



## 1) Are the HTML tags and elements the same thing?

- No, HTML tags and elements are not the same thing, although they are closely related. HTML (Hypertext Markup Language) is the standard language used to create the structure and content of webpages. It uses various tags to define the different elements within a webpage. An HTML tag is a set of characters surrounded by angle brackets (< and >) that define specific elements in the document. Tags are used to Markup content, and they provide the structure and semantics of the content on a webpage.
- An HTML element, on the other hand, consists of the opening tag, the content (which can be text or other nested elements), and the closing tag. It represents a complete unit of content within the HTML document. Elements are formed by enclosing content between an opening tag and a corresponding closing tag.
- For example, consider a simple paragraph in HTML:-  
`<p>This is a paragraph.</p>`
- In this example:  
`<p>` is the opening tag, which represents **the start of the paragraph element**.  
This is a paragraph. is the content of the paragraph element.  
`</p>` is the closing tag, which represents **the end of the paragraph element**.
- So, to summarize, HTML tags are used to define specific elements within an HTML document, and HTML elements consist of the opening tag, content, and closing tag that form a complete unit of content.

## 2) What are tags and attributes in HTML?

- A **tag** is a way of representing an **HTML element** in the program, while an **attribute** is a way of describing the characteristics of an **HTML element**.
- 1. Tags:- HTML tags are special markers represented by text enclosed in angle brackets (< and >) that define specific elements within an HTML document. Tags are used to mark up content, giving it structure and semantics. Each tag represents a different element on the webpage, such as headings, paragraphs, images, links, lists, tables, and more.
- Tags come in pairs: an opening tag and a closing tag. The opening tag indicates the beginning of an element, while the closing tag indicates the end. The content of an element is placed between these tags. Some elements, like line breaks or images, do not require a closing tag.



Example of a tags:-

```
<h1>H1</h1>
<h2>H2</h2>
<h3>H3</h3>
<h4>H4</h4>
<h5>H5</h5>
<h6>H6</h6>
<div>div</div><!--This tag is use for division or section-->
<p>P</p><!--This tag is used for writing paragraph-->
<b>Bold</b><!--Strong is used for bold the sentences or words-->
<br>
<i>italic</i><!--Em tag also use for italic-->
<u>underline</u><!--ins tag is also use for underline-->
<hr> <!--Hr tag is used to insert a horizontal rule or thematic break is an HTML an page to divide or
sperate document section-->
2 <sup>nd</sup><!--This tag is generally use for mathametics-->
C <sub>O</sub> 2<!--This tag is generally use for science-->
<marquee behavior="" direction="right" scrollamount="100">Hiiiiii</marquee>
<!--Marquee tag is use for scrolling text or image in a webpage-->
<pre>
  Hii
  Hello World
</pre>
<!--Pre tag is use for define performatted text-->
```

2. Attributes: HTML attributes provide additional information about an HTML element. They are specified within the opening tag and help modify the behavior or appearance of the element. Attributes consist of a name-value pair and are used to provide extra information to the browser or to associate elements with specific functionality or styling.

Example of an attribute:

```

```

In this example, The **<img>** tag should also contain the **width** and **height** attributes, which specify the width and height of the image

The required **alt** attribute for the **<img>** tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the **src** attribute, or if the user uses a screen reader..



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

- In HTML, void elements (also known as self-closing elements or empty elements) are elements that do not have any content or text between an opening tag and a closing tag. Instead, they are self-contained and do not require a separate closing tag. Void elements are used to insert specific types of content or components into a web page, such as images, line breaks, or horizontal rules.
- Void elements are defined in such a way that their opening tags end with a forward slash ("/") before the closing angle bracket. This format indicates to the browser that the element is self-closing and doesn't need a corresponding closing tag.
- Examples of void elements in HTML:

```
<br> <!--Represents a line break.-->
<img><!--Represents an image.-->

<input> <!--Represents an input field.-->
<input type="text" name="username">
<hr><!--Represents a horizontal rule (a horizontal line).-->
<link><!--Defines a link between the current document and Online Pages-->
<link rel="icon" href="HTML/icon.png">
```

### 4) What are HTML Entities?

- HTML entities are special codes or character references used to represent characters that have special meaning in HTML or that cannot be easily represented directly using the standard character set. In HTML, characters like '<', '>', '&', '"', and others have special significance and are reserved for markup purposes. To display these characters as regular text on a webpage, you use HTML entities to escape them.
- HTML entities start with an ampersand ('&') followed by a specific code or name, and they end with a semicolon (';'). The format of an HTML entity is '&name;' for named entities or '&#code;' for numeric entities.
- Example of HTML entities:

```
<body>
  &copy;
  &reg;
  &pound;
  &dollar;
  &hearts;
  &ssmile;
</body>
```



- Output of Entities:-



- HTML entities are essential for displaying reserved characters and symbols correctly in web pages without conflicting with HTML's markup syntax
- Using HTML entities ensures that content is rendered correctly and consistently across different browsers and platforms, regardless of the character encoding settings or language used in the document.

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

- In HTML, there are three main types of lists that you can use to organize and present information in a structured manner:
- 1. Ordered List (`<ol>`):
- An ordered list is used when you want to present a list of items in a specific order, typically with numbers or letters. Each item in the list is automatically numbered or lettered by the browser.
- Example of an ordered list:

```
<body>
  <ol type="A">
    <li>First item</li>
    <li>Second item</li>
    <li>Third item</li>
  </ol>
</body>
```

- Output:-

A. First item  
B. Second item  
C. Third item



## 2. Unordered List (`<ul>`):

- An unordered list is used when the order of the items doesn't matter, and they are typically represented with bullet points. The browser will automatically add bullet points (or other symbols depending on the CSS) to each item.
- Example of an unordered list:

```
<body>
  <ul>
    <li>Red</li>
    <li>Green</li>
    <li>Blue</li>
  </ul>
</body>
```

- Output:-

- Red
- Green
- Blue

## 3. Description List (`<dl>`):

- A description list is used to present a list of terms and their corresponding descriptions. It consists of term-description pairs, where the term is defined using the `<dt>` (description term) tag, and the description is provided using the `<dd>` (description data) tag.



- Example of a description list:

```
<body>
  <dl>
    <dt>HTML</dt>
    <dd>Hypertext Markup Language</dd>

    <dt>JS</dt>
    <dd>Java Script</dd>
  </dl>
</body>
```

- Output:

HTML

Hypertext Markup Language

JS

Java Script

- These list types can also be nested within each other to create more complex structures.



## 6) What are the various formatting tags in HTML?

- In HTML (Hypertext Markup Language), formatting tags are used to apply different styles and structures to the content of a web page. Here are some of the commonly used formatting tags in HTML:-
- Example of formatting tags:-

```
<h1>H1</h1>
<h2>H2</h2>
<h3>H3</h3>
<h4>H4</h4>
<h5>H5</h5>
<h6>H6</h6>
<div>div</div><!--This tag is use for division or section-->
<p>P</p><!--This tag is used for writing paragraph-->
<b>Bold</b><!--Strong is used for bold the sentences or words-->
<br>
<i>italic</i><!--Em tag also use for italic-->
<u>underline</u><!--ins tag is also use for underline-->
<hr> <!--Hr tag is used to insert a horizontal rule or thematic break is an HTML an page to divide or sperate document section-->
2 <sup>nd</sup><!--This tag is generally use for mathametics-->
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<pre>
  Hii
  Hello World
</pre>
<!--Pre tag is use for define performatted text-->
```

## 7) How is Cell Padding different from Cell Spacing?

- Cell Padding and Cell Spacing are attributes used in HTML table elements to control the spacing and layout of cells within a table. They have different functions and effects on the appearance of the table:
- 1. Cell Padding:
  - Cell Padding defines the space between the content of a cell and the cell's borders. It specifies the amount of space that should be added inside each cell to create a gap between the content and the cell's edges. By setting the cell padding, you can control the amount of whitespace around the content within each cell.



- For example, if you set the cell padding to "10 pixels," the content inside each cell will be surrounded by a 10-pixel wide space, creating a margin between the content and the cell borders.

- HTML attribute for cell padding

`<table cellpadding="10">`

## 2. Cell Spacing:

- Cell Spacing, on the other hand, defines the space between adjacent cells in a table. It determines the gap between neighboring cells, affecting the distance between cells, not their internal content. If you set the cell spacing to "10 pixels," it will add a 10-pixel wide gap between adjacent cells in the table.

- HTML attribute for cell spacing:

`<table cellspacing="10">`

- **Cell Padding** affects the space **between the content and the cell** borders.
- Cell Spacing affects the space **between neighboring cells** in the table.

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

- To combine two or more rows or columns into a single row or column in an HTML table, you can use the `rowspan` and `colspan` attributes. These attributes allow you to merge cells in the table, creating the illusion of a single row or column. Here's how you can do it:



- 1. Merging Rows:

- To merge rows, you can use the `rowspan` attribute. This attribute specifies the number of rows a cell should span. The cell in the first row will cover the specified number of rows below it.





➤ Example

Input

```
<body>
  <table border="1">
    <tr>
      <td rowspan="2">Cell 1</td>
      <td>Cell 3</td>
    </tr>
    <tr>
      <!-- This row will be merged with the row above -->
      <td>Cell 5</td>
    </tr>
    <tr>
      <td>Cell 6</td>
      <td>Cell 7</td>
      <td>Cell 8</td>
    </tr>
  </table>
```

➤ Output:-

Cell 1	Cell 3		
	Cell 5		
Cell 6	Cell 7	Cell 8	



## 2. Merging Columns:

- To merge columns, you can use the `colspan` attribute. This attribute specifies the number of columns a cell should span. The cell in the first column will cover the specified number of columns to its right.

- Example

```
<body>
  <table border="1">
    <tr>
      <td colspan="2">Cell 1</td>
      <td>Cell 2</td>
    </tr>
    <tr>
      <td>Cell 3</td>
      <!-- This cell will be merged with the cell above -->
      <td colspan="2">Cell 4</td>
    </tr>
    <tr>
      <td>Cell 5</td>
      <td>Cell 6</td>
      <td>Cell 7</td>
    </tr>
  </table>
</body>
```

Output:-

Cell 1	Cell 2	
Cell 3	Cell 4	
Cell 5	Cell 6	Cell 7



9) What is the difference between a block-level element and an inline element?

- The difference between block-level and inline elements lies in how they are displayed and how they interact with other elements in the HTML document. These characteristics determine how elements are positioned on the web page and how they affect the flow of content.

## 1. Block-level elements:

- A block-level element starts on a new line and takes up the full available width of its parent container.
- They create a "block" of content and stack vertically, meaning each block-level element appears on a new line below the previous one.
- Examples of block-level elements include `

`, `

`, `

# ` to ``, ` `, ` `, ` - `, ` - Block-level elements can contain other block-level elements, inline elements, and text. - Example of block-level elements:

```
<body>
  <div>
    <p>This is a block-level paragraph.</p>
    <ul>
      <li>Item 1</li>
      <li>Item 2</li>
    </ul>
  </div>
</body>
```

## 2. Inline elements:

- An inline element does not start on a new line and only takes up as much width as necessary to fit its content.
  - They flow within the content of a block-level element and do not create new lines.
  - Examples of inline elements include ``, ``, `**`, `*`, ``, ``, `  
`, etc.***
  - Inline elements cannot contain block-level elements but can contain other inline elements and text.

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## 10) How to create a Hyperlink in HTML?

- Creating a hyperlink in HTML is relatively simple. You can use the anchor (`<a>`) element to define a hyperlink. Here's the basic syntax:
- Example

```
<body>  
  <a href="https://www.google.com/">Google</a>  
</body>
```

Output:-



1. <a>: This is the anchor element, which is used to create a hyperlink.
2. href: This is an attribute of the anchor element that specifies the URL (Uniform Resource Locator) or the destination of the hyperlink. It can be an external URL, an internal URL, or even a link to another part of the same page.
3. Link Text: This is the visible text that users will see on the webpage. When they click on this text, they will be taken to the URL specified in the `href` attribute.

## 11) What is the use of an iframe tag?

- The `<iframe>` (short for inline frame) tag is an HTML element used to embed another document or webpage within the current HTML document. It allows you to display content from a different source inside a "frame" on your webpage. This content can be from the same domain or from an external domain.
- The main use cases of the `<iframe>` tag are as follows:

```
<body>  
  <iframe  
    src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3673.8043195755213!2d72.65295187495204!3d22.957432618756663!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x395e89ee790e6ed7%3A0x5ac567fc430970f7!2sSaraswati%20Classes!5e0!3m2!1sen!2sin!4v1690361360597!5m2!1sen!2sin"  
    width="600" height="450" style="border:0;" allowfullscreen="" loading="lazy"  
    referrerpolicy="no-referrer-when-downgrade"></iframe>  
  <iframe width="560" height="315" src="https://www.youtube.com/embed/u2NAuswnTKs" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture; web-share" allowfullscreen></iframe>  
</body>
```



## 12) How to insert a picture into a background image of a web page?

- **Step 1:** Firstly, we have to type the Html code in any text editor or open the existing Html file in the text editor in which we want to use the background attribute.
- **Step 2:** Now, move the cursor within the **starting <body> tag** in our Html document. And, then type the **background attribute**.
- **Step 3:** After that, we have to give the path of the image we want to add. So, type the path of the image in the **background** attribute. If our image is stored in the same directory in which HTML file is stored so type the following path.
- Examples

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>

<body background="02.jpg" style="background-repeat: no-repeat; background-size: 110%;">
</body>

</html>
```

## 13) How are active links different from normal links?

- Active links and normal links are different states of hyperlinks on a webpage. They indicate different stages or behaviors of a link based on the user's interaction. Let's explore the differences between active links and normal links:

### 1. Normal Links:

- Normal links are the default appearance of hyperlinks on a webpage.
- When a user hovers over a normal link with the mouse pointer, it usually changes its appearance to indicate interactivity (commonly underlined and a different color).
- Clicking on a normal link typically takes the user to the linked destination (e.g., another webpage or a specific section on the same page).



## 2. Active Links:

- Active links refer to the state of a hyperlink when the user is in the process of clicking it but has not released the mouse button yet.
- When a user clicks on an active link (pressing down the mouse button), the link may change its appearance to provide feedback that the click has been registered (e.g., changing color or background).
- This visual change helps to give users immediate feedback that they have interacted with the link and encourages them to complete the click action.

## 14) What are the different tags to separate sections of text?

- In HTML, there are several tags used to separate sections of text and provide structure to a webpage. These tags help organize and format content, making it more accessible and readable.
- Examples:-
  - `<div>`: The `<div>` tag is a block-level element used as a generic container to divide content into sections. It does not provide any semantic meaning but is commonly used for layout and styling purposes. Syntax is as follow:-  
**`<div>`**  
**`<!-- Your content here -->`**  
**`</div>`**
  - `<p>`: The `<p>` tag is used to define paragraphs of text. It creates a block-level element that separates text into individual paragraphs. . Syntax is as follow:-  
**`<p>This is a paragraph of text.</p>`**  
**`<p>This is another paragraph of text.</p>`**
  - `<h1>` to `<h6>`: These tags are used to define headings of different levels, with `<h1>` being the highest level (most important) and `<h6>` being the lowest level (least important). Syntax is as follow:-  
**`<h1>Main Heading</h1>`**  
**`<h2>Subheading</h2>`**  
**`<h3>Sub-subheading</h3>`**

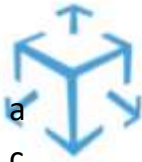


15) What is difference between HTML and XHTML?

HTML	XHTML
HTML Stand For <b>Hypertext mark-up language</b> - - > HTML	XHTML Stand For <b>Extensible Hypertext Mark-up Language</b>
It was developed in 1991.	It was released in 2000.
Filename extension used are .html, .htm.	Filename extension are .xhtml, .xht, .xml.
We can close any tag anytime and anywhere as per our needs	It is mandatory to close all the tags in strict residing order as they were declared.
It is not case sensitive as there is no mandatory rule to write the entire mark up in uppercase or lower case. It can also be a combination of both.	It is case-sensitive, and every tag and attribute used inside must be in lowercase.
HTML is extended from SGML (Standard Generalized Markup Language)	It is extended from HTML and XML (Extensible markup language)
HTML is less secure	XHTML provides more security
HTML is supported by all browsers	Only few browsers support XHTML
Its code is less organized	It has more organized code

16) What are logical and physical tags in HTML?

- In HTML, there is no formal distinction between "logical" and "physical" tags. However, the terms are sometimes used informally to describe different categories of HTML tags based on their intended purpose and how they affect the structure and appearance of a web page.
  - Logical Tags:  
Logical tags are elements that are used to define the structure and semantics of a web page. They convey the meaning and organization of the content rather than specifying its appearance. Logical tags are essential for



a

c

c

essibility and search engine optimization (SEO) as they help screen readers and search engines understand the content better.

➤ Example:-

- `<header>`: Represents the header section of a web page or a section within an article.
- `<main>`: Specifies the main content of the web page.
- `<section>`: Defines a thematic grouping of content, such as chapters in a book or sections on a web page.

➤ Physical Tags:

Physical tags, on the other hand, are elements that are used primarily for formatting and presentation purposes. They are used to control the appearance of the content but do not necessarily convey the semantic meaning or structure of the page.

➤ Examples:-

- `<b>` or `<strong>`: Represents text that should be displayed in a bold font.
- `<i>` or `<em>`: Represents text that should be displayed in italics.
- `<u>`: Represents text that should be underlined.