

## TERM-1

### **Module :1(HTML)**

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

**ANS:**

- Html tags and elements are related but not same thing.
- In html, tags are used to define the structure and formatting of web documents ,while elements are the complete set of opening and closing tag along with content they enclose.

2. What are tags and attributes in HTML?

**ANS:** In HTML tags and attributes are essential components used to structure and define web content

- **TAGS**
- Tags are the fundamental building blocks of HTML documents.
- They are enclosed in angle brackets (< >) and come in pairs: an opening tag and a closing tag
- Tags are used to define the structure and content of an HTML document.

**EXAMPLE:**

- Some common HTML tags include <html>, <head>, <title>, <body>, <p>, <h1>, <a>, <img>, <div>, and many more.

## ▪ **ATTRIBUTES**

- Attributes provide additional information about HTML elements.
- They are always specified within the opening tag of an element.
- Attributes are made up of a name and a value, separated by an equal sign (=) and enclosed in double or single quotes.
- They are used to modify or enhance the behaviour of HTML elements.

### EXAMPLE :

- "href," "title," "src," "alt," "type," "name," "id," and "placeholder" are attributes associated with various HTML elements

### 3. What are void elements in HTML?

#### ANS:

- Void elements in HTML, also known as self-closing or empty elements and they are self-contained within a single opening tag and may include attributes.
- Void elements are used for various purposes in HTML, such as embedding media, line breaks, and inserting images.

### EXAMPLE :

- ``
- `<p>This is a paragraph.<br>And this is a new line.</p>`
- `<link rel="stylesheet" type="text/css" href="styles.css">`

#### 4.What are HTML Entities?

**ANS:** HTML entities are special codes used in HTML and XML documents to represent characters that have special meaning or reserved status in HTML and XML syntax.

- These characters include symbols, mathematical symbols, accented letters, and other special characters that cannot be easily represented using normal keyboard characters.

#### EXAMPLE:

- `&lt;` for `<` (less-than sign)
- `&gt;` for `>` (greater-than sign)
- `&amp;` for `&` (ampersand)
- `&quot;` for `"` (double quote)
- `&apos;` for `'` (single quote)

#### 5.What are different types of lists in HTML?

**ANS:**

- **order list (`<ol>`)** : An ordered list is a list of items where each item is numbered. It is created using the `<ol>` element. Each list item is defined using the `<li>` (list item) element.

#### EXAMPLE:

```
<ol>
  <li>Item 1</li>
  <li>Item 2</li>
</ol>
```

- **Unordered Lists (<ul>)** : An unordered list is a list of items where the order of the items does not matter. It is created using the <ul> element. Each list item is defined using the <li> element.

**EXAMPLE:**

```
<ul>  
<li>Item A</li>  
<li>Item B</li>  
</ul>
```

- **Definition Lists (<dl>)** : A definition list is a list of terms and their corresponding definitions. It is created using the <dl> element. Each term is defined using the <dt> (definition term) element, and each definition is defined using the <dd> (definition description) element.

**EXAMPLE:**

```
<dl>  
<dt>Term 1</dt>  
<dd>Definition 1</dd>  
</dl>
```

## 6. What is the 'class' attribute in HTML?

### ANS:

- The class attribute specifies one or more classnames for an element.
- The class attribute is mostly used to point to a class in a style sheet. However, it can also be used by a JavaScript (via the HTML DOM) to make changes to HTML elements with a specified class.

### EXAMPLE:

```
<html>
<head>
<style>
h1.intro {
    color: blue;
}</style>
</head>
<body>
<h1 class="intro">Header 1</h1>
<p>A paragraph.</p>
<p class="important">Note that this is an important paragraph.
:></p>
</body>
</html>
```

7. What is the difference between the 'id' attribute and the 'class' attribute of HTML elements?

**ANS:**

- **id Attribute:** The id attribute is used to uniquely identify a single HTML element on a web page. Each element can have only one unique id attribute within a document.
- The id attribute should be unique within the entire HTML document.

**EXAMPLE:**

**HTML FILE**

```
<div id="unique-element">This is a unique element.</div>
```

**CSS FILE**

```
#unique-element {  
    color: red;  
}
```

- **class Attribute:** The class attribute is used to specify one or more class names for an HTML element.
- Classes are not unique and can be applied to multiple elements on a web page
- Elements with the same class share a common styling or behavior

**EXAMPLE:**

**HTML FILE**

```
<p class="highlight">This paragraph has a special class.</p>
```

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

## CSS FILE

```
#unique-element {  
    color: red;  
}
```

8. What are the various formatting tags in HTML?

**ANS:**

- **Headings (<h1>, <h2>, <h3>, <h4>, <h5>, <h6>)**
- Headings are used to define headings for sections on a web page. There are six levels of headings, where <h1> represents the highest level and <h6> represents the lowest level.
- **Paragraphs (<p>)**
- The <p> tag is used to define paragraphs of text.
- **Bold (<strong>, <b>)**
- The <strong> and <b> tags are used to make text bold.
- **italic (<em>, <i>)**
- The <em> and <i> tags are used to italicize text.
- **Underline (<u>)**
- The <u> tag is used to underline text. However, it's not widely recommended due to modern design standards. CSS is preferred for styling, including underlining text.
- **Strikethrough (<s>, <strike>, <del>)**
- These tags are used to create strikethrough text.
- **Subscript (<sub>) and Superscript (<sup>)**
- The <sub> tag is used for subscript text, and <sup> tag is used for superscript text.

## 9. How is Cell Padding different from Cell Spacing?

**ANS:**

### ▪ **Cell Padding (cellpadding):**

- cellpadding is an attribute used in the <table> element in HTML.
- It defines the space between the content of a table cell and the cell's border.
- The value of cellpadding specifies the number of pixels of space between the cell content and the cell border.
- For example, if you set cellpadding="10", there will be 10 pixels of space between the content and the cell border on all sides of each cell.

### ▪ **Cell Spacing (cellspacing):**

- cellspacing is another attribute used in the <table> element in HTML.
- It defines the space between cells in a table.
- The value of cellspacing specifies the number of pixels of space between adjacent cells in the table.
- For example, if you set cellspacing="5", there will be 5 pixels of space between adjacent cells in the table.



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

**ANS:**

▪ **Merging Cells Horizontally (Columns):**

- To merge cells horizontally, you use the colspan attribute. This attribute specifies how many columns a cell should span.

**EXAMPLE**

```
<table border="1">  
  
  <tr>  
    <td colspan="2">Merged Column 1</td>  
  </tr>  
  
  <tr>  
    <td>Row 2, Col 1</td>  
    <td>Row 2, Col 2</td>  
  </tr>  
</table>
```

▪ **Merging Cells Vertically (Rows):**

- To merge cells vertically, you use the rowspan attribute. This attribute specifies how many rows a cell should span.

**EXAMPLE**

```
<table border="1">
```

```
<tr>  
  <td rowspan="2">Merged Row 1</td>  
  <td>Row 1, Col 2</td>  
</tr>  
<tr>  
  <td>Row 2, Col 2</td>  
</tr>  
</table>
```

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

**ANS:**

- **Block-level elements:**
  - **Structural Elements:** Block-level elements are usually structural elements that represent the main components of a webpage, such as headings, paragraphs, lists, and divs.
  - **Vertical Stacking:** Block-level elements create a "block" of content, stacking vertically on top of each other, creating a new line for each element.

#### EXAMPLE

```
<div>, <p>, <h1>, <ul>, <li>
```

- **Inline elements:**

- Inline elements do not start on a new line; they only take up as much width as necessary. They do not force a new line to begin in the document flow

**EXAMPLE**

`<span>`, `<a>`, `<strong>`, `<em>`, `<img>`

## 12. How to create a Hyperlink in HTML?

**ANS:** To create a hyperlink in HTML, you can use the `<a>` (anchor) element. The `<a>` element is used to define hyperlinks, allowing users to click and navigate to another web page, a file, an email address, or any other URL.

- **Absolute Hyperlink:**

- An absolute hyperlink specifies the complete URL of the linked resource, including the protocol (like `http://` or `https://`)

**EXAMPLE**

`<a href="https://www.example.com">Click me to visit Example.com!</a>`

- **Relative Hyperlink:**

- A relative hyperlink specifies the path to the linked resource relative to the current web page's location. Relative links are often used within the same website or domain

### EXAMPLE

```
<a href="page.html">Click me to go to Page.html!</a>
```

13. What is the use of an iframe tag?

**ANS:** The <iframe> (short for 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 webpage or media, directly within your web page.

### EXAMPLE

```
<iframe src="https://www.example.com"></iframe>
```

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

**ANS:** The <span> tag in HTML is an inline element used to apply styles and scripting to a specific portion of text or a part of a document.

### Use of <span> Tag:

- **Styling Text:** You can use the <span> tag to apply specific styles, such as color, font size, or background color, to a particular section of text within a paragraph or heading.

### EXAMPLE

- <p>This is a <span style="color: blue;">blue</span> word in a sentence.</p>

- **Applying CSS Classes:** Instead of inline styles, you can use the `<span>` tag in combination with CSS classes to apply consistent styles across multiple elements.

### EXAMPLE

- `<p>This is a <span class="highlight">highlighted</span> word in a sentence.</p>`

```
.highlight {  
    background-color: yellow;  
    font-weight: bold;  
}
```

15. How to insert a picture into a background image of a web page?

**ANS:** To insert a picture into a background image of a web page, you can use CSS (Cascading Style Sheets) to style your HTML elements.

- **Using CSS background property**
  - First, make sure you have an HTML element to apply the background image to. For example, a `<div>` element:  
`<div class="background-container">  
 <!-- Content goes here -->  
</div>`
  - In your CSS file or `<style>` tag inside the `<head>` section, specify the background image using the background property.

```
.background-container {  
    background: url('path/to/your/image.jpg') center  
center/cover no-repeat;  
    /* other styles if needed */  
}
```

- **Using background-image property**

- Alternatively, you can use the background-image property directly:

```
.background-container {  
    background-image: url('path/to/your/image.jpg');  
    background-position: center center;  
    background-size: cover;  
    background-repeat: no-repeat;  
}
```

16. How are active links different from normal links?

**ANS:**

- **Normal Links**

- Normal links, also known as default links or unvisited links, are the standard state of hyperlinks on a web page.
- By default, unvisited links are usually displayed as blue text with an underline.

- **Active Links**

- an active link is a link that is currently being clicked or interacted with by the user.
- The appearance of active links can vary based on the CSS styles applied to them. Web designers often define specific styles for active links to provide visual feedback to users, indicating that the link is being interacted with.

```
a:active {  
    color: red;  
}
```

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

**ANS:**

- **<div>**: The <div> tag is a block-level element that is often used as a container to group other HTML elements and apply styles using CSS. It does not add any specific styling on its own, but it helps in organizing and structuring the content.
- **<p>**: The <p> tag is used for paragraphs of text. It automatically adds space before and after the content, separating it from surrounding text.
- **<h1>, <h2>, <h3>, <h4>, <h5>, <h6>**: These are header tags used for headings. They create a hierarchical structure for your content, with <h1> being the highest (most important) level and <h6> being the lowest.
- **<section>**: The <section> tag defines a section in a document. It is often used to group related content together and can be helpful for styling and organizing the content of a webpage.
- **<article>**: The <article> tag represents a self-contained piece of content that could be distributed and reused independently, such as a blog post or a news article.
- **<footer>**: The <footer> tag defines a footer for a document or a section. It is typically used to contain information about the author, copyright, contact details, or related links.

## 18. What is SVG?

**ANS:** SVG stands for Scalable Vector Graphics. It is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation. SVG files describe images using a text-based language that defines shapes, paths, colors, and other graphical elements.

points about SVG:

- Vector Graphics
- XML-Based Format
- Resolution-Independent
- Interactivity and Animation
- Accessibility
- Supported by Modern Browsers

## 19. What is difference between HTML and XHTML?

**ANS:**

- **HTML**
  - HTML has a more lenient syntax.
  - In traditional HTML, some tags don't require closing tags
  - HTML documents can be a bit more forgiving in terms of document structure errors.
  - HTML tags and attribute names are case-insensitive, which means you can write them in uppercase or lowercase, and they will be interpreted the same way.
  - HTML documents may or may not have a Doctype declaration,
- **XHTML**
  - XHTML is stricter.
  - XHTML requires all tags to be properly closed.



- XHTML documents must be well-formed XML documents
- XHTML tags and attributes are case-sensitive.
- XHTML documents must have a Doctype declaration

20. What are logical and physical tags in HTML?

ANS:

▪ **Semantic Tags (Logical Tags):**

- Semantic HTML tags are used to give meaning and structure to the content within a web page

**TAGS**

- **<header>**: Represents a container for introductory content or a set of navigational links.
- **<nav>**: Defines a section of navigation links.
- **<main>**: Represents the main content of a document.
- **<article>**: Represents a self-contained piece of content, such as a news article or blog post.
- **<section>**: Defines a section of related content.
- **<aside>**: Represents content that is tangentially related to the content around it.
- **<footer>**: Represents a footer for a document or section.

▪ **Formatting Tags (Physical Tags):**

- Formatting tags, also known as physical tags or presentational tags, were used in earlier versions of HTML to control the appearance of content on a webpage

**TAGS**

- **<i>**: Italicized text.
- **<u>**: Underlined text.
- **<font>**: Used to specify font size, color, and face.
- **<center>**: Used to center-align content.