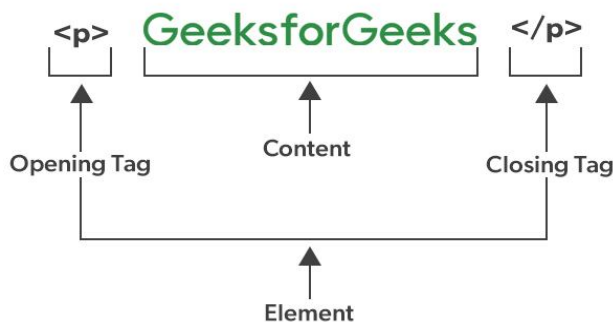


Web Designing Assignment

Module 1 (HTML)

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

HTML elements and tags are a lot different. Let's see what HTML elements and Tags actually are and their differences. The below image tells about HTML Elements and HTML Tags.



HTML Tags: The starting and ending point parts of an HTML document are *HTML Tags*, which start with < (*less than*) and end with > (*greater than*) angle bracket, and whatever is written inside the angle brackets are known as **tags**. Both opening and closing tags must be there in order to function. There are also some self enclosing tags which require only one tag such as <hr>, ,
 etc. The ending slash over here is optional.

Syntax:

```
<tagname>
...
</tagname>
```

HTML Elements: Elements in HTML enclose the content in between the tags. It consists of an expression or a structure. Its architecture consists of a start tag, content followed by an ending tag.

Syntax:

```
<b> This is the content. </b>
```

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2. What are tags and attributes in HTML?

HTML tags are used to hold the HTML element. HTML element holds the content. HTML attributes are used to describe the characteristic of an HTML element in detail. HTML tag starts with < and ends with > Whatever written within a HTML tag are HTML elements.

HTML Attributes:

[HTML Attributes](#) is used to define the character of an HTML element. It always placed in the opening tag of an element. It generally provides additional styling (attribute) to the element.

- All HTML elements can have **attributes**
- The **href** attribute of <a> specifies the URL of the page the link goes to
- The **src** attribute of specifies the path to the image to be displayed
- The **width** and **height** attributes of provide size information for images
- The **alt** attribute of provides an alternate text for an image
- The **style** attribute is used to add styles to an element, such as color, font, size, and more
- The **lang** attribute of the <html> tag declares the language of the Web page
- The **title** attribute defines some extra information about an element

3. What are void elements in HTML?

A **void element** is an [element](#) in HTML that **cannot** have any child nodes (i.e., nested elements or text nodes). Void elements only have a start tag; end tags must not be specified for void elements.

In HTML, a void element must not have an end tag. For example, <input type="text"></input> is invalid HTML. In contrast, SVG or MathML elements that cannot have any child nodes may use an end tag instead of XML self-closing-tag syntax in their start tag.

The [HTML](#), [SVG](#), and [MathML](#) specifications define very precisely what each element can contain. So, some combinations of tags have no semantic meaning.

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Although there is no way to mark up a void element as having any children, child nodes can be added programmatically to the element in the DOM using JavaScript. But that is not a good practice, as the outcome will not be reliable.

The void elements in HTML are as follows:

- [<area>](#)
- [<base>](#)
- [
](#)
- [<col>](#)
- [<embed>](#)
- [<hr>](#)
- [](#)
- [<input>](#)
- [<link>](#)
- [<meta>](#)
- [<param>](#) Deprecated
- [<source>](#)
- [<track>](#)
- [<wbr>](#)

Characteristics:

- Void elements do not have end tags.
- Void elements cannot have content inside it.
- Void elements have attributes.
- Void elements cannot be nested.

4. What are HTML Entities?

An HTML entity is a piece of text ("string") that begins with an ampersand (&) and ends with a semicolon (;). HTML entities are frequently used to display reserved characters (which would otherwise be interpreted as HTML code), and invisible characters (like non-breaking spaces).

5. What are different types of lists in HTML?

HTML lists come in three main categories: unordered lists, ordered lists, and definition lists. Each type serves a specific purpose and can be customized to fit your design and content needs.

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Unordered HTML List

An unordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be marked with bullets (small black circles) by default:

Ordered HTML List

An ordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be marked with numbers by default:

HTML Description Lists

HTML also supports description lists.

A description list is a list of terms, with a description of each term.

The `<dl>` tag defines the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describes each term:

HTML List Tags

Tag	Description
<code></code>	Defines an unordered list
<code></code>	Defines an ordered list
<code></code>	Defines a list item
<code><dl></code>	Defines a description list

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[<dt>](#)

Defines a term in a description list

[<dd>](#)

Describes the term in a description list

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

- 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.

Applies to The **class** attribute is part of the [Global Attributes](#), and can be used on any HTML element.

- The HTML **class** attribute is used to specify a class for an HTML element.
- Multiple HTML elements can share the same class.
- The **class** attribute is often used to point to a class name in a style sheet. It can also be used by a JavaScript to access and manipulate elements with the specific class name.

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

HTML id Attribute: The id attribute is a unique identifier that is used to specify the document. It is used by CSS and JavaScript to perform a certain task for a unique element. In CSS, the id attribute is written using the # symbol followed by id.

Syntax:

```
<element id="id_name">
```

In CSS Stylesheet:

```
#id_name {
```

```
// CSS Property
```

```
}
```

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HTML class Attribute: The class attribute is used to specify one or more class names for an HTML element. The class attribute can be used on any HTML element. The class name can be used by CSS and JavaScript to perform certain tasks for elements with the specified class name. The class name in CSS stylesheet using "." symbol.

Syntax:

```
<element class="class_name">
```

In CSS Stylesheet:

```
.class {  
  // CSS Property  
}
```

8. What are the various formatting tags in HTML?

Formatting elements were designed to display special types of text:

- **** - Bold text
- **** - Important text
- **<i>** - Italic text
- **** - Emphasized text
- **<mark>** - Marked text
- **<small>** - Smaller text
- **** - Deleted text
- **<ins>** - Inserted text
- **<sub>** - Subscript text
- **<sup>** - Superscript text

HTML **** and **** Elements

The HTML **** element defines bold text, without any extra importance.

The HTML **** element defines text with strong importance. The content inside is typically displayed in bold.

HTML **<i>** and **** Elements

The HTML **<i>** element defines a part of text in an alternate voice or mood. The content

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inside is typically displayed in italic.

Tip: The `<i>` tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

The HTML `` element defines emphasized text. The content inside is typically displayed in italic.

Tip: A screen reader will pronounce the words in `` with an emphasis, using verbal stress.

HTML `<small>` Element

The HTML `<small>` element defines smaller text:

HTML `<mark>` Element

The HTML `<mark>` element defines text that should be marked or highlighted:

HTML `` Element

The HTML `` element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

HTML `<ins>` Element

The HTML `<ins>` element defines a text that has been inserted into a document. Browsers will usually underline inserted text:

HTML `<sub>` Element

The HTML `<sub>` element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H₂O:

HTML `<sup>` Element

The HTML `<sup>` element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW^[1]:

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9. How is Cell Padding different from Cell Spacing?

Cell padding and cell spacing are two different things. Cell spacing refers to the distance between the cells in a grid layout, and cell padding refers to the space around each cell. Cell padding and cell spacing are two techniques you can use to improve the look of your website.

- **Cellpadding:**

Cellpadding specifies the space between the border of a table cell and its contents (i.e) it defines the whitespace between the cell edge and the content of the cell.

Syntax:

`<table cellpadding="value" >.....</table>`

where, value determines the padding

(space between the border of a table and its content)

- **Cellspacing:**

Cellspacing specifies the space between cells (i.e) it defines the whitespace between the edges of the adjacent cells.

Syntax:

`<table cellspacing="value" >.....</table>`

where, value determines the padding

(space between adjacent cells)

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

We use the colspan and rowspan attribute, to merge cells in HTML. The rowspan attribute is for the number of rows a cell should merge, whereas the colspan attribute is for the number of columns a cell should merge. The attribute should be placed inside the <td> tag.

Syntax:

Following is the syntax to merge table cells in HTML.

`<td rowspan="2">cell data</td>`

Using colspan attribute We can merge the column cells of the table by using below syntax.

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Syntax:

For **colspan** we use below syntax.

```
<td colspan="2">cell data</td>
```

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

Block elements: They consume the entire width available irrespective of their sufficiency. They always start in a new line and have top and bottom margins. It does not contain any other elements next to it.

Examples of Block elements:

- **<h1>-<h6>** : This element is used for including headings of different sizes ranging from 1 to 6.
- **<div>**: This is a container tag and is used to make separate divisions of content on the web page.
- **<hr>**: This is an empty tag and is used for separating content by horizontal lines.
- ****: This tag is used for including list items of an ordered or unordered list.
- ****: This tag is used to make an unordered list.
- ****: This tag is used to make an ordered list.
- **<p>**: This tag is used to include paragraphs of content in the webpage.
- **<table>**: This tag is used for including the tables in the webpage when there is a need for tabular data.

Inline elements: Inline elements occupy only enough width that is sufficient to it and allows other elements next to it which are inline. Inline elements don't start from a new line and don't have top and bottom margins as block elements have.

Examples of Inline elements:

- **<a>**: This tag is used for including hyperlinks in the webpage.
- **
**: This tag is used for mentioning line breaks in the webpage wherever needed.
- **<script>** : This tag is used for including external and internal JavaScript codes.
- **<input>**: This tag is used for taking input from the users and is mainly used in forms.
- ****: This tag is used for including different images in the webpage to add beauty to the webpage.
- ****: This is an inline container that takes necessary space only.
- ****: This tag is used in places where bold text is needed.
- **<label>**: The tag in HTML is used to provide a usability improvement for mouse users i.e, if a user clicks on the text within the <label> element, it toggles the control.

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Difference between Inline and Block elements:

Inline Elements	Block Elements
Inline elements occupy only sufficient width required.	Block Elements occupy the full width irrespective of their sufficiency.
Inline elements don't start in a new line.	Block elements always start in a line.
Inline elements allow other inline elements to sit behind.	Block elements doesn't allow other elements to sit behind
Inline elements don't have top and bottom margin	Block elements have top and bottom margin.

12.How to create a Hyperlink in HTML?

HTML Links

Links are found in nearly all web pages. Links allow users to click their way from page to page.

HTML Links - Hyperlinks

HTML links are hyperlinks.

You can click on a link and jump to another document.

When you move the mouse over a link, the mouse arrow will turn into a little hand.

HTML Links - Syntax

The HTML <a> tag defines a hyperlink. It has the following syntax:

```
<a href="url">link text</a>
```

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The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.

The *link text* is the part that will be visible to the reader.

Clicking on the link text, will send the reader to the specified URL address.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

13.What is the use of an iframe tag?

The `<iframe>` tag specifies an inline frame.

An inline frame is used to embed another document within the current HTML document.

Tip: Use CSS to style the `<iframe>` (see example below).

Tip: It is a good practice to always include a `title` attribute for the `<iframe>`. This is used by screen readers to read out what the content of the `<iframe>` is.

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

The `` tag is an inline container used to mark up a part of a text, or a part of a document.

The `` tag is easily styled by CSS or manipulated with JavaScript using the `class` or `id` attribute.

The `` tag is much like the `<div>` element, but `<div>` is a block-level element and `` is an inline element.

Example:

A `` element which is used to color a part of a text:

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

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

We can use the background attribute in the body tag to set an image as the background of the webpage. We will need to specify the URL or the location of the image which we want to set to the background attribute of the body tag.

In this article, we will be adding an image as the background image of a web page. Background images are used to make a website more interactive and attractive. It can be applied in many stylings.

Approach:

- In the body tag, specify a background image in the background attribute by passing the URL of the image or location path.
- Adding CSS styling properties.

Syntax:

```
<body background = "URL or path" > Website Body </body>
```

16.How are active links different from normal links?

A normal link is just a line of code that contains a pointer to another resource. An active link is that line of code in action, opening that other resource.

Unvisited Links

In HTML, an unvisited link is a hyperlink that is not yet clicked by the user. By default, the unvisited links will be in blue in color with an underline. However, we can customize the style using the CSS properties (**a:link**).

Active Links

An Active link is a hyperlink that is currently being interacted with the user. Whenever the user holds the mouse button on the link and not released yet or if right clicked on it, it will change its color into red, this is when the link will be in active state.

The active state is temporary and ends once the user releases the mouse button. However, we can customize the style of the active links using the CSS properties (**a:active**).

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

We separate a section of texts in HTML using the below tags:
 tag – It is used to separate the line of text. It breaks the current line and shifts the flow of the text to a new line. <p> tag–This tag is used to write a paragraph of text. You can separate a section of text in HTML by using the <p> tag.

There are three tags used to separate the texts. i.e. usually
 tag is used to separate line of texts. Other tags are<p> tag and <blockquote> tag.

The
 tag is one way to separate the lines of text. There are other tags like the <p> tag and <blockquote> tag that are also used to separate sections of text.

18.What is SVG?

SVG (Scalable Vector Graphics) is an XML-based vector image format for defining two-dimensional graphics, having support for interactivity and animation. The SVG specification is an open standard developed by the World Wide Web Consortium since 1999.

The svg element is a container that defines a new coordinate system and viewport. It is used as the outermost element of SVG documents, but it can also be used to embed an SVG fragment inside an SVG or HTML document.

19.What is difference between HTML and XHTML?

S.No.	HTML	XHTML
1.	HTML stands for Hypertext Markup Language.	XHTML stands for Extensible Hypertext Markup Language.
2.	It was developed by Tim Berners-Lee.	It was developed by W3C i.e World Wide Web Consortium.

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S.No.	HTML	XHTML
3.	It was developed in 1991.	It was released in 2000.
4.	It is extended from SGML.	It is extended from XML and HTML.
5.	The format is a document file format.	The format is a markup language.
6.	All tags and attributes are not necessarily to be in lower or upper case.	In this, every tag and attribute should be in lower case.
7.	Doctype is not necessary to write at the top.	Doctype is very necessary to write at the top of the file.
8.	It is not necessary to close the tags in the order they are opened.	It is necessary to close the tags in the order they are opened.
9.	While using the attributes it is not necessary to mention quotes. For e.g. <Geeks>.	While using the attributes it is mandatory to mention quotes. For e.g. <Geeks="GFG">.
10.	Filename extension used are .html, .htm.	Filename extension are .xhtml, .xht, .xml.

20.What are logical and physical tags in HTML?

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.

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Physical Tags are used to indicate that how specific characters are to be formatted or indicated using HTML tags. Any physical style tag may contain any item allowed in text, including conventional text, images, line breaks, etc. Although each physical tag has a defined style, you can override that style by defining your own look for each tag. All physical tags require ending tags.

Syntax:

<tag_name> formatting character or para </tag_name>

Features of Physical Tags:

- They are extremely straightforward.
- They are used to highlighting important sentences.
- Physical Text Styles indicate the specific type of appearance for a section e.g., bold, italics, etc.
- Physical Styles are rendered in the same manner by all browsers.

Physical Tags:

Tag	Description	Tag	Description
	Defines bold text	<sup>	Defines ^{superscripted} text
<big>	Defines big text	<sub>	Defines _{subscripted} text
<i>	Defines <i>italic</i> text	<tt>	Defines teletype text
<small>	Defines small text	<u>	Deprecated. Use styles instead

Logical tags are used to tell the browser what kind of text is written inside the tags. They are different from physical tags because physical tags are used to decide the appearance of the text and do not provide any information about the text.

Logical tags are used to indicate to the visually impaired person that there is something more important in text or to emphasize the text.

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Some cases when we could use logical tags are:

- When we want to write code on our website.
- When we want to Emphasize some text.
- When we want to display the abbreviation on the Web page.
- When we want to display some famous quotation on our web page.
- When we want to write some mathematical formula in terms of variables.

Logical Tags:

Tag	Description	Tag	Description
<abbr>	Defines an abbreviation	<dfn>	Defines a definition term
<acronym>	Defines an acronym	<ins>	Defines inserted text
<address>	Defines an address element	<kbd>	Defines keyboard text
<cite>	Defines citation	<pre>	Defines preformatted text
<code>	Defines computer code text	<q>	Defines short quotation
<blockquote>	Defines a long quotation	<samp>	Defines sample computer code
	Defines text		Defines strong text
<dfn>	Defines a definition term	<var>	Defines a variable