The <img> element in HTML is used to embed images into a web page. It's a crucial element for visual content and enhancing the user experience. Unlike most other HTML elements, <img> is a *void element*, meaning it has no closing tag (it's self-closing).

**Basic Structure:**

HTML

<img src="path/to/image.jpg" alt="Description of the image">

* <img>: The image element itself.
* src: The most important attribute. It specifies the path to the image file. This is **required**.
* alt: Provides alternative text for the image. This is **essential** for accessibility and SEO.

**Key Attributes:**

* **src (Source):** Specifies the URL of the image file. This can be an absolute URL (e.g., https://www.example.com/image.jpg) or a relative URL (e.g., images/image.jpg).
* **alt (Alternative Text):** Provides a text description of the image. This text is displayed if the image cannot be loaded, and it's used by screen readers for visually impaired users. It's also important for SEO. **Always include a meaningful alt attribute.**
* **width and height:** Specify the dimensions of the image in pixels. While you can use these attributes, it's generally recommended to control image dimensions with CSS for better responsiveness.
* **srcset:** Allows you to specify multiple image files for different screen sizes or resolutions. This is important for responsive images.
* **sizes:** Used in conjunction with srcset to tell the browser the size of the image relative to the viewport.

**Example with srcset and sizes (Responsive Images):**

HTML

<img srcset="image-small.jpg 300w,

image-medium.jpg 600w,

image-large.jpg 900w"

sizes="(max-width: 400px) 300px,

(max-width: 800px) 600px,

900px"

src="image-large.jpg"

alt="Description of the image">

This tells the browser to use image-small.jpg for small screens, image-medium.jpg for medium screens, and image-large.jpg for large screens. The sizes attribute helps the browser determine the appropriate image size based on the viewport.

**Best Practices:**

* **Always use the alt attribute.** It's essential for accessibility and SEO.
* Use descriptive alt text. Describe the image's content, not its appearance.
* Use srcset and sizes for responsive images.
* Control image dimensions with CSS, not with the width and height attributes (unless you have a specific reason to).
* Optimize images for web performance (file size, format).
* Use appropriate image formats (JPEG for photos, PNG for graphics, WebP for modern browsers).

The <img> tag is a fundamental part of web development. Understanding how to use it correctly, especially the alt attribute and responsive image techniques, is essential for creating accessible and performant websites. Remember to style images with CSS for better control over their appearance.