HTML Introduction

## **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 a Web page
* HTML consists of a series of elements
* HTML elements tell the browser how to display the content
* HTML elements are represented by tags
* HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
* Browsers do not display the HTML tags, but use them to render the content of the page

## **A Simple HTML Document**

### **Example**

<!DOCTYPE html>  
<html>  
<head>  
<title>Page Title</title>  
</head>  
<body>  
  
<h1>Hello</h1>  
<p>World</p>  
  
</body>  
</html>

### **Example Explained**

* 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
* The <h1> element defines a large heading
* The <p> element defines a paragraph

## **HTML Tags**

HTML tags are element names surrounded by angle brackets:

**Syntax :**

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

## **Web Browsers**

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

## **HTML Page Structure**

Below is a visualization of an HTML page structure:

<html>

<head>

<title>Page title</title>

</head>

<body>

<h1>This is a heading</h1>

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

<p>This is another paragraph.</p>

</body>

</html>

**Note:** Only the content inside the <body> section (the white area above) is displayed in a browser.

## **The <!DOCTYPE> Declaration**

The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.

It must only appear once, at the top of the page (before any HTML tags).

The <!DOCTYPE> declaration is not case sensitive.

The <!DOCTYPE> declaration for HTML5 is:

<!DOCTYPE html>

# HTML Attributes

Attributes provide additional information about HTML elements.

## **HTML Attributes**

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

# HTML <body> Tag

## **Definition and Usage**

The <body> tag defines the document's body.

The <body> element contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [background](https://www.w3schools.com/tags/att_body_background.asp) | *Image name*  *Or Image Path* | Specifies a background image for a document |
| [bgcolor](https://www.w3schools.com/tags/att_body_bgcolor.asp) | *Color code or name* | Specifies the background color of a document |
| [text](https://www.w3schools.com/tags/att_body_text.asp) | *Color code or name* | Specifies the color of the text in a document |

### **Example**

<!DOCTYPE html>

<html>

<head>

<title>Title of the document</title>

</head>

<body bgcolor=”red” background=”2.jpg” text=”white”>

Hello World!

</body>

</html>

## **HTML Headings**

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

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

### **Example**

<!DOCTYPE html>

<html>

<body>

<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>

</body>

</html>

# HTML <p> Tag

# Definition and Usage

The <p> tag defines a paragraph.

Browsers automatically add some space (margin) before and after each <p> element. The margins can be modified with CSS (with the margin properties).

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The p element</h1>

<p>Hello</p>

<p>This is a paragraph 1.</p>

<p>This is a paragraph 2.</p>

</body>

</html>

# HTML <pre> Tag

## **Definition and Usage**

The <pre> tag defines preformatted text.

Text in a <pre> element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The pre element</h1>

<pre>

Text in a pre element

is displayed in a fixed-width

font, and it preserves

both spaces and

line breaks

</pre>

</body>

</html>

# HTML <progress> Tag

## **Definition and Usage**

The <progress> tag represents the progress of a task.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The progress element</h1>

<progress id="file" value="32" max="100"> </progress>

</body>

</html>

# HTML <q> Tag

## **Definition and Usage**

The <q> tag defines a short quotation.

Browsers normally insert quotation marks around the quotation.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The q element</h1>

<p>WWF's goal is to:

<q>Build a future where people live in harmony with nature.</q>

We hope they succeed.</p>

</body>

</html>

# HTML <s> Tag

## **Definition and Usage**

The <s> tag specifies text that is no longer correct, accurate or relevant.

The <s> tag should not be used to define replaced or deleted text, use the [<del>](https://www.w3schools.com/tags/tag_del.asp) tag to define replaced or deleted text.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The s element</h1>

<p><s>Today is my first class.</s></p>

<p> Today is my first class </p>

</body>

</html>

# HTML <small> Tag

## **Definition and Usage**

The <small> tag defines smaller text (and other side comments).

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The small element</h1>

<p> Welcome to class.</p>

<p><small>Welcome to class.</small></p>

</body>

</html>

# HTML <sub> Tag

## **Definition and Usage**

The <sub> tag 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**

<!DOCTYPE html>

<html>

<body>

<h1>The sub and sup elements</h1>

<p>log <sub>10</sub> text.</p>

</body>

</html>

# HTML <sup> Tag

## **Definition and Usage**

The <sup> tag 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 102

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The sub and sup elements</h1>

<p>10 <sup>8</sup> text.</p>

</body>

</html>

# HTML <a> Tag

## **Definition and Usage**

The <a> tag defines a hyperlink, which is used to link from one page to another.

The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

By default, links will appear as follows in all browsers:

* An unvisited link is underlined and blue
* A visited link is underlined and purple
* An active link is underlined and red

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [download](https://www.w3schools.com/tags/att_a_download.asp) | *Filename* | Specifies that the target will be downloaded when a user clicks on the hyperlink |
| [href](https://www.w3schools.com/tags/att_a_href.asp) | *URL or file name* | Specifies the URL of the page the link  goes to |
| [name](https://www.w3schools.com/tags/att_a_name.asp) | *section\_name* | Specifies the name of an anchor |
| [rel](https://www.w3schools.com/tags/att_a_rel.asp) | alternate author bookmark external | Specifies the relationship between the  current document and the linked  document |
| [target](https://www.w3schools.com/tags/att_a_target.asp) | \_blank \_parent | Specifies where to open the linked  document |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Anchor Tag</h1>

<a href="index.html">Main page</a>

</body>

</html>

# HTML <head> Tag

## **Definition and Usage**

The <head> element is a container for all the head elements.

The <head> element can include a title for the document, scripts, styles, meta information, and more.

The following elements can go inside the <head> element:

* [<title>](https://www.w3schools.com/tags/tag_title.asp) (this element is required in an HTML document)
* [<style>](https://www.w3schools.com/tags/tag_style.asp)
* [<link>](https://www.w3schools.com/tags/tag_link.asp)
* [<meta>](https://www.w3schools.com/tags/tag_meta.asp)
* [<script>](https://www.w3schools.com/tags/tag_script.asp)

### **Example**

<!DOCTYPE html>

<html>

<head>

<title>Title of the document</title>

</head>

<body>Hello</body>

</html>

# HTML <header> Tag

## **Definition and Usage**

The <header> element represents a container for introductory content or a set of navigational links.

A <header> element typically contains:

* one or more heading elements (<h1> - <h6>)
* logo or icon
* authorship information

### **Example**

<!DOCTYPE html>

<html>

<body>

<header>

<h1>Headings</h1>

<h2>Headings 2</h2>

<p>Hello</p>

</header>

</body>

</html>

# HTML <hr> Tag

## **Definition and Usage**

The <hr> tag defines a thematic break in an HTML page.

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

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](https://www.w3schools.com/tags/att_hr_align.asp) | left center right | Specifies the alignment of a <hr> element |
| [noshade](https://www.w3schools.com/tags/att_hr_noshade.asp) | noshade | Specifies that a <hr> element should render in one solid color (noshaded), instead of a shaded color |
| Height | *pixels %* | Specifies the height of a <hr> element |
| [width](https://www.w3schools.com/tags/att_hr_width.asp) | *pixels %* | Specifies the width of a <hr> element |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>HTML</h1>

<p>HTML is a language for describing web pages.</p>

<hr color=”blue” height=”70%” width=”20%” align=”center”></hr>

<h1>CSS</h1>

<p>CSS defines how to display HTML elements.</p>

</body>

</html>

## **HTML <blockquote>**

The HTML <blockquote> element defines a section that is quoted from another source.

Browsers usually indent <blockquote> elements.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>Browsers usually indent blockquote elements.</p>

<blockquote>

For nearly 60 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by more than one million members in the United States and close to five million globally.

</blockquote>

</body>

</html>

## **HTML <abbr>**

The HTML <abbr> element defines an abbreviation or an acronym.

Marking abbreviations can give useful information to browsers, translation systems and search-engines.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>

</body>

</html>

## **HTML <address>**

The HTML <address> element defines contact information (author/owner) of a document or an article.

The <address> element is usually displayed in italic. Most browsers will add a line break before and after the element.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>The HTML address element defines contact information (author/owner) of a document or article.</p>

<address>

PYSPIDERS<br>

Visit us at:<br>

Qspiders<br>

Basavangudi<br>

Bangalore

</address>

</body>

</html>

## **HTML <cite>**

he HTML <cite> element defines the title of a work.

Browsers usually display <cite> elements in italic.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p><cite>The Scream</cite> by Edvard Munch</p>

</body>

</html>

## **HTML <bdo>**

The HTML <bdo> element defines bi-directional override.

The <bdo> element is used to override the current text direction

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [dir](https://www.w3schools.com/tags/att_bdo_dir.asp) | ltr rtl | Required. Specifies the text direction of the text inside the <bdo> element |

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>If your browser supports bi-directional override (bdo), the next line will be written from right to left (rtl):</p>

<bdo dir="rtl">This line will be written from right to left</bdo>

</body>

</html>

## **HTML Comment Tags**

<!-- Write your comments here -->

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

### **Example**

<!DOCTYPE html>

<html>

<body>

<!-- This is a comment -->

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

<!-- Comments are not displayed in the browser -->

</body>

</html>

# HTML Images

## **HTML Images Syntax**

In HTML, images are defined with the <img> tag.

The <img> tag is empty, it contains attributes only, and does not have a closing tag.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](https://www.w3schools.com/tags/att_img_align.asp) | top bottom middle left right | Specifies the alignment of an image according to surrounding elements |
| [alt](https://www.w3schools.com/tags/att_img_alt.asp) | *text* | Specifies an alternate text for an image |
| [height](https://www.w3schools.com/tags/att_img_height.asp) | *pixels* | Specifies the height of an image |
| [src](https://www.w3schools.com/tags/att_img_src.asp) | *URL* | Specifies the URL of an image |

## **HTML Formatting Elements**

In the previous chapter, you learned about the HTML **style attribute**.

HTML also defines special **elements** for defining text with a special **meaning**.

HTML uses elements like <b> and <i> for formatting output, like **bold** or *italic* text.

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> - Small text
* <ins> - Inserted text

## **HTML <b> and <strong> Elements**

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

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>This text is normal.</p>

<p><b>This text is bold.</b></p>

</body>

</html>

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>This text is normal.</p>

<p><strong>This text is strong.</strong></p>

</body>

</html>

## **HTML <i> and <em> Elements**

The HTML <i> element defines italic text, without any extra importance.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>This text is normal.</p>

<p><i>This text is italic.</i></p>

</body>

</html>

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>This text is normal.</p>

<p><em>This text is emphasized.</em></p>

</body>

</html>

## **HTML <mark> Element**

The HTML <mark> element defines marked/highlighted text:

### **Example**

<!DOCTYPE html>

<html>

<body>

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

</body>

</html>

## **HTML <del> Element**

The HTML <del> element defines deleted/removed text.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>The del element represents deleted (removed) text.</p>

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

</body>

</html

## **HTML <ins> Element**

The HTML <ins> element defines inserted/added text.

### **Example**

<!DOCTYPE html>

<html>

<body>

<p>The ins element represent inserted (added) text.</p>

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

</body>

</html>

# HTML Lists

## **Summary**

* Use the HTML <ul> element to define an unordered list
* Use the CSS list-style-type property to define the list item marker
* Use the HTML <ol> element to define an ordered list
* Use the HTML type attribute to define the numbering type
* Use the HTML <li> element to define a list item
* Use the HTML <dl> element to define a description list
* Use the HTML <dt> element to define the description term
* Use the HTML <dd> element to describe the term in a description list
* Lists can be nested inside lists
* List items can contain other HTML elements

### **HTML List Example**

### **An Unordered List:**

* Item
* Item
* Item
* Item

### **An Ordered List:**

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

## **Unordered HTML List**

An unordered list starts with the [<ul>](https://www.w3schools.com/tags/tag_ul.asp) tag. Each list item starts with the [<li>](https://www.w3schools.com/tags/tag_li.asp) tag.

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

|  |  |
| --- | --- |
| **Value** | **Description** |
| Disc | Sets the list item marker to a bullet (default) |
| Circle | Sets the list item marker to a circle |
| Square | Sets the list item marker to a square |
| None | The list items will not be marked |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h2>An unordered HTML list</h2>

<ul>

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ul>

</body>

</html>

### **Example - Disc**

<!DOCTYPE html>

<html>

<body>

<h2>Unordered List with Disc Bullets</h2>

<ul type=”disc">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ul>

</body>

</html>

### **Example - Circle**

<!DOCTYPE html>

<html>

<body>

<h2>Unordered List with Circle Bullets</h2>

<ul type=”circle">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ul>

</body>

</html>

### **Example - Square**

<!DOCTYPE html>

<html>

<body>

<h2>Unordered List with Square Bullets</h2>

<ul type=”square">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ul>

</body>

</html>

### **Example - None**

<!DOCTYPE html>

<html>

<body>

<h2>Unordered List without Bullets</h2>

<ul type=”none">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ul>

</body>

</html>

## **Ordered HTML List**

An ordered list starts with the [<ol>](https://www.w3schools.com/tags/tag_ol.asp) tag. Each list item starts with the [<li>](https://www.w3schools.com/tags/tag_li.asp) tag.

The list items will be marked with numbers by default

## **Ordered HTML List - The Type Attribute**

The type attribute of the [<ol>](https://www.w3schools.com/tags/tag_ol.asp) tag, defines the type of the list item marker:

|  |  |
| --- | --- |
| **Type** | **Description** |
| type="1" | The list items will be numbered with numbers (default) |
| type="A" | The list items will be numbered with uppercase letters |
| type="a" | The list items will be numbered with lowercase letters |
| type="I" | The list items will be numbered with uppercase roman numbers |
| type="i" | The list items will be numbered with lowercase roman numbers |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h2>An ordered HTML list</h2>

<ol>

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

### **Numbers**

<!DOCTYPE html>

<html>

<body>

<h2>Ordered List with Numbers</h2>

<ol type="1">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

### **Uppercase Letters**

<!DOCTYPE html>

<html>

<body>

<h2>Ordered List with Letters</h2>

<ol type="A">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

### **Lowercase Letters**

<!DOCTYPE html>

<html>

<body>

<h2>Ordered List with Lowercase Letters</h2>

<ol type="a">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

### **Uppercase Roman Numbers**

<!DOCTYPE html>

<html>

<body>

<h2>Ordered List with Roman Numbers</h2>

<ol type="I">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

### **Lowercase Roman Numbers**

<!DOCTYPE html>

<html>

<body>

<h2>Ordered List with Lowercase Roman Numbers</h2>

<ol type="i">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

## **HTML Description Lists**

HTML also supports description lists.

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

The [<dl>](https://www.w3schools.com/tags/tag_dl.asp) tag defines the description list, the [<dt>](https://www.w3schools.com/tags/tag_dt.asp) tag defines the term (name), and the [<dd>](https://www.w3schools.com/tags/tag_dd.asp) tag describes each term

### **Example**

<!DOCTYPE html>

<html>

<body>

<h2>A Description List</h2>

<dl>

<dt>Coffee</dt>

<dd>- black hot drink</dd>

<dt>Milk</dt>

<dd>- white cold drink</dd>

</dl>

</body>

</html>

## **Nested HTML Lists**

List can be nested (lists inside lists)

### **Example**

<!DOCTYPE html>

<html>

<body>

<h2>A Nested List</h2>

<p>List can be nested (lists inside lists):</p>

<ul>

<li>Coffee</li>

<li>Tea

<ul>

<li>Black tea</li>

<li>Green tea</li>

</ul>

</li>

<li>Milk</li>

</ul>

</body>

</html>

## **Control List Counting**

By default, an ordered list will start counting from 1. If you want to start counting from a specified number, you can use the start attribute

### **Example**

<!DOCTYPE html>

<html>

<body>

<h2>The start attribute</h2>

<p>By default, an ordered list will start counting from 1. Use the start attribute to start counting from a specified number:</p>

<ol start="50">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

<ol type="I" start="50">

<li>Coffee</li>

<li>Tea</li>

<li>Milk</li>

</ol>

</body>

</html>

# HTML <figcaption>& <figure>

# Tag

# Use a <figure> element to mark up a photo in a document, and a <figcaption> element to define a caption for the photo

### **Example**

# <!DOCTYPE html>

# <html>

# <body>

# <h1>The figure and figcaption element</h1>

# <figure>

# <img src="5.jpg" alt="image" width:100%">

# <figcaption>Fig.1 – nature image.</figcaption>

# </figure>

# </body>

# </html>

# HTML <embed> Tag

## **Definition and Usage**

The <embed> tag defines a container for an external application or interactive content (a plug-in).

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [height](https://www.w3schools.com/tags/att_embed_height.asp) | *pixels* | Specifies the height of the embedded content |
| [src](https://www.w3schools.com/tags/att_embed_src.asp) | *URL* | Specifies the address of the external file to embed |
| [type](https://www.w3schools.com/tags/att_embed_type.asp) | *media\_type* | Specifies the media type of the embedded content |
| [width](https://www.w3schools.com/tags/att_embed_width.asp) | *pixels* | Specifies the width of the embedded content |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The embed element</h1>

<embed src="helloworld.swf">

</body>

</html>

# HTML <font> Tag

## **Definition and Usage**

The <font> tag specifies the font face, font size, and color of text.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [color](https://www.w3schools.com/tags/att_font_color.asp) | *rgb(x,x,x) #xxxxxx colorname* | Specifies the color of text |
| [face](https://www.w3schools.com/tags/att_font_face.asp) | *font\_family* | Specifies the font of text |
| [size](https://www.w3schools.com/tags/att_font_size.asp) | *number* | Specifies the size of text |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The font element</h1>

<p><font size="3" color="red">This is some text!</font></p>

<p><font size="2" color="blue">This is some text!</font></p>

<p><font face="verdana" color="green">This is some text!</font></p>

</body>

</html>

# HTML <table> Tag

## **Definition and Usage**

The <table> tag defines an HTML table.

An HTML table consists of the <table> element and one or more [<tr>](https://www.w3schools.com/tags/tag_tr.asp), [<th>](https://www.w3schools.com/tags/tag_th.asp), and [<td>](https://www.w3schools.com/tags/tag_td.asp) elements.

The <tr> element defines a table row, the <th> element defines a table header, and the <td> element defines a table cell.

A more complex HTML table may also include <caption>, <col>, <colgroup>, <thead>, <tfoot>, and <tbody> elements.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](https://www.w3schools.com/tags/att_table_align.asp) | left center right | Specifies the alignment of a table according to surrounding text |
| [bgcolor](https://www.w3schools.com/tags/att_table_bgcolor.asp) | *rgb(x,x,x) #xxxxxx colorname* | Specifies the background color for a table |
| [border](https://www.w3schools.com/tags/att_table_border.asp) | 1 0 | Not supported in HTML5. Specifies whether or not the table is being used for layout purposes |
| [cellpadding](https://www.w3schools.com/tags/att_table_cellpadding.asp) | *pixels* | Specifies the space between the cell wall and the cell content |
| [cellspacing](https://www.w3schools.com/tags/att_table_cellspacing.asp) | *pixels* | Specifies the space between cells |
| [frame](https://www.w3schools.com/tags/att_table_frame.asp) | void above below hsides lhs rhs vsides box border | Specifies which parts of the outside borders that should be visible |
| [rules](https://www.w3schools.com/tags/att_table_rules.asp) | none groups rows cols all | Specifies which parts of the inside borders that should be visible |
| [width](https://www.w3schools.com/tags/att_table_width.asp) | *pixels %* | Specifies the width of a table |

### **Example**

<!DOCTYPE html>

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

}

</style>

</head>

<body>

<h1>The table element</h1>

<table>

<tr>

<th>Month</th>

<th>Savings</th>

</tr>

<tr>

<td>January</td>

<td>$100</td>

</tr>

<tr>

<td>February</td>

<td>$80</td>

</tr>

</table>

</body>

</html>

# HTML <td>

## **Definition and Usage**

The <td> tag defines a standard cell in an HTML table.

An HTML table has two kinds of cells:

* Header cells - contains header information (created with the [<th>](https://www.w3schools.com/tags/tag_th.asp) element)
* Standard cells - contains data (created with the <td> element)

The text in <th> elements are bold and centered by default.

The text in <td> elements are regular and left-aligned by default.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](https://www.w3schools.com/tags/att_td_align.asp) | left right center justify char | Aligns the content in a cell |
| [bgcolor](https://www.w3schools.com/tags/att_td_bgcolor.asp) | *rgb(x,x,x) #xxxxxx colorname* | Specifies the background color of a cell |
| [colspan](https://www.w3schools.com/tags/att_td_colspan.asp) | *number* | Specifies the number of columns a cell should span |
| [height](https://www.w3schools.com/tags/att_td_height.asp) | *pixels %* | Sets the height of a cell |
| [rowspan](https://www.w3schools.com/tags/att_td_rowspan.asp) | *number* | Sets the number of rows a cell should span |
| [valign](https://www.w3schools.com/tags/att_td_valign.asp) | top middle bottom baseline | Vertical aligns the content in a cell |
| [width](https://www.w3schools.com/tags/att_td_width.asp) | *pixels %* | Specifies the width of a cell |

### **Example**

<!DOCTYPE html>

<html>

<head>

</head>

<body>

<h1>The td element</h1>

<p>The td element defines a standard cell in a table:</p>

<table>

<tr>

<td rowspan=”3”>Cell A</td>

<td >Cell B</td>

<td >Cell B</td>

<td >Cell B</td>

</tr>

</table>

</body>

</html>

# HTML <details> Tag

## **Definition and Usage**

The <details> tag specifies additional details that the user can view or hide on demand.

The <details> tag can be used to create an interactive widget that the user can open and close. Any sort of content can be put inside the <details> tag.

The content of a <details> element should not be visible unless the open attribute is set.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The details element</h1>

<details>

<summary>HTML</summary>

<p> Hypertext Markup Language</p>

</details>

</body>

</html>

# HTML <iframe> Tag

## **Definition and Usage**

The <iframe> tag specifies an inline frame.

An inline frame is used to embed another document within the current HTML document.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The iframe element</h1>

<iframe src="https://www.hirist.com"></iframe>

</body>

</html>

# HTML <dfn> Tag

## **Definition and Usage**

The <dfn> tag represents the defining instance of a term in HTML.

The defining instance is often the first use of a term in a document.

The nearest parent of the <dfn> tag must also contain the definition/explanation for the term inside <dfn>.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The dfn element</h1>

<p><dfn>HTML</dfn> is the standard markup language for creating web pages.</p>

</body>

</html>

# HTML <article> Tag

## **Definition and Usage**

The <article> tag specifies independent, self-contained content.

An article should make sense on its own and it should be possible to distribute it independently from the rest of the site.

Potential sources for the <article> element:

* Forum post
* Blog post
* News story
* Comment

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The article element</h1>

<article>

<h2>Google Chrome</h2>

<p>Google Chrome is a web browser developed by Google, released in 2008. Chrome is the world's most popular web browser today!</p>

</article>

<article>

<h2>Microsoft Edge</h2>

<p>Microsoft Edge is a web browser developed by Microsoft, released in 2015. Microsoft Edge replaced Internet Explorer.</p>

</article>

</body>

</html>

# HTML <audio> Tag

## **Definition and Usage**

The <audio> tag defines sound, such as music or other audio streams.

Currently, there are 3 supported file formats for the <audio> element: MP3, WAV, and OGG:

## **HTML Audio - How It Works**

The controls attribute adds audio controls, like play, pause, and volume.

The <source> element allows you to specify alternative audio files which the browser may choose from. The browser will use the first recognized format.

The text between the <audio> and </audio> tags will only be displayed in browsers that do not support the <audio> element.

### **Example**

<!DOCTYPE html>

<html>

<body>

<audio controls>

<source src="horse.ogg" type="audio/ogg">

<source src="horse.mp3" type="audio/mpeg">

</audio>

</body>

</html>

# HTML5 Video

## **How it Works**

The controls attribute adds video controls, like play, pause, and volume.

It is a good idea to always include width and height attributes. If height and width are not set, the page might flicker while the video loads.

The <source> element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.

The text between the <video> and </video> tags will only be displayed in browsers that do not support the <video> element.

## **The HTML <video> Element**

### **Example**

<!DOCTYPE html>

<html>

<body>

<video width="320" height="240" controls>

<source src="movie.mp4" type="video/mp4">

<source src="movie.ogg" type="video/ogg">

Your browser does not support the video tag.

</video>

</body>

</html>

# HTML <iframe> Tag

## **Definition and Usage**

The <iframe> tag specifies an inline frame.

An inline frame is used to embed another document within the current HTML document.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](https://www.w3schools.com/tags/att_iframe_align.asp) | left right top middle bottom | Specifies the alignment of an <iframe> according to surrounding elements |
| [height](https://www.w3schools.com/tags/att_iframe_height.asp) | *pixels* | Specifies the height of an <iframe>. Default height is 150 pixels |
| [name](https://www.w3schools.com/tags/att_iframe_name.asp) | *text* | Specifies the name of an <iframe> |
| [src](https://www.w3schools.com/tags/att_iframe_src.asp) | *URL* | Specifies the address of the document to embed in the <iframe> |
| [width](https://www.w3schools.com/tags/att_iframe_width.asp) | *pixels* | Specifies the width of an <iframe>. Default width is 300 pixels |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The iframe element</h1>

<iframe src="https://www.hirist.com">

<p>Your browser does not support iframes.</p>

</iframe>

</body>

</html>

# Using Emojis in HTML

## **What are Emojis?**

Emojis look like images, or icons, but they are not.

They are letters (characters) from the UTF-8 (Unicode) alphabet.

## **The HTML charset Attribute**

To display an HTML page correctly, a web browser must know the character set used in the page.

This is specified in the <meta> tag:

<meta charset="UTF-8">

### **Example**

<!DOCTYPE html>

<html>

<meta charset="UTF-8">

<body>

<p>I will display A B C</p>

<p>I will display &#65; &#66; &#67;</p>

</body>

</html>

### **Example Explained**

The <meta charset="UTF-8"> element defines the character set.

The characters A, B, and C, are displayed by the numbers 65, 66, and 67.

To let the browser understand that you are displaying a character, you must start the entity number with &# and end it with ; (semicolon).

## **Emoij Characters**

Emojis are also characters from the UTF-8 alphabet:

* 😄 is 128516
* 😍 is 128525
* 💗 is 128151

### **Example**

<!DOCTYPE html>

<html>

<meta charset="UTF-8">

<body>

<h1>My First Emoji</h1>

<p>&#128512;</p>

</body>

</html>

# HTML <kbd> Tag

## **Definition and Usage**

The <kbd> tag is a phrase tag. It defines keyboard input.

**Tip:** This tag is not deprecated, but it is possible to achieve richer effect with CSS.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Phrase elements</h1>

<em>Emphasized text</em><br>

<strong>Strong text</strong><br>

<code>A piece of computer code</code><br>

<samp>Sample output from a computer program</samp><br>

<kbd>Keyboard input</kbd><br>

<var>Variable</var>

</body>

</html>

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<em>](https://www.w3schools.com/tags/tag_em.asp) | Renders as emphasized text |
| [<strong>](https://www.w3schools.com/tags/tag_strong.asp) | Defines important text |
| [<code>](https://www.w3schools.com/tags/tag_code.asp) | Defines a piece of computer code |
| [<samp>](https://www.w3schools.com/tags/tag_samp.asp) | Defines sample output from a computer program |
| [<kbd>](https://www.w3schools.com/tags/tag_kbd.asp) | Defines keyboard input |
| [<var>](https://www.w3schools.com/tags/tag_var.asp) | Defines a variable |

# HTML YouTube Videos

## **Playing a YouTube Video in HTML**

To play your video on a web page, do the following:

* Upload the video to YouTube
* Take a note of the video id
* Define an <iframe> element in your web page
* Let the src attribute point to the video URL
* Use the width and height attributes to specify the dimension of the player
* Add any other parameters to the URL (see below)

### **Example - Using iFrame**

<!DOCTYPE html>

<html>

<body>

<iframe width="420" height="345" src="https://www.youtube.com/embed/tgbNymZ7vqY">

</iframe>

</body>

</html>

# HTML Forms

# HTML <input> Tag

## **Definition and Usage**

The <input> tag specifies an input field where the user can enter data.

<input> elements are used within a <form> element to declare input controls that allow users to input data.

An input field can vary in many ways, depending on the type attribute.

## **Tips and Notes**

**Note:**The <input> element is empty, it contains attributes only.

**Tip:** Always use the [<label>](https://www.w3schools.com/tags/tag_label.asp) tag to define labels for <input type="text">, <input type="checkbox">, <input type="radio">, <input type="file">, and <input type="password">.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [accept](https://www.w3schools.com/tags/att_input_accept.asp) | file\_extension audio/\* video/\* image/\* *media\_type* | Specifies a filter for what file types the user can pick from the file input dialog box (only for type="file") |
| [alt](https://www.w3schools.com/tags/att_input_alt.asp) | *Text* | Specifies an alternate text for images (only for type="image") |
| [autocomplete](https://www.w3schools.com/tags/att_input_autocomplete.asp) | on off | Specifies whether an <input> element should have autocomplete enabled |
| [autofocus](https://www.w3schools.com/tags/att_input_autofocus.asp) | autofocus | Specifies that an <input> element should automatically get focus when the page loads |
| [checked](https://www.w3schools.com/tags/att_input_checked.asp) | checked | Specifies that an <input> element should be pre-selected when the page loads (for type="checkbox" or type="radio") |
| [dirname](https://www.w3schools.com/tags/att_input_dirname.asp) | *inputname*.dir | Specifies that the text direction will be submitted |
| [disabled](https://www.w3schools.com/tags/att_input_disabled.asp) | disabled | Specifies that an <input> element should be disabled |
| [form](https://www.w3schools.com/tags/att_input_form.asp) | *form\_id* | Specifies the form the <input> element belongs to |
| [formaction](https://www.w3schools.com/tags/att_input_formaction.asp) | *URL* | Specifies the URL of the file that will process the input control when the form is submitted (for type="submit" and type="image") |
| [formenctype](https://www.w3schools.com/tags/att_input_formenctype.asp) | application/x-www-form-urlencoded multipart/form-data text/plain | Specifies how the form-data should be encoded when submitting it to the server (for type="submit" and type="image") |
| [formmethod](https://www.w3schools.com/tags/att_input_formmethod.asp) | get post | Defines the HTTP method for sending data to the action URL (for type="submit" and type="image") |
| [formnovalidate](https://www.w3schools.com/tags/att_input_formnovalidate.asp) | formnovalidate | Defines that form elements should not be validated when submitted |
| [formtarget](https://www.w3schools.com/tags/att_input_formtarget.asp) | \_blank \_self \_parent \_top framename | Specifies where to display the response that is received after submitting the form (for type="submit" and type="image") |
| [height](https://www.w3schools.com/tags/att_input_height.asp) | *pixels* | Specifies the height of an <input> element (only for type="image") |
| [list](https://www.w3schools.com/tags/att_input_list.asp) | *datalist\_id* | Refers to a <datalist> element that contains pre-defined options for an <input> element |
| [max](https://www.w3schools.com/tags/att_input_max.asp) | *number date* | Specifies the maximum value for an <input> element |
| [maxlength](https://www.w3schools.com/tags/att_input_maxlength.asp) | *number* | Specifies the maximum number of characters allowed in an <input> element |
| [min](https://www.w3schools.com/tags/att_input_min.asp) | *number date* | Specifies a minimum value for an <input> element |
| [minlength](https://www.w3schools.com/tags/att_input_minlength.asp) | *number* | Specifies the minimum number of characters required in an <input> element |
| [multiple](https://www.w3schools.com/tags/att_input_multiple.asp) | multiple | Specifies that a user can enter more than one value in an <input> element |
| [name](https://www.w3schools.com/tags/att_input_name.asp) | *Text* | Specifies the name of an <input> element |
| [pattern](https://www.w3schools.com/tags/att_input_pattern.asp) | regexp | Specifies a regular expression that an <input> element's value is checked against |
| [placeholder](https://www.w3schools.com/tags/att_input_placeholder.asp) | *Text* | Specifies a short hint that describes the expected value of an <input> element |
| [readonly](https://www.w3schools.com/tags/att_input_readonly.asp) | readonly | Specifies that an input field is read-only |
| [required](https://www.w3schools.com/tags/att_input_required.asp) | required | Specifies that an input field must be filled out before submitting the form |
| [size](https://www.w3schools.com/tags/att_input_size.asp) | *number* | Specifies the width, in characters, of an <input> element |
| [src](https://www.w3schools.com/tags/att_input_src.asp) | *URL* | Specifies the URL of the image to use as a submit button (only for type="image") |
| [step](https://www.w3schools.com/tags/att_input_step.asp) | *number* any | Specifies the interval between legal numbers in an input field |
| [type](https://www.w3schools.com/tags/att_input_type.asp) | button checkbox color date datetime-local email file hidden image month number password radio range reset search submit tel text time url week | Specifies the type <input> element to display |
| [value](https://www.w3schools.com/tags/att_input_value.asp) | *Text* | Specifies the value of an <input> element |
| [width](https://www.w3schools.com/tags/att_input_width.asp) | *Pixels* | Specifies the width of an <input> element (only for type="image") |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The input element</h1>

<form action="3.html">

<label for="fname">First name:</label>

<input type="text" id="fname" name="fname"><br><br>

<label for="lname">Last name:</label>

<input type="text" id="lname" name="lname"><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

# HTML <input type="color">

## **Definition and Usage**

The <input type="color"> defines a color picker.

The default value is #000000 (black). The value must be in seven-character hexadecimal notation.

**Tip:** Always add the [<label>](https://www.w3schools.com/tags/tag_label.asp) tag for best accessibility practices!

## **Syntax**

<input type="color">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show a Color Picker</h1>

<form action="3.html">

<label for="favcolor">Select your favorite color:</label>

<input type="color" id="favcolor" name="favcolor" value="#ff0000"><br><br>

<input type="submit">

</form>

</body>

</html>

# HTML <input type="date">

## **Definition and Usage**

The <input type="date"> defines a date picker.

The resulting value includes the year, month, and day.

**Tip:** Always add the [<label>](https://www.w3schools.com/tags/tag_label.asp) tag for best accessibility practices!

## **Syntax**

<input type="date">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show a Date Control</h1>

<form action="3.html">

<label for="birthday">Birthday:</label>

<input type="date" id="birthday" name="birthday">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="datetime-local">

## **Definition and Usage**

The <input type="datetime-local"> defines a date picker.

The resulting value includes the year, month, day, and time.

**Tip:** Always add the [<label>](https://www.w3schools.com/tags/tag_label.asp) tag for best accessibility practices!

## **Syntax**

<input type="datetime-local">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show a Date and Time Control</h1>

<form action="3.html">

<label for="birthdaytime">Birthday (date and time):</label>

<input type="datetime-local" id="birthdaytime" name="birthdaytime">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="email">

## **Definition and Usage**

The <input type="email"> defines a field for an e-mail address.

The input value is automatically validated to ensure it is a properly formatted e-mail address.

To define an e-mail field that allows multiple e-mail addresses, add the "multiple" attribute.

## **Syntax**

<input type="email">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show Email Fields</h1>

<h3>Show an email field (allows only one email address):</h3>

<form action="3.html">

<label for="email">Enter your email:</label>

<input type="email" id="email" name="email">

<input type="submit">

</form>

<form action="3.html">

<label for="emails">Enter email addresses:</label>

<input type="email" id="emails" name="emails" multiple>

<input type="submit">

</form>

</body>

</html>

# HTML <input type="file">

## **Definition and Usage**

The <input type="file"> defines a file-select field and a "Browse" button for file uploads.

To define a file-select field that allows multiple files to be selected, add the "multiple" attribute.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show File-select Fields</h1>

<h3>Show a file-select field which allows only one file to be chosen:</h3>

<form action="3.html">

<label for="myfile">Select a file:</label>

<input type="file" id="myfile" name="myfile"><br><br>

<input type="submit">

</form>

</body>

</html>

# HTML <input type="month">

## **Definition and Usage**

The <input type="month"> defines a month and year control.

The format is "YYYY-MM".

## **Syntax**

<input type="month">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Month Input Control</h1>

<form action="3.html">

<label for="bdaymonth">Birthday (month and year):</label>

<input type="month" id="bdaymonth" name="bdaymonth">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="number">

## **Definition and Usage**

The <input type="number"> defines a field for entering a number.

Use the following attributes to specify restrictions:

* [max](https://www.w3schools.com/tags/att_input_max.asp) - specifies the maximum value allowed
* [min](https://www.w3schools.com/tags/att_input_min.asp) - specifies the minimum value allowed
* [step](https://www.w3schools.com/tags/att_input_step.asp) - specifies the legal number intervals
* [value](https://www.w3schools.com/tags/att_input_value.asp) - Specifies the default value

## **Syntax**

<input type="number">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Number Field</h1>

<form action="3.html">

<label for="quantity">Quantity (between 1 and 5):</label>

<input type="number" id="quantity" name="quantity" min="1" max="5">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="password">

## **Definition and Usage**

The <input type="password"> defines a password field (characters are masked).

## **Syntax**

<input type="password">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Password Field</h1>

<form action="3.html">

<label for="email">Email:</label>

<input type="email" id="email" name="email"><br><br>

<label for="pwd">Password:</label>

<input type="password" id="pwd" name="pwd" minlength="8"><br><br>

<input type="submit">

</form>

</body>

</html>

# HTML <input type="radio">

## **Definition and Usage**

The <input type="radio"> defines a radio button.

Radio buttons are normally presented in radio groups (a collection of radio buttons describing a set of related options). Only one radio button in a group can be selected at the same time.

**Note:** The radio group must have share the same name (the value of the name attribute) to be treated as a group. Once the radio group is created, selecting any radio button in that group automatically deselects any other selected radio button in the same group. You can have as many radio groups on a page as you want, as long as each group has its own name.

**Note:** The value attribute defines the unique value associated with each radio button. The value is not shown to the user, but is the value that is sent to the server on "submit" to identify which radio button that was selected.

## **Syntax**

<input type="radio">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display Radio Buttons</h1>

<form action="3.html">

<p>Please select your gender:</p>

<input type="radio" id="male" name="gender" value="male">

<label for="male">Male</label><br>

<input type="radio" id="female" name="gender" value="female">

<label for="female">Female</label><br>

<input type="radio" id="other" name="gender" value="other">

<label for="other">Other</label>

<br>

<p>Please select your age:</p>

<input type="radio" id="age1" name="age" value="30">

<label for="age1">0 - 30</label><br>

<input type="radio" id="age2" name="age" value="60">

<label for="age2">31 - 60</label><br>

<input type="radio" id="age3" name="age" value="100">

<label for="age3">61 - 100</label><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

# HTML <input type="range">

## **Definition and Usage**

The <input type="range"> defines a control for entering a number whose exact value is not important (like a slider control).

Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the attributes below.

* [max](https://www.w3schools.com/tags/att_input_max.asp) - specifies the maximum value allowed
* [min](https://www.w3schools.com/tags/att_input_min.asp) - specifies the minimum value allowed
* [step](https://www.w3schools.com/tags/att_input_step.asp) - specifies the legal number intervals
* [value](https://www.w3schools.com/tags/att_input_value.asp) - Specifies the default value

## **Syntax**

<input type="range">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Range Field</h1>

<form action="3.html">

<label for="vol">Volume (between 0 and 50):</label>

<input type="range" id="vol" name="vol" min="0" max="50">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="search">

## **Definition and Usage**

The <input type="search"> defines a text field for entering a search string.

**Note:** Remember to set a name for the search field, otherwise nothing will be submitted. The most common name for search inputs is q.

## **Syntax**

<input type="search">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Search Field</h1>

<form action="3.html">

<label for="gsearch">Search Google:</label>

<input type="search" id="gsearch" name="gsearch">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="tel">

## **Definition and Usage**

The <input type="tel"> defines a field for entering a telephone number.

**Note:** Browsers that do not support "tel" fall back to being a standard "text" input.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a Telephone Input Field</h1>

<form action="3.html">

<label for="phone">Enter a phone number:</label><br><br>

<input type="tel" id="phone" name="phone" placeholder="123-45-678" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}" required><br><br>

<small>Format: 123-45-678</small><br><br>

<input type="submit">

</form>

</body>

</html>

# HTML <input type="text">

## **Definition and Usage**

The <input type="text"> defines a single-line text field.

The default width of the text field is 20 characters.

## **Syntax**

<input type="text">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display Text Input Fields</h1>

<form action="3.html">

<label for="fname">First name: </label>

<input type="text" id="fname" name="fname"><br><br>

<label for="lname">Last name: </label>

<input type="text" id="lname" name="lname"><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

# HTML <input type="time">

## **Definition and Usage**

The <input type="time"> defines a control for entering a time (no time zone).

## **Syntax**

<input type="time">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Show a Time Input Control</h1>

<form action="3.html">

<label for="appt">Select a time:</label>

<input type="time" id="appt" name="appt">

<input type="submit">

</form>

</body>

</html>

# HTML <input type="url">

## **Definition and Usage**

The <input type="url"> defines a field for entering a URL.

The input value is automatically validated before the form can be submitted.

## **Syntax**

<input type="url">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>Display a URL Input Field</h1>

<form action="3.html">

<label for="homepage">Add your homepage:</label>

<input type="url" id="homepage" name="homepage"><br><br>

<input type="submit">

</form>

</body>

</html>

# HTML <section> Tag

## **Definition and Usage**

The <section> tag defines sections in a document, such as chapters, headers, footers, or any other sections of the document.

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The section element</h1>

<section>

<h2>WWF</h2>

<p>The World Wide Fund for Nature (WWF) is an international organization working on issues regarding the conservation, research and restoration of the environment, formerly named the World Wildlife Fund. WWF was founded in 1961.</p>

</section>

# HTML <option> Tag

## **Definition and Usage**

The <option> tag defines an option in a select list.

<option> elements go inside a [<select>](https://www.w3schools.com/tags/tag_select.asp) or [<datalist>](https://www.w3schools.com/tags/tag_datalist.asp) element.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [disabled](https://www.w3schools.com/tags/att_option_disabled.asp) | Disabled | Specifies that an option should be disabled |
| [label](https://www.w3schools.com/tags/att_option_label.asp) | *Text* | Specifies a shorter label for an option |
| [selected](https://www.w3schools.com/tags/att_option_selected.asp) | Selected | Specifies that an option should be pre-selected when the page loads |
| [value](https://www.w3schools.com/tags/att_option_value.asp) | *Text* | Specifies the value to be sent to a server |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The option element</h1>

<label for="cars">Choose a car:</label>

<select id="cars">

<option value="volvo">Volvo</option>

<option value="saab">Saab</option>

<option value="opel">Opel</option>

<option value="audi">Audi</option>

</select>

</body>

</html>

# HTML <optgroup> Tag

## **Definition and Usage**

The <optgroup> tag is used to group related options in a drop-down list.

If you have a long list of options, groups of related options are easier to handle for a user.

## **Attributes**

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [disabled](https://www.w3schools.com/tags/att_optgroup_disabled.asp) | Disabled | Specifies that an option-group should be disabled |
| [label](https://www.w3schools.com/tags/att_optgroup_label.asp) | *Text* | Specifies a label for an option-group |

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The optgroup element</h1>

<label for="cars">Choose a car:</label>

<select id="cars">

<optgroup label="Swedish Cars">

<option value="volvo">Volvo</option>

<option value="saab">Saab</option>

</optgroup>

<optgroup label="German Cars">

<option value="mercedes">Mercedes</option>

<option value="audi">Audi</option>

</optgroup>

</select>

</body>

</html>

# HTML <form> action Attribute

## **Definition and Usage**

The action attribute specifies where to send the form-data when a form is submitted.

## **Syntax**

<form action="*URL*">

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The form action attribute</h1>

<form action="3.html">

<label for="fname">First name:</label>

<input type="text" id="fname" name="fname"><br><br>

<label for="lname">Last name:</label>

<input type="text" id="lname" name="lname"><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

# HTML <form> method Attribute

## **Definition and Usage**

The method attribute specifies how to send form-data (the form-data is sent to the page specified in the action attribute).

The form-data can be sent as URL variables (with method="get") or as HTTP post transaction (with method="post").

**Notes on GET:**

* Appends form-data into the URL in name/value pairs
* The length of a URL is limited (about 3000 characters)
* Never use GET to send sensitive data! (will be visible in the URL)
* Useful for form submissions where a user wants to bookmark the result
* GET is better for non-secure data, like query strings in Google

**Notes on POST:**

* Appends form-data inside the body of the HTTP request (data is not shown in URL)
* Has no size limitations
* Form submissions with POST cannot be bookmarked

## **Syntax**

<form method="get|post">

## **Attribute Values**

|  |  |
| --- | --- |
| **Value** | **Description** |
| Get | Default. Appends the form-data to the URL in name/value pairs: URL?name=value&name=value |
| Post | Sends the form-data as an HTTP post transaction |

**Example**

<!DOCTYPE html>

<html>

<body>

<h1>The form method="get" attribute</h1>

<form action="/action\_page.php" method="get" target="\_blank">

<label for="fname">First name:</label>

<input type="text" id="fname" name="fname"><br><br>

<label for="lname">Last name:</label>

<input type="text" id="lname" name="lname"><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>

### **Example**

<!DOCTYPE html>

<html>

<body>

<h1>The form method="post" attribute</h1>

<form action="/action\_page.php" method="post" target="\_blank">

<label for="fname">First name:</label>

<input type="text" id="fname" name="fname"><br><br>

<label for="lname">Last name:</label>

<input type="text" id="lname" name="lname"><br><br>

<input type="submit" value="Submit">

</form>

</body>

</html>