

Introduction to HTML

Sure, let's dive into HTML.

1. Introduction to HTML

HTML (Hypertext Markup Language) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript to create fully-featured web applications.

HTML elements are represented by tags, written using angle brackets. Tags such as `<h1>`, `<p>`, `<div>`, and `` directly introduce content into the page. Other tags such as `<html>`, `<head>`, and `<body>` provide information about the document, or group other tags that apply to several elements. Most HTML tags have an opening tag and a closing tag, for example `<p>` and `</p>`.

2. Basic HTML Document Structure

Here is a very simple HTML document structure:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>This is a Heading</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
  </body>
</html>
```

- `<!DOCTYPE html>`: This tag is a declaration and it is not an HTML tag. It informs the browser about the version of HTML the page is written in.
- `<html>`: This tag is the root element of an HTML page.
- `<head>`: The HTML `<head>` element contains meta-information about the document.
- `<title>`: The `<title>` tag is required in HTML documents. It defines the title of the document which is shown in the browser's title bar or tab.
- `<body>`: The `<body>` tag defines the document's body and is a container for all the visible contents.

3. HTML Elements

HTML elements are the building blocks of HTML pages. Here are some commonly used elements:

- `<h1>` to `<h6>`: These tags are used to define HTML headings, with `<h1>` being the largest and `<h6>` the smallest.
- `<p>`: This tag defines a paragraph.
- `<a>`: The `<a>` tag defines a hyperlink, which is used to link from one page to another.
- ``: This tag is used to embed an image in an HTML page.

4. HTML Attributes

HTML elements can have attributes, which provide additional information about the element. Attributes are always specified in the start tag.

Example of using attributes:

```
<a href="https://www.example.com">Visit Example.com</a>
```

- `href` is an attribute of the `<a>` element which defines the link address.

5. HTML Links and Images

To create a link, you use the `<a>` element and the `href` attribute to specify the link's target.

```
<a href="https://www.openai.com">Visit OpenAI</a>
```

Images can be inserted using the `` tag along with the `src` attribute to specify the image's source. The `alt` attribute provides alternative text for browsers that can't display the image.

```

```

6. HTML Lists

HTML offers three types of lists: ordered, unordered, and definition lists.

- Ordered lists (``) number each list item.
- Unordered lists (``) use bullet points.
- Definition lists (`<dl>`) contain a list of terms with their associated descriptions.

```
<ol>
  <li>First item</li>
  <li>Second item</li>
</ol>

<ul>
  <li>First item</li>
  <li>Second item</li>
</ul>

<dl>
  <dt>First term</dt>
  <dd>First description</dd>
  <dt>Second term</dt>
```

```
<dd>Second description</dd>
</dl>
```

Comments

to add a comment inside an html page :

```
<!-- Comment -->
```

7. HTML Tables

HTML tables are used to present data in a tabular format (rows and columns). Tables are created with the `<table>` tag. Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag, while a table data cell is defined with the `<td>` tag.

Here is a basic example of an HTML table:

```
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
  </tr>
  <tr>
    <td>Jane</td>
    <td>Doe</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
  </tr>
```

```
</table>
```

8. HTML Forms

HTML forms are used to collect user input. The `<form>` tag is used to create an HTML form. Within the form, you can use different types of input elements like text fields, checkboxes, radio buttons, submit buttons, and more to collect user input.

Here is a simple HTML form:

```
<form action="/submit_form" method="post">
  First name:<br>
  <input type="text" name="firstname" value="John"><br>
  Last name:<br>
  <input type="text" name="lastname" value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>
```

9. HTML Div and Span

`<div>` and `` are generic container elements. `<div>` is a block-level element and is often used as a container for other HTML elements. `` is an inline element and is often used to style a specific piece of content within a block-level element.

```
<div style="color:blue">
  This is a block of text.
  <span style="color:red">This is some text in a span.</span>
</div>
```

10. HTML Semantic Elements

HTML5 introduced a number of new "semantic" elements that convey the meaning of the content they contain, including `<header>`, `<footer>`, `<article>`, `<section>`, and more.

```
<article>
  <header>
    <h2>Article title</h2>
    <p>Posted on <time datetime="2020-02-20">February 20</time></p>
  </header>
  <p>This is the article text.</p>
  <footer>
    <p>Author: Jane Doe</p>
  </footer>
</article>
```

Resources to learn more about HTML:

<https://www.w3schools.com/html/>

 HTML Tutorial •