# Important HTML Tags

**Semantic HTML Tags:** **Semantic HTML tags clearly describe their meaning** to the browser, search engines, and screen readers.

**Non-semantic:** `<div>`, `<span>`
**Semantic:** `<header>`, `<nav>`, `<main>`, `<article>`, etc.

- **<header> — Header Tag:** Represents the **top section** of a page or section.
  **Example:** <header>
  <h1>My Website</h1>
  <p>Welcome to my site</p>
  </header>
- **<nav> — Navigation Tag:** Contains **navigation links**.
  **Example:** <nav>
  <a href="#">Home</a>
  <a href="#">About</a>
  </nav>
- **<main> — Main Content Tag:** Holds the **main content** of the webpage.
  **Example:** <main>
  <h2>Blog Posts</h2>
  </main>
- **<section> — Section Tag:** Groups **related content** together.
  **Example:** <section>
  <h2>Services</h2>
  <p>We provide webdesign.</p>
  </section>
- **<article> — Article Tag:** Represents **independent, reusable content**.
  **Example:** <article>
  <h2>Blog Post</h2>
  <p>This is a blog article. </p>
  </article>
- **<aside> — Aside Tag:** Contains **side content** related to main content.
  **Example:** <aside>
  <h3>Related Posts</h3>

</aside>

- **&lt;footer&gt; — Footer Tag:** Represents the **bottom section** of a page or section.
  **Example:** &lt;footer&gt;

  &lt;p&gt;© 2026 My Website&lt;/p&gt;

  &lt;/footer&gt;
- **&lt;figure&gt; — Figure Tag:** Used to wrap **media content** (image, chart, code).
  **Example:** &lt;figure&gt;

  &lt;img src="pic.jpg"&gt;

  &lt;figcaption&gt;Profile Photo&lt;/figcaption&gt;

  &lt;/figure&gt;
- **&lt;figcaption&gt; — Figure Caption:** Provides a **caption for &lt;figure&gt;**
  **Example:** &lt;figcaption&gt;This is an image caption&lt;/figcaption&gt;
- **&lt;address&gt; — Address Tag:** Contains **author or contact information**.
  **Example:** &lt;address&gt;

  Written by John&lt;br&gt;

  Email: john@email.com

  &lt;/address&gt;

# META & RESOURCE TAGS: These tags **live inside the &lt;head&gt; section** and are **CRITICAL for SEO, performance, and browser behavior**.

- **&lt;meta&gt; — Metadata Tag:** The &lt;meta&gt; tag provides **information about the webpage** to browsers and search engines.
  **Common & IMPORTANT &lt;meta&gt; Types:**
  - **Charset Meta:** &lt;meta charset="UTF-8"&gt;
  - **Viewport Meta:** &lt;meta name="viewport" content="width=device-width, initial-scale=1.0"&gt;
  - **Description Meta:** &lt;meta name="description" content="Best web development course"&gt;
  - **Author Meta:** &lt;meta name="author" content="Sarfarosh Alam"&gt;
- **&lt;title&gt; — Page Title Tag:** Defines the **title of the webpage** shown in the browser tab and search results.

- o &lt;title&gt;My Portfolio&lt;/title&gt;
- **&lt;link&gt; — External Resource Link:** Used to **connect external files** like CSS, icons, font
  - o **Example (CSS):** &lt;link rel="stylesheet" href="style.css"&gt;
  - o **Other Uses:** &lt;link rel="icon" href="favicon.ico"&gt;
    
    &lt;link rel="preconnect" href="https://fonts.googleapis.com"&gt;

- **&lt;style&gt; — Internal CSS:** Used to write **CSS directly inside HTML**.
  - o &lt;style&gt;

    body {

    background-color: lightblue;

    }

    &lt;/style&gt;

- **&lt;script&gt; — JavaScript Tag:** Used to **add JavaScript** to a webpage
  - o **External JS:** &lt;script src="app.js"&gt;&lt;/script&gt;
  - o **Internal JS:**    &lt;script&gt;

    alert("Hello");

    &lt;/script&gt;

- **&lt;base&gt; — Base URL Tag:** Defines a **base URL** for all relative links on a page.
  - o &lt;base href="https://example.com/"&gt;

**Complete HEAD Example:**

&lt;head&gt;

&lt;meta charset="UTF-8"&gt;

&lt;meta name="viewport" content="width=device-width, initial-scale=1.0"&gt;

&lt;meta name="description" content="Learning HTML"&gt;

&lt;title&gt;HTML Basics&lt;/title&gt;

&lt;link rel="stylesheet" href="style.css"&gt;

&lt;link rel="icon" href="favicon.ico"&gt;

&lt;style&gt;

body { font-family: Arial; }

&lt;/style&gt;

&lt;script src="app.js" defer&gt;&lt;/script&gt;

&lt;/head&gt;

# HTML INTERACTIVE & MISC TAGS: These tags are used to **add interaction, user feedback, and UI behavior** to modern websites.

- **<details> — Expandable Content Container:** The <details> tag creates a **collapsible section** that users can open or close.
    - <details>
                <summary>More Info</summary>
                <p>This content is hidden by default.</p>
        </details>

- **<summary> — Title for <details>:** The <summary> tag provides the **clickable heading** for <details>.
    - <summary>Read More</summary>
- **<dialog> — Dialog / Modal Box:** The <dialog> tag is used to create **popup dialogs or modal windows**.
    - <dialog id="box">
            <p>Are you sure?</p>
            <button onclick="box.close()">Close</button>
            </dialog>
            <button onclick="box.showModal()">Open Dialog</button>
- **<progress> — Progress Bar:** The <progress> tag shows **task completion progress**.
    - <progress value="60" max="100"></progress>
- **<meter> — Measurement Indicator:** The <meter> tag represents a **scalar measurement within a known range**.
    - <meter value="7" min="0" max="10"></meter>
- **<template> — Hidden Reusable Content:** The <template> tag holds **HTML content that is not rendered** until used via JavaScript.
    - <template id="card">
            <div class="card">
            <h3>Title</h3>
            <p>Description</p>
            </div>
            </template>

- **<noscript> — JavaScript Disabled Message:** The <noscript> tag displays content **only if JavaScript is disabled**.
  - o  <noscript>
  - o   Please enable JavaScript to view this site.
  - o  </noscript>
- ** — Calculation Result:** The tag displays the **result of a calculation**.
  - o  <form oninput="result.value = Number(a.value) + Number(b.value)">
      <input type="number" id="a">
      +
      <input type="number" id="b">
      =
    </form>

# GLOBAL ATTRIBUTES: Global attributes are attributes that work on **all HTML elements**

- **id — Unique Identifier:** The id attribute gives an element a **unique name**.
   No two elements should have the **same id**.
  - o  <h1 id="mainTitle">Welcome</h1**>**
- **class — Group Identifier:** The class attribute groups **multiple elements** under the same name.
  - o  <div class="card">Product 1</div>
     <div class="card">Product 2</div>
- **style — Inline CSS:** The style attribute applies **CSS directly** to an element.
  - o  <p style="color:red; font-size:18px;">Hello</p>
- **title — Tooltip Text:** The title attribute shows **extra information** when the user hovers.
  - o  <button title="Click to submit">Submit</button>
- **hidden — Hide Element:** The hidden attribute **hides an element** from the page.
  - o  <p hidden>This text is hidden</p>
- **contenteditable — Editable Content:** Allows the user to **edit content directly on the page**.
  - o  <p contenteditable="true">Edit me</p>

- **draggable — Drag & Drop:** Makes an element **draggable**.
  - &lt;img src="img.png" draggable="true"&gt;
- **spellcheck — Spell Checking:** Enables or disables **spell checking**.
  - &lt;textarea spellcheck="true"&gt;&lt;/textarea&gt;
- **lang — Language Declaration:** Specifies the **language of the content**.
  - &lt;html lang="en"&gt;

    &lt;p lang="hi"&gt;नमस्ते&lt;/p&gt;
- **tabindex — Keyboard Navigation:** Controls **keyboard tab order**.
  - &lt;input tabindex="1"&gt;

    &lt;input tabindex="2"&gt;
- **data-* — Custom Data Attributes:** Stores **custom data** inside HTML elements
  - &lt;button data-id="101"&gt;Buy&lt;/button&gt;