

What is HTML?

HTML is the standard markup language for creating Web pages.

- HTML stands for Hyper Text Markup Language
- HTML describes the structure of Web pages using markup
- HTML elements are the building blocks of HTML pages
- HTML elements are represented by tags
- Browsers do not display the HTML tags, but use them to render the content of the page

A Simple HTML Document

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

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content

HTML Tags

HTML tags are element names surrounded by angle brackets:

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

- HTML tags normally come **in pairs** like `<p>` and `</p>`
- The first tag in a pair is the **start tag**, the second tag is the **end tag**
- The end tag is written like the start tag, but with a **forward slash** inserted before the tag name
- HTML tags are not case sensitive: `<P>` means the same as `<p>`.

Tip: The start tag is also called the **opening tag**, and the end tag the **closing tag**.

HTML Elements

An HTML element usually consists of a **start** tag and **end** tag, with the content inserted in between:

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

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

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

Nested HTML Elements

HTML elements can be nested (elements can contain elements).

All HTML documents consist of nested HTML elements.

Empty HTML Elements

HTML elements with no content are called empty elements.

`
` is an empty element without a closing tag (the `
` tag defines a line break).

Empty elements can be "closed" in the opening tag like this: `
`.

HTML Headings

Headings are defined with the `<h1>` to `<h6>` tags.

`<h1>` defines the most important heading. `<h6>` defines the least important heading.

```
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
```

HTML Horizontal Rules

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

The `<hr>` element is used to separate content

HTML Paragraphs

The HTML `<p>` element defines a **paragraph**:

```
<p>This is a paragraph.</p>
```

HTML Line Breaks

The HTML `
` element defines a **line break**.

Use `
` if you want a line break (a new line) without starting a new paragraph:

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

HTML Formatting Elements

Formatting elements were designed to display special types of text:

- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Small text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text
- `` ``

The HTML `` and `` Elements defines **bold** text

```
<b>This text is bold</b>
```

```
<strong>This text is strong</strong>
```

The HTML `<i>` and `` Elements element defines *italic* text

```
<i>This text is italic</i>
```

```
<em>This text is emphasized</em>
```

Note: Browsers display `` as ``, and `` as `<i>`. However, there is a difference in the meaning of these tags: `` and `<i>` defines bold and italic text, but `` and `` means that the text is "important".

HTML `<small>` Element

The HTML `<small>` element defines smaller text:

```
<h2>HTML <small>Small</small> Formatting</h2>
```

HTML `<mark>` Element

The HTML `<mark>` element defines marked or highlighted text:

```
<h2>HTML <mark>Marked</mark> Formatting</h2>
```

HTML `` Element

The HTML `` element defines ~~deleted~~ (removed) text.

```
<p>My favorite color is <del>blue</del> red.</p>
```

HTML `<ins>` Element

The HTML `<ins>` element defines inserted (added) text.

```
<p>My favorite <ins>color</ins> is red.</p>
```

HTML `<sub>` Element

The HTML `<sub>` element defines subscripted text.

```
<p>This is <sub>subscripted</sub> text.</p>
```

HTML `<sup>` Element

The HTML `<sup>` element defines superscripted text.

```
<p>This is <sup>superscripted</sup> text.</p>
```

HTML Comment Tags

You can add comments to your HTML source by using the following syntax:

<!-- Write your comments here -->

The HTML Style Attribute

The HTML style attribute has the following **syntax**:

```
<tagname style="property:value;">
```

The **property** is a CSS property. The **value** is a CSS value.

HTML Background Color

The **background-color** property defines the background color for an HTML element.

```
<body style="background-color:powderblue;">
```

HTML Text Color

The **color** property defines the text color for an HTML element:

```
<h1 style="color:blue;">This is a heading</h1>
<p style="color:red;">This is a paragraph.</p>
```

HTML Fonts

The **font-family** property defines the font to be used for an HTML element:

```
<h1 style="font-family:verdana;">This is a heading</h1>
<p style="font-family:courier;">This is a paragraph.</p>
```

HTML Text Size

The **font-size** property defines the text size for an HTML element:

```
<h1 style="font-size:300%;">This is a heading</h1>
<p style="font-size:160%;">This is a paragraph.</p>
```

HTML Text Alignment

The **text-align** property defines the horizontal text alignment for an HTML element:

```
<h1 style="text-align:center;">Centered Heading</h1>
<p style="text-align:center;">Centered paragraph.</p>
```

HTML Colors

In HTML, a color can be specified by using a color name, an RGB value, or a HEX value.

Color Names

In HTML, a color can be specified by using a color name:

Example : Red , Yellow, Blue

* HTML supports 140 standard color names.

RGB Value

In HTML, a color can also be specified as an RGB value, using this formula: `rgb(red, green, blue)`

Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255.

For example, `rgb(255,0,0)` is displayed as red, because red is set to its highest value (255) and the others are set to 0.

To display the color **black**, all color parameters must be set to 0, like this: `rgb(0,0,0)`.

To display the color **white**, all color parameters must be set to 255, like this: `rgb(255,255,255)`.

HEX Value

In HTML, a color can also be specified using a hexadecimal value in the form: `#RRGGBB`, where RR (red), GG (green) and BB (blue) are hexadecimal values between 00 and FF (same as decimal 0-255).

For example, `#FF0000` is displayed as red, because red is set to its highest value (FF) and the others are set to the lowest value (00).