### Answer 13:

**HTML** (**Hypertext Markup Language**) is a language used for creating web pages. It is composed of tags, elements, and attributes, which work together to create a document structure and format its content. Here's a brief overview of each of these components:

# **HTML Tags:**

Tags are used to mark up the content on a webpage, and they indicate the purpose of the text they enclose. They are enclosed within angle brackets (<>) and can be open or closed. An opening tag starts with "<" and ends with ">" while a closing tag is similar but includes a forward slash (/) before the tag name. Tags usually come in pairs, with the closing tag having the same name as the opening tag.

**Example:** This is a paragraph

#### **HTML Elements:**

An element is a combination of one or more tags that define a specific piece of content. It includes both the opening and closing tags, as well as any content between them.

```
Example: <div>
<h1>Welcome to my website!</h1>
My name is John and I love to code.
</div>
```

#### **HTML Attributes:**

Attributes provide additional information about an element, such as its behavior or style. They are included within the opening tag and consist of a name-value pair enclosed in quotes.

**Example:** <img src="image.jpg" alt="A beautiful sunset">

## Answer 14:

## 1. <h1>:

This tag is used to define a heading on a web page. It is the largest and most important of the heading tags, typically used for the page's main title. Subsequent headings should be represented with the <h2> through <h6> tags, with <h2> being the second most important and <h6> being the least important.

## **Example:**

<h1>Welcome to my website!</h1>

## 2. :

This tag is used to define a paragraph of text on a web page. It is used to separate text content into distinct blocks, making it easier to read and understand.

# **Example:**

My name is John and I love to code.

## 3. <a>:

This tag is used to create hyperlinks to other web pages or resources. It can be used to link to other pages on the same website, external websites, or specific parts of a page. The href attribute is used to specify the URL of the page or resource being linked to.

# **Example:**

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

#### Answer 15:

**Emmet** is a code abbreviation tool that allows developers to write HTML and CSS code quickly and efficiently. It uses a shorthand syntax that can be expanded into full HTML and CSS code automatically.

# Here are some advantages of using Emmet:

**Speed:** Emmet can drastically reduce the amount of time and effort needed to write HTML and CSS code, allowing developers to work faster and be more productive.

**Efficiency:** Emmet's shorthand syntax is designed to be intuitive and easy to use, helping developers to write code more efficiently and with fewer errors.

**Consistency:** Emmet's auto-expansion feature helps ensure consistent formatting and style across the codebase, making it easier to maintain and collaborate on.

**Flexibility:** Emmet can be used with a wide range of text editors and IDEs, including popular tools like Visual Studio Code, Sublime Text, and Atom.

**Customization:** Emmet allows developers to customise the syntax and behaviour of the tool to match their own preferences and coding style.

#### Answer 17:

**Nesting operators** are a set of characters used in Emmet's shorthand syntax to define the relationship between HTML elements. They allow developers to quickly and easily create complex nested structures without having to write out each element individually.

Here are some common nesting operators used in Emmet:

- 1. > (child operator): This operator is used to define a child element inside a parent element. For example, ul>li will generate an unordered list (ul) containing a list item (li) inside it.
- 2. + (sibling operator): This operator is used to define a sibling element next to another element. For example, h1+p will generate a heading (h1) followed by a paragraph (p) at the same level.
- 3. ^ (climbing up operator): This operator is used to climb up the hierarchy of HTML elements. For example, div>ul>li^a will generate a list item (li) followed by a link (a) that is a sibling of the list item's parent (div).
- 4. () (grouping operator): This operator is used to group elements together and apply the same nesting operator to all of them. For example, ul>(li>a)+(li>a)+(li>a) will generate an unordered list (ul) containing three list items (li), each containing a link (a).

## Answer 19:

**Self-closing tags**, also known as void elements, are HTML elements that do not require a closing tag. They are used to insert content that does not have any content inside them, such as images, line breaks, or input fields.

Some common self-closing tags in HTML include **<img>**, **<br/>br>**, **<input>**, **and <hr>**.

**Meta tags**: are special HTML tags that provide additional information about a web page to search engines and other software. They are typically placed in the <head> section of an HTML document and do not have any visible content on the web page itself.

## Answer 20:

#### **Global Attributes:**

The global attributes are attributes that can be used with all HTML elements.

Following are the five Global Attributes:

- 1. Accesskey
- 2. Class
- 3. Dir
- 4. Hidden
- 5. lang