Let's break down the core components of an HTML page: elements, attributes, and properties. These are the building blocks that define the structure and content of a webpage.

1. Elements:

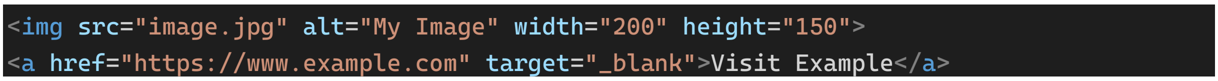
- **What they are:** HTML elements are the fundamental units of a webpage. They represent different parts of the content, like paragraphs, headings, images, links, etc.
- **Structure:** Most elements have a start tag and an end tag. The content goes between these tags.
    - Start tag: `<element_name>` (e.g., `<p>`)
    - End tag: `</element_name>` (e.g., `</p>`)
- **Example:**

```html
<p>This is a paragraph of text.</p>
<h1>This is a heading</h1>
<img src="image.jpg" alt="My Image">
```

```
* **Types:** HTML provides a wide range of elements for different
purposes:
    * Headings: `<h1>` to `<h6>`
    * Paragraphs: `<p>`
    * Links: `<a>`
    * Images: `<img>`
    * Lists: `<ul>`, `<ol>`, `<li>`
    * Tables: `<table>`, `<tr>`, `<td>`
    * Forms: `<form>`, `<input>`, `<select>`, `<button>`
    * Divisions (containers): `<div>`
    * Spans (inline containers): `<span>`
    * and many more...

**2. Attributes:**

* **What they are:** Attributes provide additional information about an
HTML element. They are always placed within the start tag of an
element.
* **Structure:** Attributes have a name and a value:
`attribute_name="attribute_value"`
* **Example:**
```



```html
<img src="image.jpg" alt="My Image" width="200" height="150">
<a href="https://www.example.com" target="_blank">Visit Example</a>
```

In the `<img>` tag:

- `src` is the attribute name, and `"image.jpg"` is its value (specifies the image source).
- `alt` is the attribute name, and `"My Image"` is its value (provides alternative text for the image).
- `width` and `height` are also attributes that specify the image dimensions.

In the `<a>` tag:

- `href` is the attribute name, and `"https://www.example.com"` is its value (specifies the link's destination).
- `target` is the attribute name, and `"_blank"` is its value (opens the link in a new tab).
- **Common Attributes:** Some common attributes used across different elements include:
  - `id`: A unique identifier for an element.
  - `class`: A class name used for styling multiple elements.
  - `style`: Inline styles for an element.
  - `title`: Tooltip text for an element.

3. Properties

The `style` attribute in HTML allows you to apply CSS styles directly to an individual element. It's a powerful way to control the appearance of a specific element, but it's generally recommended to use external stylesheets or embedded `<style>` tags for larger projects to keep your code organized and maintainable.

Here's a breakdown of how the `style` attribute works and its properties:

Basic Syntax:

The `style` attribute is used within the HTML tag of an element. It takes a string value that contains one or more CSS declarations.[1] Each declaration consists of a *property* and a *value*, separated by a colon (`:`), and declarations are separated by semicolons (`;`).

```
<element style="property1: value1; property2: value2;">
    Content of the element
</element>
```

Example:

```
<p style="color: blue; font-size: 16px; background-color: lightgray;">
    This is a paragraph with inline styles.
</p>
```

In this example:

- `color: blue;` sets the text color to blue.
- `font-size: 16px;` sets the font size to 16 pixels.
- `background-color: lightgray;` sets the background color to light gray.

Common CSS Properties Used in the `style` Attribute:

Here are some of the most frequently used CSS properties you'll find within the `style` attribute:

- **Text:**
  - `color`: Text color (e.g., `color: red;`)
  - `font-size`: Font size (e.g., `font-size: 16px;`)
  - `font-family`: Font family (e.g., `font-family: Arial, sans-serif;`)
  - `font-weight`: Font weight (e.g., `font-weight: bold;`)
  - `text-align`: Text alignment (e.g., `text-align: center;`)
  - `text-decoration`: Text decoration (e.g., `text-decoration: underline;`)
  - `line-height`: Line height (e.g., `line-height: 1.5;`)
- **Background:**
  - `background-color`: Background color (e.g., `background-color: #f0f0f0;`)
  - `background-image`: Background image (e.g., `background-image: url("image.jpg");`)
- **Box Model (Dimensions, Spacing):**
  - `width`: Element width (e.g., `width: 200px;`)
  - `height`: Element height (e.g., `height: 100px;`)
  - `padding`: Internal spacing (e.g., `padding: 10px;`)
  - `margin`: External spacing (e.g., `margin: 20px;`)

    - `border`: Border (e.g., `border: 1px solid black;`)
- **Layout:**
    - `display`: How the element is displayed (e.g., `display: block;`, `display: inline;`, `display: flex;`)
    - `float`: Floating elements (e.g., `float: left;`)
    - `position`: Positioning of the element (e.g., `position: relative;`, `position: absolute;`)

Example with Multiple Properties:

```
<div style="background-color: #e0e0e0; padding: 20px; border: 1px solid gray; font-family: sans-serif;">
    This is a div with multiple inline styles.
</div>
```