

Lesson:

Element and Tag in HTML



What is a tag ?

HTML uses a system of "tags" to define the structure and layout of web pages. Tags are the building blocks of HTML documents and consist of angle brackets enclosing specific keywords. These tags provide instructions to web browsers on how to display the content.

An HTML tag is composed of an opening tag and, in some cases, a closing tag. The opening tag starts with the less-than symbol (<), followed by the tag name, and ends with a greater-than symbol (>). The closing tag is similar, but it also includes a forward slash (/) before the tag name.

For example:

Opening tag: <tagname>

Closing tag: </tagname>

HTML tags can be broadly categorised into two types:

1. Paired Tags (or Container Tags):

Paired tags have both an opening and a closing tag and can contain other HTML elements and text within them. They define a specific section or structure in the web page. Some common paired tags include:

Some common examples are **<html>, <head>, <p>, ** etc....

2. Singular Tags (or Void Tags):

In HTML, some are self-closing tags or void tags because they don't require a separate closing tag. These elements are used for elements that don't contain any content or don't have a closing counterpart.

Example: **, <input/>,
, and <meta/>** etc.

What is an element ?

HTML elements are the building blocks of an HTML document. HTML elements consist of a start tag, an end tag (if applicable), and content in between the tags. The start tag defines the beginning of an HTML element, and the end tag defines the end of an HTML element.

Each HTML element has a specific structure that defines its behaviour and appearance on a web page. Here is a breakdown of the anatomy of an HTML element:

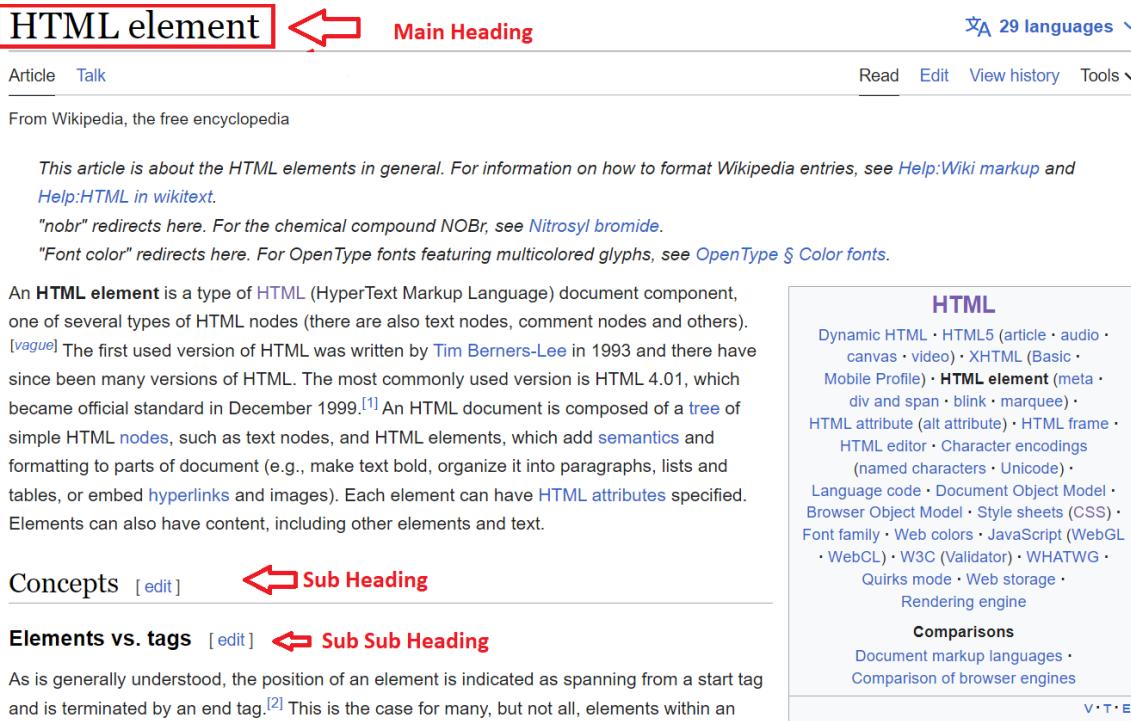
- 1. Opening tag** - This is the opening tag that defines the beginning of an HTML element. It is enclosed in angle brackets (< >).
- 2. Content** - This is the text or other data that appears between the start and end tags of an HTML element. Some HTML elements do not require content and are self-closing.
- 3. Closing tag** - This is the closing tag that defines the end of an HTML element. It is enclosed in angle brackets with a forward slash (/) before the element name.

Note: In simple language, We can say an element is a conceptual unit that represents a part of a document or a component, while a tag is a specific syntax used to mark the start or end of an element in a markup language. Elements are composed of one or more tags, which define their structure and semantics.

Some Common Tags:

1. Heading(h1, h2, h3, h4, h5, h6): Headings are used to define the titles or subtitles of a web page or a section of content.

For Example, look into the below wiki page, how headings and subheadings appear in a web page.



The screenshot shows the Wikipedia article for "HTML element". The main heading "Main Heading" is highlighted with a red box and a red arrow points to it. Below the heading, there's a sidebar with a "HTML" section containing links to various HTML-related topics like Dynamic HTML, HTML5, and CSS. The sidebar also includes sections for "Comparisons" and "Document markup languages". At the bottom of the sidebar, there are "V · T · E" links.

To put Heading in HTML doc, we use <h1>, <h2>, <h3> ...<h6> tags. From h1 to h6, represents different levels of content.

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

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

<body>
  <h1> Heading 1</h1>
  <h2> Heading 2</h2>
  <h3> Heading 3</h3>
  <h4> Heading 4</h4>
  <h5> Heading 5</h5>
  <h6> Heading 6</h6>
</body>

</html>
```

Output:

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

Note: Browsers automatically add some white space(a margin) before and after a heading.

Headings are important:

- Search engines use the headings to index the structure and content of your web pages.
- Users often skim a page by its headings. It is important to use headings to show the document structure.
- <h1> headings should be used for main headings, followed by <h2> headings, then the less important <h3> and so on..

Note: Use HTML headings for headings only. Dont use headings to make the text Big or Bold.

2. Paragraphs: The HTML <p> element defines a paragraph.

A Paragraph always starts on a new line, and browsers automatically add some white space(a margin) before and after a paragraph.

Example:

```
<p> This is a Paragraph </p>
<p> This is another Paragraph </p>
```

Output:

This is a Paragraph

This is another Paragraph

3. <hr> tag: The `<hr>` tag defines a thematic break in an HTML page, and is most often displayed as a horizontal line.

The `<hr>` element is used to separate content (or define a change) in an HTML page.

Example:

```
<h1> This is heading 1 </h1>
<p> This is some text </p>
<hr>
<h2> This is heading 2 </h2>
<p> This is some other text </p>
<hr>
```

Output:

This is heading 1

This is some text

This is heading 2

This is some other text

The `<hr>` tag is an empty tag, which means that it has no end tag.

4. HTML Line Breaks: The HTML `
` element defines a line break. Use `
` if a line breaks (a new line) without starting a new paragraph.

Example:

```
<p> This is <br> a paragraph <br> with line breaks . </p>
```

Output:

This is
a paragraph
with line breaks .

**The `
` tag is an empty tag, which means that it has no end tag.**

5. span tag: The tag functions as an inline container, allowing us to markup and highlight specific portions of text within a document. It serves to emphasise or apply formatting to those particular sections without affecting the overall layout or structure of the page.

Example:

```
<p>This is a <span>span content</span> text.</p>
```

Output:

This is a span content text.