Day 3-Workshop-Learning-Content

Description: This document will give knowledge about html elements such as line breaks, horizontal lines, comments, images, lists, tables, hyperlinks & div.

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Introduction to HTML Elements: You have learned about basic container elements of html in previous lab. Now you will learn more elements.

1. **Adding line breaks:** The HTML **
** element produces a line break in text (carriage-return). It is useful for writing a poem or an address, where the division of lines is significant.
   In HTML, the <br> tag has no end tag.

   Syntax Example:

   > This is first line
 This is second line.

   Output will be:

   > This is first line.
   > This is second line.

2. **Drawing Horizontal Lines:** The HTML **<hr>** element represents a thematic break between paragraph-level elements (for example, a change of scene in a story, or a shift of topic with a section). In previous versions of HTML, it represented a horizontal rule. It may still be displayed as a horizontal rule in visual browsers, but is now defined in semantic terms, rather than presentational terms. In HTML, the <hr> tag has no closing tag.

   Syntax example:

   > <p> This is first paragraph</p>
   > <hr>
   > <p> This is second paragraph</p>

   Output will be:

   > <p> This is first paragraph</p>
   > _____
   >
   > <p> This is second paragraph</p>

3. **Adding Comments:** The comment tag **(<!-- -->)** is used to insert comments in the source code. **Comments are never displayed in the browsers**. You can use comments to explain your code, which can help you when you edit the source code at a later date.
   Syntax: **<!--   Write your comment message here   -->**
   For example:

   > <!--This is a comment. Comments are not displayed in the browser-->

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

Output will be:

This is a paragraph.

4. **Inserting Images:** The HTML **<img>** element represents an image in the document. The <img> tag has two required attributes: **src** and **alt**. The <img> tag creates a holding space for the referenced image**. <img>** has a start tag and must not have an end tag.

   Alt: This attribute defines the alternative text describing the image. Users will see this text displayed if the image URL is wrong, the image is not in one of the supported formats, or if the image is not yet downloaded. The alt tag text also displays when mouse is hovered over the image.

   Src: The image URL. This attribute is mandatory for the <img> element.

   Syntax: <img src= "*Enter URL of image*" alt= "*Enter Alt text*">

5. **Creating List – OL and UL:** You can create two types of lists – Ordered list and unordered list.

   <u>**Ordered List (OL)**</u>**:** The HTML **<ol>** element represents an ordered list of items, typically rendered as a numbered list. Use the **<li>** tag to define list items.

   ** tag:** The HTML **<li>** element is used to represent an item in a list. It must be contained in a parent element: an ordered list (<ol>), an unordered list (<ul>), or a menu (<menu>).

   For Example:

   ```
   <ol>
           <li>first item</li>
           <li>second item</li>
            <li>third item</li>
   </ol>
   ```

   Output will be:

   1. first item
   2. second item
   3. third item

<u>**Unordered List (UL)**</u>**:** The HTML **<ul>** element represents an unordered list of items, typically rendered as a bulleted list. Use the **<li>** tag to define list items.

   For example:

   ```
   <ul>
           <li>first item</li>
           <li>second item</li>
           <li>third item</li>
   ```


Output will be:

- first item
- second item
- third item

6. **Div Element:** The <div> tag defines a division or a section in an HTML document. The <div> tag is used to group block-elements to format them with CSS.

   The HTML **<div>** element is the generic container for flow content and does not inherently represent anything. Use it to group elements for purposes such as styling (using the class or id attributes)
   For example:
                    <div>
                         <p>Any kind of content here</p>
                    </div>

   Output will be:
                    Any kind of content here

7. **Creating Tables:** The **<table>** tag defines an HTML table. An HTML table consists of the <table> element and one or more **<tr>, <th>,** and **<td>** elements.
   The <tr> element defines a **table row**, the <th> element defines a **table header**, and the <td> element defines a **table cell**.

   <table>: The **<table>** tag defines an HTML table.

   <tr>: The <tr> tag defines a row in an HTML table. A <tr> element contains one or more <th> or <td> elements.

   An HTML table has two kinds of cells:

   a. Header cells - contains header information (created with the <th> element)
   b. Standard cells - contains data (created with the <td> element)

   <th>: The <th> tag defines a header cell in an HTML table. The text in <th> elements are bold and centered by default.

   <td>: The <td> tag defines a standard cell in an HTML table. The text in <td> elements is regular and left-aligned by default.

   For example:

```
<table>
        <tr>
                <th>Year</th>
                 <th>Month</th>
        </tr>
        <tr>
                <td>2017</td>
                <td>May</td>
        </tr>
</table>
```

Output will be:

Year   Month

2017   May

8. **Creating Hyperlink:** The HTML **<a>** element (or *anchor* element) creates a hyperlink to other web pages, files, locations within the same page, email addresses, or any other URL. The most important attribute of the <a> element is the *href* attribute, which indicates the link's destination. Within the **<a>** the text to be displayed on output screen is written.

   For example:

   `<a href ="http://smartpathshala.com">Visit Smartpathshala</a>`

   Output will be:

   Visit Smartpathshala

9. **Link Tag:** The **HTML <link> element** specifies relationships between the current document and an external resource. The <link> tag is used to link to external style sheets. It is specified in the header section of the HTML document.

   rel: This attribute names a relationship of the linked document to the current document.

   href: This attribute specifies the URL of the linked resource. A URL might be absolute or relative.

   For example: To include a stylesheet style.css: in a page, use the following syntax:

   `<link href="style.css" rel="stylesheet">`

10. **Script Tag:** The <script> tag is used to define a client-side script (JavaScript).The <script> element either contains scripting statements, or it points to an external script file through the src attribute. This tag is mentioned in header section of HTML file.

   src: This attribute specifies the URL of an external script; this can be used as an alternative of embedding a script directly within a document. If a script element has a src attribute specified, it should not have a script embedded inside its tags.

For example:

```
<script src="javascript.js"></script>
```

11. **Style:** The HTML **<style>** element contains style information for a document, or part of a document. Inside the <style> element you specify how HTML elements should render in a browser. Each HTML document can contain multiple <style> tags. We use <style> tag inside <head> tag.

For example:

INPUT

```
<html>
        <head>
                <style>
                        h1 {color:red;}
                        p {color:blue;}
                </style>
        </head>
        <body>
                <h1>A heading</h1>
                <p>A paragraph</p>
        </body>
</html>
```

OUTPUT

A heading

A paragraph

12. **Semantic Elements:** A semantic element clearly describes its meaning to both the browser and the developer. Examples of non-semantic elements: <div> and <span> - Tells nothing about its content. Examples of semantic elements: <form>, <table>, and <article> - Clearly defines its content. Following are some semantic elements:
    a. **Header:** The <header> element specifies a header for a document or section. The <header> element should be used as a container for introductory content. You can have several <header> elements in one document.
       For Example:

       ```
       <header>
       ```

```
    <h1>Welcomeh1>
    <p>Our mission</p>
</header>
```

b. **Footer:** The <footer> element specifies footer for a document or section. A <footer> element should contain information about its containing element. Footer typically contains the author of the document, copyright information, links to terms of use, contact information, etc. You may have several <footer> elements in one document.

For Example:-
```
<footer>
   Copyright &copy;
</footer>
```

c. **Article:** The <article> element specifies independent, self-contained content.
d. **Section:** The <section> element defines a section in a document. According to W3C's (World Wide Web Consortium) HTML5 documentation: "A section is a thematic grouping of content, typically with a heading." A home page could normally split into sections for introduction, content, and contact information.
   For Example:

```
<section>
  <h1>Heading</h1>
  <p>Bunch of awesome content</p>
</section>
```