic Document Structure

`<!DOCTYPE html>`

Declares that the document is an HTML5 document. It helps the browser render the page correctly.

`<html>`

The root element of an HTML page. All other HTML elements are placed inside this tag.

`<head>`

Contains metadata and settings for the document, such as the title, CSS links, scripts, and meta information. Content inside `<head>` is not shown directly on the page.

`<!-- comment -->`

Adds a comment in the HTML code. Comments are not displayed in the browser and are used to leave notes for developers.

`<style>`

Used to write internal CSS directly inside the HTML document. It defines the visual style of the page.

`<meta name="keywords" content="...">`

Provides keywords related to the page content. It was traditionally used for search engine information.

`<link rel="...">`

Connects the HTML document to an external file, usually a CSS stylesheet or another related resource.

**href**

An attribute used mainly in links and linked resources. It specifies the destination URL or file path.

`<script src="...">`

Links an external JavaScript file to the HTML page.

`<meta charset="UTF-8">`

Specifies the character encoding of the document. UTF-8 supports most characters and symbols used in many languages.

`<meta name="description" content="...">`

Provides a short description of the page. This is often used by search engines.

**<title>**

Defines the title of the web page. The title appears in the browser tab.

**</head>**

Closes the head section.

**<body>**

Contains all visible content of the web page, such as text, images, tables, and forms.

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## Headings and Text Content

**<h1>**

Defines the most important heading on the page.

**<h2>**

Defines a second-level heading.

**<h3>**

Defines a third-level heading.

**<h4>**

Defines a fourth-level heading.

**<h5>**

Defines a fifth-level heading.

**<h6>**

Defines the smallest heading level.

**<p>**

Defines a paragraph of text.

**<br>**

Inserts a single line break.

**<hr>**

Inserts a horizontal line to separate content.

**size**

An attribute sometimes used with `<hr>` in older HTML to set line thickness.

**width**

Defines the width of an element.

**color**

Sets the color of certain HTML elements in older HTML usage, although CSS is preferred today.

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## Text Formatting Tags

`<b>`

Displays text in bold without adding special importance.

`<strong>`

Displays text in bold and also indicates strong importance semantically.

`<i>`

Displays text in italic without adding emphasis semantically.

`<em>`

Displays text in italic and indicates emphasis semantically.

`<u>`

Underlines text.

`<mark>`

Highlights text with a background color.

`<small>`

Displays smaller text.

`<del>`

Shows deleted text, usually with a line through it.

`<ins>`

Shows inserted text, often underlined.

`<sub>`

Displays subscript text, such as in chemical formulas like H<sub>2</sub>O.

`<sup>`

Displays superscript text, such as in mathematical expressions like x<sup>2</sup>.

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## Links and Navigation

`<a>`

Defines a hyperlink.

`href="URL"`

Specifies the destination of the link.

**target="\_blank"**

Opens the linked page in a new tab or window.

**target="\_self"**

Opens the link in the same tab.

**mailto:**

Creates an email link that opens the user's email program.

**tel:**

Creates a clickable phone number link.

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## Images and Media

**<img>**

Embeds an image into the web page.

**src**

Specifies the path or URL of the image file.

**alt**

Provides alternative text for an image if it cannot be displayed. It also improves accessibility.

**height**

Sets the height of an image or element.

**<figure>**

Groups media content such as an image together with a caption.

**<figcaption>**

Adds a caption to the content inside a `<figure>` element.

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## Lists

**<ul>**

Creates an unordered list with bullet points.

**<ol>**

Creates an ordered list with numbers or letters.

**<li>**

Defines a list item inside `<ul>` or `<ol>`.

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# Tables

**<table>**

Creates a table.

**<caption>**

Adds a title or caption to the table.

**<tr>**

Defines a table row.

**<th>**

Defines a table header cell.

**<td>**

Defines a table data cell.

**border**

Specifies the border thickness of a table in older HTML usage. CSS is preferred today.

**colspan**

Allows a table cell to span across multiple columns.

**rowspan**

Allows a table cell to span across multiple rows.

**<thead>**

Groups the header content in a table.

**<tbody>**

Groups the main body content in a table.

**<tfoot>**

Groups the footer content in a table.

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# Containers and Page Organization

**<div>**

Defines a block-level container used to group content and structure sections of a page.

**<span>**

Defines an inline container used to style or mark a small part of text or content.

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# Forms

## `<form>`

Creates a form for collecting user input.

## `action`

Specifies where the form data will be sent.

## `method`

Specifies how the form data will be sent, usually `get` or `post`.

## `<label>`

Defines a label for a form element.

## `for`

Associates the label with a specific input field.

## `<input>`

Creates an input field.

## `type="text"`

Creates a single-line text input.

## `type="password"`

Creates a password input field.

## `type="email"`

Creates an email input field.

## `type="number"`

Creates a numeric input field.

## `type="radio"`

Creates a radio button for selecting one option from a group.

## `type="checkbox"`

Creates a checkbox for selecting one or more options.

## `type="submit"`

Creates a button that submits the form.

## `type="reset"`

Creates a button that clears the form fields.

## `type="button"`

Creates a general clickable button.

## `placeholder`

Shows a short hint inside an input field.

**required**

Makes a field mandatory before form submission.

**min**

Defines the minimum value allowed.

**max**

Defines the maximum value allowed.

**minlength**

Defines the minimum number of characters required.

**maxlength**

Defines the maximum number of characters allowed.

**pattern**

Specifies a regular expression pattern that the input must match.

**<textarea>**

Creates a multi-line text input area.

**rows**

Sets the visible number of text lines in a textarea.

**cols**

Sets the visible width of a textarea in characters.

**<select>**

Creates a drop-down list.

**<option>**

Defines an item inside a drop-down list.

**selected**

Preselects an option in a drop-down list.

**<fieldset>**

Groups related form elements together.

**<legend>**

Adds a title or caption to a `<fieldset>` group.

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## Internal CSS Basics

**selector**

Targets the HTML element(s) that will be styled.

**property**

Defines which style aspect will be changed, such as color or font size.

**value**

Defines the style value assigned to the property.

**Example:**

```
p { color: blue; }
```

Here, `p` is the selector, `color` is the property, and `blue` is the value.

**background-color**

Sets the background color of an element.

**font-size**

Sets the size of the text.

**font-family**

Sets the font type.

**text-align**

Controls the horizontal alignment of text.

**border**

Adds a border around an element.

**margin**

Adds space outside an element.

**padding**

Adds space inside an element.

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## Final Note

These tags and features are the building blocks of a basic HTML page.

Students should not only memorize them, but also understand **what each one does** and **where it should be used** in a meaningful web page.