

HTML5 Semantic Tags

What are semantic tags?

In HTML5, **semantic tags** are elements that carry meaning about the structure and content of a web page. These tags help both browsers and developers understand the purpose and hierarchy of different parts of a webpage. Semantic tags enhance the accessibility, search engine optimization (SEO), and overall structure of HTML documents.

List of semantic tags

1. **<header>**: Represents the header of a section or a page. Typically contains headings, logos, navigation menus, etc.

Example:

```
<header>
  <h1>Main Title</h1>
  <nav> <!-- Navigation menu goes here --> </nav>
</header>
```

2. **<nav>**: Defines a navigation menu containing a set of navigation links. It's often placed within the **<header>** or **<footer>** elements.

Example:

```
<nav>
  <ul>
    <li><a href="#">Home</a></li>
    <li><a href="#">About</a></li>
    <li><a href="#">Contact</a></li>
  </ul>
</nav>
```

3. **<section>**: Represents a thematic grouping of content, typically with a heading.

Example:

```
<section>
  <h2>Section Title</h2>
  <p>Content goes here...</p>
</section>
```

4. **<article>**: Represents an independent, self-contained piece of content, such as a news article or blog post that could be distributed and reused independently.

Example:

```
<article>
  <h2>Article Title</h2>
  <p>Article content...</p>
</article>
```

5. **<aside>**: Represents content that is tangentially related to the content around it, like a sidebar or a pull quote.

Example:

```
<article>
  <h2>Article Title</h2>
  <p>Article content...</p>
  <aside>
    <p>Related information...</p>
  </aside>
</article>
```

6. **<main>**: Represents the main content of the document, excluding headers, footers, and sidebars.

Example:

```
<main> <!-- Main content goes here --> </main>
```

7. **<footer>**: Represents the footer of a section or a page. Typically contains copyright information, links to related documents, disclaimer, etc.

Example:

```
<footer>
  <p>&copy; 2024 My Website</p>
</footer>
```

8. **<details>**: Represents a disclosure widget from which the user can obtain additional information or controls.

Example:

```
<details>
  <summary>Click to view details</summary>
```

```
<p>Additional information goes here...</p>
</details>
```

9. **<summary>**: Represents a summary, caption, or legend for the content of a **<details>** element.

Example:

```
<details>
  <summary>Click to view details</summary>
  <p>Additional information goes here...</p>
</details>
```

10. **<figure>**: Represents any content that is referenced from the main content, often used with images, charts, or other multimedia.

Example:

```
<figure>
  
  <figcaption>Caption for the image</figcaption>
</figure>
```

11. **<figcaption>**: Represents a caption or legend for a **<figure>** element.

Example:

```
<figure>
  
  <figcaption>Caption for the image</figcaption>
</figure>
```

12. **<mark>**: Represents text that has been highlighted or marked for reference or emphasis.

Example:

```
<p>This is <mark>highlighted</mark> text for emphasis.</p>
```

13. **<time>**: Represents a specific period in time, often used for dates and times.

Example:

```
<p>Next meeting is scheduled for <time
datetime="2024-02-01T14:30">February 1, 2024 at 2:30 PM</time>.</p>
```

These tags provide more meaning to the structure of your HTML document, making it easier for search engines, screen readers, and other tools to interpret and understand the content. Using semantic tags also makes your code more readable and maintainable.

A sample web page containing semantic tags

Here is a sample web page containing various semantic tags.

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Semantic HTML5 Example</title>
</head>

<body>

  <header>
    <h1>Main Title</h1>
    <nav>
      <ul>
        <li><a href="#">Home</a></li>
        <li><a href="#">About</a></li>
        <li><a href="#">Contact</a></li>
      </ul>
    </nav>
  </header>

  <main>
    <section>
      <h2>Section Title</h2>
      <p>Content goes here...</p>
    </section>

    <article>
      <h2>Article Title</h2>
      <p>Article content...</p>
      <aside>
        <p>Related information...</p>
      </aside>
    </article>

    <figure>
```

```

        
        <figcaption> Ojita Balloon Festival<a
href="https://en.wikipedia.org/wiki/Hot_air_balloon#/media/File:2006_Ojiya_balloon
n_festival_011.jpg">Click
            to know more</figcaption>
    </figure>

    <p>This is <mark>highlighted</mark> text for emphasis.</p>

    <p>Next meeting is scheduled for <time
datetime="2024-02-01T14:30">February 1, 2024 at 2:30 PM</time>.</p>
</main>

<footer>
    <p>&copy; 2024 My Website</p>
</footer>

</body>

</html>

```

Alternative to semantic tags

You can use **<div>** tags with various class names to style and structure your HTML content. The **<div>** element itself doesn't carry any semantic meaning, but it serves as a container that you can apply styles and classes to.

Here's an example of how you might use **<div>** elements with classes to achieve a similar structure:

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>HTML Example with Divs</title>
</head>

<body>

    <div class="header">
        <h1>Main Title</h1>
        <div class="nav">
            <ul>

```

```
        <li><a href="#">Home</a></li>
        <li><a href="#">About</a></li>
        <li><a href="#">Contact</a></li>
    </ul>
</div>
</div>

<div class="main">
    <div class="section">
        <h2>Section Title</h2>
        <p>Content goes here...</p>
    </div>

    <div class="article">
        <h2>Article Title</h2>
        <p>Article content...</p>
        <div class="aside">
            <p>Related information...</p>
        </div>
    </div>

    <figure>
        
        <figcaption> Ojita Balloon Festival<a
href="https://en.wikipedia.org/wiki/Hot_air_balloon#/media/File:2006_Ojiya_balloon
n_festival_011.jpg">Click
        to know more</figcaption>
    </figure>

    <p>This is <mark>highlighted</mark> text for emphasis.</p>

    <p>Next meeting is scheduled for <time
datetime="2024-02-01T14:30">February 1, 2024 at 2:30 PM</time>.</p>
</div>

<div class="footer">
    <p>&copy; 2024 My Website</p>
</div>

</body>

</html>
```

Keep in mind that while using `<div>` tags with classes provides flexibility for styling, using semantic tags is generally recommended for better accessibility and understanding of the document structure by search engines and assistive technologies.