Types of HTML Elements

1. Normal Element
2. Void Element
3. Raw Element
4. RC Data Element
5. Foreign Element

Normal Element

In HTML, a normal element is an element that has both an opening tag and a closing tag, and any content that goes in between the tags is considered part of the element.

For example, the element is a normal element that represents a paragraph of text on a web page. The opening tag for a paragraph element is and the closing tag is . Any text that is placed between the opening and closing tags is considered part of the paragraph element.

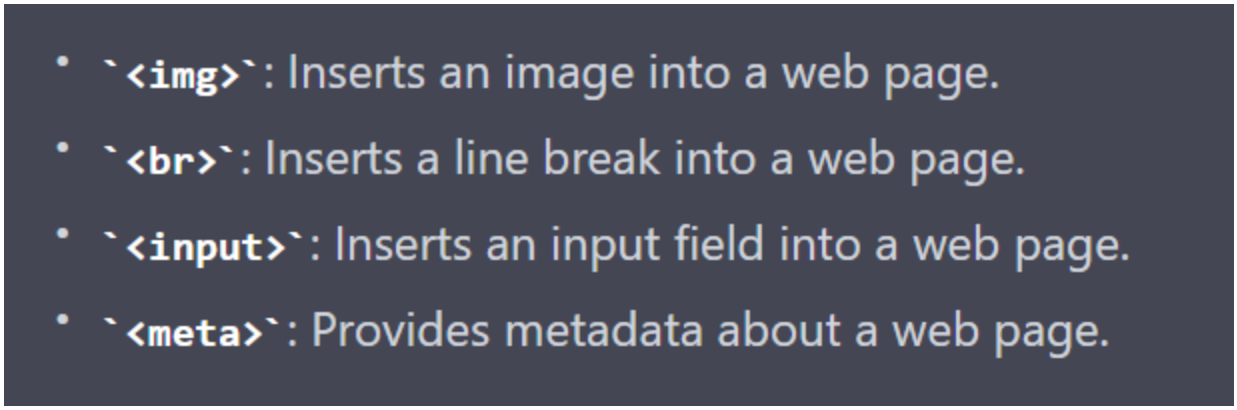
This is a paragraph of text.

In this example, the element is used to define a paragraph of text, and the text "This is a paragraph of text." is enclosed within the opening and closing tags. When this code is rendered in a web browser, the text will be displayed as a paragraph of text.

Void Element

a void element is an element that does not require a closing tag because it does not have any content or children. Instead, void elements are self-closing, meaning that they include a forward slash / before the closing angle bracket >.

Void elements are used to insert certain types of content into a web page, such as images, line breaks, and input fields. Some examples of void elements in HTML include:



In this example, the <img> element is used to insert an image into a web page. Because the <img> element does not have any content or children, it is a void element and is self-closing.

Raw Element

HTML element that contains raw or unprocessed data, such as script or style elements.

For example, the <script> element is used to embed JavaScript code within an HTML document. The content of the <script> element is typically raw or unprocessed data that is intended to be executed by a web browser.

Similarly, the <style> element is used to define styles for an HTML document using CSS. The content of the <style> element is also typically raw or unprocessed data that is intended to be parsed and applied by a web browser.

RC DATA ELEMENT

RC Data Elements are called rich element, which can have only text as a children, it does not contain any other element as children

EX: <textarea> </textarea>

Foreign Element

HTML5 introduced a new type of element called the "custom element," which can be created by web developers and used in an HTML document just like regular HTML elements.

Custom elements are identified by their name, which must include a hyphen - and must not conflict with any existing HTML elements or attributes. Custom elements can have their own custom behavior and properties, which can be defined using JavaScript and CSS.

<my-element> </my-element>

In this example, my-element is a custom element that has been defined by a web developer. The behavior and properties of this element would be defined using JavaScript and CSS, and it can be used in an HTML document just like any other HTML element.

Custom elements are important in HTML because they allow web developers to create reusable, modular components that can be easily shared and reused across different web pages and applications. Custom elements also help to improve the semantic structure of an HTML document and make it easier to maintain and update over time.

Structure of HTML Document

HTML document is divided into two parts

- Document Declaration

This element is used to declare the type of document being used. It should be included at the very beginning of the HTML document, before any other elements. Here is an example of a <!DOCTYPE> element for an HTML5 document:

- Document Scope

An HTML document consists of several parts, including:

Document Type Declaration (<!DOCTYPE>): This element is used to declare the type of document being used, such as HTML5.

HTML Element: This element serves as the root element of an HTML document and contains all the other elements that make up the document.

Head Element: This element contains metadata about the document, such as the title, keywords, and character encoding.

Body Element: This element contains the main content of the document, including text, images, and other media.

Example:

```
<!DOCTYPE html>
<html>
  <head>
    <title>My Web Page</title>
    <meta charset="UTF-8">
  </head>
  <body>
    <h1>Welcome to My Web Page</h1>
    <p>This is my first web page!</p>
  </body>
</html>
```

In this example, the <!DOCTYPE> element declares that the document is an HTML5 document. The <html> element serves as the root element of the document and contains the <head> and <body> elements.

The <head> element contains metadata about the document, including the title and character encoding. The <body> element contains the main content of the document, which in this case includes a heading (<h1>) and a paragraph (<p>).