

What is HTML

HTML is an acronym which stands for **Hyper Text Markup Language** which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.

Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. **With the help of HTML only, we can create static web pages.**

Let's see a simple example of HTML.

1. `<!DOCTYPE>`
2. `<html>`
3. `<head>`
4. `<title>Web page title</title>`
5. `</head>`
6. `<body>`
7. `<h1>Write Your First Heading</h1>`
8. `<p>Write Your First Paragraph.</p>`
9. `</body>`
10. `</html>`

Description of HTML Example

<!DOCTYPE>: It defines the document type or it instruct the browser about the version of HTML.

<html >: This tag informs the browser that it is an HTML document. Text between html tag describes the web document. It is a container for all other elements of HTML except <!DOCTYPE>

<head>: It should be the first element inside the <html> element, which contains the metadata (information about the document). It must be closed before the body tag opens.

<title>: As its name suggested, it is used to add title of that HTML page which appears at the top of the browser window. It must be placed inside the head tag and should close immediately. (Optional)

<body> : Text between body tag describes the body content of the page that is visible to the end user. This tag contains the main content of the HTML document.

<h1> : Text between <h1> tag describes the first level heading of the webpage.

<p> : Text between <p> tag describes the paragraph of the webpage.

Brief History of HTML

In the late 1980's , a physicist, Tim Berners-Lee who was a contractor at CERN, proposed a system for CERN researchers. In 1989, he wrote a memo proposing an internet based hypertext system.

Tim Berners-Lee is known as the father of HTML. The first available description of HTML was a document called "HTML Tags" proposed by Tim in late 1991. The latest version of HTML is HTML5, which we will learn later in this tutorial.

Features of HTML

- 1) It is a very **easy and simple language**. It can be easily understood and modified.
- 2) It is very easy to make an **effective presentation** with HTML because it has a lot of formatting tags.
- 3) It is a **markup language**, so it provides a flexible way to design web pages along with the text.

4) It facilitates programmers to add a **link** on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.

5) It is **platform-independent** because it can be displayed on any platform like Windows, Linux, and Macintosh, etc.

6) It facilitates the programmer to add **Graphics, Videos, and Sound** to the web pages which makes it more attractive and interactive.

7) HTML is a case-insensitive language, which means we can use tags either in lower-case or upper-case.

HTML Tags

HTML tags are like keywords which defines that how web browser will format and display the content. With the help of tags, a web browser can distinguish between an HTML content and a simple content. HTML tags contain three main parts: opening tag, content and closing tag. But some HTML tags are unclosed tags.

When a web browser reads an HTML document, browser reads it from top to bottom and left to right. HTML tags are used to create HTML documents and render their properties. Each HTML tags have different properties.

An HTML file must have some essential tags so that web browser can differentiate between a simple text and HTML text. You can use as many tags you want as per your code requirement.

- All HTML tags must enclosed within < > these brackets.
- Every tag in HTML perform different tasks.
- If you have used an open tag <tag>, then you must use a close tag </tag> (except some tags)

Syntax

<tag> content </tag>

HTML Tag Examples

<p> Paragraph Tag </p>

<h2> Heading Tag </h2>

 Bold Tag

<i> *Italic Tag* </i>

<u> Underline Tag</u>

Unclosed HTML Tags

Some HTML tags are not closed, for example br and hr.

**
 Tag:** br stands for break line, it breaks the line of the code.

<hr> Tag: hr stands for Horizontal Rule. This tag is used to put a line across the webpage

HTML Meta Tags

DOCTYPE, title, link, meta and style

HTML Image and Object Tags

, <area>, <map>, <param> and <object>

HTML List Tags

, , , <dl>, <dt> and <dd>

HTML Table Tags

table, tr, td, th, tbody, thead, tfoot, col, colgroup and caption

HTML Attribute

- HTML attributes are special words which provide additional information about the elements or attributes are the modifier of the HTML element.
- Each element or tag can have attributes, which defines the behaviour of that element.
- Attributes should always be applied with start tag.
- The Attribute should always be applied with its name and value pair.
- The Attributes name and values are case sensitive, and it is recommended by W3C that it should be written in Lowercase only.

- You can add multiple attributes in one HTML element, but need to give space between two attributes.

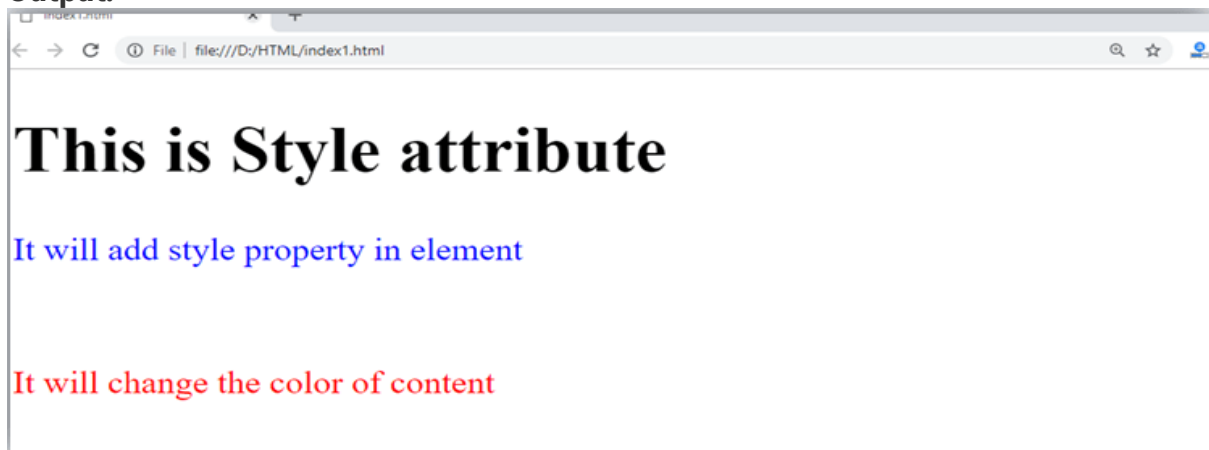
Syntax

1. `<element attribute_name="value">content</element>`

Example

1. `<!DOCTYPE html>`
2. `<html>`
3. `<head>`
4. `</head>`
5. `<body>`
6. `<h1> This is Style attribute</h1>`
7. `<p style="height: 50px; color: blue">It will add style property in element</p>`
8. `<p style="color: red">It will change the color of content</p>`
9. `</body>`
10. `</html>`

Output:



Explanation of above example:

1. `<p style="height: 50px; color: blue">It will add style property in element</p>`

In the above statement, we have used paragraph tags in which we have applied style attribute. This attribute is used for applying CSS property on any HTML element. It provides height to paragraph element of 50px and turns it colour to blue.

1. `<p style="color: red">It will change the color of content</p>`

In the above statement we have again used style attribute in paragraph tag, which turns its colour red.

The title attribute in HTML

Description: The title attribute is used as text tooltip in most of the browsers. It display its text when user move the cursor over a link or any text. You can use it with any text or link to show the description about that link or text. In our example, we are taking this with paragraph tag and heading tag.

Example

With <h1> tag:

1. `<h1 title="This is heading tag">Example of title attribute</h1>`

With <p> tag:

1. `<p title="This is paragraph tag">Move the cursor over the heading and paragraph, and you will see a description as a tooltip</p>`

The title attribute in HTML

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Example

With <h1> tag:

1. `<h1 title="This is heading tag">Example of title attribute</h1>`

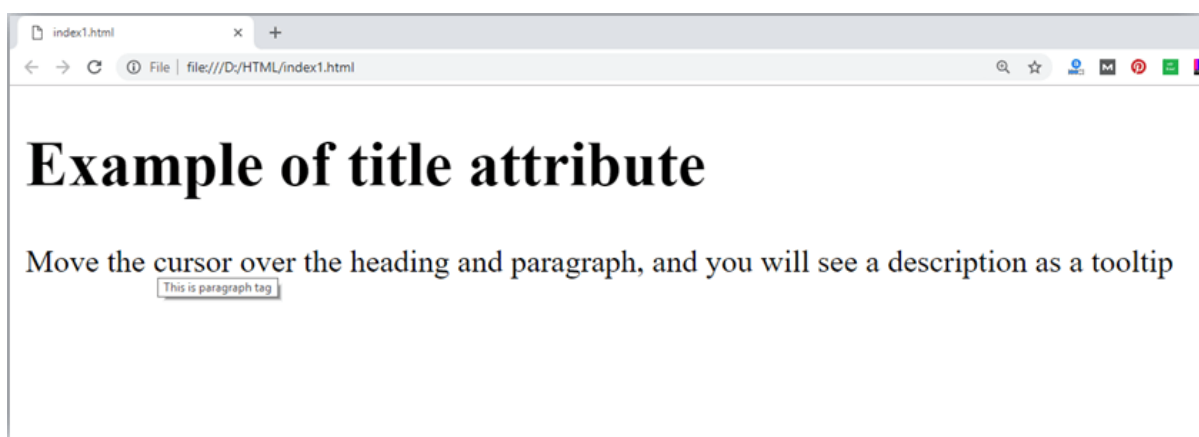
With <p> tag:

1. `<p title="This is paragraph tag">Move the cursor over the heading and paragraph, and you will see a description as a tooltip</p>`

Code:

1. `<!DOCTYPE html>`
2. `<html>`

3. `<head>`
4. `</head>`
5. `<body>`
- 6.
7. `<h1 title="This is heading tag">`Example of title attribute`</h1>`
8. `<p title="This is paragraph tag">`Move the cursor over the heading and paragraph, and you will see a description as a tooltip`</p>`
- 9.
10. `</body>`
11. `</html>`



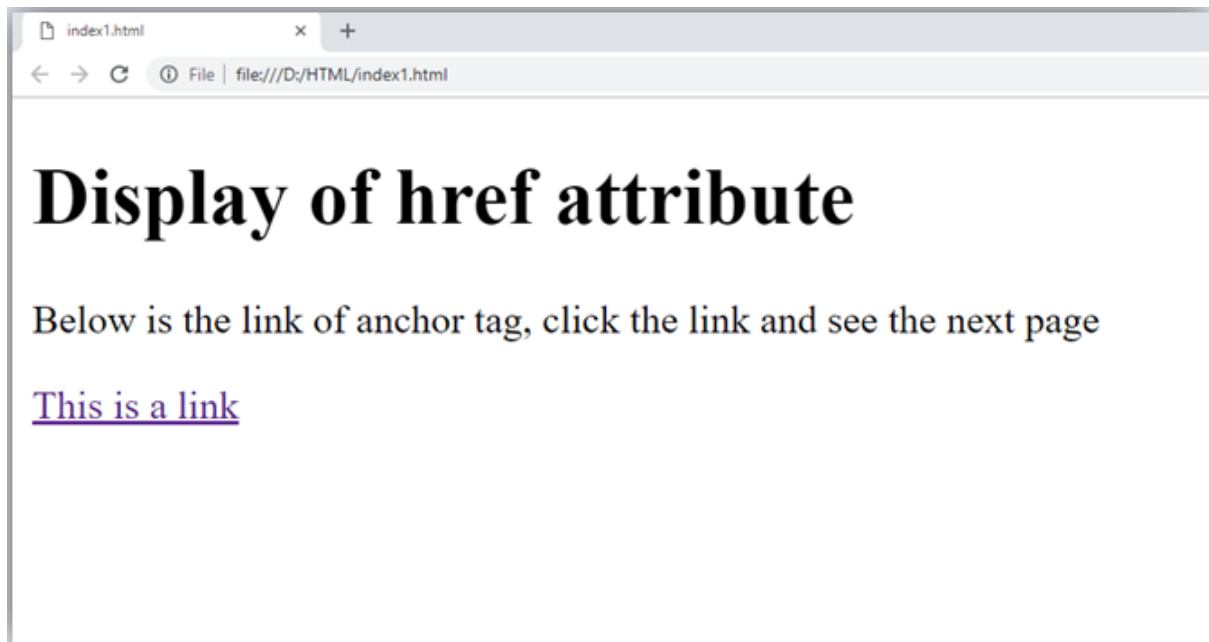
The href attribute in HTML

Description: The href attribute is the main attribute of `<a>` anchor tag. This attribute gives the link address which is specified in that link. **The href attribute provides the hyperlink, and if it is blank, then it will remain in same page.**

Example

With link address:

1. ``This is a link``



HTML Div Tag

The **HTML <div> tag** is used to group the large section of HTML elements together.

We know that every tag has a specific purpose e.g. p tag is used to specify paragraph, <h1> to <h6> tag are used to specify headings but the <div> tag is just like a container unit which is used to encapsulate other page elements and divides the HTML documents into sections.

The div tag is generally used by web developers to group HTML elements together and apply CSS styles to many elements at once. For example: If you wrap a set of paragraph elements into a div element so you can take the advantage of CSS styles and apply font style to all paragraphs at once instead of coding the same style for each paragraph element.

1. `<div style="border:1px solid pink;padding:20px;font-size:20px">`
2. `<p>Welcome to Javatpoint.com, Here you get tutorials on latest technologies.</p>`
3. `<p>This is second paragraph</p>`
4. `</div>`

Output:

Welcome to Javatpoint.com, Here you get tutorials on latest technologies.

This is second paragraph.

Marquee HTML

The **Marquee HTML** tag is a non-standard HTML element which is used to scroll a image or text horizontally or vertically.

In simple words, you can say that it scrolls the image or text up, down, left or right automatically.

Marquee tag was first introduced in early versions of Microsoft's Internet Explorer. It is compared with Netscape's blink element.

Marquee HTML Example

1. `<marquee>`This is an example of html marquee `</marquee>`
Output: his is an example of html marquee

HTML Table

HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row.

We can create a table to display data in tabular form, using `<table>` element, with the help of `<tr>` , `<td>`, and `<th>` elements.

In Each table, table row is defined by `<tr>` tag, table header is defined by `<th>`, and table data is defined by `<td>` tags.

HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc. But it is recommended to use div tag over table to manage the layout of the page .

HTML Table Tags

Tag	Description
<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

HTML Table Example

Let's see the example of HTML table tag. Its output is shown above.

1. `<table>`
2. `<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>`
3. `<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>`
4. `<tr><td>James</td><td>William</td><td>80</td></tr>`
5. `<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>`
6. `<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>`
7. `</table>`

HTML Lists

HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

1. Ordered List or Numbered List (ol)
2. Unordered List or Bulleted List (ul)

HTML Ordered List or Numbered List

In the ordered HTML lists, all the list items are marked with numbers by default. It is known as numbered list also. The ordered list starts with `` tag and the list items start with `` tag.

1. ``
2. `Aries`
3. `Bingo`
4. `Leo`
5. `Oracle`
6. ``

Output:

1. Aries
2. Bingo
3. Leo
4. Oracle

HTML Unordered List or Bulleted List

In HTML Unordered list, all the list items are marked with bullets. It is also known as bulleted list also. The Unordered list starts with `` tag and list items start with the `` tag.

1. ``
2. `Aries`
3. `Bingo`
4. `Leo`
5. `Oracle`

6. ``

Output:

- Aries
- Bingo
- Leo
- Oracle