**HTML TAGS**

**1.<HTML>…</HTML>**

Html tag is root tag of web document

**Initial structure of html document**

<html>

<head></head>

<body></body>

</html>

**This is initial structure of any html document**

**2. <head>…</head>**

The <head> element is a container for metadata (data about data) and is placed between the <html> tag and the <body> tag.

HTML metadata is data about the HTML document. Metadata is not displayed.

Metadata typically define the document title, character set, styles, scripts, and other meta information.

Head tag includes all description about main content and it also contains files link which are linked from outsides

**Head can contain these tags**

1 <style>..</style>

2 <link>

3 <script>…</script>

4 <title>…</tile>

5 <meta>

1 - The <title> element defines the title of the document. The title must be text-only, and it is shown in the browser's title bar or in the page's tab.

<head>  
  <title>A Meaningful Page Title</title>  
</head>

2. The <style> element is used to define style information for a single HTML page:

<style>  
  body {background-color: powderblue;}  
  h1 {color: red;}  
  p {color: blue;}  
</style>

3. The <link> element defines the relationship between the current document and an external resource.  
  
The <link> tag is most often used to link to external style sheets:

<link rel="stylesheet" href="mystyle.css">

4 The <meta> element is typically used to specify the character set, page description, keywords, author of the document, and viewport settings.

The metadata will not be displayed on the page, but is used by browsers (how to display content or reload page), by search engines (keywords), and other web services.

**Define the character set used:**

<meta charset="UTF-8">

**Define keywords for search engines:**

<meta name="keywords" content="HTML, CSS, JavaScript">

**Define a description of your web page:**

<meta name="description" content="Free Web tutorials">

**Define the author of a page:**

<meta name="author" content="John Doe">

**Refresh document every 30 seconds:**

<meta http-equiv="refresh" content="30">

**Setting the viewport to make your website look good on all devices:**

<meta name="viewport" content="width=device-width, initial-scale=1.0">

Example of <meta> tags:

5 The <script> element is used to define client-side JavaScripts.

The following JavaScript writes "Hello JavaScript!" into an HTML element with id="demo":

<script>  
function myFunction() {  
  document.getElementById("demo").innerHTML = "Hello JavaScript!";  
}  
</script>

6 The <base> element specifies the base URL and/or target for all relative URLs in a page.

The <base> tag must have either an href or a target attribute present, or both.

There can only be one single <base> element in a document!

<head>  
<base href="https://www.w3schools.com/" target="\_blank">  
</head>  
  
<body>  
<img src="images/stickman.gif" width="24" height="39" alt="Stickman">  
<a href="tags/tag\_base.asp">HTML base Tag</a>  
</body>

**summary**

* The <head> element is a container for metadata (data about data)
* The <head> element is placed between the <html> tag and the <body> tag
* The <title> element is required and it defines the title of the document
* The <style> element is used to define style information for a single document
* The <link> tag is most often used to link to external style sheets
* The <meta> element is typically used to specify the character set, page description, keywords, author of the document, and viewport settings
* The <script> element is used to define client-side JavaScripts
* The <base> element specifies the base URL and/or target for all relative URLs in a page

**HTML History**

Since the early days of the World Wide Web, there have been many versions of HTML:

|  |  |
| --- | --- |
| **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 | [WHATWG HTML5 Living Standard](http://whatwg.org/html/) |
| 2014 | [W3C Recommendation: HTML5](http://www.w3.org/TR/html5/) |
| 2016 | W3C Candidate Recommendation: HTML 5.1 |
| 2017 | [W3C Recommendation: HTML5.1 2nd Edition](http://www.w3.org/TR/html51/) |
| 2017 | [W3C Recommendation: HTML5.2](http://www.w3.org/TR/html52/) |

# HTML Semantic Elements

Semantic elements = elements with a meaning.

## What are Semantic Elements?

A semantic element clearly describes its meaning to both the browser and the developer.

Examples of **non-semantic** elements: <div> and <span> - Tells nothing about its content.

Examples of **semantic** elements: <form>, <table>, and <article> - Clearly defines its content.

## Semantic Elements in HTML

Many web sites contain HTML code like: <div id="nav"> <div class="header"> <div id="footer"> to indicate navigation, header, and footer.

In HTML there are some semantic elements that can be used to define different parts of a web page:

* <article>
* <aside>
* <details>
* <figcaption>
* <figure>
* <footer>
* <header>
* <main>
* <mark>
* <nav>
* <section>
* <summary>
* <time>

# HTML Headings

HTML headings are titles or subtitles that you want to display on a webpage.

### Example

# Heading 1

## Heading 2

### Heading 3

#### Heading 4

##### **Heading 5**

###### **Heading 6**

## HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

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

### Example

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

**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.

# HTML Paragraphs

A paragraph always starts on a new line, and is usually a block of text.

## HTML 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>

## HTML Display

You cannot be sure how HTML will be displayed.

Large or small screens, and resized windows will create different results.

With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.

The browser will automatically remove any extra spaces and lines when the page is displayed:

### Example

<p>  
This paragraph  
contains a lot of lines  
in the source code,  
but the browser  
ignores it.  
</p>  
  
<p>  
This paragraph  
contains         a lot of spaces  
in the source         code,  
but the        browser  
ignores it.  
</p>

## 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 (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>

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

## HTML Line Breaks

The HTML <br> element defines a line break.

Use <br> if you want a line break (a new line) without starting a new paragraph:

### Example

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

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

# HTML Text Formatting

HTML contains several elements for defining text with a special meaning.

### Example

**This text is bold**

*This text is italic*

This issubscript and superscript

## HTML Formatting Elements

Formatting elements were designed to display special types of text:

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

## HTML <b> and <strong> Elements

The HTML <b> element defines bold text, without any extra importance.

### Example

<b>This text is bold</b>

The HTML <strong> element defines text with strong importance. The content inside is typically displayed in bold.

### Example

<strong>This text is important!</strong>

## HTML <i> and <em> Elements

The HTML <i> element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.

**Tip:** The <i> tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

### Example

<i>This text is italic</i>

The HTML <em> element defines emphasized text. The content inside is typically displayed in italic.

**Tip:** A screen reader will pronounce the words in <em> with an emphasis, using verbal stress.

### Example

<em>This text is emphasized</em>

## HTML <small> Element

The HTML <small> element defines smaller text:

### Example

<small>This is some smaller text.</small>

## HTML <mark> Element

The HTML <mark> element defines text that should be marked or highlighted:

### Example

<p>Do not forget to buy <mark>milk</mark> today.</p>

## HTML <del> Element

The HTML <del> element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

### Example

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

## HTML <ins> Element

The HTML <ins> element defines a text that has been inserted into a document. Browsers will usually underline inserted text:

### Example

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

## HTML <sub> Element

The HTML <sub> element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H2O:

### Example

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

## HTML <sup> Element

The HTML <sup> element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW[1]:

### Example

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

# HTML Comments

HTML comments are not displayed in the browser, but they can help document your HTML source code.

## HTML Comment Tag

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

<!-- Write your comments here -->

Notice that there is an exclamation point (!) in the start tag, but not in the end tag.

**Note:** Comments are not displayed by the browser, but they can help document your HTML source code.

## Add Comments

With comments you can place notifications and reminders in your HTML code:

### Example

<!-- This is a comment -->  
  
<p>This is a paragraph.</p>  
  
<!-- Remember to add more information here -->

## Hide Content

Comments can be used to hide content.

This can be helpful if you hide content temporarily:

### Example

<p>This is a paragraph.</p>  
  
<!-- <p>This is another paragraph </p> -->  
  
<p>This is a paragraph too.</p>

You can also hide more than one line. Everything between the <!-- and the --> will be hidden from the display.

### Example

Hide a section of HTML code:

<p>This is a paragraph.</p>  
<!--  
<p>Look at this cool image:</p>  
<img border="0" src="pic\_trulli.jpg" alt="Trulli">  
-->  
<p>This is a paragraph too.</p>

Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors.

# HTML Lists

HTML lists allow web developers to group a set of related items in lists.

### Example

An unordered HTML list:

* Item
* Item
* Item
* Item

An ordered HTML list:

1. First item
2. Second item
3. Third item
4. Fourth item

## Unordered HTML List

An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.

The list items will be marked with bullets (small black circles) by default:

### Example

<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>

## Ordered HTML List

An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

The list items will be marked with numbers by default:

### Example

<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>

## HTML Description Lists

HTML also supports description lists.

A description list is a list of terms, with a description of each term.

The <dl> tag defines the description list, the <dt> tag defines the term (name), and the <dd> tag describes each term:

### Example

<dl>  
  <dt>Coffee</dt>  
  <dd>- black hot drink</dd>  
  <dt>Milk</dt>  
  <dd>- white cold drink</dd>  
</dl>

# HTML Tables

HTML tables allow web developers to arrange data into rows and columns.

### Example

## Define an HTML Table

A table in HTML consists of table cells inside rows and columns.

### Example

A simple HTML table:

<table>  
  <tr>  
    <th>Company</th>  
    <th>Contact</th>  
    <th>Country</th>  
  </tr>  
  <tr>  
    <td>Alfreds Futterkiste</td>  
    <td>Maria Anders</td>  
    <td>Germany</td>  
  </tr>  
  <tr>  
    <td>Centro comercial Moctezuma</td>  
    <td>Francisco Chang</td>  
    <td>Mexico</td>  
  </tr>  
</table>

## Table Cells

Each table cell is defined by a <td> and a </td> tag.

td stands for table data.

Everything between <td> and </td> are the content of the table cell.

### Example

<table>  
  <tr>  
    <td>Emil</td>  
    <td>Tobias</td>  
    <td>Linus</td>  
  </tr>  
</table>

**Note:** A table cell can contain all sorts of HTML elements: text, images, lists, links, other tables, etc.

## Table Rows

Each table row starts with a <tr> and ends with a </tr> tag.

tr stands for table row.

### Example

<table>  
  <tr>  
    <td>Emil</td>  
    <td>Tobias</td>  
    <td>Linus</td>  
  </tr>  
  <tr>  
    <td>16</td>  
    <td>14</td>  
    <td>10</td>  
  </tr>  
</table>

You can have as many rows as you like in a table; just make sure that the number of cells are the same in each row.

**Note:** There are times when a row can have less or more cells than another. You will learn about that in a later chapter.

## Table Headers

Sometimes you want your cells to be table header cells. In those cases use the <th> tag instead of the <td> tag:

th stands for table header.

### Example

Let the first row be table header cells:

<table>  
  <tr>  
    <th>Person 1</th>  
    <th>Person 2</th>  
    <th>Person 3</th>  
  </tr>  
  <tr>  
    <td>Emil</td>  
    <td>Tobias</td>  
    <td>Linus</td>  
  </tr>  
  <tr>  
    <td>16</td>  
    <td>14</td>  
    <td>10</td>  
  </tr>  
</table>

By default, the text in <th> elements are bold and centered, but you can change that with CSS.