HTML

INTRODUCTION

HTML is a markup language used to create web pages and applications. It uses tags to structure and organize content on a web page, such as headings, paragraphs, images, links, and forms. Attributes can be added to tags to modify their behavior. HTML is interpreted by web browsers to display content, and it is often combined with CSS for styling and JavaScript for interactivity. It is the foundation of web development, enabling the creation of visually appealing and interactive web experiences.

HISTORY

HTML was created by Tim Berners-Lee in 1989. It has evolved through versions like HTML 2.0, HTML 3.2, and HTML 4.01, introducing features such as tables, forms, and improved controls. XHTML combined HTML and XML syntax. HTML5, released in 2014, brought advancements like multimedia support and semantic tags. It is now a living standard maintained by the WHATWG, updated to support modern web development needs.

PURPOSE

HTML is a markup language used to structure and present content on the web. It allows developers to organize content, format text, create hyperlinks, integrate media, build forms, and enhance accessibility. HTML serves as the foundation for web development, enabling the creation of structured and visually appealing web pages and applications.

HTML Paragraph

The HTML <p> element defines a paragraph.
A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.

Example:

```
<!DOCTYPE html>
<html>
<body>
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
</body>
</html>
```

HTML Display

You cannot be sure how HTML will be displayed.
Large or small screens, and resized windows will create different results.
With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.
The browser will automatically remove any extra spaces and lines when the page is displayed:

Example:

```
<!DOCTYPE html>
<html>
<body>
<p>
This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.
</p>

<p>
This paragraph
contains a lot of spaces
in the source code,
but the browser
ignores it.
</p>
</body>
</html>
```

HTML Elements

The HTML element is everything from the start tag to the end tag:

```
<tagname>Content goes here...</tagname>
```

Examples of some HTML elements:

```
<h1>My First Heading</h1>
<p>My first paragraph.</p>
```

Start tag Element content End tag

```
<h1> First Heading </h1>
<p> First Paragraph </p>
<br> none none
```

NESTED Elements

HTML elements can be nested (this means that elements can contain other elements).
All HTML documents consist of nested HTML elements.
The following example contains four HTML elements (<html>, <body>, <h1> and <p>):

Example:

```
<!DOCTYPE html>
<html>
```

```
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

HTML Heading

HTML headings are defined with the <h1> to <h6> tags.
<h1> defines the most important heading.
<h6> defines the least important heading.

Example:

```
<!DOCTYPE html>
<html>
<head>
<title>Heading</title>
</head>
<body>
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
</body>
</html>
```

Headings Are Important

Search engines use the headings to index the structure and content of your web pages.
Users often skim a page by its headings. It is important to use headings to show the document structure.

<h1> headings should be used for main headings, followed by <h2> headings, then the less important <h3>, and so on.

HTML Attributes

HTML attributes are essential for customizing the appearance and behavior of elements.
They consist of a name and value, influencing aspects like appearance, links, and functionality on a webpage.

Example:

```
<p title="This is a tooltip">Hover over me!</p>
```

<img src="filipino-tocino-high.jpg" alt="tocino">

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HTML Styles
Applied through HTML, shape the visual presentation of elements. Methods include inline, internal, and external styles. Key concepts involve selectors, properties, values, inheritance, specificity, responsive design, external libraries, and animations.

Example:

```
<!-- Inline Style -->
<p style="color: blue; font-size: 16px;">This is a blue paragraph with a font size of 16 pixels.</p>


<!-- Internal Style -->
<head>
<style>
p {
color: green;
font-size: 18px;
}
</style>
</head>
<body>
<p>This is a green paragraph with a font size of 18 pixels.</p>
</body>


<!-- External Style -->

<!--HTML FILE-->
<link rel="stylesheet" type="text/css" href="style.css">

<p>This is a red paragraph with a font size of 20 pixels.</p>


<!--CSS FILE-->
p {
color: red;
font-size: 20px;
}
```

HTML Colors
Colors in HTML, vital for web design, can be specified via names,
hexadecimal notation, RGB values, RGBA values, HSL/HSLA values.
Understanding these methods empowers developers to create visually appealing designs.

Example:

```
<!-- Color Names -->
<p style="color: red;">This text is in red.</p>

<!-- Hexadecimal Notation -->
<p style="color: #00ff00;">This text is in green using hexadecimal notation.</p>

<!-- RGB Values -->
<p style="color: rgb(255, 0, 0);">This text is in red using RGB values.</p>

<!-- RGBA Values -->
<p style="color: rgba(0, 0, 255, 0.5);">This text is in semi-transparent blue using RGBA values.</p>

<!-- HSL Values -->
<p style="color: hsl(120, 100%, 50%);">This text is in a shade of green using HSL values.</p>
```

HTML Tables
HTML tables organize data in rows and columns. Elements like <table>, <tr>, <th>, and <td> structure tables. Additional attributes, column/row spanning, CSS styling, accessibility considerations, and responsive design are key aspects of effective table usage.

Example:

```
<table>
<thead>
<tr>
<th>name</th>
<th>age</th>
</tr>
</thead>
<tbody>
<tr>
<td>James</td>
<td>19</td>
</tr>
<tr>
```

```
<td>April</td>
<td>18</td>
</tr>
</tbody>
</table>
```

HTML Page Title

Every web page should have a page title to describe the meaning of the page.

The <title> element adds a title to your page:

Example:

```
<!DOCTYPE html>
<html>
<head>
<title>HTML Title</title>
</head>
<body>

example..

</body>
</html>
```