HTML

HTML, or HyperText Markup Language, is the standard markup language used to create and design documents on the World Wide Web. It serves as the backbone for structuring content on web pages, defining the elements and their relationships within a document. HTML allows you to include text, images, links, forms, and other multimedia elements, creating a visually appealing and interactive experience for users.

 # Document Structure: An HTML document is typically divided into two main sections: the head and the body. The head contains meta-information about the document, such as the title, character set, and links to external resources. The body contains the actual content of the document.

```
<!DOCTYPE html>

<html>

    <head>

        <title>My Web Page</title>

    </head>

    <body>

        <h1>Hello, World!</h1>

        <p>This is a sample web page.</p>

    </body>

</html>
```

HTML Documents:

All HTML documents must start with a document type declaration: <!DOCTYPE html>.

The HTML document itself begins with <html> and ends with </html>.

The visible part of the HTML document is between <body> and </body>.

HTML Links:

HTML links are defined with the <a> tag.

example: This is a link

Elements, Style and Attributes: HTML elements are the building blocks of a web page. Elements can have attributes that provide additional information about the element. For example, the <img> element can have the src attribute to specify the image source.

example: <img src="image.jpg" alt="A beautiful landscape">

HTML can be styled using CSS (Cascading Style Sheets) to control the appearance of elements on a page. Additionally, attributes like class and id can be used to apply styles or target specific elements with JavaScript.

example: <p class="highlight">This paragraph has a custom style.</p>

Common Elements:

- Headings: <h1> to <h6> for different levels of headings.
- Paragraphs: <p> for paragraphs.

- Links: <a> for creating hyperlinks.
- Lists: <ul> for unordered lists, <ol> for ordered lists, and <li> for list items.
- Images: <img> for embedding images.
- Forms: <form>, <input>, <button>, etc., for creating interactive forms.

Semantic Markup: HTML5 introduces semantic elements that provide meaning to the structure of a page. Examples include <article>, <section>, <header>, <footer>, <nav>, and <aside>. These elements help search engines and assistive technologies better understand the content.

example: <article>

<h2>Article Title</h2>

<p>Content of the article.</p>

</article>

Topic: Formatting tags

HTML formatting tags are used to control the presentation and layout of content on a web page. These tags allow you to apply various styles, such as text formatting, alignments, and spacing. Here's a list of common HTML formatting tags and their details:

1. Text Formatting:

- : Represents bold text.
- <strong>: Represents strong importance, typically rendered as bold.
- <i>: Represents italic text.

- **<em>**: Represents emphasized text, typically rendered as italic.

  <u>: Represents underlined text (though not recommended; use CSS for styling).

example:<p>This is bold and <i>italic</i> text.</p>

2. Headings:

<h1> to <h6>: Represent headings of different levels, with <h1> as the highest level and <h6> as the lowest.

Example:

    <h1>Main Heading</h1>

    <h2>Subheading</h2>

3.Paragraphs and Line Breaks:

- <p>: Represents a paragraph.
-
: Represents a line break, forcing text to the next line.

Example:

    <p>This is a paragraph.</p>

    <p>Another paragraph with a
line break.</p>

4. Lists:

- : Represents an unordered (bulleted) list.
- : Represents an ordered (numbered) list.

- : Represents a list item.

Example:

```
<ul>

    <li>Item 1</li>

    <li>Item 2</li>

  </ul>

  <ol>

      <li>First</li>

      <li>Second</li>

    </ol>
```

5. Text Alignment:

- <div>: Represents a generic container, often used for styling purposes.
- <span>: Represents an inline container, also used for styling purposes.

style attribute with CSS properties can be used for alignment.

Example:

```
<div style="text-align: center;">

        Centered text inside a div.

  </div>

<span style="color: blue;">Blue text in a span.</span>
```

6.Quotations:

- <blockquote>: Represents a block-level quotation.
- <q>: Represents an inline quotation.

Example:

<blockquote>

　　This is a blockquote.

</blockquote>

<p><q>This is an inline quotation.</q></p>

7. Horizontal Rule:

- <hr>: Represents a horizontal rule (line).

Example:

<p>Some content above the line.</p>

<hr>

<p>Some content below the line.</p>

These are just a few examples of HTML formatting tags. Keep in mind that while HTML provides basic structure and formatting, more advanced styling and layout are often achieved using CSS (Cascading Style Sheets).