**Semantic HTML Tags**

**What are Semantic Tags?**

**Definition:**

* Semantic HTML tags clearly **describe the meaning and purpose of the content** they enclose.
* They **give meaning to both the browser and developers**, unlike non-semantic tags like <div> or <span> which just define structure without meaning.

**Key Idea:**

“Semantic tags answer the question: *What is this content?* instead of *How does it look?*”

**Why Semantic Tags are Important**

1. **Improves Accessibility**
   * Screen readers and assistive technologies can **understand content better**.
   * Example: <nav> tells screen readers “This is navigation.”
2. **SEO Friendly**
   * Search engines use semantic tags to **index content more accurately**.
   * Example: <article> indicates main content, <header> shows heading section.
3. **Better Code Readability**
   * Makes HTML **easy to read, maintain, and debug**.
   * Example: Developers can immediately identify <footer> as the page footer.
4. **Future-proof & Standards-compliant**
   * Semantic tags are part of **HTML5 standards**.

**Common Semantic Tags and Their Use**

| **Tag** | **Purpose / Meaning** | **Example Usage** |
| --- | --- | --- |
| <header> | Represents the **header** section of a page or section. Usually contains **logo, navigation, headings**. | <header><h1>My Website</h1></header> |
| <nav> | Defines **navigation links** for the website. | `<nav><a href="#">Home</a> |
| <main> | Represents the **main content** of the page. Only **one <main>** per page. | <main><article>Blog Post</article></main> |
| <section> | Defines a **thematic grouping of content**, usually with a heading. | <section><h2>About Us</h2><p>Details...</p></section> |
| <article> | Self-contained content **that can be independently distributed** (blog post, news article). | <article><h2>Post Title</h2><p>Content...</p></article> |
| <aside> | Sidebar content, **tangential to main content** (ads, quotes, links). | <aside><h3>Related Links</h3></aside> |
| <footer> | Footer of a page or section; **contact info, copyright, links**. | <footer><p>© 2025 MyWebsite</p></footer> |
| <figure> | Content with **illustrations, images, diagrams**, often with <figcaption>. | <figure><img src="img.jpg"><figcaption>Diagram 1</figcaption></figure> |
| <figcaption> | Caption for <figure>. | <figcaption>Image description</figcaption> |
| <time> | Represents **dates and times**. | <time datetime="2025-10-05">October 5, 2025</time> |
| <mark> | Highlight text **for reference or emphasis**. | <p>Important: <mark>Read this</mark></p> |
| <details> | Disclosure widget; **can hide/show content**. | <details><summary>More Info</summary><p>Hidden content</p></details> |
| <summary> | Summary / title for <details> element. | <summary>Click to expand</summary> |
| <address> | Contact info of **author or owner**. | <address>Email: contact@domain.com</address> |

**How to Use Semantic Tags Properly**

**Basic Rules:**

1. Only **one <main> per page**.
2. Use <header> and <footer> **per section** if needed.
3. Use <article> for **independent content** (blogs, news).
4. Use <section> for **grouping related content**, always with a heading <h2>-<h6>.
5. Use <aside> for **complementary content**, not primary.
6. Wrap images with <figure> + <figcaption> for **illustration clarity**.

**Example Layout of a Web Page:**

<body>

<header>

<h1>My Website</h1>

<nav>

<a href="#">Home</a>

<a href="#">About</a>

<a href="#">Contact</a>

</nav>

</header>

<main>

<article>

<h2>Blog Post Title</h2>

<p>This is a blog post...</p>

<figure>

<img src="img.jpg" alt="Diagram">

<figcaption>Diagram of workflow</figcaption>

</figure>

</article>

<aside>

<h3>Related Posts</h3>

<ul>

<li><a href="#">Post 1</a></li>

<li><a href="#">Post 2</a></li>

</ul>

</aside>

</main>

<footer>

<p>© 2025 My Website. All rights reserved.</p>

</footer>

</body>

**Interview Tips**

1. Be ready to **explain what semantic tags are and why they matter**.
2. Can be asked to **replace <div>-based layout with semantic tags** for better HTML5 structure.
3. Know **which tags are for layout vs content**.
4. Example question:
   * “Which tag would you use for the site’s main navigation?” → <nav>
   * “How many <main> tags can exist per page?” → Only **one**