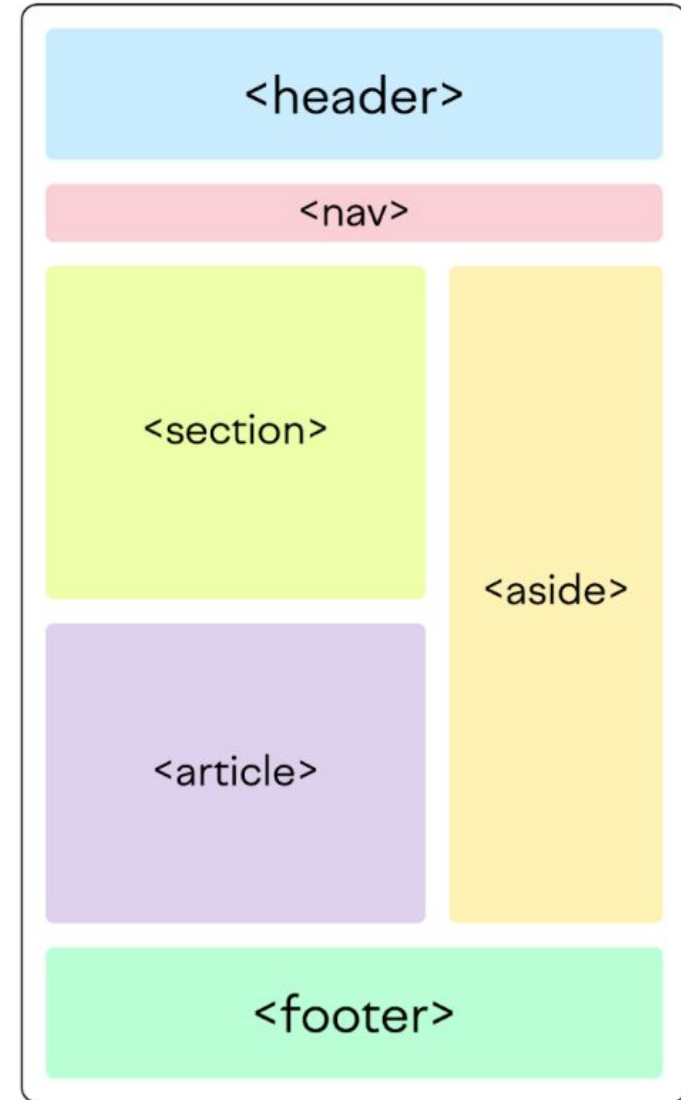# Session 2: Advanced HTML

Semantic Tags

Semantic HTML

What is Semantic HTML?

- Semantic HTML uses tags that describe their content.
- Makes websites more accessible and improves search engine optimization (SEO).

Examples of Semantic Tags

- <header>: Represents a header section.

- <footer>: Represents a footer section.

- <section>: Represents a section of content.

- <article>: Represents a self-contained piece of content.

- <nav>: Defines navigation links.

Benefits of Semantic HTML

Helps search engines and developers understand the content better.

Improves accessibility for screen readers.

Better for SEO.

Introduction to SEO

What is SEO?

- **SEO** stands for **Search Engine Optimization**.
- SEO is the practice of optimizing a website to increase its visibility on search engine results pages (SERPs).
- The goal of SEO is to improve a website's ranking on search engines like **Google**, **Bing**, and **Yahoo**.

Activity for Session 2: Semantic HTML

Activity 1: Create a Semantically Structured Webpage

Objective: To practice using semantic HTML tags for structuring a webpage.

Instructions:

- Open your text editor (VS Code, Sublime Text, etc.).

- Create a new HTML file and name it semantic_page.html.

- Use the following semantic tags to structure your page:

  1. <header>: Create a header section with the title of the webpage.
  2. <nav>: Add a navigation section with links (you can use placeholder links such as #).
  3. <main>: The main content area of your webpage.
  4. <section>: Create a section inside the main content for a specific topic (e.g., About Us).
  5. <article>: Inside the section, add an article with some content (e.g., a brief paragraph about the topic).
  6. <footer>: Add a footer section with some text (e.g., "© 2025 Your Website").
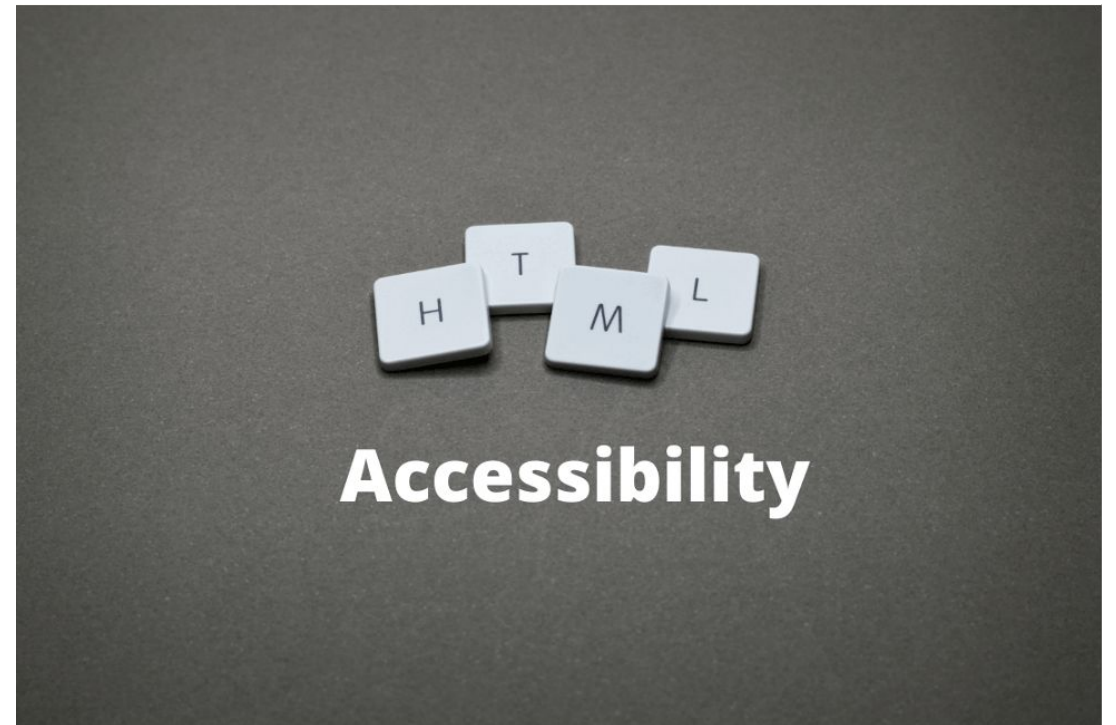
Accessibility Basics

Why Accessibility Matters:

• Accessibility ensures that all users, including those with disabilities, can access and use the content.

Key Accessibility Features:

• **Alt Text for Images**: Describes the content of an image for users who cannot see it.

   • Example: <img src="logo.png" alt="Company Logo">.

• **Semantic Tags**: Helps screen readers interpret the content correctly.

   • Example: <header>, <footer>, <main>.

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Accessibility Basics

- **Best Practices for Accessibility**:
  - Use clear and descriptive alt text for images.
  - Ensure proper color contrast for readability.
  - Make content navigable with keyboard shortcuts.

Activity 2: Improve Accessibility with Alt Text

Objective: To practice improving accessibility by adding alt text to images.

Instructions:

1. Add an image to your webpage using the <img> tag.

2. Write a descriptive alt text that explains what the image represents.

3. Ensure the text is clear and useful for users who may be using screen readers or have images disabled.

Lab Overview for Session 2

Lab Objective: Students will create a webpage using the HTML concepts covered in this session.

Lab Tasks:

1. Set up a basic HTML document.

2. Use semantic HTML tags like <header>, <footer>, and <section>.

3. Add an image with alt text.

4. Ensure that the page is accessible, using descriptive alt text and proper headings.

Summary

Key Elements:

- HTML is the foundation of web development and structures the content of webpages.
- Tags like <h1>, <p>, <a>, and <img> form the building blocks of a webpage.
- Using semantic HTML tags improves accessibility and SEO.

Next Steps: In the next class, we will dive into advanced HTML topics and CSS for styling and layout.