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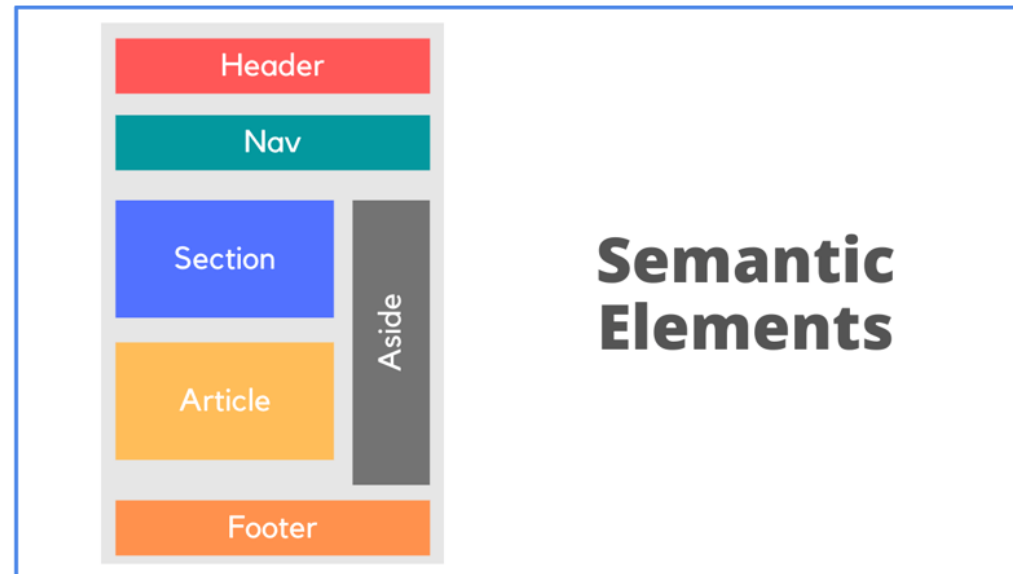
# Agenda

- Semantic Elements
  - HTML Best Practices
- 



# What Are Semantic Elements?

Semantic elements have meaning - they tell both browsers and developers what kind of content they contain.



## Non-Semantic vs Semantic

```
<!-- ❌ Non-semantic - no meaning -->
<div class="header">
  <div class="navigation">
    <div class="menu-item">Home</div>
    <div class="menu-item">About</div>
  </div>
</div>

<div class="main-content">
  <div class="article">
    <div class="article-title">My Blog Post</div>
    <div class="article-content">This is my content...</div>
  </div>
</div>
```

## Non-Semantic vs Semantic

```
<!--  Semantic - clear meaning -->  
<header>  
  <nav>  
    <a href="#home">Home</a>  
    <a href="#about">About</a>  
  </nav>  
</header>  
  
<main>  
  <article>  
    <h1>My Blog Post</h1>  
    <p>This is my content...</p>  
  </article>  
</main>
```

# Why Use Semantic Elements?

```
<!-- Benefits of semantic HTML -->
<article>
  <!-- ✅ Screen readers understand this is an article -->
  <!-- ✅ Search engines know this is main content -->
  <!-- ✅ Other developers understand the structure -->

  <header>
    <h1>Article Title</h1>
    <time datetime="2024-03-15">March 15, 2024</time>
  </header>

  <p>Article content goes here...</p>

  <footer>
    <p>Published by: John Doe</p>
  </footer>
</article>
```

# Main Semantic Elements

## Essential Semantic Elements

```
<!-- Page header -->
<header>
  <h1>Website Title</h1>
  <nav>Navigation menu</nav>
</header>
```

```
<!-- Page footer -->
<footer>
  <p>Copyright information</p>
</footer>
```

```
<!-- Main content area -->
<main>
  <h2>Main Content</h2>

  <!-- Individual article/post -->
  <article>
    <h3>Article Title</h3>
    <p>Article content...</p>
  </article>

  <!-- Related content section -->
  <section>
    <h3>Related Content</h3>
    <p>Section content...</p>
  </section>

  <!-- Sidebar content -->
  <aside>
    <h3>Sidebar</h3>
    <p>Additional information...</p>
  </aside>
</main>
```



# Page Structure Elements

## Header Element

```
<!-- Site header with logo and navigation -->  
<header>  
    
  <h1>My Website</h1>  
  
  <nav>  
    <ul>  
      <li><a href="#home">Home</a></li>  
      <li><a href="#about">About</a></li>  
      <li><a href="#contact">Contact</a></li>  
    </ul>  
  </nav>  
</header>
```

# Page Structure Elements

## Navigation Element

```
<!-- Main site navigation -->
<nav>
  <ul>
    <li><a href="/">Home</a></li>
    <li><a href="/products">Products</a></li>
    <li><a href="/about">About</a></li>
    <li><a href="/contact">Contact</a></li>
  </ul>
</nav>
```

# Page Structure Elements

## Main Element

```
<!-- Only ONE main element per page -->
<main>
  <h1>Page Title</h1>

  <!-- All primary content goes here -->
  <article>
    <h2>Article Title</h2>
    <p>This is the main content of the page...</p>
  </article>

  <section>
    <h2>Related Information</h2>
    <p>Additional content...</p>
  </section>
</main>
```

# Page Structure Elements

## Footer Element

```
<!-- Site footer -->
<footer>
  <div>
    <h3>Contact Us</h3>
    <p>Email: info@example.com</p>
    <p>Phone: (555) 123-4567</p>
  </div>

  <div>
    <h3>Follow Us</h3>
    <a href="#facebook">Facebook</a>
    <a href="#twitter">Twitter</a>
  </div>

  <p>&copy; 2024 Company Name. All rights reserved.</p>
</footer>
```

# Content Semantic Elements

## Article Element

```
<!-- Blog post -->
<article>
  <header>
    <h1>How to Learn HTML</h1>
    <p>Published by <strong>Jane Doe</strong></p>
    <time datetime="2024-03-15">March 15, 2024</time>
  </header>

  <p>Learning HTML is the first step in web development...</p>

  <section>
    <h2>Getting Started</h2>
    <p>To begin learning HTML...</p>
  </section>

  <footer>
    <p>Category: Web Development</p>
  </footer>
</article>
```



# Content Semantic Elements

## Section Element

```
<!-- Page with multiple sections -->
<main>
  <h1>About Our Company</h1>

  <section>
    <h2>Our History</h2>
    <p>Founded in 2010, our company started...</p>
  </section>

  <section>
    <h2>Our Mission</h2>
    <p>We believe in creating innovative solutions...</p>
  </section>

  <section>
    <h2>Our Team</h2>
    <p>Our team consists of experienced professionals...</p>
  </section>
</main>
```

# Content Semantic Elements

## Aside Element

```
<!-- Sidebar with related content -->
<main>
  <article>
    <h1>Main Article</h1>
    <p>This is the main content of the article...</p>
  </article>

  <aside>
    <h2>Related Articles</h2>
    <ul>
      <li><a href="#article1">How to Start Coding</a></li>
      <li><a href="#article2">Best Programming Languages</a></li>
      <li><a href="#article3">Web Development Tips</a></li>
    </ul>
  </aside>
</main>
```

# Text-Level Semantic Elements

## Important Text Elements

```
<!-- Emphasis and importance -->
<p>
  This is <em>emphasized text</em> (usually italic).
  This is <strong>important text</strong> (usually bold).
</p>

<!-- Marked/highlighted text -->
<p>
  Search results for "HTML":
  <mark>HTML</mark> is the standard markup language.
</p>

<!-- Small print -->
<p>
  Price: $99.99
  <small>*Terms and conditions apply</small>
</p>

<!-- Deleted and inserted text -->
<p>
  The price is <del>$19.99</del> <ins>$14.99</ins> today only!
</p>

<!-- Subscript and superscript -->
<p>
  Water is H<sub>2</sub>O.
  Einstein's formula: E=mc<sup>2</sup>
</p>
```

# Text-Level Semantic Elements

## Code and Technical Elements

```
html

<!-- Inline code -->
<p>
  Use the <code>&lt;p&gt;</code> element for paragraphs.
</p>

<!-- Keyboard input -->
<p>
  Press <kbd>Ctrl</kbd> + <kbd>C</kbd> to copy.
</p>

<!-- Sample output -->
<p>
  The program will display: <samp>Hello, World!</samp>
</p>

<!-- Variables -->
<p>
  Enter your <var>username</var> to continue.
</p>
```

# Text-Level Semantic Elements

## Time and Abbreviations

```
<!-- Time element -->
<p>
  The event starts at
  <time datetime="2024-03-15T14:30">March 15, 2024 at 2:30 PM</time>
</p>

<p>
  Published <time datetime="2024-03-15">today</time>
</p>

<!-- Abbreviations -->
<p>
  I work for <abbr title="International Business Machines">IBM</abbr>.
  We use <abbr title="HyperText Markup Language">HTML</abbr> for web pages.
</p>
```



# HTML Best Practices

## Document Structure

```
<!-- ✅ GOOD: Proper HTML5 structure -->
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Descriptive Page Title</title>
</head>
<body>
  <header>
    <h1>Main Heading</h1>
    <nav>Navigation</nav>
  </header>

  <main>
    <h1>Page Content Title</h1>
    <p>Page content...</p>
  </main>

  <footer>
    <p>Footer content</p>
  </footer>
</body>
</html>
```

```
<!-- ❌ BAD: Missing essential elements -->
<html>
<head>
  <title>Page</title>
</head>
<body>
  <div class="header">
    <div class="title">Main Heading</div>
  </div>
  <div class="content">Content</div>
</body>
</html>
```

# HTML Best Practices

## Heading Hierarchy

```
<!-- ✅ GOOD: Proper heading structure -->
<h1>Main Page Title</h1>
  <h2>Section Title</h2>
    <h3>Subsection Title</h3>
    <h3>Another Subsection</h3>
  <h2>Another Section</h2>
    <h3>Subsection Here</h3>

<!-- ❌ BAD: Skipping heading levels -->
<h1>Main Title</h1>
<h4>Should be h2</h4> <!-- Don't skip from h1 to h4 -->
<h6>Should be h3</h6> <!-- Don't jump to h6 -->
```

# HTML Best Practices

## Clean and Readable Code

```
<!-- ✅ GOOD: Clean, indented code -->
<article>
  <header>
    <h2>Article Title</h2>
    <time datetime="2024-03-15">March 15, 2024</time>
  </header>

  <p>Article content goes here...</p>

  <footer>
    <p>Author: John Doe</p>
  </footer>
</article>
```

```
<!-- ❌ BAD: Messy, unindented code -->
<article>
<header>
<h2>Article Title</h2>
<time datetime="2024-03-15">March 15, 2024</time>
</header>
<p>Article content goes here...</p>
<footer>
<p>Author: John Doe</p>
</footer>
</article>
```

# SEO Best Practices

## Page Titles and Meta Descriptions

```
<!-- ✅ GOOD: Descriptive and unique -->
<head>
  <title>Learn HTML Semantic Elements - Web Development Tutorial</title>
  <meta name="description" content="Complete guide to HTML5 semantic elements j
</head>

<!-- ❌ BAD: Generic or missing -->
<head>
  <title>Page 1</title>
  <!-- Missing meta description -->
</head>
```

# SEO Best Practices

## Heading Structure for SEO

```
<!-- ✅ GOOD: One H1, logical structure -->
<h1>Complete Guide to HTML Semantic Elements</h1>
  <h2>What Are Semantic Elements?</h2>
  <h2>Main Structural Elements</h2>
    <h3>Header Element</h3>
    <h3>Nav Element</h3>
    <h3>Main Element</h3>
  <h2>Content Elements</h2>
    <h3>Article Element</h3>
    <h3>Section Element</h3>

<!-- ❌ BAD: Multiple H1s, poor structure -->
<h1>HTML Guide</h1>
<h1>What Are Semantic Elements?</h1> <!-- Should be h2 -->
<h1>Examples</h1> <!-- Should be h2 -->
```



# SEO Best Practices

## Structured Data

```
<!-- Article with structured data -->
<article>
  <header>
    <h1>How to Learn Web Development</h1>
    <p>
      By <span>John Doe</span> on
      <time datetime="2024-03-15">March 15, 2024</time>
    </p>
  </header>

  <p>Learning web development can be challenging but rewarding...</p>
</article>
```

# Common Mistakes to Avoid

## Don't Use Elements for Styling

```
<!-- ❌ BAD: Using elements for visual effects -->
<h1>Normal text that looks big</h1>  <!-- h1 just for big text -->
<b>Important text</b>  <!-- b just for bold appearance -->
<i>Different text</i>  <!-- i just for italic appearance -->

<!-- ✅ GOOD: Use CSS for styling, HTML for meaning -->
<p class="large-text">Normal text that looks big</p>
<strong>Important text</strong>  <!-- Actually important -->
<em>Emphasized text</em>  <!-- Actually emphasized -->
```

# Common Mistakes to Avoid

## Don't Skip Heading Levels

```
<!-- ❌ BAD: Skipping heading levels -->  
<h1>Main Title</h1>  
<h4>Should be h2</h4> <!-- Skipped h2 and h3 -->  
  
<!-- ✅ GOOD: Sequential heading levels -->  
<h1>Main Title</h1>  
<h2>Section Title</h2>  
<h3>Subsection Title</h3>
```

# Common Mistakes to Avoid

## Don't Misuse Semantic Elements

```
<!-- ❌ BAD: Wrong semantic usage -->
<article>
  <p>This is just a navigation menu</p> <!-- Not an article -->
</article>

<aside>
  <h1>Main Content</h1> <!-- Main content shouldn't be in aside -->
  <p>This is the primary content...</p>
</aside>

<!-- ✅ GOOD: Correct semantic usage -->
<nav>
  <ul>
    <li><a href="#home">Home</a></li>
    <li><a href="#about">About</a></li>
  </ul>
</nav>

<main>
  <h1>Main Content</h1>
  <p>This is the primary content...</p>
</main>
```

# Common Mistakes to Avoid

## Always Close Tags

```
<!-- ❌ BAD: Unclosed tags -->
<p>This paragraph is not closed
<div>This div is not closed
 <!-- Should be self-closing -->

<!-- ✅ GOOD: Properly closed tags -->
<p>This paragraph is properly closed</p>
<div>This div is properly closed</div>
 <!-- Self-closing -->
```



THANK YOU

ADAEGY     