Assignment

Ques 3: Write a short note on tags, elements, and attributes along with relevant examples.
Answer :

1. **Tags:** Tags are the building blocks of HTML (Hypertext Markup Language). They are used to define the structure and content of a web page or document. Tags are enclosed in angle brackets("< >") and appear as pairs: an opening tag and a closing tag.
   Example: <p>This is a paragraph.</p> where <p> tag is used to define a paragraph.<p> indicates the starting tag and </p> indicates the closing tag.

2. **Elements:** Elements are made up of tags and the content between them. They represent different parts of a document, such as headings,paragraphs,lists,images,etc. Elements can be nested within each other to create a hierarchical structure.
   Examples: <h1> Welcome to my Website! </h1> where <h1> represents a heading.

3. **Attributes:** Attributes provide additional information about an element. They are added to the opening tag of an element and consist of a name and a value. Attributes are used to modify the behaviour appearance of an element.
   Example: Click me where <a> denotes the anchor tag.used for creating the hyperlinks.

Ques 4: List out any 3 tags we learned in this module and give a brief explanation about the tags.
Answer:

1. **Table Tag:** The <table> tag is an HTML element that is used to display data in a tabular format. A table consists of rows and columns, and each cell in the table can contain text, images, or other HTML elements. Tables are commonly used to display data in a structured way, such as a list of products, a schedule, or a database.The <table> tag has the following attributes:
   - border: This attribute specifies the width of the border around the table.
   - cellpadding: This attribute specifies the amount of padding inside each cell.
   - cellspacing: This attribute specifies the amount of space between cells.
2. **Image Tag:** The <img> tag is used to embed an image in an HTML page. Images are not technically inserted into a web page; images are linked to web pages. The <img> tag creates a holding space for the referenced image. The <img> tag has two required attributes:
   - src - Specifies the path to the image
   - alt - Specifies an alternate text for the image, if the image for some reason cannot be displayed
3. **Anchor Tag:** The anchor tag, or <a> tag, is an HTML element that creates a hyperlink to another web page, file, or location on the same page. The href attribute is used to specify the link's destination. The most common use of the anchor tag is to create links to other web pages. However, it can also be used to create links to files, email addresses, or locations on the same page.The anchor tag has a number of attributes that can be used to customize the appearance and behaviour of the link. These attributes include:
   - href: Specifies the link's destination.
   - target: Specifies the target window or frame for the link.
   - title: Specifies a title for the link.

Ques 5: What is Emmet? List some of the advantages Emmet offers?

Answer: Emmet is a text expansion plugin for web developers that allows you to write HTML, CSS, and JavaScript code more quickly and easily by using abbreviations that expand into full code. It is also known as Zen Coding.

Here are some of the advantages of using Emmet:

- Speed: Emmet can save you a lot of time when writing code. For example, instead of typing out the entire HTML code for a table, you can simply type a table and Emmet will expand it into the full code for a table.
- Consistency: Emmet can help you to write consistent code. For example, if you always use the same naming

convention for your HTML elements, Emmet can help you to maintain that convention.

- Accuracy: Emmet can help you to write accurate code. For example, if you use Emmet to generate HTML code for a table, Emmet will ensure that the code is valid and properly formatted.
- Flexibility: Emmet is a very flexible tool. It can be used for a wide variety of web development tasks, including creating HTML pages, CSS styles, and JavaScript code.

Ques 7: Explain in brief about the nesting operators in emmet.

Answer: Emmet nesting operators are used to position abbreviation elements inside the generated tree: whether it should be placed inside or near the context element.

Here are the four main nesting operators in Emmet:

- Child: The > operator is used to nest elements inside each other. For example, the abbreviation div>ul>li will create a div element with a nested ul element with a nested li element.
- Sibling: The + operator is used to place elements on the same level near each other. For example, the abbreviation div+p+bq will create a div element, followed by a p element, followed by a bq element.
- Climb-up: The ^ operator is used to climb one level up and place the element in that position. For example, the abbreviation div+div^p>span+em will create a div element, followed by a nested div element, followed by a p element with a nested span element and em element.
- Multiplication: The * operator is used to define how many times an element should be outputted. For example, the abbreviation ul>li*5 will create five li elements inside a ul element.

In addition to these four main nesting operators, Emmet also supports a number of other nesting operators, such as () for grouping, id and class for defining IDs and classes, and text for inserting text.

Ques 9: What are self-closing tags? Write a brief note on meta tags.

Answer: A self-closing tag is an HTML tag that does not need to be closed manually by its closing tag. This means that it does not have a separate closing tag as </tag>. Self-closing tags are sometimes also known as empty tags, void tags, or singletons.

Self-closing tags are used for elements that do not have any content. For example, the <br> tag is used to create a line break, and it does not have any content. The <img> tag is used to insert an image, and it does not have any content.

To create a self-closing tag, you simply add a forward slash (/) to the end of the tag name. For example, the <br> tag would be written as <br/>.

Meta tags are HTML elements that provide information about a web page. They are not visible to users, but they can be read by search engines and other software. Meta tags are typically used to specify the title of the page, the keywords used to describe the page, and the author of the page.

Meta tags are placed in the <head> section of an HTML document. They are enclosed in <meta> tags. The <meta> tag has two attributes: the name attribute and the content attribute.

Ques 10: What are global attributes? List any 5 global attributes.

Answer: Global attributes are attributes that can be used with any HTML element. They are not specific to any particular element. Some common global attributes include:

- id - This attribute specifies a unique identifier for the element.
- class - This attribute specifies one or more classes for the element. Classes can be used to style the element or to group it with other elements.
- style - This attribute specifies the style for the element. Styles can be used to control the appearance of the element, such as its colour, font, and size.

- data-* - This attribute is used to store custom data for the element. This data can be used by JavaScript or other scripts.
- title - This attribute specifies a title for the element. The title is displayed as a tooltip when the element is hovered over.

Here are 5 global attributes:

1. id
2. class
3. style
4. data-*
5. title