

## What is HTML?

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

## Example

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

## My First Heading

My first paragraph.

- The `<!DOCTYPE html>` declaration defines that this document is an HTML document
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the HTML page
- The `<title>` element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The `<body>` element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

## What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag:

`<tagname>` Content goes here... `</tagname>`

The HTML **element** is everything from the start tag to the end tag:

`<h1>`My First Heading`</h1>`

`<p>`My first paragraph.`</p>`

**Start tag**

**Element content**

**End tag**

<h1>	My First Heading	</h1>
<p>	My first paragraph.	</p>
 	<i>None</i>	<i>none</i>

## HTML Attributes

HTML attributes provide additional information about HTML elements.

### HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

### The href Attribute

The `<a>` tag defines a hyperlink. The `href` attribute specifies the URL of the page the link

Example

```
<a href=" " >Home</a>
```

### The src Attribute

The `<img>` tag is used to embed an image in an HTML page. The `src` attribute specifies the path to the image to be displayed:

### Example

```

```

## The width and height Attributes

The `<img>` tag should also contain the `width` and `height` attributes, which specify the width and height of the image (in pixels):

### Example

```

```

## The alt Attribute

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.

### Example

```

```

## The style Attribute

The `style` attribute is used to add styles to an element, such as color, font, size, and more.

### Example

```
<p style="color:red;">This is a red paragraph.</p>
```

## The title Attribute

The `title` attribute defines some extra information about an element.

The value of the title attribute will be displayed as a tooltip when you mouse over the element:

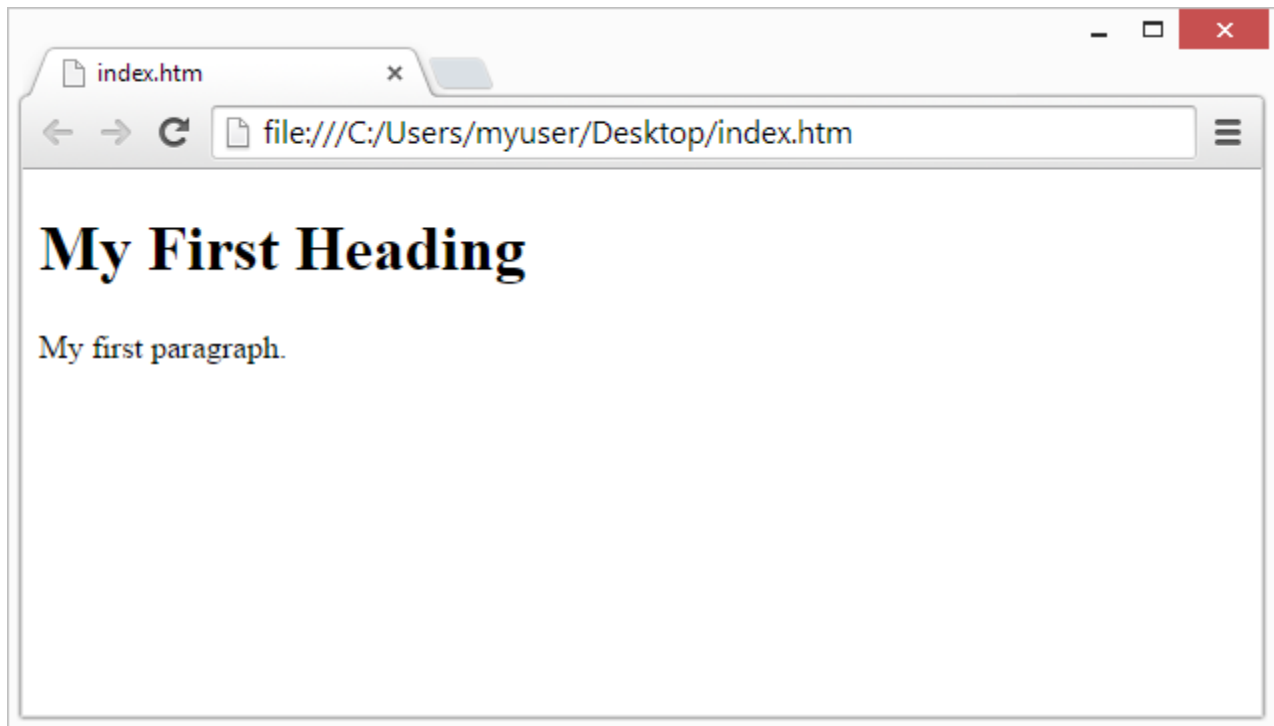
### Example

```
<p title="I'm a tooltip">This is a paragraph.</p>
```

## Web Browsers

The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly.

A browser does not display the HTML tags, but uses them to determine how to display the document:



## HTML History

Year	Version
------	---------

1989	Tim Berners-Lee invented www
1991	Tim Berners-Lee invented HTML
1993	Dave Raggett drafted HTML+
1995	HTML Working Group defined HTML 2.0
1997	W3C Recommendation: HTML 3.2
1999	W3C Recommendation: HTML 4.01
2000	W3C Recommendation: XHTML 1.0
2008	WHATWG HTML5 First Public Draft
2012	<a href="#"><u>WHATWG HTML5 Living Standard</u></a>

2014	<a href="#">W3C Recommendation: HTML5</a>
2016	W3C Candidate Recommendation: HTML 5.1
2017	<a href="#">W3C Recommendation: HTML5.1 2nd Edition</a>
2017	<a href="#">W3C Recommendation: HTML5.2</a>

## Text formatting tags

- `<b>` - Bold text
- `<strong>` - Important text
- `<i>` - Italic text
- `<em>` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `<del>` - Deleted text
- `<ins>` - Inserted text
- `<sup>` - Superscript text

## List tags

HTML Lists are used to specify lists of information. All lists may contain one or more list elements.

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

### 3. Description List or Definition List (dl)

#### **Ordered List or Numbered List**

In the ordered HTML lists, all the list items are marked with numbers by default.

```
<!DOCTYPE>

<html>

<body>

<ol>

<li>M.Sc(CS)</li>

<li>MCA</li>

<li>M.Sc(IT)</li>

<li>M.Sc(AI)</li>

</ol>

</body>

</html>
```

#### **HTML Unordered List or Bulleted List**

In HTML Unordered list, all the list items are marked with bullets.

```
<!DOCTYPE>

<html>

<body>

<ul>
```



<li>M.Sc(CS)</li>

<li>MCA</li>

<li>M.Sc(IT)</li>

<li>M.Sc(AI)</li>

</ul>

</body>

</html>

## HTML Description List or Definition List

HTML Description list is also a list style which is supported by HTML and XHTML.

1. **<dl>** tag defines the start of the list.
2. **<dt>** tag defines a term.
3. **<dd>** tag defines the term definition (description).

<!DOCTYPE>

<html>

<body>

<dl>

<dt>HTML</dt>

<dd>-Hypertext markup language.</dd>

<dt>XML</dt>

<dd>-Extensible markup language</dd>

<dt>Script</dt>

<dd>-Scripting languages are usually interpreted at runtime rather than compiled.</dd>

</dl>

</body>

</html>

## Image tag

**HTML img tag** is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

### Attributes of HTML img tag

The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.

#### ***1) src***

It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.

The location of image may be on the same directory or another server.

#### ***2) alt***

The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

#### ***3) width***

It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

#### 4) height

It h3 the height of the image. The HTML height attribute also supports iframe, image and object elements. It is not recommended now. You should apply CSS in place of height attribute.

#### Example:

```

```

```

```

#### Table tag

**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.

#### 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.

<code>&lt;td&gt;</code>	It defines a cell in a table.
<code>&lt;caption&gt;</code>	It defines the table caption.
<code>&lt;colgroup&gt;</code>	It specifies a group of one or more columns in a table for formatting.
<code>&lt;col&gt;</code>	It is used with <code>&lt;colgroup&gt;</code> element to specify column properties for each column.
<code>&lt;tbody&gt;</code>	It is used to group the body content in a table.
<code>&lt;thead&gt;</code>	It is used to group the header content in a table.
<code>&lt;tfooter&gt;</code>	It is used to group the footer content in a table.

`<!DOCTYPE>`

`<html>`

`<body>`

`<table>`

`<tr><th>Name</th><th>Subject</th><th>Marks</th></tr>`

`<tr><td>Karthik</td><td>Python</td><td>60</td></tr>`

`<tr><td>Mani</td><td>Python</td><td>80</td></tr>`

`<tr><td>Suresh</td><td>R Programming</td><td>82</td></tr>`

`<tr><td>Nithya</td><td>Java</td><td>72</td></tr>`

`</table>`

`</body>`

</html>

## **Note**

<table border="1">