Web Designing Assignment

Term-1

Module (HTML) -1

**Q.1 Are the HTML tags and elements the same thing?**

**ANS:-**

HTML Tags: These are the markup symbols used to define elements within an HTML document. Tags are composed of opening and closing tags, and they surround and define content. For example, <p> is an opening tag for a paragraph, and </p> is the closing tag. Together, they define the paragraph element.

HTML Elements: An HTML element consists of an opening tag, content, and a closing tag. The opening tag marks the beginning of an element, and the closing tag marks the end. The content is the information between the opening and closing tags. In the example of a paragraph, <p> is the opening tag, content would be the actual text of the paragraph, and </p> is the closing tag. Collectively, this is the "paragraph element."

**Q.2** **What are tags and attributes in HTML?**

**ANS:-**

1.Tags:

* Definition: Tags are the fundamental building blocks of HTML. They define the structure of the content on a web page.
* Syntax: Tags are typically written as pairs – an opening tag and a closing tag – surrounding the content. The opening tag indicates the beginning of an element, and the closing tag marks its end. For example:

Example:

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

Types: Tags can be classified into two main types: container tags and empty (self-closing) tags.

* Container Tags: These have both opening and closing tags and enclose content between them.

Example:-

<div>This is a container tag.</div>

EmptyTags: These are self-closing and don't have a separate closing tag. They may include attributes.

Example:-

<img src="image.jpg" alt="An image">

2.Attributes:

* Definition: Attributes provide additional information about HTML elements. They are always included in the opening tag of an element and are written as name-value pairs.
* Syntax: An attribute is typically included within the opening tag of an element and is written as name="value". For example:

**Example**:-

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

* **Common Attributes:**
* id: Provides a unique identifier for an element.
* class: Assigns one or more class names to an element.
* src: Specifies the source URL for elements like images or scripts.
* href: Specifies the hyperlink destination for anchor (<a>) elements.
* alt: Defines alternative text for elements like images.

**Q.3 What are void elements in HTML? With Example.**

**ANS:-**

Here are some examples of void elements along with their common attributes:

**1.<img> (Image):**

* Purpose: Embeds an image on the page.
* **Example**:

<img src="example.jpg" alt="An example image">

**2.<br> (Line Break):**

* Purpose: Inserts a line break within text or other elements.
* **Example**:

<p>This is a line of text.<br> This is on a new line.</p>

3. **<hr> (Horizontal Rule):**

* Purpose: Represents a thematic break or separation within a page.
* **Example:**

<p>Some content above<hr>Some content below</p>

4. **<input> (Input):**

* Purpose: Creates an input field for user input.
* **Example:**

<input type="text" name="username" placeholder="Enter your username">

5. **<meta> (Metadata):**

* Purpose: Provides metadata about the HTML document.
* Example (commonly placed in the <head> section):

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

6. **<link> (Link):**

* Purpose: Establishes a link between the current document and an external resource.
* Example (commonly used for linking stylesheets):

<link rel="stylesheet" href="styles.css">

**Q.4 What are HTML Entities? With Example.**

**ANS:-**

**Named Entities:**

* Named entities use a specific name or keyword to represent a character. For example:
  + &lt;: Represents the less-than symbol <.
  + &gt;: Represents the greater-than symbol >.
  + &amp;: Represents the ampersand &.
  + &quot;: Represents the double quotation mark "

**Example:-**

**<p>This is an example of &lt;em&gt;HTML&lt;/em&gt; entities.</p>**

**Output:-**

**Css:**

**This is an example of <em>HTML</em> entities.**

**2.Numerical Entities:**

* Numerical entities use the Unicode or ASCII code of the character to represent it. They begin with an ampersand (&), followed by the pound sign (#), and then the numerical code, ending with a semicolon (;). For example:
  + &#60;: Represents the less-than symbol <.
  + &#62;: Represents the greater-than symbol >.
  + &#38;: Represents the ampersand &.
  + &#34;: Represents the double quotation mark ".

Example:-

<p>This is an example of &#60;em&#62;HTML&#60;/em&#62; entities.</p>

Css:-

This is an example of <em>HTML</em> entities.

**Q.5 What are different types of lists in HTML? With Example.**

**ANS:-**

1.Ordered Lists (<ol>):

<ol>

<li>Item 1</li>

<li>Item 2</li>

<li>Item 3</li>

</ol>

**Output:-**

1. Item 1
2. Item 2
3. Item 3

**2.Unordered Lists (<ul>):**

<ul>

<li>Item A</li>

<li>Item B</li>

<li>Item C</li>

</ul>

**Output:**

* Item A
* Item B
* Item C

**3.Definition Lists (<dl>):**

<dl>

<dt>Term 1</dt>

<dd>Definition 1</dd>

<dt>Term 2</dt>

<dd>Definition 2</dd>

</dl>

**Output:-**

Term 1

* Definition 1 Term 2
* Definition 2

<ol>

<li>Ordered List Item 1</li>

<li>Ordered List Item 2

<ul>

<li>Nested Unordered List Item 1</li>

<li>Nested Unordered List Item 2</li>

</ul>

</li>

<li>Ordered List Item 3</li>

</ol>

HTML provides several types of lists that allow you to organize and structure information. The three main types of lists in HTML are:

1. **Ordered Lists (<ol>):**
   * An ordered list represents a list of items where each item is sequentially numbered. The numbering is typically represented by Arabic numerals.

* html
* <ol>  
   <li>Item 1</li>  
   <li>Item 2</li>  
   <li>Item 3</li>  
  </ol>

Output:

1. Item 1
2. Item 2
3. Item 3

* **Unordered Lists (<ul>):**
* An unordered list represents a list of items where each item is marked with a bullet point or other marker.

html

* <ul>  
   <li>Item A</li>  
   <li>Item B</li>  
   <li>Item C</li>  
  </ul>

Output:

* Item A
* Item B
* Item C
* **Definition Lists (<dl>):**
* A definition list represents a list of terms and their corresponding definitions. It uses the <dt> (definition term) element for the term and the <dd> (definition description) element for the definition.

html

1. <dl>  
    <dt>Term 1</dt>  
    <dd>Definition 1</dd>  
    <dt>Term 2</dt>  
    <dd>Definition 2</dd>  
   </dl>
2. Output: Term 1
   * Definition 1 Term 2
   * Definition 2

These lists can also be nested within each other to create more complex structures. For example:

html

<ol>  
 <li>Ordered List Item 1</li>  
 <li>Ordered List Item 2  
 <ul>  
 <li>Nested Unordered List Item 1</li>  
 <li>Nested Unordered List Item 2</li>  
 </ul>  
 </li>  
 <li>Ordered List Item 3</li>  
</ol>

Output:

1. Ordered List Item 1
2. Ordered List Item 2
   * Nested Unordered List Item 1
   * Nested Unordered List Item 2
3. Ordered List Item 3

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1. **Ordered Lists (<ol>):**
   * An ordered list represents a list of items where each item is sequentially numbered. The numbering is typically represented by Arabic numerals.

* html
* <ol>  
   <li>Item 1</li>  
   <li>Item 2</li>  
   <li>Item 3</li>  
  </ol>

Output:

1. Item 1
2. Item 2
3. Item 3

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* An unordered list represents a list of items where each item is marked with a bullet point or other marker.

html

* <ul>  
   <li>Item A</li>  
   <li>Item B</li>  
   <li>Item C</li>  
  </ul>

Output:

* Item A
* Item B
* Item C
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html

1. <dl>  
    <dt>Term 1</dt>  
    <dd>Definition 1</dd>  
    <dt>Term 2</dt>  
    <dd>Definition 2</dd>  
   </dl>
2. Output: Term 1
   * Definition 1 Term 2
   * Definition 2

These lists can also be nested within each other to create more complex structures. For example:

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<ol>  
 <li>Ordered List Item 1</li>  
 <li>Ordered List Item 2  
 <ul>  
 <li>Nested Unordered List Item 1</li>  
 <li>Nested Unordered List Item 2</li>  
 </ul>  
 </li>  
 <li>Ordered List Item 3</li>  
</ol>

Output:

1. Ordered List Item 1
2. Ordered List Item 2
   * Nested Unordered List Item 1
   * Nested Unordered List Item 2
3. Ordered List Item 3

**Q.6 What is the ‘class’ attribute in HTML? With Example.**

**ANS:-**

In HTML, the class attribute is used to assign one or more class names to an HTML element. Classes are a way to apply styles or behaviors to multiple elements with a single reference. By defining styles or behaviors in a CSS (Cascading Style Sheets) file for a specific class, you can consistently apply those styles or behaviors to all elements with that class.

**Example:-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<style>

/\* Define a style for elements with the class 'highlight' \*/

.highlight {

background-color: yellow;

font-weight: bold;

}

</style>

<title>Class Attribute Example</title>

</head>

<body>



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

<!-- Apply the 'highlight' class to this paragraph -->

<p class="highlight">This paragraph has the 'highlight' class.</p>

<p>This is another regular paragraph.</p>

</body>

</html>

**Q.7** **What is the difference between the ‘id’ attribute and the ‘class’ attribute of HTML elements? With Example.**

**ANS:-**

**1.id Attribute:**

* **Purpose:** The id attribute is used to uniquely identify a single HTML element on a page. No two elements in the same HTML document should have the same id.
* **Usage:** Typically, id is used for elements that have a unique and specific role or significance on a page.
* **Example:**

<div id="header">This is the header</div>

<p id="main-content">This is the main content</p>

<footer id="page-footer">This is the footer</footer>

**2.class Attribute:**

* **Purpose:** The class attribute is used to assign one or more class names to an HTML element. Classes are used to group multiple elements together, and the same class can be applied to multiple elements.
* **Usage:** class is commonly used for styling purposes, where you want to apply the same styles to multiple elements, or for JavaScript to select and manipulate multiple elements.
* **Example:**

<p class="highlight">This is a highlighted paragraph.</p>

<p class="highlight">So is this one.</p>

**Q.8 What are the various formatting tags in HTML?**

**ANS:-**

**<b> and <strong>:**

* <b>: Represents bold text.
* <strong>: Represents strongly emphasized text. It is often rendered as bold by browsers.

html

* <p>This is <b>bold</b> text.</p>  
  <p>This is <strong>strongly emphasized</strong> text.</p>
* **<i> and <em>:**
* <i>: Represents italicized text.
* <em>: Represents emphasized text. It is often rendered as italic by browsers.

html

* <p>This is <i>italic</i> text.</p>  
  <p>This is <em>emphasized</em> text.</p>
* **<u>:**
* Represents underlined text.

html

* <p>This is <u>underlined</u> text.</p>
* **<sub> and <sup>:**
* <sub>: Represents subscript text.
* <sup>: Represents superscript text.

**Q.9 How is Cell Padding different from Cell Spacing? With Example.**

**ANS:-**

**1.Cell Padding:**

* **Definition:** Cell padding is used to define the space between the content of a table cell and the cell border.
* **Attribute:** It is controlled by the cellpadding attribute in the <table> tag.
* **Example:**
* html

<table cellpadding="10" border="1">  
 <tr>  
 <td>Cell 1</td>  
 <td>Cell 2</td>  
 </tr>  
 <tr>  
 <td>Cell 3</td>  
 <td>Cell 4</td>  
 </tr>  
</table>

In this example, the cellpadding="10" attribute adds padding of 10 pixels inside each cell, creating space between the cell content and the cell border.

**2.Cell Spacing:**

* **Definition:** Cell spacing is used to define the space between adjacent cells in a table.
* **Attribute:** It is controlled by the cellspacing attribute in the <table> tag.
* **Example:**
* html

<table cellspacing="10" border="1">  
 <tr>  
 <td>Cell 1</td>  
 <td>Cell 2</td>  
 </tr>  
 <tr>  
 <td>Cell 3</td>  
 <td>Cell 4</td>  
 </tr>  
</table>

In this example, the cellspacing="10" attribute adds spacing of 10 pixels between adjacent cells, creating a gap between the cells.

**Q.10 How can we club two or more rows or columns into a single row or column in an HTML table? With Example.**

**ANS:-**

**Rowspan:-**

html

<table border="1">  
 <tr>  
 <td rowspan="2">Row 1, Cell 1</td>  
 <td>Row 1, Cell 2</td>  
 <td>Row 1, Cell 3</td>  
 </tr>  
 <tr>  
 <!-- This cell spans two rows due to rowspan="2" -->  
 <td>Row 2, Cell 2</td>  
 <td>Row 2, Cell 3</td>  
 </tr>  
 <tr>  
 <td>Row 3, Cell 1</td>  
 <td>Row 3, Cell 2</td>  
 <td>Row 3, Cell 3</td>  
 </tr>  
</table>

In this example, the first cell in the first column (<td rowspan="2">Row 1, Cell 1</td>) spans two rows, effectively merging with the cell below it.

**Colspan:-**

<table border="1">

<tr>

<td colspan="2">Row 1, Cell 1</td>

<td>Row 1, Cell 3</td>

</tr>

<tr>

<!-- This cell spans two columns due to colspan="2" -->

<td>Row 2, Cell 1</td>

<td>Row 2, Cell 2</td>

<td>Row 2, Cell 3</td>

</tr>

<tr>

<td>Row 3, Cell 1</td>

<td>Row 3, Cell 2</td>

<td>Row 3, Cell 3</td>

</tr>

</table>

In this example, the first cell in the first row (<td colspan="2">Row 1, Cell 1</td>) spans two columns, effectively merging with the cell to its right.

**Q.11 What is the difference between a block-level element and an inline element?**

**ANS:-**

**Block-level elements:**

**1.Definition:** Block-level elements are those that create a "block" or a rectangular box in the document flow. They typically start on a new line and stretch the full width of their container.

**2.Examples:** <div>, <p>, <h1> to <h6>, <ul>, <ol>, <li>, <table>, <form>, etc.

**3.Behavior:**

* + Start on a new line.
  + Extend the full width of the container by default (unless styled otherwise).
  + Allow setting width, height, margins, and padding.
  + Typically used for structural elements and grouping content.

**Inline elements:**

**1.Definition:** Inline elements do not create a new block; they flow within the content and only take up as much width as necessary.

**2.Examples:** <span>, <a>, <strong>, <em>, <img>, <br>, <input>, etc.

**3.Behavior:**

* + Do not start on a new line; they flow within the content.
  + Only take up as much width as necessary, not the full width of the container.
  + Do not allow setting width, height, margins, or padding.
  + Typically used for styling or emphasizing specific parts of text within a block-level element.

**Example:-**

<!DOCTYPE html>

<html lang="en">

<head>

<style>

div {

background-color: lightblue;

margin: 10px;

padding: 10px;

}

span {

color: red;

}

</style>

</head>

<body>

<div>This is a <span>block-level</span> element.</div>

<p>This is an <em>inline</em> element within a block-level element.</p>

</body>

</html>

In this example:

* The <div> is a block-level element, and it starts on a new line, extending the full width of its container.
* The <span> is an inline element, and it flows within the content of the block-level element, taking up only as much width as necessary.

**Q.12 How to create a Hyperlink in HTML? With Example.**

**ANS:-**

In HTML, you can create a hyperlink using the <a> (anchor) element. The <a> element is used to define hyperlinks by specifying the target URL using the href attribute. Here's an example:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Hyperlink Example</title>

</head>

<body>

<h1>Creating a Hyperlink</h1>

<p>This is a simple hyperlink to <a href="https://www.example.com">Example.com</a>.</p>

</body>

</html>

In this example:

* The <a> element is used to create a hyperlink.
* The href attribute is set to "[https://www.example.com](https://www.example.com/)," which is the target URL of the hyperlink.
* The text between the opening <a> tag and the closing </a> tag is the clickable part of the hyperlink. In this case, it says "Example.com."

You can also create hyperlinks to other pages within the same website or link to specific sections on a page by using relative URLs or anchor names. Here's an example linking to another page:

**Example:-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Hyperlink Example</title>

</head>

<body>

<h1>Creating a Hyperlink</h1>

<p>This is a hyperlink to another page: <a href="another-page.html">Go to Another Page</a>.</p>

</body>

</html>

**Q.13 What is the use of an iframe tag? With Example.**

**Ans:-**

The <iframe> (inline frame) tag in HTML is used to embed another HTML document within the current document. It allows you to display content from another source, such as a different website or a different part of the same website, within a designated area on your webpage.

Here's a basic example of using the <iframe> tag:

**Example:-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>IFrame Example</title>

</head>

<body>

<h1>Main Content</h1>

<p>This is the main content of the webpage.</p>

<iframe src="https://www.example.com" width="600" height="400" title="External Content"></iframe>

<p>More content below the iframe.</p>

</body>

</html>

**In this example:**

* The <iframe> tag is used with the src attribute pointing to "[https://www.example.com](https://www.example.com/)". This is the URL of the external content you want to embed.
* The width and height attributes define the dimensions of the iframe.
* The title attribute provides a descriptive title for the iframe, which is good for accessibility.

**Q.14 What is the use of a span tag? Explain with example?**

**Ans:-**

In HTML, the span tag is **a generic inline container element**. You use this element to wrap sections of text for styling purposes or to add attributes to a section of text without creating a new line of content. It is similar — but not the same as — the <div> tag.

**Example:-**

<p>My brother has <span style="color:blue">blue</span> eyes.</p>

**Q.15 How to insert a picture into a background image of a web page? With Example.**

**Ans:-**

=> The most common & simple way to add background image is **using the background image attribute inside the <body> tag**. The background attribute which we specified in the <body> tag is not supported in HTML5. Using CSS properties, we can also add background image in a webpage.

**Example:-**

<style>  
body {  
 background-image: url('example\_img\_girl.jpg');  
 background-repeat: no-repeat;  
}  
</style>

**Q.16 How are active links different from normal links?**

**Ans:-**

Active links and normal links are terms commonly used in the context of web design and HTML/CSS. Let's clarify the differences between them:

**1.Normal Links:**

* + Normal links, often referred to as regular or default links, are the standard links used to navigate between different web pages or resources.
  + When a user clicks on a normal link, it typically triggers a navigation event to load a new page or resource.
  + In HTML, normal links are created using the <a> (anchor) element.
* Example of a normal link:

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

**Active Links:**

* Active links are not a specific type of link but are often mentioned in the context of CSS styling for links based on their state.
* An "active link" typically refers to a link that is currently being interacted with by the user, such as when the link is being clicked.
* CSS allows you to style links based on different states, including :hover for when the mouse is over the link and :active for when the link is being clicked.

Example of styling an active link with CSS:

a:active {

color: red; /\* Change the color when the link is being clicked \*/

font-weight: bold; /\* Apply bold font when the link is active \*/

}

In this example, the styles specified in the CSS rule will be applied when the link is in its :active state, i.e., when it's being clicked.

**Q.17 What are the different tags to separate sections of text?**

**Ans:-**

In HTML, there are several tags that you can use to separate and structure different sections of text. Here are some commonly used tags:

**1.Paragraphs: <p>**

* The <p> tag is used to define paragraphs of text.

**Example**:-

html

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

**2.Headings: <h1>, <h2>, <h3>, <h4>, <h5>, <h6>**

* Headings are used to define headings or titles. There are six levels, where <h1> is the highest (most important) and <h6> is the lowest.

**Example:-**

**<h1>Heading 1</h1>**

**<h2>Heading 2</h2>**

**<!-- ... -->**

**<h6>Heading 6</h6>**

**3.Divisions: <div>**

* The <div> tag is a generic container used to group other HTML elements. It is often used to create divisions or sections within a document.

**Example:-**

**<div>**

**<p>This is a paragraph inside a div.</p>**

**<p>Another paragraph inside the same div.</p>**

**</div>**

**4.Sections: <section>**

* The <section> tag is used to define sections in a document. It is often used to group related content together.

**Example:-**

**<section>**

**<h2>Section Title</h2>**

**<p>Content of the section goes here.</p>**

**</section>**

**5. Articles: <article>**

* The <article> tag is used to define an independent, self-contained piece of content, such as a news article or blog post.

**Example:-**

**<article>**

**<h2>Article Title</h2>**

**<p>Content of the article goes here.</p>**

**</article>**

**6. Lists: <ul>, <ol>, <li>**

* Lists are used to represent ordered or unordered sets of items. <ul> is an unordered list, <ol> is an ordered list, and <li> is used for list items.

**Example:-**

**<ul>**

**<li>Item 1</li>**

**<li>Item 2</li>**

**<li>Item 3</li>**

**</ul>**

**<ol>**

**<li>First</li>**

**<li>Second</li>**

**<li>Third</li>**

**</ol>**

**Q.18 What is SVG?**

**Ans:-**

SVG stands for **Scalable Vector Graphics**. SVG is used to define graphics for the Web.

**Q.19 What is difference between HTML and XHTML?**

**Ans:-**

HTML (HypertextMarkup Language) and XHTML (ExtensibleHypertext Markup Language) are both markup languages used for creating and displaying web pages. The main difference between them is the syntax and structure;

**HTML is more lenient in its syntax, while XHTML has a more strict syntax and follows XML rules**.

**Q.20 What are logical and physical tags in HTML?**

**Ans:-**

In HTML the formatting tags are divided into two categories:

**=>** **Physical tag: These tags are used to provide the visual appearance to the text.**

**=>Logical tag: These tags are used to add some logical or semantic value to the text**.