HTML5 Introduction

HTML5 is The Latest HTML Standard

Your browser does not support the video tag.

Video courtesy of [Big Buck Bunny](http://www.bigbuckbunny.org/)

What is New?

* New Elements
* New Attributes
* Full CSS3 Support
* Video and Audio
* 2D/3D Graphics
* Local Storage
* Local SQL Database
* Web Applications

HTML5 Multimedia

With HTML5, playing video and audio is easier than ever.

* HTML5 [<video>](http://www.w3schools.com/html/html5_video.asp)
* HTML5 [<audio>](http://www.w3schools.com/html/html5_audio.asp)

HTML5 Applications

With HTML5, web application development is easier than ever.

* Local data storage
* Local file access
* Local SQL database
* Application cache
* Javascript workers
* XHTMLHttpRequest 2

HTML5 Graphics

With HTML5, drawing graphics is easier than ever:

* Using the [<canvas>](http://www.w3schools.com/html/html5_canvas.asp) element
* Using inline [SVG](http://www.w3schools.com/html/html5_svg.asp)
* Using [CSS3 2D/3D](http://www.w3schools.com/css/css3_intro.asp)

HTML5 uses CSS3

* New Selectors
* New Properties
* Animations
* 2D/3D Transformations
* Rounded Corners
* Shadow Effects
* Downloadable Fonts

Read more in our [CSS3 tutorial.](http://www.w3schools.com/css/css3_intro.asp)

Semantic Elements

New elements for headers, footers, menus, sections and articles.

HTML5 Forms

New form elements, new attributes, new input types, automatic validation.

Examples in Each Chapter

With our HTML editor, you can edit the HTML, and click on a button to view the result.

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>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video_bear)

**Click on the "Try it yourself" button to see how it works**

What is HTML5?

HTML5 is the latest standard for HTML.

The previous version of HTML, HTML 4.01, came in 1999, and the internet has changed significantly since then.

HTML5 was designed to replace both HTML 4, XHTML, and the HTML DOM Level 2.

It was specially designed to deliver rich content without the need for additional plugins. The current version delivers everything from animation to graphics, music to movies, and can also be used to build complicated web applications.

HTML5 is also cross-platform. It is designed to work whether you are using a PC, or a Tablet, a Smartphone, or a Smart TV.

How Did HTML5 Get Started?

HTML5 is a cooperation between the World Wide Web Consortium (W3C) and the Web Hypertext Application Technology Working Group (WHATWG).

WHATWG was working with web forms and applications, and W3C was working with XHTML 2.0. In 2006, they decided to cooperate and create a new version of HTML.

Some rules for HTML5 were established:

* New features should be based on HTML, CSS, DOM, and JavaScript
* The need for external plugins (like Flash) should be reduced
* Error handling should be easier than in previous versions
* Scripting has to be replaced by more markup
* HTML5 should be device-independent
* The development process should be visible to the public

The HTML5 <!DOCTYPE>

In HTML5 there is only one DOCTYPE declaration, and it is very simple:

<!DOCTYPE html>

A Minimum HTML5 Document

Below is a simple HTML5 document, with the minimum of required tags:

<!DOCTYPE html>  
<html>  
<head>  
<meta charset="UTF-8">  
<title>*Title of the document*</title>  
</head>  
  
<body>  
*Content of the document......*  
</body>  
  
</html>

HTML5 - New Features

Some of the most interesting new features in HTML5 are:

* The <canvas> element for 2D drawing
* The <video> and <audio> elements for media playback
* Support for local storage
* New content-specific elements, like <article>, <footer>, <header>, <nav>, <section>
* New form controls, like calendar, date, time, email, url, search

Browser Support for HTML5

All major browsers (Chrome, Firefox, Internet Explorer, Safari, Opera) support the new HTML5 elements and APIs, and continue to add new HTML5 features to their latest versions.

The HTML 5 working group includes AOL, Apple, Google, IBM, Microsoft, Mozilla, Nokia, Opera, and hundreds of other vendors.

HTML5 References

At W3Schools you will find complete references with all HTML4/HTML5 tags, global attributes, standard events, and more.

[HTML4/5 Reference](http://www.w3schools.com/tags/default.asp)

HTML5 New Elements

New Elements in HTML5

The internet, and the use of the internet, has changed a lot since 1999, when HTML 4.01 became a standard.

Today, several elements in HTML 4.01 are obsolete, never used, or not used the way they were intended. All those elements are removed or re-written in HTML5.

To better handle today's internet needs, HTML5 has also included new elements for drawing graphics, displaying media content, for better page structure and better form handling, and several new APIs, such as drag and drop, get the geographical position of a user, store local data, and more.

Below is a list of the new HTML elements, introduced by HTML5, and a description of what they are used for.

The New <canvas> Element

**Note:** The links in the tables below point to our [HTML5 Reference](http://www.w3schools.com/tags/default.asp). However, you will learn more about these new elements in this tutorial.

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Defines graphic drawing using JavaScript |

New Media Elements

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound or music content |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines containers for external applications (like plug-ins) |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines sources for <video> and <audio> |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines tracks for <video> and <audio> |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines video or movie content |

New Form Elements

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Defines pre-defined options for input controls |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Defines a key-pair generator field (for forms) |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Defines the result of a calculation |

New Semantic/Structural Elements

HTML5 offers new elements for better structure:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article in the document |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Defines a part of text that might be formatted in a different direction from other text outside it |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Defines self-contained content, like illustrations, diagrams, photos, code listings, etc. |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for the document or a section |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Defines a header for the document or a section |
| [<main>](http://www.w3schools.com/tags/tag_main.asp) | Defines the main content of a document |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked or highlighted text |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Defines a command/menu item that the user can invoke from a popup menu |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links in the document |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Defines the progress of a task |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in the document |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |

Removed Elements

The following HTML 4.01 elements has been removed from HTML5:

* <acronym>
* <applet>
* <basefont>
* <big>
* <center>
* <dir>
* <font>
* <frame>
* <frameset>
* <noframes>
* <strike>
* <tt>

Semantic = Meaning.

Semantic elements = Elements with 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 <img> - Clearly defines its content.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Chrome, Safari and Opera supports the semantic elements described in this chapter.

**Note:** Internet Explorer 8 and earlier does not support these elements. However, there is a solution. Look at the end of this chapter.

New Semantic Elements in HTML5

Many of existing web sites today contains HTML code like this: <div id="nav">, <div class="header">, or <div id="footer">, to indicate navigation links, header, and footer.

HTML5 offers new semantic elements to clearly define different parts of a web page:

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



HTML5 <section> Element

The <section> element defines a section in a document.

According to W3C's HTML5 documentation: "A section is a thematic grouping of content, typically with a heading."

Example

<section>  
  <h1>WWF</h1>  
  <p>The World Wide Fund for Nature (WWF) is....</p>  
</section>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_section)

HTML5 <article> Element

The <article> element 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 web site.

Examples of where an <article> element can be used:

* Forum post
* Blog post
* News story
* Comment

Example

<article>  
  <h1>Internet Explorer 9</h1>  
  <p>Windows Internet Explorer 9 (abbreviated as IE9) was released to  
  the  public on March 14, 2011 at 21:00 PDT.....</p>  
</article>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_article)

HTML5 <nav> Element

The <nav> element defines a set of navigation links.

The <nav> element is intended for large blocks of navigation links. However, not all links in a document should be inside a <nav> element!

Example

<nav>  
<a href="/html/">HTML</a> |  
<a href="/css/">CSS</a> |  
<a href="/js/">JavaScript</a> |  
<a href="/jquery/">jQuery</a>  
</nav>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_nav)

HTML5 <aside> Element

The <aside> element defines some content aside from the content it is placed in (like a sidebar).

The aside content should be related to the surrounding content.

Example

<p>My family and I visited The Epcot center this summer.</p>  
  
<aside>  
  <h4>Epcot Center</h4>  
  <p>The Epcot Center is a theme park in Disney World, Florida.</p>  
</aside>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_aside)

HTML5 <header> Element

The <header> element specifies a header for a document or section.

The <header> element should be used as a container for introductory content.

You can have several <header> elements in one document.

The following example defines a header for an article:

Example

<article>  
  <header>  
    <h1>Internet Explorer 9</h1>  
    <p><time pubdate datetime="2011-03-15"></time></p>  
  </header>  
  <p>Windows Internet Explorer 9 (abbreviated as IE9) was released to  
  the  public on March 14, 2011 at 21:00 PDT.....</p>  
</article>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_header)

HTML5 <footer> Element

The <footer> element specifies a footer for a document or section.

A <footer> element should contain information about its containing element.

A footer typically contains the author of the document, copyright information, links to terms of use, contact information, etc.

You can have several <footer> elements in one document.

Example

<footer>  
  <p>Posted by: Hege Refsnes</p>  
  <p><time pubdate datetime="2012-03-01"></time></p>  
</footer>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_footer)

HTML5 <figure> and <figcaption> Elements

The <figure> tag specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

While the content of the <figure> element is related to the main flow, its position is independent of the main flow, and if removed it should not affect the flow of the document.

The <figcaption> tag defines a caption for a <figure> element.

The <figcaption> element can be placed as the first or last child of the <figure> element.

Example

<figure>  
  <img src="img\_pulpit.jpg" alt="The Pulpit Rock" width="304" height="228">  
  <figcaption>Fig1. - The Pulpit Pock, Norway.</figcaption>  
</figure>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_figcaption)

Can We Start Using These Semantic Elements?

The elements explained above are all block elements (except <figcaption>).

To get these elements to work properly in older browsers, set the display property to block in your style sheet (this causes older browsers to render these elements correctly):

header, section, footer, aside, nav, main, article, figure  
{   
display: block;   
}

Problem With Internet Explorer 8 And Earlier

IE8 and earlier does not know how to render CSS on elements that it doesn't recognize. You cannot style new HTML5 elements like <header>, <section>, <footer>, <aside>, <nav>, <article>, <figure>.

Thankfully, Sjoerd Visscher has discovered a JavaScript workaround called **HTML5 Shiv**; to enable styling of HTML5 elements in versions of Internet Explorer prior to version 9.

You can download and read more about the HTML5 Shiv at: <http://code.google.com/p/html5shiv/>

To enable the HTML5 Shiv (after downloading), insert the following code into the <head> element:

<!--[if lt IE 9]>  
<script src="html5shiv.js"></script>  
<![endif]-->

The code above is a comment that only versions earlier than IE9 reads. It must be placed in the <head> element because Internet Explorer needs to know about the elements before it renders them.

Semantic Elements in HTML5

Below is an alphabetical list of the new semantic elements in HTML5. The links goes to our complete [HTML5 Reference](http://www.w3schools.com/tags/default.asp).

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc. |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Specifies a header for a document or section |
| [<main>](http://www.w3schools.com/tags/tag_main.asp) | Specifies the main content of a document |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |

HTML5 New Input Types

HTML5 has several new input types for forms. These new features allow better input control and validation.

This chapter covers the new input types:

* color
* date
* datetime
* datetime-local
* email
* month
* number
* range
* search
* tel
* time
* url
* week

|  |  |
| --- | --- |
| **Note** | Not all browsers support all the new input types. However, you can already start using them; If they are not supported, they will behave as regular text fields. |

Input Type: color

The color type is used for input fields that should contain a color.

OperaSafariChromeFirefoxInternet Explorer

Example

Select a color from a color picker:

Select your favorite color: <input type="color" name="favcolor">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_color)

Input Type: date

The date type allows the user to select a date.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a date control:

Birthday: <input type="date" name="bday">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_date)

Input Type: datetime

The datetime type allows the user to select a date and time (with time zone).

OperaSafariChromeFirefoxInternet Explorer

Example

Define a date and time control (with time zone):

Birthday (date and time): <input type="datetime" name="bdaytime">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_datetime)

Input Type: datetime-local

The datetime-local type allows the user to select a date and time (no time zone).

OperaSafariChromeFirefoxInternet Explorer

Example

Define a date and time control (no time zone):

Birthday (date and time): <input type="datetime-local" name="bdaytime">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_datetime-local)

Input Type: email

The email type is used for input fields that should contain an e-mail address.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a field for an e-mail address (will be automatically validated when submitted):

E-mail: <input type="email" name="email">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_email)

**Tip:** Safari on iPhone recognizes the email type, and changes the on-screen keyboard to match it (adds @ and .com options).

Input Type: month

The month type allows the user to select a month and year.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a month and year control (no time zone):

Birthday (month and year): <input type="month" name="bdaymonth">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_month)

Input Type: number

The number type is used for input fields that should contain a numeric value.

You can also set restrictions on what numbers are accepted:

OperaSafariChromeFirefoxInternet Explorer

Example

Define a numeric field (with restrictions):

Quantity (between 1 and 5): <input type="number" name="quantity" min="1" max="5">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_number)

Use the following attributes to specify restrictions:

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

Try an example with all the restriction attributes: [Try it yourself](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_form_number_adv)

Input Type: range

The range type is used for input fields that should contain a value from a range of numbers.

You can also set restrictions on what numbers are accepted.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a control for entering a number whose exact value is not important (like a slider control):

<input type="range" name="points" min="1" max="10">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_range)

Use the following attributes to specify restrictions:

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

Input Type: search

The search type is used for search fields (a search field behaves like a regular text field).

OperaSafariChromeFirefoxInternet Explorer

Example

Define a search field (like a site search, or Google search):

Search Google: <input type="search" name="googlesearch">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_search)

Input Type: tel

The tel type is used for input fields that should contain a telephone number.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a field for entering a telephone number:

Telephone: <input type="tel" name="usrtel">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_tel)

Input Type: time

The time type allows the user to select a time.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a control for entering a time (no time zone):

Select a time: <input type="time" name="usr\_time">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_time)

Input Type: url

The url type is used for input fields that should contain a URL address.

The value of the url field is automatically validated when the form is submitted.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a field for entering a URL:

Add your homepage: <input type="url" name="homepage">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_url)

**Tip:** Safari on iPhone recognizes the url input type, and changes the on-screen keyboard to match it (adds .com option).

Input Type: week

The week type allows the user to select a week and year.

OperaSafariChromeFirefoxInternet Explorer

Example

Define a week and year control (no time zone):

Select a week: <input type="week" name="week\_year">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_type_week)

HTML5 <input> Tag

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |

HTML5 New Form Elements

HTML5 has the following new form elements:

* <datalist>
* <keygen>
* <output>

|  |  |
| --- | --- |
| **Note** | Not all browsers support all the new form elements. However, you can already start using them; If they are not supported, they will behave as regular text fields. |

HTML5 <datalist> Element

The <datalist> element specifies a list of pre-defined options for an <input> element.

The <datalist> element is used to provide an "autocomplete" feature on <input> elements. Users will see a drop-down list of pre-defined options as they input data.

Use the <input> element's list attribute to bind it together with a <datalist> element.

OperaSafariChromeFirefoxInternet Explorer

Example

An <input> element with pre-defined values in a <datalist>:

<input list="browsers">  
  
<datalist id="browsers">  
  <option value="Internet Explorer">  
  <option value="Firefox">  
  <option value="Chrome">  
  <option value="Opera">  
  <option value="Safari">  
</datalist>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_datalist)

HTML5 <keygen> Element

The purpose of the <keygen> element is to provide a secure way to authenticate users.

The <keygen> tag specifies a key-pair generator field in a form.

When the form is submitted, two keys are generated, one private and one public.

The private key is stored locally, and the public key is sent to the server. The public key could be used to generate a client certificate to authenticate the user in the future.

OperaSafariChromeFirefoxInternet Explorer

Example

A form with a keygen field:

<form action="demo\_keygen.asp" method="get">  
Username: <input type="text" name="usr\_name">  
Encryption: <keygen name="security">  
<input type="submit">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_keygen)

HTML5 <output> Element

The <output> element represents the result of a calculation (like one performed by a script).

OperaSafariChromeFirefoxInternet Explorer

Example

Perform a calculation and show the result in an <output> element:

<form oninput="x.value=parseInt(a.value)+parseInt(b.value)">0  
<input type="range" id="a" value="50">100 +  
<input type="number" id="b" value="50">=  
<output name="x" for="a b"></output>  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_output)

HTML5 New Form Elements

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Specifies a list of pre-defined options for an <input> element |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Specifies a key-pair generator field in a form |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Represents the result of a calculation |

HTML5 New Form Attributes

HTML5 has several new attributes for <form> and <input>.

New attributes for <form>:

* autocomplete
* novalidate

New attributes for <input>:

* autocomplete
* autofocus
* form
* formaction
* formenctype
* formmethod
* formnovalidate
* formtarget
* height and width
* list
* min and max
* multiple
* pattern (regexp)
* placeholder
* required
* step

<form> / <input> autocomplete Attribute

The autocomplete attribute specifies whether a form or input field should have autocomplete on or off.

When autocomplete is on, the browser automatically complete values based on values that the user has entered before.

**Tip:** It is possible to have autocomplete "on" for the form, and "off" for specific input fields, or vice versa.

**Note:** The autocomplete attribute works with <form> and the following <input> types: text, search, url, tel, email, password, datepickers, range, and color.

OperaSafariChromeFirefoxInternet Explorer

Example

An HTML form with autocomplete on (and off for one input field):

<form action="demo\_form.asp" autocomplete="on">  
  First name:<input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  E-mail: <input type="email" name="email" autocomplete="off"><br>  
  <input type="submit">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_autocomplete)

**Tip:** In some browsers you may need to activate the autocomplete function for this to work.

<form> novalidate Attribute

The novalidate attribute is a boolean attribute.

When present, it specifies that the form-data (input) should not be validated when submitted.

OperaSafariChromeFirefoxInternet Explorer

Example

Indicates that the form is not to be validated on submit:

<form action="demo\_form.asp" novalidate>  
  E-mail: <input type="email" name="user\_email">  
  <input type="submit">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_form_novalidate)

<input> autofocus Attribute

The autofocus attribute is a boolean attribute.

When present, it specifies that an <input> element should automatically get focus when the page loads.

OperaSafariChromeFirefoxInternet Explorer

Example

Let the "First name" input field automatically get focus when the page loads:

First name:<input type="text" name="fname" autofocus>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_autofocus)

<input> form Attribute

The form attribute specifies one or more forms an <input> element belongs to.

**Tip:** To refer to more than one form, use a space-separated list of form ids.

OperaSafariChromeFirefoxInternet Explorer

Example

An input field located outside the HTML form (but still a part of the form):

<form action="demo\_form.asp" id="form1">  
  First name: <input type="text" name="fname"><br>  
  <input type="submit" value="Submit">  
</form>  
  
Last name: <input type="text" name="lname" form="form1">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_form)

<input> formaction Attribute

The formaction attribute specifies the URL of a file that will process the input control when the form is submitted.

The formaction attribute overrides the action attribute of the <form> element.

**Note:** The formaction attribute is used with type="submit" and type="image".

OperaSafariChromeFirefoxInternet Explorer

Example

An HTML form with two submit buttons, with different actions:

<form action="demo\_form.asp">  
  First name: <input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  <input type="submit" value="Submit"><br>  
  <input type="submit" formaction="demo\_admin.asp"  
  value="Submit as admin">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_formaction)

<input> formenctype Attribute

The formenctype attribute specifies how the form-data should be encoded when submitting it to the server (only for forms with method="post")

The formenctype attribute overrides the enctype attribute of the <form> element.

**Note:** The formenctype attribute is used with type="submit" and type="image".

OperaSafariChromeFirefoxInternet Explorer

Example

Send form-data that is default encoded (the first submit button), and encoded as "multipart/form-data" (the second submit button):

<form action="demo\_post\_enctype.asp" method="post">  
  First name: <input type="text" name="fname"><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formenctype="multipart/form-data"  
  value="Submit as Multipart/form-data">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_formenctype)

<input> formmethod Attribute

The formmethod attribute defines the HTTP method for sending form-data to the action URL.

The formmethod attribute overrides the method attribute of the <form> element.

**Note:** The formmethod attribute can be used with type="submit" and type="image".

OperaSafariChromeFirefoxInternet Explorer

Example

The second submit button overrides the HTTP method of the form:

<form action="demo\_form.asp" method="get">  
  First name: <input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  <input type="submit" value="Submit">  
  <input type="submit" formmethod="post" formaction="demo\_post.asp"  
  value="Submit using POST">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_formmethod)

<input> formnovalidate Attribute

The novalidate attribute is a boolean attribute.

When present, it specifies that the <input> element should not be validated when submitted.

The formnovalidate attribute overrides the novalidate attribute of the <form> element.

**Note:** The formnovalidate attribute can be used with type="submit".

OperaSafariChromeFirefoxInternet Explorer

Example

A form with two submit buttons (with and without validation):

<form action="demo\_form.asp">  
  E-mail: <input type="email" name="userid"><br>  
  <input type="submit" value="Submit"><br>  
  <input type="submit" formnovalidate value="Submit without validation">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_formnovalidate)

<input> formtarget Attribute

The formtarget attribute specifies a name or a keyword that indicates where to display the response that is received after submitting the form.

The formtarget attribute overrides the target attribute of the <form> element.

**Note:** The formtarget attribute can be used with type="submit" and type="image".

OperaSafariChromeFirefoxInternet Explorer

Example

A form with two submit buttons, with different target windows:

<form action="demo\_form.asp">  
  First name: <input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  <input type="submit" value="Submit as normal">  
  <input type="submit" formtarget="\_blank"  
  value="Submit to a new window">  
</form>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_formtarget)

<input> height and width Attributes

The height and width attributes specify the height and width of an <input> element.

**Note:** The height and width attributes are only used with <input type="image">.

**Tip:** Always specify both the height and width attributes for images. If height and width are set, the space required for the image is reserved when the page is loaded. However, without these attributes, the browser does not know the size of the image, and cannot reserve the appropriate space to it. The effect will be that the page layout will change during loading (while the images load).

OperaSafariChromeFirefoxInternet Explorer

Example

Define an image as the submit button, with height and width attributes:

<input type="image" src="img\_submit.gif" alt="Submit" width="48" height="48">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_height_width)

<input> list Attribute

The list attribute refers to a <datalist> element that contains pre-defined options for an <input> element.

OperaSafariChromeFirefoxInternet Explorer

Example

An <input> element with pre-defined values in a <datalist>:

<input list="browsers">  
  
<datalist id="browsers">  
  <option value="Internet Explorer">  
  <option value="Firefox">  
  <option value="Chrome">  
  <option value="Opera">  
  <option value="Safari">  
</datalist>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_datalist)

<input> min and max Attributes

The min and max attributes specify the minimum and maximum value for an <input> element.

**Note:** The min and max attributes works with the following input types: number, range, date, datetime, datetime-local, month, time and week.

OperaSafariChromeFirefoxInternet Explorer

Example

<input> elements with min and max values:

Enter a date before 1980-01-01:  
<input type="date" name="bday" max="1979-12-31">  
  
Enter a date after 2000-01-01:  
<input type="date" name="bday" min="2000-01-02">  
  
Quantity (between 1 and 5):  
<input type="number" name="quantity" min="1" max="5">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_max_min)

<input> multiple Attribute

The multiple attribute is a boolean attribute.

When present, it specifies that the user is allowed to enter more than one value in the <input> element.

**Note:** The multiple attribute works with the following input types: email, and file.

OperaSafariChromeFirefoxInternet Explorer

Example

A file upload field that accepts multiple values:

Select images: <input type="file" name="img" multiple>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_multiple)

<input> pattern Attribute

The pattern attribute specifies a regular expression that the <input> element's value is checked against.

**Note:** The pattern attribute works with the following input types: text, search, url, tel, email, and password.

**Tip:** Use the global [title](http://www.w3schools.com/tags/att_global_title.asp) attribute to describe the pattern to help the user.

**Tip:** Learn more about [regular expressions](http://www.w3schools.com/js/js_regexp.asp) in our JavaScript tutorial.

OperaSafariChromeFirefoxInternet Explorer

Example

An input field that can contain only three letters (no numbers or special characters):

Country code: <input type="text" name="country\_code" pattern="[A-Za-z]{3}" title="Three letter country code">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_pattern)

<input> placeholder Attribute

The placeholder attribute specifies a short hint that describes the expected value of an input field (e.g. a sample value or a short description of the expected format).

The short hint is displayed in the input field before the user enters a value.

**Note:** The placeholder attribute works with the following input types: text, search, url, tel, email, and password.

OperaSafariChromeFirefoxInternet Explorer

Example

An input field with a placeholder text:

<input type="text" name="fname" placeholder="First name">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_placeholder)

<input> required Attribute

The required attribute is a boolean attribute.

When present, it specifies that an input field must be filled out before submitting the form.

**Note:** The required attribute works with the following input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.

OperaSafariChromeFirefoxInternet Explorer

Example

A required input field:

Username: <input type="text" name="usrname" required>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_required)

<input> step Attribute

The step attribute specifies the legal number intervals for an <input> element.

Example: if step="3", legal numbers could be -3, 0, 3, 6, etc.

**Tip:** The step attribute can be used together with the max and min attributes to create a range of legal values.

**Note:** The step attribute works with the following input types: number, range, date, datetime, datetime-local, month, time and week.

OperaSafariChromeFirefoxInternet Explorer

Example

An input field with a specified legal number intervals:

<input type="number" name="points" step="3">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_input_step)

HTML5 <input> Tag

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Defines an HTML form for user input |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |

HTML5 Canvas

Your browser does not support the <canvas> element.

The <canvas> element is used to draw graphics, on the fly, on a web page.

The example at the left shows a red rectangle, a gradient rectangle, a multicolor rectangle, and some multicolor text that is drawn onto the canvas.

What is Canvas?

The HTML5 <canvas> element is used to draw graphics, on the fly, via scripting (usually JavaScript).

The <canvas> element is only a container for graphics. You must use a script to actually draw the graphics.

Canvas has several methods for drawing paths, boxes, circles, text, and adding images.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support the <canvas> element.

**Note:** Internet Explorer 8 and earlier versions, do not support the <canvas> element.

Create a Canvas

A canvas is a rectangular area on an HTML page, and it is specified with the <canvas> element.

**Note:** By default, the <canvas> element has no border and no content.

The markup looks like this:

<canvas id="myCanvas" width="200" height="100"></canvas>

**Note:** Always specify an id attribute (to be referred to in a script), and a width and height attribute to define the size of the canvas.

**Tip:** You can have multiple <canvas> elements on one HTML page.

To add a border, use the style attribute:

Example

<canvas id="myCanvas" width="200" height="100"  
style="border:1px solid #000000;">  
</canvas>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_empty)

Draw Onto The Canvas With JavaScript

All drawing on the canvas must be done inside a JavaScript:

Example

<script>  
var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.fillStyle = "#FF0000";  
ctx.fillRect(0,0,150,75);  
</script>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_first)

**Example explained:**

First, find the <canvas> element:

var c = document.getElementById("myCanvas");

Then, call its getContext() method (you must pass the string "2d" to the getContext() method):

var ctx = c.getContext("2d");

The getContext("2d") object is a built-in HTML5 object, with many properties and methods for drawing paths, boxes, circles, text, images, and more.

The next two lines draw a red rectangle:

ctx.fillStyle = "#FF0000";  
ctx.fillRect(0,0,150,75);

The fillStyle property can be a CSS color, a gradient, or a pattern. The default fillStyle is #000000 (black).

The fillRect(*x,y,width,height*) method draws a rectangle filled with the current fill style.

Canvas Coordinates

The canvas is a two-dimensional grid.

The upper-left corner of the canvas has coordinate (0,0)

So, the fillRect() method above had the parameters (0,0,150,75).

This means: Start at the upper-left corner (0,0) and draw a 150x75 pixels rectangle.

**Coordinates Example**

Mouse over the rectangle below to see its x and y coordinates:

X

Y

Canvas - Paths

To draw straight lines on a canvas, we will use the following two methods:

* moveTo(*x,y*) defines the starting point of the line
* lineTo(*x,y*) defines the ending point of the line

To actually draw the line, we must use one of the "ink" methods, like stroke().

Example

Define a starting point in position (0,0), and an ending point in position (200,100). Then use the stroke() method to actually draw the line:

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.moveTo(0,0);  
ctx.lineTo(200,100);  
ctx.stroke();

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_path)

To draw a circle on a canvas, we will use the following method:

* arc(x,y,r,start,stop)

To actually draw the circle, we must use one of the "ink" methods, like stroke() or fill().

Example

Create a circle with the arc() method:

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.beginPath();  
ctx.arc(95,50,40,0,2\*Math.PI);  
ctx.stroke();

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_path2)

Canvas - Text

To draw text on a canvas, the most important property and methods are:

* font - defines the font properties for text
* fillText(*text,x,y*) - Draws "filled" text on the canvas
* strokeText(*text,x,y*) - Draws text on the canvas (no fill)

Using fillText():

Example

Write a 30px high filled text on the canvas, using the font "Arial":

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.font = "30px Arial";  
ctx.fillText("Hello World",10,50);

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_text)

Using strokeText():

Example

Write a 30px high text (no fill) on the canvas, using the font "Arial":

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.font = "30px Arial";  
ctx.strokeText("Hello World",10,50);

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_text2)

Canvas - Gradients

Gradients can be used to fill rectangles, circles, lines, text, etc. Shapes on the canvas are not limited to solid colors.

There are two different types of gradients:

* createLinearGradient(*x,y,x1,y1*) - Creates a linear gradient
* createRadialGradient(*x,y,r,x1,y1,r1*) - Creates a radial/circular gradient

Once we have a gradient object, we must add two or more color stops.

The addColorStop() method specifies the color stops, and its position along the gradient. Gradient positions can be anywhere between 0 to 1.

To use the gradient, set the fillStyle or strokeStyle property to the gradient, and then draw the shape, like a rectangle, text, or a line.

Using createLinearGradient():

Example

Create a linear gradient. Fill rectangle with the gradient:

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
  
// Create gradient  
var grd = ctx.createLinearGradient(0,0,200,0);  
grd.addColorStop(0,"red");  
grd.addColorStop(1,"white");  
  
// Fill with gradient  
ctx.fillStyle = grd;  
ctx.fillRect(10,10,150,80);

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_grad)

Using createRadialGradient():

Example

Create a radial/circular gradient. Fill rectangle with the gradient:

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
  
// Create gradient  
var grd = ctx.createRadialGradient(75,50,5,90,60,100);  
grd.addColorStop(0,"red");  
grd.addColorStop(1,"white");  
  
// Fill with gradient  
ctx.fillStyle = grd;  
ctx.fillRect(10,10,150,80);

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_grad2)

Canvas - Images

To draw an image on a canvas, we will use the following method:

* drawImage(*image,x,y*)

Image to use:



Example

Draw the image onto the canvas:

Your browser does not support the HTML5 canvas tag.

JavaScript:

var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
var img = document.getElementById("scream");  
ctx.drawImage(img,10,10);

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_canvas_tut_img)

HTML Canvas Reference

For a complete reference of all the properties and methods that can be used with the Canvas object (with try-it examples on every property and method), go to our [Canvas Reference.](http://www.w3schools.com/tags/ref_canvas.asp)

The HTML <canvas> Tag

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Used to draw graphics, on the fly, via scripting (usually JavaScript) |

HTML5 Inline SVG

HTML5 has support for inline SVG.

SVG Sorry, your browser does not support inline SVG.

What is SVG?

* SVG stands for Scalable Vector Graphics
* SVG is used to define vector-based graphics for the Web
* SVG defines the graphics in XML format
* SVG graphics do NOT lose any quality if they are zoomed or resized
* Every element and every attribute in SVG files can be animated
* SVG is a W3C recommendation

SVG Advantages

Advantages of using SVG over other image formats (like JPEG and GIF) are:

* SVG images can be created and edited with any text editor
* SVG images can be searched, indexed, scripted, and compressed
* SVG images are scalable
* SVG images can be printed with high quality at any resolution
* SVG images are zoomable (and the image can be zoomed without degradation)

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support inline SVG.

Embed SVG Directly Into HTML Pages

In HTML5, you can embed SVG elements directly into your HTML page:

Example

<!DOCTYPE html>  
<html>  
<body>  
  
<svg width="300" height="200">  
  <polygon points="100,10 40,198 190,78 10,78 160,198"  
  style="fill:lime;stroke:purple;stroke-width:5;fill-rule:evenodd;" />  
</svg>  
  
</body>  
</html>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_svg_ex)

Result:

Sorry, your browser does not support inline SVG.

To learn more about SVG, please read our [SVG Tutorial](http://www.w3schools.com/svg/default.asp).

Differences Between SVG and Canvas

SVG is a language for describing 2D graphics in XML.

Canvas draws 2D graphics, on the fly (with a JavaScript).

SVG is XML based, which means that every element is available within the SVG DOM. You can attach JavaScript event handlers for an element.

In SVG, each drawn shape is remembered as an object. If attributes of an SVG object are changed, the browser can automatically re-render the shape.

Canvas is rendered pixel by pixel. In canvas, once the graphic is drawn, it is forgotten by the browser. If its position should be changed, the entire scene needs to be redrawn, including any objects that might have been covered by the graphic.

Comparison of Canvas and SVG

The table below shows some important differences between Canvas and SVG:

|  |  |
| --- | --- |
| **Canvas** | **SVG** |
| * Resolution dependent * No support for event handlers * Poor text rendering capabilities * You can save the resulting image as .png or .jpg * Well suited for graphic-intensive games | * Resolution independent * Support for event handlers * Best suited for applications with large rendering areas (Google Maps) * Slow rendering if complex (anything that uses the DOM a lot will be slow) * Not suited for game applications |

HTML5 Video

Many modern websites show videos. HTML5 provides a standard for showing them.

Check if your browser supports HTML5 video

Check

Video on the Web

Before HTML5, there was no standard for showing videos/movies on web pages.

Before HTML5, videos could only be played with a plug-in (like flash). However, different browsers supported different plug-ins.

HTML5 defines a new element which specifies a standard way to embed a video or movie on a web page: the <video> element.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support the <video> element.

**Note:** Internet Explorer 8 and earlier versions, do not support the <video> element.

HTML5 Video - How It Works

To show a video in HTML5, this is all you need:

Example

<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>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video_all)

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

It is also a good idea to always include width and height attributes. If height and width are set, the space required for the video is reserved when the page is loaded. However, without these attributes, the browser does not know the size of the video, and cannot reserve the appropriate space to it. The effect will be that the page layout will change during loading (while the video loads).

You should also insert text content between the <video> and </video> tags for browsers that do not support the <video> element.

The <video> element allows multiple <source> elements. <source> elements can link to different video files. The browser will use the first recognized format.

Video Formats and Browser Support

Currently, there are 3 supported video formats for the <video> element: MP4, WebM, and Ogg:

|  |  |  |  |
| --- | --- | --- | --- |
| **Browser** | **MP4** | **WebM** | **Ogg** |
| Internet Explorer | YES | NO | NO |
| Chrome | YES | YES | YES |
| Firefox | YES **Update 1:** Firefox 21 on Windows and Android now supports MP4 **Update 2:** Firefox 30 on Linux now supports MP4 | YES | YES |
| Safari | YES | NO | NO |
| Opera | NO | YES | YES |

* MP4 = MPEG 4 files with H264 video codec and AAC audio codec
* WebM = WebM files with VP8 video codec and Vorbis audio codec
* Ogg = Ogg files with Theora video codec and Vorbis audio codec

MIME Types for Video Formats

|  |  |
| --- | --- |
| **Format** | **MIME-type** |
| MP4 | video/mp4 |
| WebM | video/webm |
| Ogg | video/ogg |

HTML5 <video> - DOM Methods and Properties

HTML5 has DOM methods, properties, and events for the <video> and <audio> elements.

These methods, properties, and events allow you to manipulate <video> and <audio> elements using JavaScript.

There are methods for playing, pausing, and loading, for example and there are properties (like duration and volume). There are also DOM events that can notify you when the <video> element begins to play, is paused, is ended, etc.

The example below illustrate, in a simple way, how to address a <video> element, read and set properties, and call methods.

Example 1

Create simple play/pause + resize controls for a video:

Play/PauseBigSmallNormal   
  
Your browser does not support HTML5 video.

Video courtesy of [Big Buck Bunny](http://www.bigbuckbunny.org/).

The example above calls two methods: play() and pause(). It also uses two properties: paused and width.

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video_js_prop)

For a full reference go to our [HTML5 Audio/Video DOM Reference](http://www.w3schools.com/tags/ref_av_dom.asp).

HTML5 Video Tags

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements, such as <video> and <audio> |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks in media players |

HTML5 Audio

HTML5 provides a standard for playing audio files.

Audio on the Web

Before HTML5, there was no standard for playing audio files on a web page.

Before HTML5, audio files had to be played with a plug-in (like flash). However, different browsers supported different plug-ins.

HTML5 defines a new element which specifies a standard way to embed an audio file on a web page: the <audio> element.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support the <audio> element.

**Note:** Internet Explorer 8 and earlier versions, do not support the <audio> element.

HTML5 Audio - How It Works

To play an audio file in HTML5, this is all you need:

Example

<audio controls>  
  <source src="horse.ogg" type="audio/ogg">  
  <source src="horse.mp3" type="audio/mpeg">  
Your browser does not support the audio element.  
</audio>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_audio_all)

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

You should also insert text content between the <audio> and </audio> tags for browsers that do not support the <audio> element.

The <audio> element allows multiple <source> elements. <source> elements can link to different audio files. The browser will use the first recognized format.

Audio Formats and Browser Support

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Browser** | **MP3** | **Wav** | **Ogg** |
| Internet Explorer | YES | NO | NO |
| Chrome | YES | YES | YES |
| Firefox | NO **Update:** Firefox 21 running on Windows 7, Windows 8, Windows Vista, and Android now supports MP3 | YES | YES |
| Safari | YES | YES | NO |
| Opera | NO | YES | YES |

MIME Types for Audio Formats

|  |  |
| --- | --- |
| **Format** | **MIME-type** |
| MP3 | audio/mpeg |
| Ogg | audio/ogg |
| Wav | audio/wav |

HTML5 Audio Tags

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements, such as <video> and <audio> |

HTML5 Geolocation

HTML5 Geolocation is used to locate a user's positionTry It

Locate the User's Position

The HTML5 Geolocation API is used to get the geographical position of a user.

Since this can compromise user privacy, the position is not available unless the user approves it.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Chrome, Safari and Opera support Geolocation.

**Note:** Geolocation is much more accurate for devices with GPS, like iPhone.

HTML5 - Using Geolocation

Use the getCurrentPosition() method to get the user's position.

The example below is a simple Geolocation example returning the latitude and longitude of the user's position:

Example

<script>  
var x = document.getElementById("demo");  
function getLocation() {  
    if (navigator.geolocation) {  
        navigator.geolocation.getCurrentPosition(showPosition);  
    } else {  
        x.innerHTML = "Geolocation is not supported by this browser.";  
    }  
}  
function showPosition(position) {  
    x.innerHTML = "Latitude: " + position.coords.latitude +   
    "<br>Longitude: " + position.coords.longitude;   
}  
</script>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_geolocation)

Example explained:

* Check if Geolocation is supported
* If supported, run the getCurrentPosition() method. If not, display a message to the user
* If the getCurrentPosition() method is successful, it returns a coordinates object to the function specified in the parameter ( showPosition )
* The showPosition() function gets the displays the Latitude and Longitude

The example above is a very basic Geolocation script, with no error handling.

Handling Errors and Rejections

The second parameter of the getCurrentPosition() method is used to handle errors. It specifies a function to run if it fails to get the user's location:

Example

function showError(error) {  
    switch(error.code) {  
        case error.PERMISSION\_DENIED:  
            x.innerHTML = "User denied the request for Geolocation."  
            break;  
        case error.POSITION\_UNAVAILABLE:  
            x.innerHTML = "Location information is unavailable."  
            break;  
        case error.TIMEOUT:  
            x.innerHTML = "The request to get user location timed out."  
            break;  
        case error.UNKNOWN\_ERROR:  
            x.innerHTML = "An unknown error occurred."  
            break;  
    }  
}

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_geolocation_error)

Error Codes:

* Permission denied - The user did not allow Geolocation
* Position unavailable - It is not possible to get the current location
* Timeout - The operation timed out

Displaying the Result in a Map

To display the result in a map, you need access to a map service that can use latitude and longitude, like Google Maps:

Example

function showPosition(position) {  
    var latlon = position.coords.latitude + "," + position.coords.longitude;  
  
    var img\_url = "http://maps.googleapis.com/maps/api/staticmap?center=  
    "+latlon+"&zoom=14&size=400x300&sensor=false";  
  
    document.getElementById("mapholder").innerHTML = "<img src='"+img\_url+"'>";  
}

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_geolocation_map)

In the example above we use the returned latitude and longitude data to show the location in a Google map (using a static image).

[Google Map Script](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_geolocation_map_script)  
How to use a script to show an interactive map with a marker, zoom and drag options.

Location-specific Information

This page demonstrated how to show a user's position on a map. However, Geolocation is also very useful for location-specific information.

Examples:

* Up-to-date local information
* Showing Points-of-interest near the user
* Turn-by-turn navigation (GPS)

The getCurrentPosition() Method - Return Data

The getCurrentPosition() method returns an object if it is successful. The latitude, longitude and accuracy properties are always returned. The other properties below are returned if available.

|  |  |
| --- | --- |
| **Property** | **Description** |
| coords.latitude | The latitude as a decimal number |
| coords.longitude | The longitude as a decimal number |
| coords.accuracy | The accuracy of position |
| coords.altitude | The altitude in meters above the mean sea level |
| coords.altitudeAccuracy | The altitude accuracy of position |
| coords.heading | The heading as degrees clockwise from North |
| coords.speed | The speed in meters per second |
| timestamp | The date/time of the response |

Geolocation object - Other interesting Methods

watchPosition() - Returns the current position of the user and continues to return updated position as the user moves (like the GPS in a car).

clearWatch() - Stops the watchPosition() method.

The example below shows the watchPosition() method. You need an accurate GPS device to test this (like iPhone):

Example

<script>  
var x = document.getElementById("demo");  
function getLocation() {  
    if (navigator.geolocation) {  
        navigator.geolocation.watchPosition(showPosition);  
    } else {  
        x.innerHTML = "Geolocation is not supported by this browser.";  
    }  
}  
function showPosition(position) {  
    x.innerHTML = "Latitude: " + position.coords.latitude +   
    "<br>Longitude: " + position.coords.longitude;   
}  
</script>

[**Try it yourself »Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_geolocation_watchposition)

HTML5 Drag and Drop

Drag and drop is a part of the HTML5 standard.

W3Schools

Drag the W3Schools image into the rectangle.

Drag and Drop

Drag and drop is a very common feature. It is when you "grab" an object and drag it to a different location.

In HTML5, drag and drop is part of the standard, and any element can be draggable.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support drag and drop.

**Note:** Drag and drop does not work in Safari 5.1.2.

HTML5 Drag and Drop Example

The example below is a simple drag and drop example:

Example

<!DOCTYPE HTML>  
<html>  
<head>  
<script>  
function allowDrop(ev) {  
    ev.preventDefault();  
}  
  
function drag(ev) {  
    ev.dataTransfer.setData("Text", ev.target.id);  
}  
  
function drop(ev) {  
    ev.preventDefault();  
    var data = ev.dataTransfer.getData("Text");  
    ev.target.appendChild(document.getElementById(data));  
}  
</script>  
</head>  
<body>  
  
<div id="div1" ondrop="drop(event)" ondragover="allowDrop(event)"></div>  
  
<img id="drag1" src="img\_logo.gif" draggable="true"  
ondragstart="drag(event)" width="336" height="69">  
  
</body>  
</html>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_draganddrop)

It might seem complicated, but lets go through all the different parts of a drag and drop event.

Make an Element Draggable

First of all: To make an element draggable, set the draggable attribute to true:

<img draggable="true">

What to Drag - ondragstart and setData()

Then, specify what should happen when the element is dragged.

In the example above, the ondragstart attribute calls a function, drag(event), that specifies what data to be dragged.

The dataTransfer.setData() method sets the data type and the value of the dragged data:

function drag(ev) {  
    ev.dataTransfer.setData("Text", ev.target.id);  
}

In this case, the data type is "Text" and the value is the id of the draggable element ("drag1").

Where to Drop - ondragover

The ondragover event specifies where the dragged data can be dropped.

By default, data/elements cannot be dropped in other elements. To allow a drop, we must prevent the default handling of the element.

This is done by calling the event.preventDefault() method for the ondragover event:

*event*.preventDefault()

Do the Drop - ondrop

When the dragged data is dropped, a drop event occurs.

In the example above, the ondrop attribute calls a function, drop(event):

function drop(ev) {  
    ev.preventDefault();  
    var data = ev.dataTransfer.getData("Text");  
    ev.target.appendChild(document.getElementById(data));  
}

Code explained:

* Call preventDefault() to prevent the browser default handling of the data (default is open as link on drop)
* Get the dragged data with the dataTransfer.getData("Text") method. This method will return any data that was set to the same type in the setData() method
* The dragged data is the id of the dragged element ("drag1")
* Append the dragged element into the drop element

Examples

More Examples

[Drag image back and forth](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_draganddrop2)  
How to drag (and drop) an image back and forth between two <div> elements.

HTML5 Web Storage

HTML5 web storage, better than cookies.

What is HTML5 Web Storage?

With HTML5, web pages can store data locally within the user's browser.

Earlier, this was done with cookies. However, Web Storage is more secure and faster. The data is not included with every server request, but used ONLY when asked for. It is also possible to store large amounts of data, without affecting the website's performance.

The data is stored in name/value pairs, and a web page can only access data stored by itself.

Unlike cookies, the storage limit is far larger (at least 5MB) and information is never transferred to the server.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Web storage is supported in Internet Explorer 8+, Firefox, Opera, Chrome, and Safari.

**Note:** Internet Explorer 7 and earlier versions, do not support Web Storage.

HTML5 Web Storage Objects

HTML5 Web Storage provides two new objects for storing data on the client:

* window.localStorage - stores data with no expiration date
* code.sessionStorage - stores data for one session (data is lost when the tab is closed)

Before using web storage, check browser support for localStorage and sessionStorage:

if(typeof(Storage) !== "undefined") {  
    // *Code for localStorage/sessionStorage.*  
} else {  
    // Sorry! No Web Storage support..  
}

The localStorage Object

The localStorage object stores the data with no expiration date. The data will not be deleted when the browser is closed, and will be available the next day, week, or year.

Example

// Store  
localStorage.setItem("lastname", "Smith");  
// Retrieve  
document.getElementById("result").innerHTML = localStorage.getItem("lastname");

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_webstorage_local)

Example explained:

* Create a localStorage name/value pair with name="lastname" and value="Smith"
* Retrieve the value of "lastname" and insert it into the element with id="result"

The example above could also be written like this:

// Store  
localStorage.lastname = "Smith";  
// Retrieve  
document.getElementById("result").innerHTML = localStorage.lastname;

The syntax for removing the "lastname" localStorage item is as follows:

localStorage.removeItem("lastname");

**Note:** Name/value pairs are always stored as strings. Remember to convert them to another format when needed!

The following example counts the number of times a user has clicked a button. In this code the value string is converted to a number to be able to increase the counter:

Example

if (localStorage.clickcount) {  
    localStorage.clickcount = Number(localStorage.clickcount) + 1;  
} else {  
    localStorage.clickcount = 1;  
}  
document.getElementById("result").innerHTML = "You have clicked the button " +  
localStorage.clickcount + " time(s).";

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_webstorage_local_clickcount)

The sessionStorage Object

The sessionStorage object is equal to the localStorage object, **except** that it stores the data for only one session. The data is deleted when the user closes the browser window.

The following example counts the number of times a user has clicked a button, in the current session:

Example

if (sessionStorage.clickcount) {  
    sessionStorage.clickcount = Number(sessionStorage.clickcount) + 1;  
} else {  
    sessionStorage.clickcount = 1;  
}  
document.getElementById("result").innerHTML = "You have clicked the button " +  
sessionStorage.clickcount + " time(s) in this session.";

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_webstorage_session)

# HTML5 Application Cache

With HTML5 it is easy to make an offline version of a web application, by creating a cache manifest file.

## What is Application Cache?

HTML5 introduces application cache, which means that a web application is cached, and accessible without an internet connection.

Application cache gives an application three advantages:

1. Offline browsing - users can use the application when they're offline
2. Speed - cached resources load faster
3. Reduced server load - the browser will only download updated/changed resources from the server

## Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 10, Firefox, Chrome, Safari and Opera support Application cache.

## HTML5 Cache Manifest Example

The example below shows an HTML document with a cache manifest (for offline browsing):

## Example

<!DOCTYPE HTML>  
<html manifest="demo.appcache">  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_html_manifest)

## Cache Manifest Basics

To enable application cache, include the manifest attribute in the document's <html> tag:

<!DOCTYPE HTML>  
<html manifest="demo.appcache">  
...  
</html>

Every page with the manifest attribute specified will be cached when the user visits it. If the manifest attribute is not specified, the page will not be cached (unless the page is specified directly in the manifest file).

The recommended file extension for manifest files is: ".appcache"

|  |  |
| --- | --- |
| **Note** | A manifest file needs to be served with the **correct MIME-type**, which is "text/cache-manifest". Must be configured on the web server. |

## The Manifest File

The manifest file is a simple text file, which tells the browser what to cache (and what to never cache).

The manifest file has three sections:

* **CACHE MANIFEST** - Files listed under this header will be cached after they are downloaded for the first time
* **NETWORK** - Files listed under this header require a connection to the server, and will never be cached
* **FALLBACK** - Files listed under this header specifies fallback pages if a page is inaccessible

### CACHE MANIFEST

The first line, CACHE MANIFEST, is required:

CACHE MANIFEST  
/theme.css  
/logo.gif  
/main.js

The manifest file above lists three resources: a CSS file, a GIF image, and a JavaScript file. When the manifest file is loaded, the browser will download the three files from the root directory of the web site. Then, whenever the user is not connected to the internet, the resources will still be available.

### NETWORK

The NETWORK section below specifies that the file "login.asp" should never be cached, and will not be available offline:

NETWORK:  
login.asp

An asterisk can be used to indicate that all other resources/files require an internet connection:

NETWORK:  
\*

### FALLBACK

The FALLBACK section below specifies that "offline.html" will be served in place of all files in the /html/ catalog, in case an internet connection cannot be established:

FALLBACK:  
/html/ /offline.html

**Note:** The first URI is the resource, the second is the fallback.

## Updating the Cache

Once an application is cached, it remains cached until one of the following happens:

* The user clears the browser's cache
* The manifest file is modified (see tip below)
* The application cache is programmatically updated

## Example - Complete Cache Manifest File

CACHE MANIFEST  
# 2012-02-21 v1.0.0  
/theme.css  
/logo.gif  
/main.js  
  
NETWORK:  
login.asp  
  
FALLBACK:  
/html/ /offline.html

|  |  |
| --- | --- |
| **Note** | **Tip:** Lines starting with a "#" are comment lines, but can also serve another purpose. An application's cache is only updated when its manifest file changes. If you edit an image or change a JavaScript function, those changes will not be re-cached. Updating the date and version in a comment line is one way to make the browser re-cache your files. |

## Notes on Application Cache

Be careful with what you cache.

Once a file is cached, the browser will continue to show the cached version, even if you change the file on the server. To ensure the browser updates the cache, you need to change the manifest file.

**Note:** Browsers may have different size limits for cached data (some browsers have a 5MB limit per site).

HTML5 Web Workers

A web worker is a JavaScript running in the background, without affecting the performance of the page.

What is a Web Worker?

When executing scripts in an HTML page, the page becomes unresponsive until the script is finished.

A web worker is a JavaScript that runs in the background, independently of other scripts, without affecting the performance of the page. You can continue to do whatever you want: clicking, selecting things, etc., while the web worker runs in the background.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 10, Firefox, Chrome, Safari and Opera support Web workers.

HTML5 Web Workers Example

The example below creates a simple web worker that count numbers in the background:

Example

Count numbers:

Start WorkerStop Worker

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_webworker)

Check Web Worker Support

Before creating a web worker, check whether the user's browser supports it:

if(typeof(Worker) !== "undefined") {  
    // Yes! Web worker support!  
    // *Some code.....*  
} else {  
    // Sorry! No Web Worker support..  
}

Create a Web Worker File

Now, let's create our web worker in an external JavaScript.

Here, we create a script that counts. The script is stored in the "demo\_workers.js" file:

var i = 0;  
  
function timedCount() {  
    i = i + 1;  
    postMessage(i);  
    setTimeout("timedCount()",500);  
}  
  
timedCount();

The important part of the code above is the **postMessage()** method - which is used to post a message back to the HTML page.

**Note:** Normally web workers are not used for such simple scripts, but for more CPU intensive tasks.

Create a Web Worker Object

Now that we have the web worker file, we need to call it from an HTML page.

The following lines checks if the worker already exists, if not - it creates a new web worker object and runs the code in "demo\_workers.js":

if(typeof(w) == "undefined") {  
    w = new Worker("demo\_workers.js");  
}

Then we can send and receive messages from the web worker.

Add an "onmessage" event listener to the web worker.

w.onmessage = function(event){  
    document.getElementById("result").innerHTML = event.data;  
};

When the web worker posts a message, the code within the event listener is executed. The data from the web worker is stored in event.data.

Terminate a Web Worker

When a web worker object is created, it will continue to listen for messages (even after the external script is finished) until it is terminated.

To terminate a web worker, and free browser/computer resources, use the terminate() method:

w.terminate();

Full Web Worker Example Code

We have already seen the Worker code in the .js file. Below is the code for the HTML page:

Example

<!DOCTYPE html>  
<html>  
<body>  
  
<p>Count numbers: <output id="result"></output></p>  
<button onclick="startWorker()">Start Worker</button>   
<button onclick="stopWorker()">Stop Worker</button>  
<br><br>  
  
<script>  
var w;  
  
function startWorker() {  
    if(typeof(Worker) !== "undefined") {  
        if(typeof(w) == "undefined") {  
            w = new Worker("demo\_workers.js");  
        }  
        w.onmessage = function(event) {  
            document.getElementById("result").innerHTML = event.data;  
        };  
    } else {  
        document.getElementById("result").innerHTML = "Sorry! No Web Worker support.";  
    }  
}  
  
function stopWorker() {   
    w.terminate();  
}  
</script>  
  
</body>  
</html>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_webworker)

Web Workers and the DOM

Since web workers are in external files, they do not have access to the following JavaScript objects:

* The window object
* The document object
* The parent object

HTML5 Server-Sent Events

HTML5 Server-Sent Events allow a web page to get updates from a server.

Server-Sent Events - One Way Messaging

A server-sent event is when a web page automatically gets updates from a server.

This was also possible before, but the web page would have to ask if any updates were available. With server-sent events, the updates come automatically.

Examples: Facebook/Twitter updates, stock price updates, news feeds, sport results, etc.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Server-Sent Events are supported in all major browsers, except Internet Explorer.

Receive Server-Sent Event Notifications

The EventSource object is used to receive server-sent event notifications:

Example

var source = new EventSource("demo\_sse.php");  
source.onmessage = function(event) {  
    document.getElementById("result").innerHTML += event.data + "<br>";  
};

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml5_sse)

Example explained:

* Create a new EventSource object, and specify the URL of the page sending the updates (in this example "demo\_sse.php")
* Each time an update is received, the onmessage event occurs
* When an onmessage event occurs, put the received data into the element with id="result"

Check Server-Sent Events Support

In the tryit example above there were some extra lines of code to check browser support for server-sent events:

if(typeof(EventSource) !== "undefined") {  
    // Yes! Server-sent events support!  
    // *Some code.....*  
} else {  
    // Sorry! No server-sent events support..  
}

Server-Side Code Example

For the example above to work, you need a server capable of sending data updates (like PHP or ASP).

The server-side event stream syntax is simple. Set the "Content-Type" header to "text/event-stream". Now you can start sending event streams.

Code in PHP (demo\_sse.php):

<?php  
header('Content-Type: text/event-stream');  
header('Cache-Control: no-cache');  
  
$time = date('r');  
echo "data: The server time is: {$time}\n\n";  
flush();  
?>

Code in ASP (VB) (demo\_sse.asp):

<%  
Response.ContentType = "text/event-stream"  
Response.Expires = -1  
Response.Write("data: " & now())  
Response.Flush()  
%>

Code explained:

* Set the "Content-Type" header to "text/event-stream"
* Specify that the page should not cache
* Output the data to send (**Always** start with "data: ")
* Flush the output data back to the web page

The EventSource Object

In the examples above we used the onmessage event to get messages. But other events are also available:

|  |  |
| --- | --- |
| **Events** | **Description** |
| onopen | When a connection to the server is opened |
| onmessage | When a message is received |
| onerror | When an error occurs |

HTML Multimedia

Multimedia on the web is sound, music, videos, movies, and animations.

What is Multimedia?

Multimedia comes in many different formats. It can be almost anything you can hear or see.

Examples: Pictures, music, sound, videos, records, films, animations, and more.

Modern web pages often have embedded multimedia elements, and modern browsers have support for various multimedia formats.

In this tutorial you will learn about the different multimedia formats.

Internet Browser Support

The first Internet browsers had support for text only, and even the text support was limited to a single font in a single color. Then came browsers with support for colors, fonts and text styles, and support for pictures was also added.

The support for sounds, animations, and videos is handled in different ways by various browsers. Some multimedia elements is supported, and some requires an extra helper program (a plug-in) to work.

You will learn more about plug-ins in the next chapters.

Multimedia Formats

Multimedia elements (like sounds or videos) are stored in media files.

The most common way to discover the type of a file, is to look at the file extension. When a browser sees the file extension .htm or .html, it will treat the file as an HTML file. The .xml extension indicates an XML file, and the .css extension indicates a style sheet file. Pictures are recognized by extensions like .gif, .png and .jpg.

Multimedia files also have their own formats and different extensions like: .swf, .wav, .mp3, .mp4, .mpg, .wmv, and .avi.

Video Formats

|  |  |
| --- | --- |
| Videoformats | MP4 is the new and upcoming format for internet video.  MP4 is recommended by YouTube.  MP4 is supported by Flash players and HTML5. |

|  |  |  |
| --- | --- | --- |
| **Format** | **File** | **Description** |
| AVI | .avi | AVI (Audio Video Interleave) was developed by Microsoft, and is therefore playable on all Windows computers. It is commonly used in video cameras and TV hardware, but is difficult to play on non-Windows computers. |
| WMV | .wmv | WMV (Windows Media Video) was developed by Microsoft, and is therefore playable on all Windows computers. It is commonly used in video cameras and by TV hardware, but is difficult to play on non-Windows computers. |
| QuickTime | .mov | QuickTime was developed by Apple, and is therefore playable on all Apple computers. It is commonly used in video cameras and by TV hardware, but is difficult to play on non-Apple computers. |
| RealVideo | .rm .ram | RealVideo was developed by Real Media to allow video streaming with low bandwidths. It is still used for online video and Internet TV, but because of the low bandwidth priority, the quality is also low. |
| Flash | .swf .flv | Flash was developed by Macromedia. Flash requires an extra component to play in a browser. |
| Ogg | .ogg | Theora Ogg was developed by the Xiph.Org Foundation. |
| WebM | .webm | WebM is a project (www.webmproject.org) by the web giants, Mozilla, Opera, Adobe, and Google. |
| MPEG | .mpg .mpeg | MPEG, developed by the Moving Pictures Expert Group, used to be the most popular video format on the Internet. It used to be supported by all major browsers, but it is not supported by HTML5. |
| MPEG-4 or MP4 | .mp4 | MP4 is the upcoming format on the internet. It is supported by all major browsers in HTML5. YouTube recommends using MP4, and it is commonly used in newer video cameras and TV hardware. |

|  |  |
| --- | --- |
| **Note** | Only MP4, WebM, and Ogg video is supported by the newest HTML5 standard. |

Sound Formats

MP3 is the newest format for compressed recorded music. The term MP3 has become synonymous with digital music.

If your website is about recorded music, MP3 is the choice.

|  |  |  |
| --- | --- | --- |
| **Format** | **File** | **Description** |
| MIDI | .mid .midi | MIDI (Musical Instrument Digital Interface) is a format for electronic music devices like synthesizers and PC sound cards. MIDI files do not contain sound, but digital musical instructions (notes) that can be played by electronics (like your PC's sound card).  [Click here to play The Beatles](http://www.w3schools.com/html/beatles.mid).  Since MIDI files only contains instructions; they are extremely small. The example above is only 23K in size, but it plays for nearly 5 minutes. MIDI is supported by many software systems/platforms. Because it is the main format for binary music, it is supported by most software, including Internet browsers. |
| RealAudio | .rm .ram | RealAudio was developed Real Media to allow streaming of audio (online music, Internet radio) with low bandwidths. |
| WMA | .wma | WMA (Windows Media Audio), compares in quality to MP3, and is compatible with most music players, except the iPod. WMA files can be delivered as a continuous flow of data, which makes it practical for use in Internet radio or on-line music. |
| AAC | .aac | AAC (Advanced Audio Coding) was developed by Apple as the default format for iTunes. |
| WAV | .wav | WAVE (more known as WAV) was developed by IBM and Microsoft. WAV is compatible with Windows, Macintosh, and Linux operating systems, but is not supported by Internet Explorer in HTML5. |
| Ogg | .ogg | Ogg was developed by the Xiph.Org Foundation. Ogg is designed to provide for efficient streaming and manipulation of high quality digital multimedia. |
| MP3 | .mp3 | MP3 files are actually the sound part of MPEG files. MP3 is the most popular format for music players. The encoding system combines good compression (small files) with high quality. It is supported by all major browsers. |
| MP4 | .mp4 | MP4 is a video format, but it can also be used with audio only. MP4 video is the upcoming video format on the internet. This can lead to an automatic support for MP4 audio by all major browsers. |

|  |  |
| --- | --- |
| **Note** | Only MP3, WAV, and Ogg audio is supported by the newest HTML5 standard. |

HTML - Plug-ins

The purpose of a plug-in, is to extend the functionality of the HTML browser.

HTML Helpers (Plug-ins)

A helper application is a small computer program that extends the standard functionality of the browser. Helper applications are also called plug-ins.

Examples of well-known plug-ins are Java applets and Adobe Flash Player.

Plug-ins can be added to web pages with the <object> tag or the <embed> tag.

Plug-ins can be used for many purposes: to display maps, scan for viruses, verify your bank id, and much more. The restrictions are few.

What is The Best Way to Play Audio or Video in HTML?

The best way to embed audio in a web page is to use the HTML5 <audio> element.

The best way to embed video in a web page is to use the HTML5 <video> element.

The <object> Element

The <object> element is supported in all major browsers.

The <object> element defines an embedded object within an HTML document.

It is used to embed plug-ins (like Java applets, ActiveX, PDF, and Flash) in web pages.

It can also be used to embed another webpage, or web content like images, into HTML documents.

|  |  |
| --- | --- |
| **Note** | The text between <object> and </object> is displayed if the browser doesn't support the tag.  The HTML [<param>](http://www.w3schools.com/tags/tag_param.asp) tag is used to pass parameters to the plug in. |

Example

<object width="400" height="50" data="bookmark.swf"></object>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_object_plugin)

The <embed> Element

The <embed> element is supported in all major browsers.

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

Many web browsers have supported the <embed> element for a long time. However, it has not been a part of the HTML specification before HTML5.

The <embed> element will validate in an HTML5 page, but not in an HTML 4 page.

Example

<embed width="400" height="50" src="bookmark.swf">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_embed_plugin)

|  |  |
| --- | --- |
| **Note** | Note that the <embed> element does not have a closing tag. It can not contain alternative text. |

# HTML Sounds / Audio

Sounds can be embedded in HTML pages with several methods.

## Problems, Problems, and Solutions

Playing audio in HTML is not easy!

You must know a lot of tricks to make sure your audio files will play in all browsers (Internet Explorer, Chrome, Firefox, Safari, Opera) and on all hardware (PC, Mac , iPad, iPhone).

In this chapter W3Schools summarizes the problems and the solutions.

## Using Plug-ins

A plug-in is a small computer program that extends the standard functionality of the browser.

Plug-ins can be added to HTML pages using the <object> tag or the <embed> tag.

These tags define containers for resources (normally non-HTML resources), which, depending on the type, will either be displayed by the browsers, or by an external plug-in.

## HTML Audio - Using <embed>

The <embed> tag defines a container for external (non-HTML) content.

The following code fragment should play an MP3 file embedded in a web page:

## Example

<embed height="50" width="100" src="horse.mp3">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_sound_embed)

### Problems:

* Different browsers support different audio formats
* If a browser does not support the file format, the audio will not play without a plug-in
* If the plug-in is not installed on the users' computer, the audio will not play

## HTML Audio - Using <object>

The <object> tag can also define a container for external (non-HTML) content.

The following code fragment should play an MP3 file embedded in a web page:

## Example

<object height="50" width="100" data="horse.mp3"></object>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_sound_object)

### Problems:

* Different browsers support different audio formats
* If a browser does not support the file format, the audio will not play without a plug-in
* If the plug-in is not installed on the users' computer, the audio will not play

## The HTML5 <audio> Element

The HTML5 <audio> tag defines sound, such as music or other audio streams.

The <audio> element works in all modern browsers.

The following example uses the HTML5 <audio> tag, which specifies one MP3 file (for Internet Explorer, Chrome, Firefox 21+, and Safari), and one OGG file (for older Firefox and Opera). If something fails, it will display a text:

## Example

<audio controls>  
  <source src="horse.mp3" type="audio/mpeg">  
  <source src="horse.ogg" type="audio/ogg">  
  Your browser does not support this audio format.  
</audio>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_audio_5)

### Problems:

* You must convert the audio files into different formats
* The <audio> element does not work in older browsers

## HTML Audio - The Best Solution

The best solution is to use the HTML5 <audio> element + the <embed> element.

The example below uses the <audio> element and tries to play the audio either as MP3 or OGG. If that fails, the code "falls back" to try the <embed> element:

## Example

<audio controls>  
  <source src="horse.mp3" type="audio/mpeg">  
  <source src="horse.ogg" type="audio/ogg">  
  <embed height="50" width="100" src="horse.mp3">  
</audio>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_audio_all)

### **Problems:**

* You must convert the audio files into different formats
* The <embed> element cannot "fall-back" to display an error message

## HTML Audio - Using A Hyperlink

If a web page includes a hyperlink to a media file, most browsers will use a "helper application" to play the file.

The following code fragment displays a link to an MP3 file. If a user clicks on the link, the browser will launch a helper application to play the file:

## Example

<a href="horse.mp3">Play the sound</a>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_sound_link)

## Tips About Inline Sounds

When sound is included in a web page, or as part of a web page, it is called inline sound.

If you plan to use inline sounds, be aware that many people will find it annoying. Also note that some users might have turned off the inline sound option in their browser.

Our best advice is to include inline sounds only in pages where the user expects to hear sounds. An example of this is a page which opens after the user has clicked on a link to hear a recording.

## HTML Multimedia Tags

= Tag added in HTML5.

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines an embedded object |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |

HTML Videos

Videos can be embedded in HTML pages with several methods.

Playing Videos in HTML

Example

<video width="320" height="240" controls>  
  <source src="movie.mp4" type="video/mp4">  
  <source src="movie.ogg" type="video/ogg">  
  <source src="movie.webm" type="video/webm">  
  <object data="movie.mp4" width="320" height="240">  
    <embed src="movie.swf" width="320" height="240">  
  </object>   
</video>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_video_html5_4)

Problems, Problems, and Solutions

Playing videos in HTML is not easy!

You must add a lot of tricks to make sure your video will play in all browsers (Internet Explorer, Chrome, Firefox, Safari, Opera) and on all hardware (PC, Mac , iPad, iPhone).

In this chapter W3Schools summarizes the problems and the solutions.

HTML Video - Using <embed>

The <embed> tag defines a container for external (non-HTML) content.

The following HTML fragment displays a Flash video embedded in a web page:

Example

<embed src="intro.swf" height="200" width="200">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_videoembed)

**Problems**

* If the browser does not support Flash, the video will not play
* iPad and iPhone do not support Flash videos

HTML Video - Using <object>

The <object> tag tag can also define a container for external (non-HTML) content.

The following HTML fragment displays a Flash video embedded in a web page:

Example

<object data="intro.swf" height="200" width="200"></object>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_videoobject)

**Problems:**

* If the browser does not support Flash, the video will not play
* iPad and iPhone do not support Flash videos

The HTML5 <video> Element

The HTML5 <video> tag defines a video or movie.

The <video> element works in all modern browsers.

The following example uses the HTML5 <video> tag, which specifies one MP4 file (for Internet Explorer, Chrome, Firefox 21+, and Safari), and one OGG file (for older Firefox and Opera). If something fails, it will display a text:

Example

<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>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_video_html5)

**Problems:**

* You must convert your videos to many different formats
* The <video> element does not work in older browsers

HTML Video - The Best Solution

The best solution is to use the HTML5 <video> element + the <embed> element.

The example below uses the <video> element and tries to play the video either as MP4 or OGG. If that fails, the code "falls back" to try the <embed> element:

HTML 5 + <object> + <embed>

<video width="320" height="240" controls>  
  <source src="movie.mp4" type="video/mp4">  
  <source src="movie.ogg" type="video/ogg">  
  <object data="movie.mp4" width="320" height="240">  
    <embed src="movie.swf" width="320" height="240">  
  </object>   
</video>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_video_html5_4)

**Problems:**

* You must convert your videos to many different formats

HTML Video - YouTube Solution

**However, maybe the easiest way to display videos in HTML pages, is to use YouTube (see next chapter)!**

HTML Video - Using A Hyperlink

If a web page includes a hyperlink to a media file, most browsers will use a "helper application" to play the file.

The following code fragment displays a link to a Flash video. If a user clicks on the link, the browser will launch a helper application to play the file:

Example

<a href="intro.swf">Play a video file</a>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_videolink)

Tips About Inline Videos

When a video is included in a web page it is called inline video.

If you plan to use inline videos, be aware that many people find it annoying. Also note that some users might have turned off the inline video option in their browser.

Our best advice is to include inline videos only in pages where the user expects to see a video. An example of this is a page which opens after the user has clicked on a link to see the video.

HTML Multimedia Tags

= Tag added in HTML5.

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines an embedded object |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |

HTML - YouTube Videos

The easiest way to play videos (others or your own) in HTML is to use YouTube.

Playing a YouTube Video in HTML

If you want to play a video in a web page, you can upload the video to YouTube and insert the proper HTML code to display the video:

Example - YouTube iFrame

<iframe width="420" height="345"  
src="http://www.youtube.com/embed/XGSy3\_Czz8k">  
</iframe>

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_youtubeiframe)

Example - YouTube Embedded

<embed width="420" height="345"  
src="http://www.youtube.com/v/XGSy3\_Czz8k"  
type="application/x-shockwave-flash">

[**Try it yourself »**](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_youtubeobject)

HTML Examples

**HTML Basic**

[A very simple HTML document](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_intro)  
[HTML headings](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_headers)  
[HTML paragraphs](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_paragraphs1)  
[HTML links](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic_link)  
[HTML images](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic_img)

[**Examples explained**](http://www.w3schools.com/html/html_basic.asp)

**HTML Headings**

[HTML headings](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_headers)  
[Insert horizontal lines](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_hr)

[**Examples explained**](http://www.w3schools.com/html/html_headings.asp)

**HTML Paragraphs**

[HTML paragraphs](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_paragraphs1)  
[More paragraphs](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_paragraphs2)  
[The use of line breaks](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_paragraphs)  
[Poem problems (some problems with HTML formatting)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_poem)

[**Examples explained**](http://www.w3schools.com/html/html_paragraphs.asp)

**HTML Text Formatting**

[Text formatting](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_formattingch)  
[Preformatted text (how to control line breaks and spaces)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_pre)  
[Different computer-output tags](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_computeroutput)  
[Insert contact information](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_address)  
[Abbreviations and acronyms](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_abbr)  
[Text direction](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_bdo)  
[Long and short quotations](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_q)  
[How to mark deleted and inserted text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_del)

[**Examples explained**](http://www.w3schools.com/html/html_formatting.asp)

**HTML Comments**

[Hidden comments](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_comment)  
[Conditional comments](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_ie_conditional)  
[Comments for debugging](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_comment_out)

[**Examples explained**](http://www.w3schools.com/html/html_comments.asp)

**HTML Styles**

[Style HTML elements](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_styles)  
[Style background color](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_bodybgstyle)  
[Style font, color, and size](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_newfont)  
[Style alignment of text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_headeralign)  
[Set the font of text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_font-family)  
[Set the font size of text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_font-size)  
[Set the font color of text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_color)  
[Set the font, font size, and font color of text](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_fontall)  
[Using styles in HTML](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_style)  
[Link that is not underlined](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_linknoline)  
[Link to an external style sheet](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_link)

[**Examples explained**](http://www.w3schools.com/html/html_css.asp)

**HTML Links**

[How to create hyperlinks](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_links)  
[Use an image as a link](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_imglink)  
[Open link in a new browser window](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_link_target)  
[Jump to another part of a document (on the same page)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_link_locations)  
[Break out of a frame](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_frame_getfree)  
[How to link to a mail message (will only work if you have mail installed)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_mailto)  
[Another mailto link](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_mailto2)

[**Examples explained**](http://www.w3schools.com/html/html_links.asp)

**HTML Images**

[Insert images](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_images)  
[Insert images from another folder or another server](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_images2)  
[Let the image float to the left/right of a paragraph](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_image_float)  
[Make a hyperlink of an image](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_imglink)  
[Create an image-map, with clickable regions](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_areamap)

[**Examples explained**](http://www.w3schools.com/html/html_images.asp)

**HTML Tables**

[Basic HTML tables](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_basic)  
[A table with borders](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_border)  
[A table with collapsed borders](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_collapse)  
[Cell padding (control the space between cell content and the borders](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_cellpadding)  
[Cell spacing (control the distance between cells)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_cellspacing)  
[A table with table headings](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_headings)  
[A table with left-aligned table headings](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_headings_left)  
[Horizontal/Vertical table headings](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_headers)  
[Table with a caption](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_tables2)  
[Table cells that span more than one row/column](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_span)  
[Tags inside a table](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_elements)

[**Examples explained**](http://www.w3schools.com/html/html_tables.asp)

**HTML Lists**

[An unordered list](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists4)  
[An ordered list](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists)  
[Different types of ordered lists](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists_ordered)  
[Different types of unordered Lists](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists_unordered)  
[Nested list](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists2)  
[Nested list 2](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_nestedlists2)  
[Definition list](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_lists3)

[**Examples explained**](http://www.w3schools.com/html/html_lists.asp)

**HTML Forms and Input**

[Create text fields](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_input)  
[Create password field](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_inputpassword)  
[Checkboxes](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_checkbox)  
[Radio buttons](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_radio)  
[Simple drop-down list](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_select2)  
[Drop-down list with a pre-selected value](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_select3)  
[Textarea (a multi-line text input field)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_textarea)  
[Create a button](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_button)  
[Draw a border around form-data](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_legend)  
[Form with text fields and a submit button](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_form_submit)  
[Form with checkboxes and a submit button](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_form_checkbox)  
[Form with radiobuttons and a submit button](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_form_radio)  
[Send e-mail from a form](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_form_mail)

[**Examples explained**](http://www.w3schools.com/html/html_forms.asp)

**HTML IFrame**

[Inline frame (a frame inside an HTML page)](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_iframe)

[**Examples explained**](http://www.w3schools.com/html/html_iframe.asp)

**HTML head Elements**

[Specify a title for a document](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_title)  
[One default URL and target for all links on a page](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_base)  
[Provide metadata for a document](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_meta)

[**Examples explained**](http://www.w3schools.com/html/html_head.asp)

**HTML Scripts**

[Insert a script](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_script)  
[Use of the <noscript> tag](http://www.w3schools.com/html/tryit.asp?filename=tryhtml_noscript)

[**Examples explained**](http://www.w3schools.com/html/html_scripts.asp)

HTML Quiz

You can test your HTML skills with W3Schools' Quiz.

The Test

The test contains 20 questions and there is no time limit.

The test is not official, it's just a nice way to see how much you know, or don't know, about HTML.

Count Your Score

You will get 1 point for each correct answer. At the end of the Quiz, your total score will be displayed. Maximum score is 20 points.

Good luck! [Start the HTML Quiz](http://www.w3schools.com/quiztest/quiztest.asp?qtest=HTML)

[](http://www.w3schools.com/cert/default.asp)

The [jQuery Certificate](http://www.w3schools.com/cert/default.asp) documents your knowledge of jQuery.

The [PHP Certificate](http://www.w3schools.com/cert/default.asp) documents your knowledge of PHP and SQL (MySQL).

The [XML Certificate](http://www.w3schools.com/cert/default.asp) documents your knowledge of XML, XML DOM and XSLT.

The [ASP Certificate](http://www.w3schools.com/cert/default.asp) documents your knowledge of ASP, SQL, and ADO.

W3Schools HTML Certificate

|  |  |  |
| --- | --- | --- |
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|  |  |
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* Test your skills with W3Schools online quizzes
* Apply for your certificate by paying an exam fee
* Take your exam online, at any time, and from any location

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* Take your exam online, at any time, and from any location

# You Have Learned HTML, Now What?

## HTML Summary

This tutorial has taught you how to use HTML to create your own web site.

HTML is the universal markup language for the Web. HTML lets you format text, add graphics, create links, input forms, frames and tables, etc., and save it all in a text file that any browser can read and display.

The key to HTML is the tags, which indicates what content is coming up.

For more information on HTML, please take a look at our [HTML examples](http://www.w3schools.com/html/html_examples.asp) and our [HTML reference](http://www.w3schools.com/tags/default.asp).

## Now You Know HTML, What's Next?

## Learn CSS

CSS is used to control the style and layout of multiple Web pages all at once.

With CSS, all formatting can be removed from the HTML document and stored in a separate file.

CSS gives you total control of the layout, without messing up the document content.

To learn how to create style sheets, please visit our [CSS tutorial](http://www.w3schools.com/css/default.asp).

## Learn JavaScript

JavaScript can make your web site more dynamic.

A static web site is nice when you just want to show flat content, but a dynamic web site can react to events and allow user interaction.

JavaScript is the most popular scripting language on the internet and it works with all major browsers.

If you want to learn more about JavaScript, please visit our [JavaScript tutorial](http://www.w3schools.com/js/default.asp).

## Hosting your own Web site

Hosting your web site on your own server is always an option. Here are some points to consider:

### Hardware Expenses

To run a "real" web site, you will have to buy some powerful server hardware. Don't expect that a low cost PC will do the job. You will also need a permanent (24 hours a day ) high-speed connection.

### Software Expenses

Remember that server-licenses often are higher than client-licenses. Also note that server-licenses might have limits on number of users.

### Labor Expenses

Don't expect low labor expenses. You have to install your own hardware and software. You also have to deal with bugs and viruses, and keep your server constantly running in an environment where "everything could happen".

## Using an Internet Service Provider

Renting a server from an Internet Service Provider (ISP) is a common option.

Most small companies store their web site on a server provided by an ISP. Here are some advantages:

### Connection Speed

Most ISPs have very fast connections to the internet.

### Powerful Hardware

ISPs often have powerful web servers that can be shared by several companies. You can also expect them to have an effective load balancing, and necessary backup servers.

### Security and Stability

ISPs are specialists on web hosting. Expect their servers to have more than 99% up time, the latest software patches, and the best virus protection.

## Things to Consider with an ISP

### 24-hour support

Make sure your ISP offers 24-hours support. Don't put yourself in a situation where you cannot fix critical problems without having to wait until the next working day. Toll-free phone could be vital if you don't want to pay for long distance calls.

### Daily Backup

Make sure your ISP runs a daily backup routine, otherwise you may lose some valuable data.

### Traffic Volume

Study the ISP's traffic volume restrictions. Make sure that you don't have to pay a fortune for unexpected high traffic if your web site becomes popular.

### Bandwidth or Content Restrictions

Study the ISP's bandwidth and content restrictions. If you plan to publish pictures or broadcast video or sound, make sure that you can.

### E-mail Capabilities

Make sure your ISP supports the e-mail capabilities you need.

### Database Access

If you plan to use data from databases on your web site, make sure your ISP supports the database access you need.

HTML Tag Reference

HTML Tags Ordered Alphabetically

= New in HTML5.

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<!--...-->](http://www.w3schools.com/tags/tag_comment.asp) | Defines a comment |
| [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) | Defines the document type |
| [<a>](http://www.w3schools.com/tags/tag_a.asp) | Defines a hyperlink |
| [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation |
| [<acronym>](http://www.w3schools.com/tags/tag_acronym.asp) | Not supported in HTML5. Use <abbr> instead. Defines an acronym |
| [<address>](http://www.w3schools.com/tags/tag_address.asp) | Defines contact information for the author/owner of a document |
| [<applet>](http://www.w3schools.com/tags/tag_applet.asp) | Not supported in HTML5. Use <object> instead. Defines an embedded applet |
| [<area>](http://www.w3schools.com/tags/tag_area.asp) | Defines an area inside an image-map |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<b>](http://www.w3schools.com/tags/tag_b.asp) | Defines bold text |
| [<base>](http://www.w3schools.com/tags/tag_base.asp) | Specifies the base URL/target for all relative URLs in a document |
| [<basefont>](http://www.w3schools.com/tags/tag_basefont.asp) | Not supported in HTML5. Use CSS instead. Specifies a default color, size, and font for all text in a document |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Isolates a part of text that might be formatted in a different direction from other text outside it |
| [<bdo>](http://www.w3schools.com/tags/tag_bdo.asp) | Overrides the current text direction |
| [<big>](http://www.w3schools.com/tags/tag_big.asp) | Not supported in HTML5. Use CSS instead. Defines big text |
| [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) | Defines a section that is quoted from another source |
| [<body>](http://www.w3schools.com/tags/tag_body.asp) | Defines the document's body |
| [<br>](http://www.w3schools.com/tags/tag_br.asp) | Defines a single line break |
| [<button>](http://www.w3schools.com/tags/tag_button.asp) | Defines a clickable button |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Used to draw graphics, on the fly, via scripting (usually JavaScript) |
| [<caption>](http://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<center>](http://www.w3schools.com/tags/tag_center.asp) | Not supported in HTML5. Use CSS instead. Defines centered text |
| [<cite>](http://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work |
| [<code>](http://www.w3schools.com/tags/tag_code.asp) | Defines a piece of computer code |
| [<col>](http://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Specifies a list of pre-defined options for input controls |
| [<dd>](http://www.w3schools.com/tags/tag_dd.asp) | Defines a description/value of a term in a description list |
| [<del>](http://www.w3schools.com/tags/tag_del.asp) | Defines text that has been deleted from a document |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) | Defines a definition term |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<dir>](http://www.w3schools.com/tags/tag_dir.asp) | Not supported in HTML5. Use <ul> instead. Defines a directory list |
| [<div>](http://www.w3schools.com/tags/tag_div.asp) | Defines a section in a document |
| [<dl>](http://www.w3schools.com/tags/tag_dl.asp) | Defines a description list |
| [<dt>](http://www.w3schools.com/tags/tag_dt.asp) | Defines a term/name in a description list |
| [<em>](http://www.w3schools.com/tags/tag_em.asp) | Defines emphasized text |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines a container for an external (non-HTML) application |
| [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) | Groups related elements in a form |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content |
| [<font>](http://www.w3schools.com/tags/tag_font.asp) | Not supported in HTML5. Use CSS instead. Defines font, color, and size for text |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Defines an HTML form for user input |
| [<frame>](http://www.w3schools.com/tags/tag_frame.asp) | Not supported in HTML5. Defines a window (a frame) in a frameset |
| [<frameset>](http://www.w3schools.com/tags/tag_frameset.asp) | Not supported in HTML5. Defines a set of frames |
| [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |
| [<head>](http://www.w3schools.com/tags/tag_head.asp) | Defines information about the document |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Defines a header for a document or section |
| [<hr>](http://www.w3schools.com/tags/tag_hr.asp) | Defines a thematic change in the content |
| [<html>](http://www.w3schools.com/tags/tag_html.asp) | Defines the root of an HTML document |
| [<i>](http://www.w3schools.com/tags/tag_i.asp) | Defines a part of text in an alternate voice or mood |
| [<iframe>](http://www.w3schools.com/tags/tag_iframe.asp) | Defines an inline frame |
| [<img>](http://www.w3schools.com/tags/tag_img.asp) | Defines an image |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |
| [<ins>](http://www.w3schools.com/tags/tag_ins.asp) | Defines a text that has been inserted into a document |
| [<kbd>](http://www.w3schools.com/tags/tag_kbd.asp) | Defines keyboard input |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Defines a key-pair generator field (for forms) |
| [<label>](http://www.w3schools.com/tags/tag_label.asp) | Defines a label for an <input> element |
| [<legend>](http://www.w3schools.com/tags/tag_legend.asp) | Defines a caption for a <fieldset> element |
| [<li>](http://www.w3schools.com/tags/tag_li.asp) | Defines a list item |
| [<link>](http://www.w3schools.com/tags/tag_link.asp) | Defines the relationship between a document and an external resource (most used to link to style sheets) |
| [<main>](http://www.w3schools.com/tags/tag_main.asp) | Specifies the main content of a document |
| [<map>](http://www.w3schools.com/tags/tag_map.asp) | Defines a client-side image-map |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<menu>](http://www.w3schools.com/tags/tag_menu.asp) | Defines a list/menu of commands |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Defines a command/menu item that the user can invoke from a popup menu |
| [<meta>](http://www.w3schools.com/tags/tag_meta.asp) | Defines metadata about an HTML document |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |
| [<noframes>](http://www.w3schools.com/tags/tag_noframes.asp) | Not supported in HTML5. Defines an alternate content for users that do not support frames |
| [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) | Defines an alternate content for users that do not support client-side scripts |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<ol>](http://www.w3schools.com/tags/tag_ol.asp) | Defines an ordered list |
| [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) | Defines a group of related options in a drop-down list |
| [<option>](http://www.w3schools.com/tags/tag_option.asp) | Defines an option in a drop-down list |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Defines the result of a calculation |
| [<p>](http://www.w3schools.com/tags/tag_p.asp) | Defines a paragraph |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |
| [<pre>](http://www.w3schools.com/tags/tag_pre.asp) | Defines preformatted text |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Represents the progress of a task |
| [<q>](http://www.w3schools.com/tags/tag_q.asp) | Defines a short quotation |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<s>](http://www.w3schools.com/tags/tag_s.asp) | Defines text that is no longer correct |
| [<samp>](http://www.w3schools.com/tags/tag_samp.asp) | Defines sample output from a computer program |
| [<script>](http://www.w3schools.com/tags/tag_script.asp) | Defines a client-side script |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<select>](http://www.w3schools.com/tags/tag_select.asp) | Defines a drop-down list |
| [<small>](http://www.w3schools.com/tags/tag_small.asp) | Defines smaller text |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<span>](http://www.w3schools.com/tags/tag_span.asp) | Defines a section in a document |
| [<strike>](http://www.w3schools.com/tags/tag_strike.asp) | Not supported in HTML5. Use <del> instead. Defines strikethrough text |
| [<strong>](http://www.w3schools.com/tags/tag_strong.asp) | Defines important text |
| [<style>](http://www.w3schools.com/tags/tag_style.asp) | Defines style information for a document |
| [<sub>](http://www.w3schools.com/tags/tag_sub.asp) | Defines subscripted text |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<sup>](http://www.w3schools.com/tags/tag_sup.asp) | Defines superscripted text |
| [<table>](http://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<td>](http://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp) | Defines a multiline input control (text area) |
| [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |
| [<th>](http://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<thead>](http://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<title>](http://www.w3schools.com/tags/tag_title.asp) | Defines a title for the document |
| [<tr>](http://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |
| [<tt>](http://www.w3schools.com/tags/tag_tt.asp) | Not supported in HTML5. Use CSS instead. Defines teletype text |
| [<u>](http://www.w3schools.com/tags/tag_u.asp) | Defines text that should be stylistically different from normal text |
| [<ul>](http://www.w3schools.com/tags/tag_ul.asp) | Defines an unordered list |
| [<var>](http://www.w3schools.com/tags/tag_var.asp) | Defines a variable |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |

HTML Tag Reference

HTML Tags Ordered by Category

= New in HTML5.

Basic Tags

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) | Defines the document type |
| [<html>](http://www.w3schools.com/tags/tag_html.asp) | Defines an HTML document |
| [<title>](http://www.w3schools.com/tags/tag_title.asp) | Defines a title for the document |
| [<body>](http://www.w3schools.com/tags/tag_body.asp) | Defines the document's body |
| [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |
| [<p>](http://www.w3schools.com/tags/tag_p.asp) | Defines a paragraph |
| [<br>](http://www.w3schools.com/tags/tag_br.asp) | Inserts a single line break |
| [<hr>](http://www.w3schools.com/tags/tag_hr.asp) | Defines a thematic change in the content |
| [<!--...-->](http://www.w3schools.com/tags/tag_comment.asp) | Defines a comment |

Formatting

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<acronym>](http://www.w3schools.com/tags/tag_acronym.asp) | Not supported in HTML5. Use <abbr> instead. Defines an acronym |
| [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation |
| [<address>](http://www.w3schools.com/tags/tag_address.asp) | Defines contact information for the author/owner of a document/article |
| [<b>](http://www.w3schools.com/tags/tag_b.asp) | Defines bold text |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Isolates a part of text that might be formatted in a different direction from other text outside it |
| [<bdo>](http://www.w3schools.com/tags/tag_bdo.asp) | Overrides the current text direction |
| [<big>](http://www.w3schools.com/tags/tag_big.asp) | Not supported in HTML5. Use CSS instead. Defines big text |
| [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) | Defines a section that is quoted from another source |
| [<center>](http://www.w3schools.com/tags/tag_center.asp) | Not supported in HTML5. Use CSS instead. Defines centered text |
| [<cite>](http://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work |
| [<code>](http://www.w3schools.com/tags/tag_code.asp) | Defines a piece of computer code |
| [<del>](http://www.w3schools.com/tags/tag_del.asp) | Defines text that has been deleted from a document |
| [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) | Defines a definition term |
| [<em>](http://www.w3schools.com/tags/tag_em.asp) | Defines emphasized text |
| [<font>](http://www.w3schools.com/tags/tag_font.asp) | Not supported in HTML5. Use CSS instead. Defines font, color, and size for text |
| [<i>](http://www.w3schools.com/tags/tag_i.asp) | Defines a part of text in an alternate voice or mood |
| [<ins>](http://www.w3schools.com/tags/tag_ins.asp) | Defines a text that has been inserted into a document |
| [<kbd>](http://www.w3schools.com/tags/tag_kbd.asp) | Defines keyboard input |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<pre>](http://www.w3schools.com/tags/tag_pre.asp) | Defines preformatted text |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Represents the progress of a task |
| [<q>](http://www.w3schools.com/tags/tag_q.asp) | Defines a short quotation |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<s>](http://www.w3schools.com/tags/tag_s.asp) | Defines text that is no longer correct |
| [<samp>](http://www.w3schools.com/tags/tag_samp.asp) | Defines sample output from a computer program |
| [<small>](http://www.w3schools.com/tags/tag_small.asp) | Defines smaller text |
| [<strike>](http://www.w3schools.com/tags/tag_strike.asp) | Not supported in HTML5. Use <del> instead. Defines strikethrough text |
| [<strong>](http://www.w3schools.com/tags/tag_strong.asp) | Defines important text |
| [<sub>](http://www.w3schools.com/tags/tag_sub.asp) | Defines subscripted text |
| [<sup>](http://www.w3schools.com/tags/tag_sup.asp) | Defines superscripted text |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<tt>](http://www.w3schools.com/tags/tag_tt.asp) | Not supported in HTML5. Use CSS instead. Defines teletype text |
| [<u>](http://www.w3schools.com/tags/tag_u.asp) | Defines text that should be stylistically different from normal text |
| [<var>](http://www.w3schools.com/tags/tag_var.asp) | Defines a variable |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |

Forms and Input

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Defines an HTML form for user input |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |
| [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp) | Defines a multiline input control (text area) |
| [<button>](http://www.w3schools.com/tags/tag_button.asp) | Defines a clickable button |
| [<select>](http://www.w3schools.com/tags/tag_select.asp) | Defines a drop-down list |
| [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) | Defines a group of related options in a drop-down list |
| [<option>](http://www.w3schools.com/tags/tag_option.asp) | Defines an option in a drop-down list |
| [<label>](http://www.w3schools.com/tags/tag_label.asp) | Defines a label for an <input> element |
| [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) | Groups related elements in a form |
| [<legend>](http://www.w3schools.com/tags/tag_legend.asp) | Defines a caption for a <fieldset> element |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Specifies a list of pre-defined options for input controls |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Defines a key-pair generator field (for forms) |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Defines the result of a calculation |

Frames

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<frame>](http://www.w3schools.com/tags/tag_frame.asp) | Not supported in HTML5. Defines a window (a frame) in a frameset |
| [<frameset>](http://www.w3schools.com/tags/tag_frameset.asp) | Not supported in HTML5. Defines a set of frames |
| [<noframes>](http://www.w3schools.com/tags/tag_noframes.asp) | Not supported in HTML5. Defines an alternate content for users that do not support frames |
| [<iframe>](http://www.w3schools.com/tags/tag_iframe.asp) | Defines an inline frame |

Images

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<img>](http://www.w3schools.com/tags/tag_img.asp) | Defines an image |
| [<map>](http://www.w3schools.com/tags/tag_map.asp) | Defines a client-side image-map |
| [<area>](http://www.w3schools.com/tags/tag_area.asp) | Defines an area inside an image-map |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Used to draw graphics, on the fly, via scripting (usually JavaScript) |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content |

Audio / Video

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |

Links

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<a>](http://www.w3schools.com/tags/tag_a.asp) | Defines a hyperlink |
| [<link>](http://www.w3schools.com/tags/tag_link.asp) | Defines the relationship between a document and an external resource (most used to link to style sheets) |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |

Lists

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<ul>](http://www.w3schools.com/tags/tag_ul.asp) | Defines an unordered list |
| [<ol>](http://www.w3schools.com/tags/tag_ol.asp) | Defines an ordered list |
| [<li>](http://www.w3schools.com/tags/tag_li.asp) | Defines a list item |
| [<dir>](http://www.w3schools.com/tags/tag_dir.asp) | Not supported in HTML5. Use <ul> instead. Defines a directory list |
| [<dl>](http://www.w3schools.com/tags/tag_dl.asp) | Defines a description list |
| [<dt>](http://www.w3schools.com/tags/tag_dt.asp) | Defines a term/name in a description list |
| [<dd>](http://www.w3schools.com/tags/tag_dd.asp) | Defines a description of a term/name in a description list |
| [<menu>](http://www.w3schools.com/tags/tag_menu.asp) | Defines a list/menu of commands |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Defines a command/menu item that the user can invoke from a popup menu |

Tables

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<table>](http://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<caption>](http://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<th>](http://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<tr>](http://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<td>](http://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<thead>](http://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |
| [<col>](http://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |

Styles and Semantics

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<style>](http://www.w3schools.com/tags/tag_style.asp) | Defines style information for a document |
| [<div>](http://www.w3schools.com/tags/tag_div.asp) | Defines a section in a document |
| [<span>](http://www.w3schools.com/tags/tag_span.asp) | Defines a section in a document |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Defines a header for a document or section |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |

Meta Info

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<head>](http://www.w3schools.com/tags/tag_head.asp) | Defines information about the document |
| [<meta>](http://www.w3schools.com/tags/tag_meta.asp) | Defines metadata about an HTML document |
| [<base>](http://www.w3schools.com/tags/tag_base.asp) | Specifies the base URL/target for all relative URLs in a document |
| [<basefont>](http://www.w3schools.com/tags/tag_basefont.asp) | Not supported in HTML5. Use CSS instead. Specifies a default color, size, and font for all text in a document |

Programming

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<script>](http://www.w3schools.com/tags/tag_script.asp) | Defines a client-side script |
| [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) | Defines an alternate content for users that do not support client-side scripts |
| [<applet>](http://www.w3schools.com/tags/tag_applet.asp) | Not supported in HTML5. Use <object> instead. Defines an embedded applet |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines a container for an external (non-HTML) application |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |

HTML Global Attributes

HTML attributes give elements meaning and context.

The global attributes below can be used on **any** HTML element.

HTML Global Attributes

= Attribute added in HTML5.

|  |  |
| --- | --- |
| **Attribute** | **Description** |
| [accesskey](http://www.w3schools.com/tags/att_global_accesskey.asp) | Specifies a shortcut key to activate/focus an element |
| [class](http://www.w3schools.com/tags/att_global_class.asp) | Specifies one or more classnames for an element (refers to a class in a style sheet) |
| [contenteditable](http://www.w3schools.com/tags/att_global_contenteditable.asp) | Specifies whether the content of an element is editable or not |
| [contextmenu](http://www.w3schools.com/tags/att_global_contextmenu.asp) | Specifies a context menu for an element. The context menu appears when a user right-clicks on the element |
| [data-\*](http://www.w3schools.com/tags/att_global_data.asp) | Used to store custom data private to the page or application |
| [dir](http://www.w3schools.com/tags/att_global_dir.asp) | Specifies the text direction for the content in an element |
| [draggable](http://www.w3schools.com/tags/att_global_draggable.asp) | Specifies whether an element is draggable or not |
| [dropzone](http://www.w3schools.com/tags/att_global_dropzone.asp) | Specifies whether the dragged data is copied, moved, or linked, when dropped |
| [hidden](http://www.w3schools.com/tags/att_global_hidden.asp) | Specifies that an element is not yet, or is no longer, relevant |
| [id](http://www.w3schools.com/tags/att_global_id.asp) | Specifies a unique id for an element |
| [lang](http://www.w3schools.com/tags/att_global_lang.asp) | Specifies the language of the element's content |
| [spellcheck](http://www.w3schools.com/tags/att_global_spellcheck.asp) | Specifies whether the element is to have its spelling and grammar checked or not |
| [style](http://www.w3schools.com/tags/att_global_style.asp) | Specifies an inline CSS style for an element |
| [tabindex](http://www.w3schools.com/tags/att_global_tabindex.asp) | Specifies the tabbing order of an element |
| [title](http://www.w3schools.com/tags/att_global_title.asp) | Specifies extra information about an element |
| [translate](http://www.w3schools.com/tags/att_global_translate.asp) | Specifies whether the content of an element should be translated or not |

HTML Event Attributes

Global Event Attributes

HTML 4 added the ability to let events trigger actions in a browser, like starting a JavaScript when a user clicks on an element.

To learn more about programming events, please visit our [JavaScript tutorial](http://www.w3schools.com/js/default.asp).

Below are the global event attributes that can be added to HTML elements to define event actions.

= New event attributes in HTML5.

Window Event Attributes

Events triggered for the window object (applies to the <body> tag):

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [onafterprint](http://www.w3schools.com/tags/ev_onafterprint.asp) | *script* | Script to be run after the document is printed |
| [onbeforeprint](http://www.w3schools.com/tags/ev_onbeforeprint.asp) | *script* | Script to be run before the document is printed |
| onbeforeunload | *script* | Script to be run before the document is unloaded |
| onerror | *script* | Script to be run when an error occur |
| onhaschange | *script* | Script to be run when the document has changed |
| [onload](http://www.w3schools.com/tags/ev_onload.asp) | *script* | Fires after the page is finished loading |
| onmessage | *script* | Script to be run when the message is triggered |
| onoffline | *script* | Script to be run when the document goes offline |
| ononline | *script* | Script to be run when the document comes online |
| onpagehide | *script* | Script to be run when the window is hidden |
| onpageshow | *script* | Script to be run when the window becomes visible |
| onpopstate | *script* | Script to be run when the window's history changes |
| onredo | *script* | Script to be run when the document performs a redo |
| [onresize](http://www.w3schools.com/tags/ev_onresize.asp) | *script* | Fires when the browser window is resized |
| onstorage | *script* | Script to be run when a Web Storage area is updated |
| onundo | *script* | Script to be run when the document performs an undo |
| [onunload](http://www.w3schools.com/tags/ev_onunload.asp) | *script* | Fires once a page has unloaded (or the browser window has been closed) |

Form Events

Events triggered by actions inside a HTML form (applies to almost all HTML elements, but is most used in form elements):

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [onblur](http://www.w3schools.com/tags/ev_onblur.asp) | *script* | Fires the moment that the element loses focus |
| [onchange](http://www.w3schools.com/tags/ev_onchange.asp) | *script* | Fires the moment when the value of the element is changed |
| oncontextmenu | *script* | Script to be run when a context menu is triggered |
| [onfocus](http://www.w3schools.com/tags/ev_onfocus.asp) | *script* | Fires the moment when the element gets focus |
| onformchange | *script* | Script to be run when a form changes |
| onforminput | *script* | Script to be run when a form gets user input |
| oninput | *script* | Script to be run when an element gets user input |
| oninvalid | *script* | Script to be run when an element is invalid |
| onreset | *script* | Fires when the Reset button in a form is clicked Not supported in HTML5 |
| [onselect](http://www.w3schools.com/tags/ev_onselect.asp) | *script* | Fires after some text has been selected in an element |
| [onsubmit](http://www.w3schools.com/tags/ev_onsubmit.asp) | *script* | Fires when a form is submitted |

Keyboard Events

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [onkeydown](http://www.w3schools.com/tags/ev_onkeydown.asp) | *script* | Fires when a user is pressing a key |
| [onkeypress](http://www.w3schools.com/tags/ev_onkeypress.asp) | *script* | Fires when a user presses a key |
| [onkeyup](http://www.w3schools.com/tags/ev_onkeyup.asp) | *script* | Fires when a user releases a key |

Mouse Events

Events triggered by a mouse, or similar user actions:

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [onclick](http://www.w3schools.com/tags/ev_onclick.asp) | *script* | Fires on a mouse click on the element |
| [ondblclick](http://www.w3schools.com/tags/ev_ondblclick.asp) | *script* | Fires on a mouse double-click on the element |
| ondrag | *script* | Script to be run when an element is dragged |
| ondragend | *script* | Script to be run at the end of a drag operation |
| ondragenter | *script* | Script to be run when an element has been dragged to a valid drop target |
| ondragleave | *script* | Script to be run when an element leaves a valid drop target |
| ondragover | *script* | Script to be run when an element is being dragged over a valid drop target |
| ondragstart | *script* | Script to be run at the start of a drag operation |
| ondrop | *script* | Script to be run when dragged element is being dropped |
| [onmousedown](http://www.w3schools.com/tags/ev_onmousedown.asp) | *script* | Fires when a mouse button is pressed down on an element |
| [onmousemove](http://www.w3schools.com/tags/ev_onmousemove.asp) | *script* | Fires when the mouse pointer moves over an element |
| [onmouseout](http://www.w3schools.com/tags/ev_onmouseout.asp) | *script* | Fires when the mouse pointer moves out of an element |
| [onmouseover](http://www.w3schools.com/tags/ev_onmouseover.asp) | *script* | Fires when the mouse pointer moves over an element |
| [onmouseup](http://www.w3schools.com/tags/ev_onmouseup.asp) | *script* | Fires when a mouse button is released over an element |
| onmousewheel | *script* | Script to be run when the mouse wheel is being rotated |
| onscroll | *script* | Script to be run when an element's scrollbar is being scrolled |

Media Events

Events triggered by medias like videos, images and audio (applies to all HTML elements, but is most common in media elements, like <audio>, <embed>, <img>, <object>, and <video>):

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| onabort | *script* | Script to be run on abort |
| oncanplay | *script* | Script to be run when a file is ready to start playing (when it has buffered enough to begin) |
| oncanplaythrough | *script* | Script to be run when a file can be played all the way to the end without pausing for buffering |
| ondurationchange | *script* | Script to be run when the length of the media changes |
| onemptied | *script* | Script to be run when something bad happens and the file is suddenly unavailable (like unexpectedly disconnects) |
| onended | *script* | Script to be run when the media has reach the end (a useful event for messages like "thanks for listening") |
| onerror | *script* | Script to be run when an error occurs when the file is being loaded |
| onloadeddata | *script* | Script to be run when media data is loaded |
| onloadedmetadata | *script* | Script to be run when meta data (like dimensions and duration) are loaded |
| onloadstart | *script* | Script to be run just as the file begins to load before anything is actually loaded |
| onpause | *script* | Script to be run when the media is paused either by the user or programmatically |
| onplay | *script* | Script to be run when the media is ready to start playing |
| onplaying | *script* | Script to be run when the media actually has started playing |
| onprogress | *script* | Script to be run when the browser is in the process of getting the media data |
| onratechange | *script* | Script to be run each time the playback rate changes (like when a user switches to a slow motion or fast forward mode) |
| onreadystatechange | *script* | Script to be run each time the ready state changes (the ready state tracks the state of the media data) |
| onseeked | *script* | Script to be run when the seeking attribute is set to false indicating that seeking has ended |
| onseeking | *script* | Script to be run when the seeking attribute is set to true indicating that seeking is active |
| onstalled | *script* | Script to be run when the browser is unable to fetch the media data for whatever reason |
| onsuspend | *script* | Script to be run when fetching the media data is stopped before it is completely loaded for whatever reason |
| ontimeupdate | *script* | Script to be run when the playing position has changed (like when the user fast forwards to a different point in the media) |
| onvolumechange | *script* | Script to be run each time the volume is changed which (includes setting the volume to "mute") |
| onwaiting | *script* | Script to be run when the media has paused but is expected to resume (like when the media pauses to buffer more data) |

HTML Canvas Reference

Description

The HTML5 <canvas> tag is used to draw graphics, on the fly, via scripting (usually JavaScript).

However, the <canvas> element has no drawing abilities of its own (it is only a container for graphics) - you must use a script to actually draw the graphics.

The getContext() method returns an object that provides methods and properties for drawing on the canvas.

This reference will cover the properties and methods of the getContext("2d") object, which can be used to draw text, lines, boxes, circles, and more - on the canvas.

Browser Support

Internet ExplorerFirefoxOperaGoogle ChromeSafari

Internet Explorer 9, Firefox, Opera, Chrome, and Safari support <canvas> and its properties and methods.

**Note:** Internet Explorer 8 and earlier versions, do not support the <canvas> element.

Colors, Styles, and Shadows

|  |  |
| --- | --- |
| **Property** | **Description** |
| [fillStyle](http://www.w3schools.com/tags/canvas_fillstyle.asp) | Sets or returns the color, gradient, or pattern used to fill the drawing |
| [strokeStyle](http://www.w3schools.com/tags/canvas_strokestyle.asp) | Sets or returns the color, gradient, or pattern used for strokes |
| [shadowColor](http://www.w3schools.com/tags/canvas_shadowcolor.asp) | Sets or returns the color to use for shadows |
| [shadowBlur](http://www.w3schools.com/tags/canvas_shadowblur.asp) | Sets or returns the blur level for shadows |
| [shadowOffsetX](http://www.w3schools.com/tags/canvas_shadowoffsetx.asp) | Sets or returns the horizontal distance of the shadow from the shape |
| [shadowOffsetY](http://www.w3schools.com/tags/canvas_shadowoffsety.asp) | Sets or returns the vertical distance of the shadow from the shape |

|  |  |
| --- | --- |
| **Method** | **Description** |
| [createLinearGradient()](http://www.w3schools.com/tags/canvas_createlineargradient.asp) | Creates a linear gradient (to use on canvas content) |
| [createPattern()](http://www.w3schools.com/tags/canvas_createpattern.asp) | Repeats a specified element in the specified direction |
| [createRadialGradient()](http://www.w3schools.com/tags/canvas_createradialgradient.asp) | Creates a radial/circular gradient (to use on canvas content) |
| [addColorStop()](http://www.w3schools.com/tags/canvas_addcolorstop.asp) | Specifies the colors and stop positions in a gradient object |

Line Styles

|  |  |
| --- | --- |
| **Property** | **Description** |
| [lineCap](http://www.w3schools.com/tags/canvas_linecap.asp) | Sets or returns the style of the end caps for a line |
| [lineJoin](http://www.w3schools.com/tags/canvas_linejoin.asp) | Sets or returns the type of corner created, when two lines meet |
| [lineWidth](http://www.w3schools.com/tags/canvas_linewidth.asp) | Sets or returns the current line width |
| [miterLimit](http://www.w3schools.com/tags/canvas_miterlimit.asp) | Sets or returns the maximum miter length |

Rectangles

|  |  |
| --- | --- |
| **Method** | **Description** |
| [rect()](http://www.w3schools.com/tags/canvas_rect.asp) | Creates a rectangle |
| [fillRect()](http://www.w3schools.com/tags/canvas_fillrect.asp) | Draws a "filled" rectangle |
| [strokeRect()](http://www.w3schools.com/tags/canvas_strokerect.asp) | Draws a rectangle (no fill) |
| [clearRect()](http://www.w3schools.com/tags/canvas_clearrect.asp) | Clears the specified pixels within a given rectangle |

Paths

|  |  |
| --- | --- |
| **Method** | **Description** |
| [fill()](http://www.w3schools.com/tags/canvas_fill.asp) | Fills the current drawing (path) |
| [stroke()](http://www.w3schools.com/tags/canvas_stroke.asp) | Actually draws the path you have defined |
| [beginPath()](http://www.w3schools.com/tags/canvas_beginpath.asp) | Begins a path, or resets the current path |
| [moveTo()](http://www.w3schools.com/tags/canvas_moveto.asp) | Moves the path to the specified point in the canvas, without creating a line |
| [closePath()](http://www.w3schools.com/tags/canvas_closepath.asp) | Creates a path from the current point back to the starting point |
| [lineTo()](http://www.w3schools.com/tags/canvas_lineto.asp) | Adds a new point and creates a line from that point to the last specified point in the canvas |
| [clip()](http://www.w3schools.com/tags/canvas_clip.asp) | Clips a region of any shape and size from the original canvas |
| [quadraticCurveTo()](http://www.w3schools.com/tags/canvas_quadraticcurveto.asp) | Creates a quadratic Bézier curve |
| [bezierCurveTo()](http://www.w3schools.com/tags/canvas_beziercurveto.asp) | Creates a cubic Bézier curve |
| [arc()](http://www.w3schools.com/tags/canvas_arc.asp) | Creates an arc/curve (used to create circles, or parts of circles) |
| [arcTo()](http://www.w3schools.com/tags/canvas_arcto.asp) | Creates an arc/curve between two tangents |
| [isPointInPath()](http://www.w3schools.com/tags/canvas_ispointinpath.asp) | Returns true if the specified point is in the current path, otherwise false |

Transformations

|  |  |
| --- | --- |
| **Method** | **Description** |
| [scale()](http://www.w3schools.com/tags/canvas_scale.asp) | Scales the current drawing bigger or smaller |
| [rotate()](http://www.w3schools.com/tags/canvas_rotate.asp) | Rotates the current drawing |
| [translate()](http://www.w3schools.com/tags/canvas_translate.asp) | Remaps the (0,0) position on the canvas |
| [transform()](http://www.w3schools.com/tags/canvas_transform.asp) | Replaces the current transformation matrix for the drawing |
| [setTransform()](http://www.w3schools.com/tags/canvas_settransform.asp) | Resets the current transform to the identity matrix. Then runs [transform()](http://www.w3schools.com/tags/canvas_transform.asp) |

Text

|  |  |
| --- | --- |
| **Property** | **Description** |
| [font](http://www.w3schools.com/tags/canvas_font.asp) | Sets or returns the current font properties for text content |
| [textAlign](http://www.w3schools.com/tags/canvas_textalign.asp) | Sets or returns the current alignment for text content |
| [textBaseline](http://www.w3schools.com/tags/canvas_textbaseline.asp) | Sets or returns the current text baseline used when drawing text |

|  |  |
| --- | --- |
| **Method** | **Description** |
| [fillText()](http://www.w3schools.com/tags/canvas_filltext.asp) | Draws "filled" text on the canvas |
| [strokeText()](http://www.w3schools.com/tags/canvas_stroketext.asp) | Draws text on the canvas (no fill) |
| [measureText()](http://www.w3schools.com/tags/canvas_measuretext.asp) | Returns an object that contains the width of the specified text |

Image Drawing

|  |  |
| --- | --- |
| **Method** | **Description** |
| [drawImage()](http://www.w3schools.com/tags/canvas_drawimage.asp) | Draws an image, canvas, or video onto the canvas |

Pixel Manipulation

|  |  |
| --- | --- |
| **Property** | **Description** |
| [width](http://www.w3schools.com/tags/canvas_imagedata_width.asp) | Returns the width of an ImageData object |
| [height](http://www.w3schools.com/tags/canvas_imagedata_height.asp) | Returns the height of an ImageData object |
| [data](http://www.w3schools.com/tags/canvas_imagedata_data.asp) | Returns an object that contains image data of a specified ImageData object |

|  |  |
| --- | --- |
| **Method** | **Description** |
| [createImageData()](http://www.w3schools.com/tags/canvas_createimagedata.asp) | Creates a new, blank ImageData object |
| [getImageData()](http://www.w3schools.com/tags/canvas_getimagedata.asp) | Returns an ImageData object that copies the pixel data for the specified rectangle on a canvas |
| [putImageData()](http://www.w3schools.com/tags/canvas_putimagedata.asp) | Puts the image data (from a specified ImageData object) back onto the canvas |

Compositing

|  |  |
| --- | --- |
| **Property** | **Description** |
| [globalAlpha](http://www.w3schools.com/tags/canvas_globalalpha.asp) | Sets or returns the current alpha or transparency value of the drawing |
| [globalCompositeOperation](http://www.w3schools.com/tags/canvas_globalcompositeoperation.asp) | Sets or returns how a new image are drawn onto an existing image |

Other

|  |  |
| --- | --- |
| **Method** | **Description** |
| save() | Saves the state of the current context |
| restore() | Returns previously saved path state and attributes |
| createEvent() |  |
| getContext() |  |
| toDataURL() |  |

HTML Audio/Video DOM Reference

HTML Audio and Video DOM Reference

The HTML5 DOM has methods, properties, and events for the <audio> and <video> elements.

These methods, properties, and events allow you to manipulate <audio> and <video> elements using JavaScript.

HTML Audio/Video Methods

|  |  |
| --- | --- |
| **Method** | **Description** |
| [addTextTrack()](http://www.w3schools.com/tags/av_met_addtexttrack.asp) | Adds a new text track to the audio/video |
| [canPlayType()](http://www.w3schools.com/tags/av_met_canplaytype.asp) | Checks if the browser can play the specified audio/video type |
| [load()](http://www.w3schools.com/tags/av_met_load.asp) | Re-loads the audio/video element |
| [play()](http://www.w3schools.com/tags/av_met_play.asp) | Starts playing the audio/video |
| [pause()](http://www.w3schools.com/tags/av_met_pause.asp) | Pauses the currently playing audio/video |

HTML Audio/Video Properties

|  |  |
| --- | --- |
| **Property** | **Description** |
| [audioTracks](http://www.w3schools.com/tags/av_prop_audiotracks.asp) | Returns an AudioTrackList object representing available audio tracks |
| [autoplay](http://www.w3schools.com/tags/av_prop_autoplay.asp) | Sets or returns if the audio/video should start playing as soon as it is loaded |
| [buffered](http://www.w3schools.com/tags/av_prop_buffered.asp) | Returns a TimeRanges object representing the buffered parts of the audio/video |
| [controller](http://www.w3schools.com/tags/av_prop_controller.asp) | Returns the MediaController object representing the current media controller of the audio/video |
| [controls](http://www.w3schools.com/tags/av_prop_controls.asp) | Sets or returns if the audio/video should display controls (like play/pause etc.) |
| crossOrigin | Sets or returns the CORS settings of the audio/video |
| [currentSrc](http://www.w3schools.com/tags/av_prop_currentsrc.asp) | Returns the URL of the current audio/video |
| [currentTime](http://www.w3schools.com/tags/av_prop_currenttime.asp) | Sets or returns the current playback position in the audio/video (in seconds) |
| [defaultMuted](http://www.w3schools.com/tags/av_prop_defaultmuted.asp) | Sets or returns if the audio/video is muted by default |
| [defaultPlaybackRate](http://www.w3schools.com/tags/av_prop_defaultplaybackrate.asp) | Sets or returns the default speed of the audio/video playback |
| [duration](http://www.w3schools.com/tags/av_prop_duration.asp) | Returns the length of the current audio/video (in seconds) |
| [ended](http://www.w3schools.com/tags/av_prop_ended.asp) | Returns if the playback of the audio/video has ended or not |
| [error](http://www.w3schools.com/tags/av_prop_error.asp) | Returns a MediaError object representing the error state of the audio/video |
| [loop](http://www.w3schools.com/tags/av_prop_loop.asp) | Sets or returns if the audio/video should start over again when finished |
| [mediaGroup](http://www.w3schools.com/tags/av_prop_mediagroup.asp) | Sets or returns the group the audio/video belongs to (used to link multiple audio/video elements) |
| [muted](http://www.w3schools.com/tags/av_prop_muted.asp) | Sets or returns if the audio/video is muted or not |
| [networkState](http://www.w3schools.com/tags/av_prop_networkstate.asp) | Returns the current network state of the audio/video |
| [paused](http://www.w3schools.com/tags/av_prop_paused.asp) | Sets or returns if the audio/video is paused or not |
| [playbackRate](http://www.w3schools.com/tags/av_prop_playbackrate.asp) | Sets or returns the speed of the audio/video playback |
| [played](http://www.w3schools.com/tags/av_prop_played.asp) | Returns a TimeRanges object representing the played parts of the audio/video |
| [preload](http://www.w3schools.com/tags/av_prop_preload.asp) | Sets or returns if the audio/video should be loaded when the page loads |
| [readyState](http://www.w3schools.com/tags/av_prop_readystate.asp) | Returns the current ready state of the audio/video |
| [seekable](http://www.w3schools.com/tags/av_prop_seekable.asp) | Returns a TimeRanges object representing the seekable parts of the audio/video |
| [seeking](http://www.w3schools.com/tags/av_prop_seeking.asp) | Returns if the user is currently seeking in the audio/video |
| [src](http://www.w3schools.com/tags/av_prop_src.asp) | Sets or returns the current source of the audio/video element |
| [startDate](http://www.w3schools.com/tags/av_prop_startdate.asp) | Returns a Date object representing the current time offset |
| [textTracks](http://www.w3schools.com/tags/av_prop_texttracks.asp) | Returns a TextTrackList object representing the available text tracks |
| [videoTracks](http://www.w3schools.com/tags/av_prop_videotracks.asp) | Returns a VideoTrackList object representing the available video tracks |
| [volume](http://www.w3schools.com/tags/av_prop_volume.asp) | Sets or returns the volume of the audio/video |

HTML Audio/Video Events

|  |  |
| --- | --- |
| **Event** | **Description** |
| abort | Fires when the loading of an audio/video is aborted |
| [canplay](http://www.w3schools.com/tags/av_event_canplay.asp) | Fires when the browser can start playing the audio/video |
| [canplaythrough](http://www.w3schools.com/tags/av_event_canplaythrough.asp) | Fires when the browser can play through the audio/video without stopping for buffering |
| [durationchange](http://www.w3schools.com/tags/av_event_durationchange.asp) | Fires when the duration of the audio/video is changed |
| emptied | Fires when the current playlist is empty |
| ended | Fires when the current playlist is ended |
| error | Fires when an error occurred during the loading of an audio/video |
| [loadeddata](http://www.w3schools.com/tags/av_event_loadeddata.asp) | Fires when the browser has loaded the current frame of the audio/video |
| [loadedmetadata](http://www.w3schools.com/tags/av_event_loadedmetadata.asp) | Fires when the browser has loaded meta data for the audio/video |
| [loadstart](http://www.w3schools.com/tags/av_event_loadstart.asp) | Fires when the browser starts looking for the audio/video |
| pause | Fires when the audio/video has been paused |
| play | Fires when the audio/video has been started or is no longer paused |
| playing | Fires when the audio/video is ready to play after having been paused or stopped for buffering |
| [progress](http://www.w3schools.com/tags/av_event_progress.asp) | Fires when the browser is downloading the audio/video |
| ratechange | Fires when the playing speed of the audio/video is changed |
| seeked | Fires when the user is finished moving/skipping to a new position in the audio/video |
| seeking | Fires when the user starts moving/skipping to a new position in the audio/video |
| stalled | Fires when the browser is trying to get media data, but data is not available |
| suspend | Fires when the browser is intentionally not getting media data |
| timeupdate | Fires when the current playback position has changed |
| volumechange | Fires when the volume has been changed |
| waiting | Fires when the video stops because it needs to buffer the next frame |

HTML Elements and Valid DOCTYPES

HTML Elements - Valid DOCTYPES

The table below lists all HTML elements, and shows what [!DOCTYPE](http://www.w3schools.com/tags/tag_doctype.asp) each element appears in.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **HTML 4.01 / XHTML 1.0** | | |  |
| **Tag** | **HTML5** | **Transitional** | **Strict** | **Frameset** | **XHTML 1.1** |
| [<a>](http://www.w3schools.com/tags/tag_a.asp) | Yes | Yes | Yes | Yes | Yes |
| [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) | Yes | Yes | Yes | Yes | Yes |
| [<acronym>](http://www.w3schools.com/tags/tag_acronym.asp) | No | Yes | Yes | Yes | Yes |
| [<address>](http://www.w3schools.com/tags/tag_address.asp) | Yes | Yes | Yes | Yes | Yes |
| [<applet>](http://www.w3schools.com/tags/tag_applet.asp) | No | Yes | No | Yes | No |
| [<area>](http://www.w3schools.com/tags/tag_area.asp) | Yes | Yes | Yes | Yes | No |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Yes | No | No | No | No |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Yes | No | No | No | No |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Yes | No | No | No | No |
| [<b>](http://www.w3schools.com/tags/tag_b.asp) | Yes | Yes | Yes | Yes | Yes |
| [<base>](http://www.w3schools.com/tags/tag_base.asp) | Yes | Yes | Yes | Yes | Yes |
| [<basefont>](http://www.w3schools.com/tags/tag_basefont.asp) | No | Yes | No | Yes | No |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Yes | No | No | No | No |
| [<bdo>](http://www.w3schools.com/tags/tag_bdo.asp) | Yes | Yes | Yes | Yes | No |
| [<big>](http://www.w3schools.com/tags/tag_big.asp) | No | Yes | Yes | Yes | Yes |
| [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) | Yes | Yes | Yes | Yes | Yes |
| [<body>](http://www.w3schools.com/tags/tag_body.asp) | Yes | Yes | Yes | Yes | Yes |
| [<br>](http://www.w3schools.com/tags/tag_br.asp) | Yes | Yes | Yes | Yes | Yes |
| [<button>](http://www.w3schools.com/tags/tag_button.asp) | Yes | Yes | Yes | Yes | Yes |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Yes | No | No | No | No |
| [<caption>](http://www.w3schools.com/tags/tag_caption.asp) | Yes | Yes | Yes | Yes | Yes |
| [<center>](http://www.w3schools.com/tags/tag_center.asp) | No | Yes | No | Yes | No |
| [<cite>](http://www.w3schools.com/tags/tag_cite.asp) | Yes | Yes | Yes | Yes | Yes |
| [<code>](http://www.w3schools.com/tags/tag_code.asp) | Yes | Yes | Yes | Yes | Yes |
| [<col>](http://www.w3schools.com/tags/tag_col.asp) | Yes | Yes | Yes | Yes | No |
| [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) | Yes | Yes | Yes | Yes | No |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Yes | No | No | No | No |
| [<dd>](http://www.w3schools.com/tags/tag_dd.asp) | Yes | Yes | Yes | Yes | Yes |
| [<del>](http://www.w3schools.com/tags/tag_del.asp) | Yes | Yes | Yes | Yes | No |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Yes | No | No | No | No |
| [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) | Yes | Yes | Yes | Yes | Yes |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Yes | No | No | No | No |
| [<dir>](http://www.w3schools.com/tags/tag_dir.asp) | No | Yes | No | Yes | No |
| [<div>](http://www.w3schools.com/tags/tag_div.asp) | Yes | Yes | Yes | Yes | Yes |
| [<dl>](http://www.w3schools.com/tags/tag_dl.asp) | Yes | Yes | Yes | Yes | Yes |
| [<dt>](http://www.w3schools.com/tags/tag_dt.asp) | Yes | Yes | Yes | Yes | Yes |
| [<em>](http://www.w3schools.com/tags/tag_em.asp) | Yes | Yes | Yes | Yes | Yes |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Yes | No | No | No | No |
| [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) | Yes | Yes | Yes | Yes | Yes |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Yes | No | No | No | No |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Yes | No | No | No | No |
| [<font>](http://www.w3schools.com/tags/tag_font.asp) | No | Yes | No | Yes | No |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Yes | No | No | No | No |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Yes | Yes | Yes | Yes | Yes |
| [<frame>](http://www.w3schools.com/tags/tag_frame.asp) | No | No | No | Yes | No |
| [<frameset>](http://www.w3schools.com/tags/tag_frameset.asp) | No | No | No | Yes | No |
| [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) | Yes | Yes | Yes | Yes | Yes |
| [<head>](http://www.w3schools.com/tags/tag_head.asp) | Yes | Yes | Yes | Yes | Yes |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Yes | No | No | No | No |
| [<hr>](http://www.w3schools.com/tags/tag_hr.asp) | Yes | Yes | Yes | Yes | Yes |
| [<html>](http://www.w3schools.com/tags/tag_html.asp) | Yes | Yes | Yes | Yes | Yes |
| [<i>](http://www.w3schools.com/tags/tag_i.asp) | Yes | Yes | Yes | Yes | Yes |
| [<iframe>](http://www.w3schools.com/tags/tag_iframe.asp) | Yes | Yes | No | Yes | No |
| [<img>](http://www.w3schools.com/tags/tag_img.asp) | Yes | Yes | Yes | Yes | Yes |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Yes | Yes | Yes | Yes | Yes |
| [<ins>](http://www.w3schools.com/tags/tag_ins.asp) | Yes | Yes | Yes | Yes | No |
| [<kbd>](http://www.w3schools.com/tags/tag_kbd.asp) | Yes | Yes | Yes | Yes | Yes |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Yes | No | No | No | No |
| [<label>](http://www.w3schools.com/tags/tag_label.asp) | Yes | Yes | Yes | Yes | Yes |
| [<legend>](http://www.w3schools.com/tags/tag_legend.asp) | Yes | Yes | Yes | Yes | Yes |
| [<li>](http://www.w3schools.com/tags/tag_li.asp) | Yes | Yes | Yes | Yes | Yes |
| [<link>](http://www.w3schools.com/tags/tag_link.asp) | Yes | Yes | Yes | Yes | Yes |
| [<main>](http://www.w3schools.com/tags/tag_main.asp) | Yes | No | No | No | No |
| [<map>](http://www.w3schools.com/tags/tag_map.asp) | Yes | Yes | Yes | Yes | No |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Yes | No | No | No | No |
| [<menu>](http://www.w3schools.com/tags/tag_menu.asp) | Yes | Yes | No | Yes | No |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Yes | No | No | No | No |
| [<meta>](http://www.w3schools.com/tags/tag_meta.asp) | Yes | Yes | Yes | Yes | Yes |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Yes | No | No | No | No |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Yes | No | No | No | No |
| [<noframes>](http://www.w3schools.com/tags/tag_noframes.asp) | No | Yes | No | Yes | No |
| [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) | Yes | Yes | Yes | Yes | Yes |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Yes | Yes | Yes | Yes | Yes |
| [<ol>](http://www.w3schools.com/tags/tag_ol.asp) | Yes | Yes | Yes | Yes | Yes |
| [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) | Yes | Yes | Yes | Yes | Yes |
| [<option>](http://www.w3schools.com/tags/tag_option.asp) | Yes | Yes | Yes | Yes | Yes |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Yes | No | No | No | No |
| [<p>](http://www.w3schools.com/tags/tag_p.asp) | Yes | Yes | Yes | Yes | Yes |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Yes | Yes | Yes | Yes | Yes |
| [<pre>](http://www.w3schools.com/tags/tag_pre.asp) | Yes | Yes | Yes | Yes | Yes |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Yes | No | No | No | No |
| [<q>](http://www.w3schools.com/tags/tag_q.asp) | Yes | Yes | Yes | Yes | Yes |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Yes | No | No | No | No |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Yes | No | No | No | No |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Yes | No | No | No | No |
| [<s>](http://www.w3schools.com/tags/tag_s.asp) | Yes | Yes | No | Yes | No |
| [<samp>](http://www.w3schools.com/tags/tag_samp.asp) | Yes | Yes | Yes | Yes | Yes |
| [<script>](http://www.w3schools.com/tags/tag_script.asp) | Yes | Yes | Yes | Yes | Yes |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Yes | No | No | No | No |
| [<select>](http://www.w3schools.com/tags/tag_select.asp) | Yes | Yes | Yes | Yes | Yes |
| [<small>](http://www.w3schools.com/tags/tag_small.asp) | Yes | Yes | Yes | Yes | Yes |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Yes | No | No | No | No |
| [<span>](http://www.w3schools.com/tags/tag_span.asp) | Yes | Yes | Yes | Yes | Yes |
| [<strike>](http://www.w3schools.com/tags/tag_strike.asp) | No | Yes | No | Yes | No |
| [<strong>](http://www.w3schools.com/tags/tag_strong.asp) | Yes | Yes | Yes | Yes | Yes |
| [<style>](http://www.w3schools.com/tags/tag_style.asp) | Yes | Yes | Yes | Yes | Yes |
| [<sub>](http://www.w3schools.com/tags/tag_sub.asp) | Yes | Yes | Yes | Yes | Yes |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Yes | No | No | No | No |
| [<sup>](http://www.w3schools.com/tags/tag_sup.asp) | Yes | Yes | Yes | Yes | Yes |
| [<table>](http://www.w3schools.com/tags/tag_table.asp) | Yes | Yes | Yes | Yes | Yes |
| [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) | Yes | Yes | Yes | Yes | No |
| [<td>](http://www.w3schools.com/tags/tag_td.asp) | Yes | Yes | Yes | Yes | Yes |
| [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp) | Yes | Yes | Yes | Yes | Yes |
| [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) | Yes | Yes | Yes | Yes | No |
| [<th>](http://www.w3schools.com/tags/tag_th.asp) | Yes | Yes | Yes | Yes | Yes |
| [<thead>](http://www.w3schools.com/tags/tag_thead.asp) | Yes | Yes | Yes | Yes | No |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Yes | No | No | No | No |
| [<title>](http://www.w3schools.com/tags/tag_title.asp) | Yes | Yes | Yes | Yes | Yes |
| [<tr>](http://www.w3schools.com/tags/tag_tr.asp) | Yes | Yes | Yes | Yes | Yes |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Yes | No | No | No | No |
| [<tt>](http://www.w3schools.com/tags/tag_tt.asp) | No | Yes | Yes | Yes | Yes |
| [<u>](http://www.w3schools.com/tags/tag_u.asp) | No | Yes | No | Yes | No |
| [<ul>](http://www.w3schools.com/tags/tag_ul.asp) | Yes | Yes | Yes | Yes | Yes |
| [<var>](http://www.w3schools.com/tags/tag_var.asp) | Yes | Yes | Yes | Yes | Yes |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Yes | No | No | No | No |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Yes | No | No | No | No |

HTML Color Names

Color Names Supported by All Browsers

140 color names are defined in the HTML and CSS color specification (17 standard colors plus 123 more). The table below lists them all, along with their hexadecimal values.

|  |  |
| --- | --- |
| **Note** | **Tip:** The 17 standard colors are: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, orange, purple, red, silver, teal, white, and yellow. |

Click on a color name (or a hex value) to view the color as the background-color along with different text colors:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Color Name** | **HEX** | **Color** | **Shades** | **Mix** |
| [AliceBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=AliceBlue) | [#F0F8FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F0F8FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F0F8FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F0F8FF&colortop=FFFFFF) |
| [AntiqueWhite](http://www.w3schools.com/tags/ref_color_tryit.asp?color=AntiqueWhite) | [#FAEBD7](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FAEBD7) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FAEBD7) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FAEBD7&colortop=FFFFFF) |
| [Aqua](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Aqua) | [#00FFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00FFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00FFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00FFFF&colortop=FFFFFF) |
| [Aquamarine](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Aquamarine) | [#7FFFD4](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=7FFFD4) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=7FFFD4) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=7FFFD4&colortop=FFFFFF) |
| [Azure](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Azure) | [#F0FFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F0FFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F0FFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F0FFFF&colortop=FFFFFF) |
| [Beige](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Beige) | [#F5F5DC](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F5F5DC) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F5F5DC) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F5F5DC&colortop=FFFFFF) |
| [Bisque](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Bisque) | [#FFE4C4](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFE4C4) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFE4C4) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFE4C4&colortop=FFFFFF) |
| [Black](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Black) | [#000000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=000000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=000000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=000000&colortop=FFFFFF) |
| [BlanchedAlmond](http://www.w3schools.com/tags/ref_color_tryit.asp?color=BlanchedAlmond) | [#FFEBCD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFEBCD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFEBCD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFEBCD&colortop=FFFFFF) |
| [Blue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Blue) | [#0000FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=0000FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=0000FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=0000FF&colortop=FFFFFF) |
| [BlueViolet](http://www.w3schools.com/tags/ref_color_tryit.asp?color=BlueViolet) | [#8A2BE2](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=8A2BE2) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=8A2BE2) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=8A2BE2&colortop=FFFFFF) |
| [Brown](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Brown) | [#A52A2A](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=A52A2A) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=A52A2A) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=A52A2A&colortop=FFFFFF) |
| [BurlyWood](http://www.w3schools.com/tags/ref_color_tryit.asp?color=BurlyWood) | [#DEB887](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DEB887) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DEB887) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DEB887&colortop=FFFFFF) |
| [CadetBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=CadetBlue) | [#5F9EA0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=5F9EA0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=5F9EA0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=5F9EA0&colortop=FFFFFF) |
| [Chartreuse](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Chartreuse) | [#7FFF00](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=7FFF00) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=7FFF00) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=7FFF00&colortop=FFFFFF) |
| [Chocolate](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Chocolate) | [#D2691E](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=D2691E) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=D2691E) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=D2691E&colortop=FFFFFF) |
| [Coral](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Coral) | [#FF7F50](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF7F50) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF7F50) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF7F50&colortop=FFFFFF) |
| [CornflowerBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=CornflowerBlue) | [#6495ED](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=6495ED) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=6495ED) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=6495ED&colortop=FFFFFF) |
| [Cornsilk](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Cornsilk) | [#FFF8DC](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFF8DC) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFF8DC) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFF8DC&colortop=FFFFFF) |
| [Crimson](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Crimson) | [#DC143C](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DC143C) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DC143C) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DC143C&colortop=FFFFFF) |
| [Cyan](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Cyan) | [#00FFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00FFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00FFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00FFFF&colortop=FFFFFF) |
| [DarkBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkBlue) | [#00008B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00008B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00008B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00008B&colortop=FFFFFF) |
| [DarkCyan](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkCyan) | [#008B8B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=008B8B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=008B8B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=008B8B&colortop=FFFFFF) |
| [DarkGoldenRod](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkGoldenRod) | [#B8860B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=B8860B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=B8860B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=B8860B&colortop=FFFFFF) |
| [DarkGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkGray) | [#A9A9A9](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=A9A9A9) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=A9A9A9) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=A9A9A9&colortop=FFFFFF) |
| [DarkGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkGreen) | [#006400](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=006400) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=006400) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=006400&colortop=FFFFFF) |
| [DarkKhaki](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkKhaki) | [#BDB76B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=BDB76B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=BDB76B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=BDB76B&colortop=FFFFFF) |
| [DarkMagenta](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkMagenta) | [#8B008B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=8B008B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=8B008B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=8B008B&colortop=FFFFFF) |
| [DarkOliveGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkOliveGreen) | [#556B2F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=556B2F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=556B2F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=556B2F&colortop=FFFFFF) |
| [DarkOrange](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkOrange) | [#FF8C00](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF8C00) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF8C00) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF8C00&colortop=FFFFFF) |
| [DarkOrchid](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkOrchid) | [#9932CC](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=9932CC) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=9932CC) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=9932CC&colortop=FFFFFF) |
| [DarkRed](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkRed) | [#8B0000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=8B0000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=8B0000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=8B0000&colortop=FFFFFF) |
| [DarkSalmon](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkSalmon) | [#E9967A](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=E9967A) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=E9967A) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=E9967A&colortop=FFFFFF) |
| [DarkSeaGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkSeaGreen) | [#8FBC8F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=8FBC8F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=8FBC8F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=8FBC8F&colortop=FFFFFF) |
| [DarkSlateBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkSlateBlue) | [#483D8B](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=483D8B) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=483D8B) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=483D8B&colortop=FFFFFF) |
| [DarkSlateGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkSlateGray) | [#2F4F4F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=2F4F4F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=2F4F4F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=2F4F4F&colortop=FFFFFF) |
| [DarkTurquoise](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkTurquoise) | [#00CED1](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00CED1) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00CED1) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00CED1&colortop=FFFFFF) |
| [DarkViolet](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DarkViolet) | [#9400D3](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=9400D3) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=9400D3) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=9400D3&colortop=FFFFFF) |
| [DeepPink](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DeepPink) | [#FF1493](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF1493) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF1493) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF1493&colortop=FFFFFF) |
| [DeepSkyBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DeepSkyBlue) | [#00BFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00BFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00BFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00BFFF&colortop=FFFFFF) |
| [DimGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DimGray) | [#696969](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=696969) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=696969) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=696969&colortop=FFFFFF) |
| [DodgerBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=DodgerBlue) | [#1E90FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=1E90FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=1E90FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=1E90FF&colortop=FFFFFF) |
| [FireBrick](http://www.w3schools.com/tags/ref_color_tryit.asp?color=FireBrick) | [#B22222](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=B22222) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=B22222) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=B22222&colortop=FFFFFF) |
| [FloralWhite](http://www.w3schools.com/tags/ref_color_tryit.asp?color=FloralWhite) | [#FFFAF0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFAF0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFAF0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFAF0&colortop=FFFFFF) |
| [ForestGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=ForestGreen) | [#228B22](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=228B22) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=228B22) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=228B22&colortop=FFFFFF) |
| [Fuchsia](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Fuchsia) | [#FF00FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF00FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF00FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF00FF&colortop=FFFFFF) |
| [Gainsboro](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Gainsboro) | [#DCDCDC](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DCDCDC) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DCDCDC) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DCDCDC&colortop=FFFFFF) |
| [GhostWhite](http://www.w3schools.com/tags/ref_color_tryit.asp?color=GhostWhite) | [#F8F8FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F8F8FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F8F8FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F8F8FF&colortop=FFFFFF) |
| [Gold](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Gold) | [#FFD700](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFD700) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFD700) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFD700&colortop=FFFFFF) |
| [GoldenRod](http://www.w3schools.com/tags/ref_color_tryit.asp?color=GoldenRod) | [#DAA520](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DAA520) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DAA520) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DAA520&colortop=FFFFFF) |
| [Gray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Gray) | [#808080](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=808080) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=808080) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=808080&colortop=FFFFFF) |
| [Green](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Green) | [#008000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=008000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=008000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=008000&colortop=FFFFFF) |
| [GreenYellow](http://www.w3schools.com/tags/ref_color_tryit.asp?color=GreenYellow) | [#ADFF2F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=ADFF2F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=ADFF2F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=ADFF2F&colortop=FFFFFF) |
| [HoneyDew](http://www.w3schools.com/tags/ref_color_tryit.asp?color=HoneyDew) | [#F0FFF0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F0FFF0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F0FFF0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F0FFF0&colortop=FFFFFF) |
| [HotPink](http://www.w3schools.com/tags/ref_color_tryit.asp?color=HotPink) | [#FF69B4](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF69B4) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF69B4) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF69B4&colortop=FFFFFF) |
| [IndianRed](http://www.w3schools.com/tags/ref_color_tryit.asp?color=IndianRed%20) | [#CD5C5C](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=CD5C5C) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=CD5C5C) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=CD5C5C&colortop=FFFFFF) |
| [Indigo](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Indigo%20%20) | [#4B0082](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=4B0082) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=4B0082) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=4B0082&colortop=FFFFFF) |
| [Ivory](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Ivory) | [#FFFFF0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFFF0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFFF0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFFF0&colortop=FFFFFF) |
| [Khaki](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Khaki) | [#F0E68C](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F0E68C) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F0E68C) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F0E68C&colortop=FFFFFF) |
| [Lavender](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Lavender) | [#E6E6FA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=E6E6FA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=E6E6FA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=E6E6FA&colortop=FFFFFF) |
| [LavenderBlush](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LavenderBlush) | [#FFF0F5](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFF0F5) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFF0F5) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFF0F5&colortop=FFFFFF) |
| [LawnGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LawnGreen) | [#7CFC00](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=7CFC00) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=7CFC00) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=7CFC00&colortop=FFFFFF) |
| [LemonChiffon](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LemonChiffon) | [#FFFACD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFACD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFACD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFACD&colortop=FFFFFF) |
| [LightBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightBlue) | [#ADD8E6](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=ADD8E6) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=ADD8E6) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=ADD8E6&colortop=FFFFFF) |
| [LightCoral](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightCoral) | [#F08080](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F08080) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F08080) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F08080&colortop=FFFFFF) |
| [LightCyan](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightCyan) | [#E0FFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=E0FFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=E0FFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=E0FFFF&colortop=FFFFFF) |
| [LightGoldenRodYellow](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightGoldenRodYellow) | [#FAFAD2](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FAFAD2) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FAFAD2) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FAFAD2&colortop=FFFFFF) |
| [LightGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightGray) | [#D3D3D3](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=D3D3D3) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=D3D3D3) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=D3D3D3&colortop=FFFFFF) |
| [LightGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightGreen) | [#90EE90](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=90EE90) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=90EE90) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=90EE90&colortop=FFFFFF) |
| [LightPink](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightPink) | [#FFB6C1](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFB6C1) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFB6C1) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFB6C1&colortop=FFFFFF) |
| [LightSalmon](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightSalmon) | [#FFA07A](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFA07A) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFA07A) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFA07A&colortop=FFFFFF) |
| [LightSeaGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightSeaGreen) | [#20B2AA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=20B2AA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=20B2AA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=20B2AA&colortop=FFFFFF) |
| [LightSkyBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightSkyBlue) | [#87CEFA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=87CEFA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=87CEFA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=87CEFA&colortop=FFFFFF) |
| [LightSlateGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightSlateGray) | [#778899](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=778899) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=778899) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=778899&colortop=FFFFFF) |
| [LightSteelBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightSteelBlue) | [#B0C4DE](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=B0C4DE) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=B0C4DE) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=B0C4DE&colortop=FFFFFF) |
| [LightYellow](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LightYellow) | [#FFFFE0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFFE0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFFE0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFFE0&colortop=FFFFFF) |
| [Lime](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Lime) | [#00FF00](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00FF00) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00FF00) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00FF00&colortop=FFFFFF) |
| [LimeGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=LimeGreen) | [#32CD32](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=32CD32) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=32CD32) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=32CD32&colortop=FFFFFF) |
| [Linen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Linen) | [#FAF0E6](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FAF0E6) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FAF0E6) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FAF0E6&colortop=FFFFFF) |
| [Magenta](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Magenta) | [#FF00FF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF00FF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF00FF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF00FF&colortop=FFFFFF) |
| [Maroon](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Maroon) | [#800000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=800000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=800000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=800000&colortop=FFFFFF) |
| [MediumAquaMarine](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumAquaMarine) | [#66CDAA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=66CDAA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=66CDAA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=66CDAA&colortop=FFFFFF) |
| [MediumBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumBlue) | [#0000CD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=0000CD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=0000CD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=0000CD&colortop=FFFFFF) |
| [MediumOrchid](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumOrchid) | [#BA55D3](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=BA55D3) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=BA55D3) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=BA55D3&colortop=FFFFFF) |
| [MediumPurple](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumPurple) | [#9370DB](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=9370DB) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=9370DB) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=9370DB&colortop=FFFFFF) |
| [MediumSeaGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumSeaGreen) | [#3CB371](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=3CB371) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=3CB371) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=3CB371&colortop=FFFFFF) |
| [MediumSlateBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumSlateBlue) | [#7B68EE](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=7B68EE) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=7B68EE) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=7B68EE&colortop=FFFFFF) |
| [MediumSpringGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumSpringGreen) | [#00FA9A](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00FA9A) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00FA9A) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00FA9A&colortop=FFFFFF) |
| [MediumTurquoise](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumTurquoise) | [#48D1CC](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=48D1CC) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=48D1CC) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=48D1CC&colortop=FFFFFF) |
| [MediumVioletRed](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MediumVioletRed) | [#C71585](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=C71585) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=C71585) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=C71585&colortop=FFFFFF) |
| [MidnightBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MidnightBlue) | [#191970](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=191970) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=191970) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=191970&colortop=FFFFFF) |
| [MintCream](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MintCream) | [#F5FFFA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F5FFFA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F5FFFA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F5FFFA&colortop=FFFFFF) |
| [MistyRose](http://www.w3schools.com/tags/ref_color_tryit.asp?color=MistyRose) | [#FFE4E1](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFE4E1) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFE4E1) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFE4E1&colortop=FFFFFF) |
| [Moccasin](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Moccasin) | [#FFE4B5](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFE4B5) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFE4B5) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFE4B5&colortop=FFFFFF) |
| [NavajoWhite](http://www.w3schools.com/tags/ref_color_tryit.asp?color=NavajoWhite) | [#FFDEAD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFDEAD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFDEAD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFDEAD&colortop=FFFFFF) |
| [Navy](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Navy) | [#000080](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=000080) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=000080) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=000080&colortop=FFFFFF) |
| [OldLace](http://www.w3schools.com/tags/ref_color_tryit.asp?color=OldLace) | [#FDF5E6](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FDF5E6) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FDF5E6) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FDF5E6&colortop=FFFFFF) |
| [Olive](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Olive) | [#808000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=808000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=808000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=808000&colortop=FFFFFF) |
| [OliveDrab](http://www.w3schools.com/tags/ref_color_tryit.asp?color=OliveDrab) | [#6B8E23](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=6B8E23) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=6B8E23) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=6B8E23&colortop=FFFFFF) |
| [Orange](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Orange) | [#FFA500](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFA500) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFA500) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFA500&colortop=FFFFFF) |
| [OrangeRed](http://www.w3schools.com/tags/ref_color_tryit.asp?color=OrangeRed) | [#FF4500](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF4500) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF4500) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF4500&colortop=FFFFFF) |
| [Orchid](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Orchid) | [#DA70D6](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DA70D6) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DA70D6) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DA70D6&colortop=FFFFFF) |
| [PaleGoldenRod](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PaleGoldenRod) | [#EEE8AA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=EEE8AA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=EEE8AA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=EEE8AA&colortop=FFFFFF) |
| [PaleGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PaleGreen) | [#98FB98](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=98FB98) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=98FB98) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=98FB98&colortop=FFFFFF) |
| [PaleTurquoise](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PaleTurquoise) | [#AFEEEE](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=AFEEEE) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=AFEEEE) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=AFEEEE&colortop=FFFFFF) |
| [PaleVioletRed](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PaleVioletRed) | [#DB7093](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DB7093) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DB7093) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DB7093&colortop=FFFFFF) |
| [PapayaWhip](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PapayaWhip) | [#FFEFD5](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFEFD5) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFEFD5) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFEFD5&colortop=FFFFFF) |
| [PeachPuff](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PeachPuff) | [#FFDAB9](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFDAB9) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFDAB9) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFDAB9&colortop=FFFFFF) |
| [Peru](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Peru) | [#CD853F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=CD853F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=CD853F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=CD853F&colortop=FFFFFF) |
| [Pink](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Pink) | [#FFC0CB](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFC0CB) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFC0CB) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFC0CB&colortop=FFFFFF) |
| [Plum](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Plum) | [#DDA0DD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=DDA0DD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=DDA0DD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=DDA0DD&colortop=FFFFFF) |
| [PowderBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=PowderBlue) | [#B0E0E6](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=B0E0E6) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=B0E0E6) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=B0E0E6&colortop=FFFFFF) |
| [Purple](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Purple) | [#800080](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=800080) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=800080) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=800080&colortop=FFFFFF) |
| [Red](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Red) | [#FF0000](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF0000) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF0000) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF0000&colortop=FFFFFF) |
| [RosyBrown](http://www.w3schools.com/tags/ref_color_tryit.asp?color=RosyBrown) | [#BC8F8F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=BC8F8F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=BC8F8F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=BC8F8F&colortop=FFFFFF) |
| [RoyalBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=RoyalBlue) | [#4169E1](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=4169E1) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=4169E1) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=4169E1&colortop=FFFFFF) |
| [SaddleBrown](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SaddleBrown) | [#8B4513](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=8B4513) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=8B4513) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=8B4513&colortop=FFFFFF) |
| [Salmon](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Salmon) | [#FA8072](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FA8072) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FA8072) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FA8072&colortop=FFFFFF) |
| [SandyBrown](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SandyBrown) | [#F4A460](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F4A460) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F4A460) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F4A460&colortop=FFFFFF) |
| [SeaGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SeaGreen) | [#2E8B57](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=2E8B57) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=2E8B57) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=2E8B57&colortop=FFFFFF) |
| [SeaShell](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SeaShell) | [#FFF5EE](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFF5EE) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFF5EE) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFF5EE&colortop=FFFFFF) |
| [Sienna](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Sienna) | [#A0522D](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=A0522D) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=A0522D) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=A0522D&colortop=FFFFFF) |
| [Silver](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Silver) | [#C0C0C0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=C0C0C0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=C0C0C0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=C0C0C0&colortop=FFFFFF) |
| [SkyBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SkyBlue) | [#87CEEB](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=87CEEB) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=87CEEB) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=87CEEB&colortop=FFFFFF) |
| [SlateBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SlateBlue) | [#6A5ACD](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=6A5ACD) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=6A5ACD) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=6A5ACD&colortop=FFFFFF) |
| [SlateGray](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SlateGray) | [#708090](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=708090) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=708090) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=708090&colortop=FFFFFF) |
| [Snow](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Snow) | [#FFFAFA](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFAFA) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFAFA) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFAFA&colortop=FFFFFF) |
| [SpringGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SpringGreen) | [#00FF7F](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=00FF7F) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=00FF7F) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=00FF7F&colortop=FFFFFF) |
| [SteelBlue](http://www.w3schools.com/tags/ref_color_tryit.asp?color=SteelBlue) | [#4682B4](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=4682B4) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=4682B4) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=4682B4&colortop=FFFFFF) |
| [Tan](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Tan) | [#D2B48C](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=D2B48C) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=D2B48C) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=D2B48C&colortop=FFFFFF) |
| [Teal](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Teal) | [#008080](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=008080) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=008080) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=008080&colortop=FFFFFF) |
| [Thistle](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Thistle) | [#D8BFD8](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=D8BFD8) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=D8BFD8) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=D8BFD8&colortop=FFFFFF) |
| [Tomato](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Tomato) | [#FF6347](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FF6347) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FF6347) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FF6347&colortop=FFFFFF) |
| [Turquoise](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Turquoise) | [#40E0D0](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=40E0D0) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=40E0D0) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=40E0D0&colortop=FFFFFF) |
| [Violet](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Violet) | [#EE82EE](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=EE82EE) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=EE82EE) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=EE82EE&colortop=FFFFFF) |
| [Wheat](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Wheat) | [#F5DEB3](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F5DEB3) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F5DEB3) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F5DEB3&colortop=FFFFFF) |
| [White](http://www.w3schools.com/tags/ref_color_tryit.asp?color=White) | [#FFFFFF](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFFFF) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFFFF) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFFFF&colortop=FFFFFF) |
| [WhiteSmoke](http://www.w3schools.com/tags/ref_color_tryit.asp?color=WhiteSmoke) | [#F5F5F5](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=F5F5F5) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=F5F5F5) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=F5F5F5&colortop=FFFFFF) |
| [Yellow](http://www.w3schools.com/tags/ref_color_tryit.asp?color=Yellow) | [#FFFF00](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=FFFF00) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=FFFF00) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=FFFF00&colortop=FFFFFF) |
| [YellowGreen](http://www.w3schools.com/tags/ref_color_tryit.asp?color=YellowGreen) | [#9ACD32](http://www.w3schools.com/tags/ref_color_tryit.asp?hex=9ACD32) |  | [Shades](http://www.w3schools.com/tags/ref_colorpicker.asp?colorhex=9ACD32) | [Mix](http://www.w3schools.com/tags/ref_colormixer.asp?colorbottom=9ACD32&colortop=FFFFFF) |

HTML Color Picker

Get darker/lighter shades of any color.

Top of Form

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Select color:  colormap    #FF0000  Selected color: | |  |  |  |  | | --- | --- | --- | --- | |  | Darker/lighter shades: | Hex values: | | |  |  |  | #000000 | |  |  |  | #1A0000 | |  |  |  | #330000 | |  |  |  | #4C0000 | |  |  |  | #660000 | |  |  |  | #800000 | |  |  |  | #990000 | |  |  |  | #B20000 | |  |  |  | #CC0000 | |  |  |  | #E60000 | |  | | | #FF0000 | |  |  |  | #FF1919 | |  |  |  | #FF3333 | |  |  |  | #FF4D4D | |  |  |  | #FF6666 | |  |  |  | #FF8080 | |  |  |  | #FF9999 | |  |  |  | #FFB2B2 | |  |  |  | #FFCCCC | |  |  |  | #FFE6E6 | |  |  |  | #FFFFFF | |

Bottom of Form

HTML Color Mixer

Mix two colors and see the result.

Top of Form

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Select colors:  colormap | |  | | --- | | Top color: | | |  |  | | --- | --- | |  | #FF0000 | |  | #F2000D | |  | #E6001A | |  | #D90026 | |  | #CC0033 | |  | #BF0040 | |  | #B2004C | |  | #A60059 | |  | #990066 | |  | #8C0073 | |  | #800080 | |  | #73008C | |  | #660099 | |  | #5900A6 | |  | #4D00B2 | |  | #4000BF | |  | #3300CC | |  | #2600D9 | |  | #1900E6 | |  | #0D00F2 | |  | #0000FF | | | Bottom color: | |
| #FF0000    #0000FF |
| colormap |

HTML Character Sets

To display an HTML page correctly, the browser must know what character set (character encoding) to use.

HTML Character Sets

What is the correct character encoding to use in HTML?

**For HTML5, the default character encoding is UTF-8.**

This has not always been the case. The character encoding for the early web was ASCII.

Later, from HTML 2.0 to HTML 4.01, ISO-8859-1 was considered the standard.

With XML and HTML5, UTF-8 finally arrived, and solved a lot of character encoding problems.

Below is a brief description of the character encoding standards.

In the Beginning: ASCII

Computer information (numbers, texts, and pictures) is stored as binary ones and zeros (01000101) in the electronics.

To standardize the storing of alphanumeric characters, the American Standard Code for Information Interchange (ASCII) was created. It defined a unique binary 7-bits number for each storable character to support the numbers from 0-9, the upper/lower case English alphabet (a-z, A-Z), and some special characters like ! $ + - ( ) @ < > .

Since ASCII used one byte (7 bits for the character, and one of bit for transmission parity control), it could only represent 128 different characters. In addition 32 of these characters were reserved for other control purposes.

The biggest weakness with ASCII was that it excluded non English letters.

ASCII is still in widespread use today, especially in large mainframe computer systems.

For a closer look, please study our [Complete ASCII Reference](http://www.w3schools.com/charsets/ref_html_ascii.asp).

In Windows: ANSI

ANSI (also called Windows-1252) was the default character set in Windows, up to Windows 95.

ANSI is an extension to ASCII, with added international characters. It uses a full byte (8-bits) to represent 256 different characters.

Since ANSI has been the default character set in Windows, it is supported by all browsers.

For a closer look, please study our [Complete ANSI Reference](http://www.w3schools.com/charsets/ref_html_ansi.asp).

In HTML 4: ISO-8859-1

Since most countries use characters outside ASCII, the default character encoding in the HTML 2.0 standard was changed to ISO-8859-1.

ISO-8859-1 is an extension to ASCII, with added international characters. Like ANSI, it uses a full byte to represent twice as many characters than ASCII.

|  |  |
| --- | --- |
| **Note** | When browsers detect ISO-8859-1 in a web page, they normally default to ANSI, because ANSI is identical to ISO-8859-1 except that ANSI has 32 extra characters. |

If an HTML 4 web page uses a different character-set than ISO-8859-1, it should be specified in the <meta> tag like:

Example

<meta http-equiv="Content-Type" content="text/html;charset=ISO-8859-8">

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_charsets)

|  |  |
| --- | --- |
| **Note** | The default character set for HTML5 is UTF-8. All HTML 4 processors support UTF-8, and all HTML5 and XML processors support both UTF-8 and UTF-16. |

For a closer look, please study our [Complete ISO-8859-1 Reference](http://www.w3schools.com/charsets/ref_html_8859.asp).

In HTML5: Unicode UTF-8

Because the character sets listed above are limited, and not compatible in multilingual environments, the Unicode Consortium developed the Unicode Standard.

The Unicode Standard covers (almost) all the characters, punctuations, and symbols in the world.

Unicode enables processing, storage, and transport of text, independent of platform and language.

**The default character encoding in HTML5 is UTF-8.**

For a closer look, please study our [Complete Unicode Reference](http://www.w3schools.com/charsets/ref_html_utf8.asp).

HTML URL Encoding Reference

URL encoding converts characters into a format that can be transmitted over the Internet.

URL - Uniform Resource Locator

Web browsers request pages from web servers by using a URL.

The URL is the address of a web page, like: **http://www.w3schools.com.**

URL Encoding

URLs can only be sent over the Internet using the [ASCII character-set](http://www.w3schools.com/charsets/ref_html_ascii.asp).

Since URLs often contain characters outside the ASCII set, the URL has to be converted into a valid ASCII format.

URL encoding replaces unsafe ASCII characters with a "%" followed by two hexadecimal digits.

URLs cannot contain spaces. URL encoding normally replaces a space with a plus (+) sign or with %20.

Try It Yourself

If you click the "Submit" button below, the browser will URL encode the input before it is sent to the server. A page at the server will display the received input.

Top of Form



Bottom of Form

Try some other input and click Submit again.

URL Encoding Functions

In JavaScript, PHP, and ASP there are functions that can be used to URL encode a string.

In JavaScript you can use the encodeURI() function. PHP has the rawurlencode() function and ASP has the Server.URLEncode() function.

Click the "URL Encode" button to see how the JavaScript function encodes the text.

Top of Form



Bottom of Form

**Note:** The JavaScript function encodes space as %20.

URL Encoding Reference

|  |  |
| --- | --- |
| **ASCII Character** | **URL-encoding** |
| space | %20 |
| ! | %21 |
| " | %22 |
| # | %23 |
| $ | %24 |
| % | %25 |
| & | %26 |
| ' | %27 |
| ( | %28 |
| ) | %29 |
| \* | %2A |
| + | %2B |
| , | %2C |
| - | %2D |
| . | %2E |
| / | %2F |
| 0 | %30 |
| 1 | %31 |
| 2 | %32 |
| 3 | %33 |
| 4 | %34 |
| 5 | %35 |
| 6 | %36 |
| 7 | %37 |
| 8 | %38 |
| 9 | %39 |
| : | %3A |
| ; | %3B |
| < | %3C |
| = | %3D |
| > | %3E |
| ? | %3F |
| @ | %40 |
| A | %41 |
| B | %42 |
| C | %43 |
| D | %44 |
| E | %45 |
| F | %46 |
| G | %47 |
| H | %48 |
| I | %49 |
| J | %4A |
| K | %4B |
| L | %4C |
| M | %4D |
| N | %4E |
| O | %4F |
| P | %50 |
| Q | %51 |
| R | %52 |
| S | %53 |
| T | %54 |
| U | %55 |
| V | %56 |
| W | %57 |
| X | %58 |
| Y | %59 |
| Z | %5A |
| [ | %5B |
| \ | %5C |
| ] | %5D |
| ^ | %5E |
| \_ | %5F |
| ` | %60 |
| a | %61 |
| b | %62 |
| c | %63 |
| d | %64 |
| e | %65 |
| f | %66 |
| g | %67 |
| h | %68 |
| i | %69 |
| j | %6A |
| k | %6B |
| l | %6C |
| m | %6D |
| n | %6E |
| o | %6F |
| p | %70 |
| q | %71 |
| r | %72 |
| s | %73 |
| t | %74 |
| u | %75 |
| v | %76 |
| w | %77 |
| x | %78 |
| y | %79 |
| z | %7A |
| { | %7B |
| | | %7C |
| } | %7D |
| ~ | %7E |
|  | %7F |
| ` | %80 |
|  | %81 |
| ‚ | %82 |
| ƒ | %83 |
| „ | %84 |
| … | %85 |
| † | %86 |
| ‡ | %87 |
| ˆ | %88 |
| ‰ | %89 |
| Š | %8A |
| ‹ | %8B |
| Œ | %8C |
|  | %8D |
| Ž | %8E |
|  | %8F |
|  | %90 |
| ‘ | %91 |
| ’ | %92 |
| “ | %93 |
| ” | %94 |
| • | %95 |
| – | %96 |
| — | %97 |
| ˜ | %98 |
| ™ | %99 |
| š | %9A |
| › | %9B |
| œ | %9C |
|  | %9D |
| ž | %9E |
| Ÿ | %9F |
|  | %A0 |
| ¡ | %A1 |
| ¢ | %A2 |
| £ | %A3 |
| ¤ | %A4 |
| ¥ | %A5 |
| ¦ | %A6 |
| § | %A7 |
| ¨ | %A8 |
| © | %A9 |
| ª | %AA |
| « | %AB |
| ¬ | %AC |
| ­ | %AD |
| ® | %AE |
| ¯ | %AF |
| ° | %B0 |
| ± | %B1 |
| ² | %B2 |
| ³ | %B3 |
| ´ | %B4 |
| µ | %B5 |
| ¶ | %B6 |
| · | %B7 |
| ¸ | %B8 |
| ¹ | %B9 |
| º | %BA |
| » | %BB |
| ¼ | %BC |
| ½ | %BD |
| ¾ | %BE |
| ¿ | %BF |
| À | %C0 |
| Á | %C1 |
| Â | %C2 |
| Ã | %C3 |
| Ä | %C4 |
| Å | %C5 |
| Æ | %C6 |
| Ç | %C7 |
| È | %C8 |
| É | %C9 |
| Ê | %CA |
| Ë | %CB |
| Ì | %CC |
| Í | %CD |
| Î | %CE |
| Ï | %CF |
| Ð | %D0 |
| Ñ | %D1 |
| Ò | %D2 |
| Ó | %D3 |
| Ô | %D4 |
| Õ | %D5 |
| Ö | %D6 |
| × | %D7 |
| Ø | %D8 |
| Ù | %D9 |
| Ú | %DA |
| Û | %DB |
| Ü | %DC |
| Ý | %DD |
| Þ | %DE |
| ß | %DF |
| à | %E0 |
| á | %E1 |
| â | %E2 |
| ã | %E3 |
| ä | %E4 |
| å | %E5 |
| æ | %E6 |
| ç | %E7 |
| è | %E8 |
| é | %E9 |
| ê | %EA |
| ë | %EB |
| ì | %EC |
| í | %ED |
| î | %EE |
| ï | %EF |
| ð | %F0 |
| ñ | %F1 |
| ò | %F2 |
| ó | %F3 |
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| õ | %F5 |
| ö | %F6 |
| ÷ | %F7 |
| ø | %F8 |
| ù | %F9 |
| ú | %FA |
| û | %FB |
| ü | %FC |
| ý | %FD |
| þ | %FE |
| ÿ | %FF |

URL Encoding Reference

The ASCII device control characters %00-%1f were originally designed to control hardware devices. Control characters have nothing to do inside a URL.

|  |  |  |
| --- | --- | --- |
| **ASCII Character** | **Description** | **URL-encoding** |
| NUL | null character | %00 |
| SOH | start of header | %01 |
| STX | start of text | %02 |
| ETX | end of text | %03 |
| EOT | end of transmission | %04 |
| ENQ | enquiry | %05 |
| ACK | acknowledge | %06 |
| BEL | bell (ring) | %07 |
| BS | backspace | %08 |
| HT | horizontal tab | %09 |
| LF | line feed | %0A |
| VT | vertical tab | %0B |
| FF | form feed | %0C |
| CR | carriage return | %0D |
| SO | shift out | %0E |
| SI | shift in | %0F |
| DLE | data link escape | %10 |
| DC1 | device control 1 | %11 |
| DC2 | device control 2 | %12 |
| DC3 | device control 3 | %13 |
| DC4 | device control 4 | %14 |
| NAK | negative acknowledge | %15 |
| SYN | synchronize | %16 |
| ETB | end transmission block | %17 |
| CAN | cancel | %18 |
| EM | end of medium | %19 |
| SUB | substitute | %1A |
| ESC | escape | %1B |
| FS | file separator | %1C |
| GS | group separator | %1D |
| RS | record separator | %1E |
| US | unit separator | %1F |

HTML Language Code Reference

ISO Language Codes

The HTML lang attribute can be used to declare the language of a Web page or a portion of a Web page. This is meant to assist search engines and browsers.

According to the W3C recommendation you should declare the primary language for each Web page with the lang attribute inside the <html> tag, like this:

<html lang="en">  
...  
</html>

In XHTML, the language is declared inside the <html> tag as follows:

<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">  
...  
</html>

ISO 639-1 Language Codes

ISO 639-1 defines abbreviations for languages.

In HTML and XHTML they can be used in the lang and xml:lang attributes.

See also: next reference for country codes.

|  |  |
| --- | --- |
| **Language** | **ISO Code** |
| Abkhazian | ab |
| Afar | aa |
| Afrikaans | af |
| Albanian | sq |
| Amharic | am |
| Arabic | ar |
| Aragonese | an |
| Armenian | hy |
| Assamese | as |
| Aymara | ay |
| Azerbaijani | az |
| Bashkir | ba |
| Basque | eu |
| Bengali (Bangla) | bn |
| Bhutani | dz |
| Bihari | bh |
| Bislama | bi |
| Breton | br |
| Bulgarian | bg |
| Burmese | my |
| Byelorussian (Belarusian) | be |
| Cambodian | km |
| Catalan | ca |
| Cherokee |  |
| Chewa |  |
| Chinese | zh |
| Chinese (Simplified) | zh-Hans |
| Chinese (Traditional) | zh-Hant |
| Corsican | co |
| Croatian | hr |
| Czech | cs |
| Danish | da |
| Divehi |  |
| Dutch | nl |
| Edo |  |
| English | en |
| Esperanto | eo |
| Estonian | et |
| Faeroese | fo |
| Farsi | fa |
| Fiji | fj |
| Finnish | fi |
| Flemish |  |
| French | fr |
| Frisian | fy |
| Fulfulde |  |
| Galician | gl |
| Gaelic (Scottish) | gd |
| Gaelic (Manx) | gv |
| Georgian | ka |
| German | de |
| Greek | el |
| Greenlandic | kl |
| Guarani | gn |
| Gujarati | gu |
| Haitian Creole | ht |
| Hausa | ha |
| Hawaiian |  |
| Hebrew | he, iw |
| Hindi | hi |
| Hungarian | hu |
| Ibibio |  |
| Icelandic | is |
| Ido | io |
| Igbo |  |
| Indonesian | id, in |
| Interlingua | ia |
| Interlingue | ie |
| Inuktitut | iu |
| Inupiak | ik |
| Irish | ga |
| Italian | it |
| Japanese | ja |
| Javanese | jv |
| Kannada | kn |
| Kanuri |  |
| Kashmiri | ks |
| Kazakh | kk |
| Kinyarwanda (Ruanda) | rw |
| Kirghiz | ky |
| Kirundi (Rundi) | rn |
| Konkani |  |
| Korean | ko |
| Kurdish | ku |
| Laothian | lo |
| Latin | la |
| Latvian (Lettish) | lv |
| Limburgish ( Limburger) | li |
| Lingala | ln |
| Lithuanian | lt |
| Macedonian | mk |
| Malagasy | mg |
| Malay | ms |
| Malayalam | ml |
| Maltese | mt |
| Maori | mi |
| Marathi | mr |
| Moldavian | mo |
| Mongolian | mn |
| Nauru | na |
| Nepali | ne |
| Norwegian | no |
| Occitan | oc |
| Oriya | or |
| Oromo (Afaan Oromo) | om |
| Papiamentu |  |
| Pashto (Pushto) | ps |
| Polish | pl |
| Portuguese | pt |
| Punjabi | pa |
| Quechua | qu |
| Rhaeto-Romance | rm |
| Romanian | ro |
| Russian | ru |
| Sami (Lappish) |  |
| Samoan | sm |
| Sangro | sg |
| Sanskrit | sa |
| Serbian | sr |
| Serbo-Croatian | sh |
| Sesotho | st |
| Setswana | tn |
| Shona | sn |
| Sichuan Yi | ii |
| Sindhi | sd |
| Sinhalese | si |
| Siswati | ss |
| Slovak | sk |
| Slovenian | sl |
| Somali | so |
| Spanish | es |
| Sundanese | su |
| Swahili (Kiswahili) | sw |
| Swedish | sv |
| Syriac |  |
| Tagalog | tl |
| Tajik | tg |
| Tamazight |  |
| Tamil | ta |
| Tatar | tt |
| Telugu | te |
| Thai | th |
| Tibetan | bo |
| Tigrinya | ti |
| Tonga | to |
| Tsonga | ts |
| Turkish | tr |
| Turkmen | tk |
| Twi | tw |
| Uighur | ug |
| Ukrainian | uk |
| Urdu | ur |
| Uzbek | uz |
| Venda |  |
| Vietnamese | vi |
| Volapük | vo |
| Wallon | wa |
| Welsh | cy |
| Wolof | wo |
| Xhosa | xh |
| Yi |  |
| Yiddish | yi, ji |
| Yoruba | yo |
| Zulu | zu |

HTML ISO Country Codes Reference

ISO Country Codes

ISO country codes define abbreviations for countries.

In HTML they can be used as an addition to the language value in the lang attribute.

The first two characters of a language code defines the **language**. (see previous reference)

The last two defines the **country**.

<html lang="en**-US**">  
...  
</html>

ISO Country Codes

|  |  |
| --- | --- |
| **Country** | **ISO Code** |
| AFGHANISTAN | AF |
| ALBANIA | AL |
| ALGERIA | DZ |
| AMERICAN SAMOA | AS |
| ANDORRA | AD |
| ANGOLA | AO |
| ANTARCTICA | AQ |
| ANTIGUA AND BARBUDA | AG |
| ARGENTINA | AR |
| ARMENIA | AM |
| ARUBA | AW |
| AUSTRALIA | AU |
| AUSTRIA | AT |
| AZERBAIJAN | AZ |
| BAHAMAS | BS |
| BAHRAIN | BH |
| BANGLADESH | BD |
| BARBADOS | BB |
| BELARUS | BY |
| BELGIUM | BE |
| BELIZE | BZ |
| BENIN | BJ |
| BERMUDA | BM |
| BHUTAN | BT |
| BOLIVIA | BO |
| BOSNIA AND HERZEGOVINA | BA |
| BOTSWANA | BW |
| BOUVET ISLAND | BV |
| BRAZIL | BR |
| BRITISH INDIAN OCEAN TERRITORY | IO |
| BRUNEI DARUSSALAM | BN |
| BULGARIA | BG |
| BURKINA FASO | BF |
| BURUNDI | BI |
| CAMBODIA | KH |
| CAMEROON | CM |
| CANADA | CA |
| CAPE VERDE | CV |
| CAYMAN ISLANDS | KY |
| CENTRAL AFRICAN REPUBLIC | CF |
| CHAD | TD |
| CHILE | CL |
| CHINA | CN |
| CHRISTMAS ISLAND | CX |
| COCOS (KEELING) ISLANDS | CC |
| COLOMBIA | CO |
| COMOROS | KM |
| CONGO | CG |
| CONGO, THE DEMOCRATIC REPUBLIC OF THE | CD |
| COOK ISLANDS | CK |
| COSTA RICA | CR |
| CÔTE D'IVOIRE | CI |
| CROATIA | HR |
| CUBA | CU |
| CYPRUS | CY |
| CZECH REPUBLIC | CZ |
| DENMARK | DK |
| DJIBOUTI | DJ |
| DOMINICA | DM |
| DOMINICAN REPUBLIC | DO |
| ECUADOR | EC |
| EGYPT | EG |
| EL SALVADOR | SV |
| EQUATORIAL GUINEA | GQ |
| ERITREA | ER |
| ESTONIA | EE |
| ETHIOPIA | ET |
| FALKLAND ISLANDS (MALVINAS) | FK |
| FAROE ISLANDS | FO |
| FIJI | FJ |
| FINLAND | FI |
| FRANCE | FR |
| FRENCH GUIANA | GF |
| FRENCH POLYNESIA | PF |
| FRENCH SOUTHERN TERRITORIES | TF |
| GABON | GA |
| GAMBIA | GM |
| GEORGIA | GE |
| GERMANY | DE |
| GHANA | GH |
| GIBRALTAR | GI |
| GREECE | GR |
| GREENLAND | GL |
| GRENADA | GD |
| GUADELOUPE | GP |
| GUAM | GU |
| GUATEMALA | GT |
| GUINEA | GN |
| GUINEA-BISSAU | GW |
| GUYANA | GY |
| HAITI | HT |
| HEARD ISLAND AND MCDONALD ISLANDS | HM |
| HONDURAS | HN |
| HONG KONG | HK |
| HUNGARY | HU |
| ICELAND | IS |
| INDIA | IN |
| INDONESIA | ID |
| IRAN, ISLAMIC REPUBLIC OF | IR |
| IRAQ | IQ |
| IRELAND | IE |
| ISRAEL | IL |
| ITALY | IT |
| JAMAICA | JM |
| JAPAN | JP |
| JORDAN | JO |
| KAZAKHSTAN | KZ |
| KENYA | KE |
| KIRIBATI | KI |
| KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF | KP |
| KOREA, REPUBLIC OF | KR |
| KUWAIT | KW |
| KYRGYZSTAN | KG |
| LAO PEOPLE'S DEMOCRATIC REPUBLIC | LA |
| LATVIA | LV |
| LEBANON | LB |
| LESOTHO | LS |
| LIBERIA | LR |
| LIBYAN ARAB JAMAHIRIYA | LY |
| LIECHTENSTEIN | LI |
| LITHUANIA | LT |
| LUXEMBOURG | LU |
| MACAO | MO |
| MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF | MK |
| MADAGASCAR | MG |
| MALAWI | MW |
| MALAYSIA | MY |
| MALDIVES | MV |
| MALI | ML |
| MALTA | MT |
| MARSHALL ISLANDS | MH |
| MARTINIQUE | MQ |
| MAURITANIA | MR |
| MAURITIUS | MU |
| MAYOTTE | YT |
| MEXICO | MX |
| MICRONESIA, FEDERATED STATES OF | FM |
| MOLDOVA, REPUBLIC OF | MD |
| MONACO | MD |
| MONGOLIA | < MN>MN |
| MONTSERRAT | MS |
| MOROCCO | MA |
| MOZAMBIQUE | MZ |
| MYANMAR | MM |
| NAMIBIA | NA |
| NAURU | NR |
| NEPAL | NP |
| NETHERLANDS | NL |
| NETHERLANDS ANTILLES | AN |
| NEW CALEDONIA | NC |
| NEW ZEALAND | NZ |
| NICARAGUA | NI |
| NIGER | NE |
| NIGERIA | NG |
| NIUE | NU |
| NORFOLK ISLAND | NF |
| NORTHERN MARIANA ISLANDS | MP |
| NORWAY | NO |
| OMAN | OM |
| PAKISTAN | PK |
| PALAU | PW |
| PALESTINIAN TERRITORY, OCCUPIED | PS |
| PANAMA | PA |
| PAPUA NEW GUINEA | PG |
| PARAGUAY | PY |
| PERU | PE |
| PHILIPPINES | PH |
| PITCAIRN | PN |
| POLAND | PL |
| PUERTO RICO | PR |
| QATAR | QA |
| RÉUNION | RE |
| ROMANIA | RO |
| RUSSIAN FEDERATION | RU |
| RWANDA | RW |
| SAINT HELENA | SH |
| SAINT KITTS AND NEVIS | KN |
| SAINT LUCIA | LC |
| SAINT PIERRE AND MIQUELON | PM |
| SAINT VINCENT AND THE GRENADINES | VC |
| SAMOA | WS |
| SAN MARINO | SM |
| SAO TOME AND PRINCIPE | ST |
| SAUDI ARABIA | SA |
| SENEGAL | SN |
| SERBIA AND MONTENEGRO | CS |
| SEYCHELLES | SC |
| SIERRA LEONE | SL |
| SINGAPORE | SG |
| SLOVAKIA | SK |
| SLOVENIA | SI |
| SOLOMON ISLANDS | SB |
| SOMALIA | SO |
| SOUTH AFRICA | ZA |
| SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS | GS |
| SPAIN | ES |
| SRI LANKA | LK |
| SUDAN | SD |
| SURINAME | SR |
| SVALBARD AND JAN MAYEN | SJ |
| SWAZILAND | SZ |
| SWEDEN | SE |
| SWITZERLAND | CH |
| SYRIAN ARAB REPUBLIC | SY |
| TAIWAN | TW |
| TAJIKISTAN | TJ |
| TANZANIA, UNITED REPUBLIC OF | TZ |
| THAILAND | TH |
| TIMOR-LESTE | TL |
| TOGO | TG |
| TOKELAU | TK |
| TONGA | TO |
| TRINIDAD AND TOBAGO | TT |
| TUNISIA | TN |
| TURKEY | TR |
| TURKMENISTAN | TM |
| TURKS AND CAICOS ISLANDS | TC |
| TUVALU | TV |
| UGANDA | UG |
| UKRAINE | UA |
| UNITED ARAB EMIRATES | AE |
| UNITED KINGDOM | GB |
| UNITED STATES | US |
| UNITED STATES MINOR OUTLYING ISLANDS | UM |
| URUGUAY | UY |
| UZBEKISTAN | UZ |
| VANUATU | VU |
| VENEZUELA | VE |
| VIET NAM | VN |
| VIRGIN ISLANDS, BRITISH | VG |
| VIRGIN ISLANDS, U.S. | VI |
| WALLIS AND FUTUNA | WF |
| WESTERN SAHARA | EH |
| YEMEN | YE |
| ZAMBIA | ZM |
| ZIMBABWE | ZW |

HTTP Status Messages

When a browser requests a service from a web server, an error might occur.

This is a list of HTTP status messages that might be returned:

1xx: Information

|  |  |
| --- | --- |
| **Message:** | **Description:** |
| 100 Continue | The server has received the request headers, and the client should proceed to send the request body |
| 101 Switching Protocols | The requester has asked the server to switch protocols |
| 103 Checkpoint | Used in the resumable requests proposal to resume aborted PUT or POST requests |

2xx: Successful

|  |  |
| --- | --- |
| **Message:** | **Description:** |
| 200 OK | The request is OK (this is the standard response for successful HTTP requests) |
| 201 Created | The request has been fulfilled, and a new resource is created |
| 202 Accepted | The request has been accepted for processing, but the processing has not been completed |
| 203 Non-Authoritative Information | The request has been successfully processed, but is returning information that may be from another source |
| 204 No Content | The request has been successfully processed, but is not returning any content |
| 205 Reset Content | The request has been successfully processed, but is not returning any content, and requires that the requester reset the document view |
| 206 Partial Content | The server is delivering only part of the resource due to a range header sent by the client |

3xx: Redirection

|  |  |
| --- | --- |
| **Message:** | **Description:** |
| 300 Multiple Choices | A link list. The user can select a link and go to that location. Maximum five addresses |
| 301 Moved Permanently | The requested page has moved to a new URL |
| 302 Found | The requested page has moved temporarily to a new URL |
| 303 See Other | The requested page can be found under a different URL |
| 304 Not Modified | Indicates the requested page has not been modified since last requested |
| 306 Switch Proxy | *No longer used* |
| 307 Temporary Redirect | The requested page has moved temporarily to a new URL |
| 308 Resume Incomplete | Used in the resumable requests proposal to resume aborted PUT or POST requests |

4xx: Client Error

|  |  |
| --- | --- |
| **Message:** | **Description:** |
| 400 Bad Request | The request cannot be fulfilled due to bad syntax |
| 401 Unauthorized | The request was a legal request, but the server is refusing to respond to it. For use when authentication is possible but has failed or not yet been provided |
| 402 Payment Required | *Reserved for future use* |
| 403 Forbidden | The request was a legal request, but the server is refusing to respond to it |
| 404 Not Found | The requested page could not be found but may be available again in the future |
| 405 Method Not Allowed | A request was made of a page using a request method not supported by that page |
| 406 Not Acceptable | The server can only generate a response that is not accepted by the client |
| 407 Proxy Authentication Required | The client must first authenticate itself with the proxy |
| 408 Request Timeout | The server timed out waiting for the request |
| 409 Conflict | The request could not be completed because of a conflict in the request |
| 410 Gone | The requested page is no longer available |
| 411 Length Required | The "Content-Length" is not defined. The server will not accept the request without it |
| 412 Precondition Failed | The precondition given in the request evaluated to false by the server |
| 413 Request Entity Too Large | The server will not accept the request, because the request entity is too large |
| 414 Request-URI Too Long | The server will not accept the request, because the URL is too long. Occurs when you convert a POST request to a GET request with a long query information |
| 415 Unsupported Media Type | The server will not accept the request, because the media type is not supported |
| 416 Requested Range Not Satisfiable | The client has asked for a portion of the file, but the server cannot supply that portion |
| 417 Expectation Failed | The server cannot meet the requirements of the Expect request-header field |

5xx: Server Error

|  |  |
| --- | --- |
| **Message:** | **Description:** |
| 500 Internal Server Error | A generic error message, given when no more specific message is suitable |
| 501 Not Implemented | The server either does not recognize the request method, or it lacks the ability to fulfill the request |
| 502 Bad Gateway | The server was acting as a gateway or proxy and received an invalid response from the upstream server |
| 503 Service Unavailable | The server is currently unavailable (overloaded or down) |
| 504 Gateway Timeout | The server was acting as a gateway or proxy and did not receive a timely response from the upstream server |
| 505 HTTP Version Not Supported | The server does not support the HTTP protocol version used in the request |
| 511 Network Authentication Required | The client needs to authenticate to gain network access |

HTTP Methods: GET vs. POST

The two most used HTTP methods are: GET and POST.

What is HTTP?

The Hypertext Transfer Protocol (HTTP) is designed to enable communications between clients and servers.

HTTP works as a request-response protocol between a client and server.

A web browser may be the client, and an application on a computer that hosts a web site may be the server.

Example: A client (browser) submits an HTTP request to the server; then the server returns a response to the client. The response contains status information about the request and may also contain the requested content.

Two HTTP Request Methods: GET and POST

Two commonly used methods for a request-response between a client and server are: GET and POST.

* **GET** - Requests data from a specified resource
* **POST** - Submits data to be processed to a specified resource

The GET Method

**Note that query strings (name/value pairs) is sent in the URL of a GET request:**

/test/demo\_form.asp**?name1=value1&name2=value2**

**Some other notes on GET requests:**

* GET requests can be cached
* GET requests remain in the browser history
* GET requests can be bookmarked
* GET requests should never be used when dealing with sensitive data
* GET requests have length restrictions
* GET requests should be used only to retrieve data

The POST Method

**Note that query strings (name/value pairs) is sent in the HTTP message body of a POST request:**

POST /test/demo\_form.asp HTTP/1.1  
Host: w3schools.com  
**name1=value1&name2=value2**

**Some other notes on POST requests:**

* POST requests are never cached
* POST requests do not remain in the browser history
* POST requests cannot be bookmarked
* POST requests have no restrictions on data length

Compare GET vs. POST

The following table compares the two HTTP methods: GET and POST.

|  |  |  |
| --- | --- | --- |
|  | **GET** | **POST** |
| BACK button/Reload | Harmless | Data will be re-submitted (the browser should alert the user that the data are about to be re-submitted) |
| Bookmarked | Can be bookmarked | Cannot be bookmarked |
| Cached | Can be cached | Not cached |
| Encoding type | application/x-www-form-urlencoded | application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data |
| History | Parameters remain in browser history | Parameters are not saved in browser history |
| Restrictions on data length | Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters) | No restrictions |
| Restrictions on data type | Only ASCII characters allowed | No restrictions. Binary data is also allowed |
| Security | GET is less secure compared to POST because data sent is part of the URL  Never use GET when sending passwords or other sensitive information! | POST is a little safer than GET because the parameters are not stored in browser history or in web server logs |
| Visibility | Data is visible to everyone in the URL | Data is not displayed in the URL |

Other HTTP Request Methods

The following table lists some other HTTP request methods:

|  |  |
| --- | --- |
| **Method** | **Description** |
| HEAD | Same as GET but returns only HTTP headers and no document body |
| PUT | Uploads a representation of the specified URI |
| DELETE | Deletes the specified resource |
| OPTIONS | Returns the HTTP methods that the server supports |
| CONNECT | Converts the request connection to a transparent TCP/IP tunnel |

Keyboard Shortcuts

Save time by using keyboard shortcuts.

Keyboard Shortcuts For Windows and Mac

Keyboard shortcuts are often used in modern operating systems and computer software programs.

Using keyboard shortcuts could save you a lot of time.

Basic Shortcuts

|  |  |  |
| --- | --- | --- |
| **Description** | **Windows** | **Mac OS** |
| Edit menu | Alt + E | Ctrl + F2 + F |
| File menu | Alt + F | Ctrl + F2 + E |
| View menu | Alt + V | Ctrl + F2 + V |
| Select all text | Ctrl + A | Cmd + A |
| Copy text | Ctrl + C | Cmd + C |
| Find text | Ctrl + F | Cmd + F |
| Find and replace text | Ctrl + H | Cmd + F |
| New Document | Ctrl + N | Cmd + N |
| Open a file | Ctrl + O | Cmd + O |
| Print options | Ctrl + P | Cmd + P |
| Save file | Ctrl + S | Cmd + S |
| Paste text | Ctrl + V | Cmd + V |
| Cut text | Ctrl + X | Cmd + X |
| Redo text | Ctrl + Y | Shift + Cmd + Z |
| Undo text | Ctrl + Z | Cmd + Z |

Text Editing

|  |  |  |
| --- | --- | --- |
| **Description** | **Windows** | **Mac OS** |
| **Cursor Movement** |  |  |
| Go to the right or to the beginning of next line break | Right Arrow | Right Arrow |
| Go to the left or to the end of previous line break | Left Arrow | Left Arrow |
| Go up one row | Up Arrow | Up Arrow |
| Go down one row | Down Arrow | Down Arrow |
| Go to the beginning of the current line | Home | Cmd + Left Arrow |
| Go to the end of the current line | End | Cmd + Right Arrow |
| Go to the beginning of the document | Ctrl + Home | Cmd + Up Arrow |
| Go to the end of the document | Ctrl + End | Cmd + Down Arrow |
| Move up one frame | Page Up | Fn + Up Arrow |
| Move down one frame | Page Down | Fn + Down Arrow |
| Go to beginning of previous word | Ctrl + Left Arrow | Option + Left Arrow |
| Go to beginning of next word | Ctrl + Right Arrow | Option + Right Arrow |
| Go to beginning of line break | Ctrl + Up Arrow | Cmd + Left Arrow |
| Go to end of line break | Ctrl + Down Arrow | Cmd + Right Arrow |
|  |  |  |
| **Text Selection** |  |  |
| Select characters to the left | Shift + Left Arrow | Shift + Left Arrow |
| Select characters to the right | Shift + Right Arrow | Shift + Right Arrow |
| Select lines upwards | Shift + Up Arrow | Shift + Up Arrow |
| Select lines downwards | Shift + Down Arrow | Shift + Down Arrow |
| Select words to the left | Shift + Ctrl + Left | Shift + Opt + Left |
| Select words to the right | Shift + Ctrl + Right | Shift + Opt + Right |
| Select paragraphs to the left | Shift + Ctrl + Up | Shift + Opt + Up |
| Select paragraphs to the right | Shift + Ctrl + Down | Shift + Opt + Down |
| Select text between the cursor and the beginning of the current line | Shift + Home | Cmd + Shift + Left Arrow |
| Select text between the cursor and the end of the current line | Shift + End | Cmd + Shift + Right Arrow |
| Select text between the cursor and the beginning of the document | Shift + Ctrl + Home | Cmd + Shift + Up Arrow or Cmd + Shift + Fn + Left Arrow |
| Select text between the cursor and the end of the document | Shift + Ctrl + End | Cmd + Shift + Down Arrow or Cmd + Shift + Fn + Right Arrow |
| Select one frame at a time of text above the cursor | Shift + Page Up | Shift + Fn + Up Arrow |
| Select one frame at a time of text below the cursor | Shift + Page Down | Shift + Fn + Down Arrow |
| Select all text | Ctrl + A | Cmd + A |
| Find text | Ctrl + F | Cmd + F |
|  |  |  |
| **Text Formatting** |  |  |
| Make selected text bold | Ctrl + B | Cmd + B |
| Make selected text italic | Ctrl + I | Cmd + I |
| Underline selected text | Ctrl + U | Cmd + U |
| Make selected text superscript | Ctrl + Shift + = | Cmd + Shift + = |
| Make selected text subscript | Ctrl + = | Cmd + = |
|  |  |  |
| **Text Editing** |  |  |
| Delete characters to the left | Backspace | Backspace |
| Delete characters to the right | Delete | Fn + Backspace |
| Delete words to the right | Ctrl + Del | Cmd + Backspace |
| Delete words to the left | Ctrl + Backspace | Cmd + Fn + Backspace |
| Indent | Tab | Tab |
| Outdent | Shift + Tab | Shift + Tab |
| Copy text | Ctrl + C | Cmd + C |
| Find and replace text | Ctrl + H | Cmd + F |
| Paste text | Ctrl + V | Cmd + V |
| Cut text | Ctrl + X | Cmd + X |
| Redo text | Ctrl + Y | Shift + Cmd + Z |
| Undo text | Ctrl + Z | Cmd + Z |

Web Browsers

|  |  |  |
| --- | --- | --- |
| **Description** | **Windows** | **Mac OS** |
| **Navigation** |  |  |
| Scroll down a frame | Space or Page Down | Space or Fn + Down Arrow |
| Scroll up a frame | Shift + Space or Page Up | Shift + Space or Fn + Up Arrow |
| Go to bottom of the page | End | Cmd + Down Arrow |
| Go to top of the page | Home | Cmd + Up Arrow |
| Go back | Alt + Left Arrow or Backspace | Cmd + Left Arrow |
| Go forward | Alt + Right Arrow or Shift + Backspace | Cmd + Right Arrow |
| Refresh a webpage | F5 | Cmd + R |
| Refresh a webpage (no cache) | Ctrl + F5 | Cmd + Shift + R |
| Stop | Esc | Esc |
| Toggle full-screen | F11 | Cmd + Shift + F |
| Zoom in | Ctrl + + | Cmd + + |
| Zoom out | Ctrl + - | Cmd + - |
| Zoom 100% (default) | Ctrl + 0 | Cmd + 0 |
| Open homepage | Alt + Home | Option + Home or Option + Fn + Left Arrow |
| Find text | Ctrl + F | Cmd + F |
|  |  |  |
| **Tab / Window Management** |  |  |
| Open a new tab | Ctrl + T | Cmd + T |
| Close current tab | Ctrl + W | Cmd + W |
| Close all tabs | Ctrl + Shift + W | Cmd + Q |
| Close all tabs except the current tab | Ctrl + Alt + F4 | Cmd + Opt + W |
| Go to next tab | Ctrl + Tab | Control + Tab or Cmd + Shift + Right Arrow |
| Go to previous tab | Ctrl + Shift + Tab | Shift + Control + Tab or Cmd + Shift + Left Arrow |
| Go to a specific tab number | Ctrl + 1-8 | Cmd + 1-8 |
| Go to the last tab | Ctrl + 9 | Cmd + 9 |
| Reopen the last closed tab | Ctrl + Shift + T | Cmd + Shift + T |
| Open a new window | Ctrl + N | Cmd + N |
| Close current window | Alt + F4 | Cmd + W |
| Go to next window | Alt + Tab | Cmd + Tab |
| Go to previous window | Alt + Shift + Tab | Cmd + Shift + Tab |
| Reopen the last closed window | Ctrl + Shift + N |  |
| Open links in a new tab in the background | Ctrl + Click | Cmd + Click |
| Open links in a new tab in the foreground | Ctrl + Shift + Click | Cmd + Shift + Click |
| Print current webpage | Ctrl + P | Cmd + P |
| Save current webpage | Ctrl + S | Cmd + S |
|  |  |  |
| **Address Bar** |  |  |
| Cycle between toolbar, search bar, and page elements | Tab | Tab |
| Go to browser's address bar | Ctrl + L or Alt + D | Cmd + L |
| Focus and select the browser's search bar | Ctrl + E | Cmd + E / Cmd + K |
| Open the address bar location in a new tab | Alt + Enter | Opt + Enter |
| Display a list of previously typed addresses | F4 |  |
| Add "www." to the beginning and ".com" to the end of the text typed in the address bar (e.g., type "w3schools" and press Ctrl + Enter to open "www.w3schools.com") | Ctrl + Enter | Cmd + Enter or Control + Enter |
|  |  |  |
| **Bookmarks** |  |  |
| Open the bookmarks menu | Ctrl + B | Cmd + B |
| Add bookmark for current page | Ctrl + D | Cmd + Opt + B or Cmd + Shift + B |
| Open browsing history | Ctrl + H | Cmd + Shift + H or Cmd + Y |
| Open download history | Ctrl + J | Cmd + J or Cmd + Shift + J |

Screenshots

|  |  |  |
| --- | --- | --- |
| **Description** | **Windows** | **Mac OS** |
| Save screenshot of the whole screen as file |  | Cmd + Shift + 3 |
| Copy screenshot of the whole screen to the clipboard | PrtScr (Print Screen) or Ctrl + PrtScr | Cmd + Ctrl + Shift + 3 |
| Save screenshot of window as file |  | Cmd + Shift + 4, then Space |
| Copy screenshot of window to the clipboard | Alt + PrtScr | Cmd + Ctrl + Shift + 4, then Space |
| Copy screenshot of wanted area to the clipboard |  | Cmd + Ctrl + Shift + 4 |
| Save screenshot of wanted area as file |  | Cmd + Shift + 4 |

**Note:** Due to different keyboard setups, some shortcuts may not be compatible for all users.

HTML Tag Reference

HTML Tags Ordered Alphabetically

= New in HTML5.

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<!--...-->](http://www.w3schools.com/tags/tag_comment.asp) | Defines a comment |
| [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) | Defines the document type |
| [<a>](http://www.w3schools.com/tags/tag_a.asp) | Defines a hyperlink |
| [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation |
| [<acronym>](http://www.w3schools.com/tags/tag_acronym.asp) | Not supported in HTML5. Use <abbr> instead. Defines an acronym |
| [<address>](http://www.w3schools.com/tags/tag_address.asp) | Defines contact information for the author/owner of a document |
| [<applet>](http://www.w3schools.com/tags/tag_applet.asp) | Not supported in HTML5. Use <object> instead. Defines an embedded applet |
| [<area>](http://www.w3schools.com/tags/tag_area.asp) | Defines an area inside an image-map |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<b>](http://www.w3schools.com/tags/tag_b.asp) | Defines bold text |
| [<base>](http://www.w3schools.com/tags/tag_base.asp) | Specifies the base URL/target for all relative URLs in a document |
| [<basefont>](http://www.w3schools.com/tags/tag_basefont.asp) | Not supported in HTML5. Use CSS instead. Specifies a default color, size, and font for all text in a document |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Isolates a part of text that might be formatted in a different direction from other text outside it |
| [<bdo>](http://www.w3schools.com/tags/tag_bdo.asp) | Overrides the current text direction |
| [<big>](http://www.w3schools.com/tags/tag_big.asp) | Not supported in HTML5. Use CSS instead. Defines big text |
| [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) | Defines a section that is quoted from another source |
| [<body>](http://www.w3schools.com/tags/tag_body.asp) | Defines the document's body |
| [<br>](http://www.w3schools.com/tags/tag_br.asp) | Defines a single line break |
| [<button>](http://www.w3schools.com/tags/tag_button.asp) | Defines a clickable button |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Used to draw graphics, on the fly, via scripting (usually JavaScript) |
| [<caption>](http://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<center>](http://www.w3schools.com/tags/tag_center.asp) | Not supported in HTML5. Use CSS instead. Defines centered text |
| [<cite>](http://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work |
| [<code>](http://www.w3schools.com/tags/tag_code.asp) | Defines a piece of computer code |
| [<col>](http://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Specifies a list of pre-defined options for input controls |
| [<dd>](http://www.w3schools.com/tags/tag_dd.asp) | Defines a description/value of a term in a description list |
| [<del>](http://www.w3schools.com/tags/tag_del.asp) | Defines text that has been deleted from a document |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) | Defines a definition term |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<dir>](http://www.w3schools.com/tags/tag_dir.asp) | Not supported in HTML5. Use <ul> instead. Defines a directory list |
| [<div>](http://www.w3schools.com/tags/tag_div.asp) | Defines a section in a document |
| [<dl>](http://www.w3schools.com/tags/tag_dl.asp) | Defines a description list |
| [<dt>](http://www.w3schools.com/tags/tag_dt.asp) | Defines a term/name in a description list |
| [<em>](http://www.w3schools.com/tags/tag_em.asp) | Defines emphasized text |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines a container for an external (non-HTML) application |
| [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) | Groups related elements in a form |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content |
| [<font>](http://www.w3schools.com/tags/tag_font.asp) | Not supported in HTML5. Use CSS instead. Defines font, color, and size for text |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Defines an HTML form for user input |
| [<frame>](http://www.w3schools.com/tags/tag_frame.asp) | Not supported in HTML5. Defines a window (a frame) in a frameset |
| [<frameset>](http://www.w3schools.com/tags/tag_frameset.asp) | Not supported in HTML5. Defines a set of frames |
| [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |
| [<head>](http://www.w3schools.com/tags/tag_head.asp) | Defines information about the document |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Defines a header for a document or section |
| [<hr>](http://www.w3schools.com/tags/tag_hr.asp) | Defines a thematic change in the content |
| [<html>](http://www.w3schools.com/tags/tag_html.asp) | Defines the root of an HTML document |
| [<i>](http://www.w3schools.com/tags/tag_i.asp) | Defines a part of text in an alternate voice or mood |
| [<iframe>](http://www.w3schools.com/tags/tag_iframe.asp) | Defines an inline frame |
| [<img>](http://www.w3schools.com/tags/tag_img.asp) | Defines an image |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |
| [<ins>](http://www.w3schools.com/tags/tag_ins.asp) | Defines a text that has been inserted into a document |
| [<kbd>](http://www.w3schools.com/tags/tag_kbd.asp) | Defines keyboard input |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Defines a key-pair generator field (for forms) |
| [<label>](http://www.w3schools.com/tags/tag_label.asp) | Defines a label for an <input> element |
| [<legend>](http://www.w3schools.com/tags/tag_legend.asp) | Defines a caption for a <fieldset> element |
| [<li>](http://www.w3schools.com/tags/tag_li.asp) | Defines a list item |
| [<link>](http://www.w3schools.com/tags/tag_link.asp) | Defines the relationship between a document and an external resource (most used to link to style sheets) |
| [<main>](http://www.w3schools.com/tags/tag_main.asp) | Specifies the main content of a document |
| [<map>](http://www.w3schools.com/tags/tag_map.asp) | Defines a client-side image-map |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<menu>](http://www.w3schools.com/tags/tag_menu.asp) | Defines a list/menu of commands |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Defines a command/menu item that the user can invoke from a popup menu |
| [<meta>](http://www.w3schools.com/tags/tag_meta.asp) | Defines metadata about an HTML document |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |
| [<noframes>](http://www.w3schools.com/tags/tag_noframes.asp) | Not supported in HTML5. Defines an alternate content for users that do not support frames |
| [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) | Defines an alternate content for users that do not support client-side scripts |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<ol>](http://www.w3schools.com/tags/tag_ol.asp) | Defines an ordered list |
| [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) | Defines a group of related options in a drop-down list |
| [<option>](http://www.w3schools.com/tags/tag_option.asp) | Defines an option in a drop-down list |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Defines the result of a calculation |
| [<p>](http://www.w3schools.com/tags/tag_p.asp) | Defines a paragraph |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |
| [<pre>](http://www.w3schools.com/tags/tag_pre.asp) | Defines preformatted text |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Represents the progress of a task |
| [<q>](http://www.w3schools.com/tags/tag_q.asp) | Defines a short quotation |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<s>](http://www.w3schools.com/tags/tag_s.asp) | Defines text that is no longer correct |
| [<samp>](http://www.w3schools.com/tags/tag_samp.asp) | Defines sample output from a computer program |
| [<script>](http://www.w3schools.com/tags/tag_script.asp) | Defines a client-side script |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<select>](http://www.w3schools.com/tags/tag_select.asp) | Defines a drop-down list |
| [<small>](http://www.w3schools.com/tags/tag_small.asp) | Defines smaller text |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<span>](http://www.w3schools.com/tags/tag_span.asp) | Defines a section in a document |
| [<strike>](http://www.w3schools.com/tags/tag_strike.asp) | Not supported in HTML5. Use <del> instead. Defines strikethrough text |
| [<strong>](http://www.w3schools.com/tags/tag_strong.asp) | Defines important text |
| [<style>](http://www.w3schools.com/tags/tag_style.asp) | Defines style information for a document |
| [<sub>](http://www.w3schools.com/tags/tag_sub.asp) | Defines subscripted text |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<sup>](http://www.w3schools.com/tags/tag_sup.asp) | Defines superscripted text |
| [<table>](http://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<td>](http://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp) | Defines a multiline input control (text area) |
| [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |
| [<th>](http://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<thead>](http://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<title>](http://www.w3schools.com/tags/tag_title.asp) | Defines a title for the document |
| [<tr>](http://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |
| [<tt>](http://www.w3schools.com/tags/tag_tt.asp) | Not supported in HTML5. Use CSS instead. Defines teletype text |
| [<u>](http://www.w3schools.com/tags/tag_u.asp) | Defines text that should be stylistically different from normal text |
| [<ul>](http://www.w3schools.com/tags/tag_ul.asp) | Defines an unordered list |
| [<var>](http://www.w3schools.com/tags/tag_var.asp) | Defines a variable |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |

HTML Tag Reference

HTML Tags Ordered by Category

= New in HTML5.

Basic Tags

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) | Defines the document type |
| [<html>](http://www.w3schools.com/tags/tag_html.asp) | Defines an HTML document |
| [<title>](http://www.w3schools.com/tags/tag_title.asp) | Defines a title for the document |
| [<body>](http://www.w3schools.com/tags/tag_body.asp) | Defines the document's body |
| [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |
| [<p>](http://www.w3schools.com/tags/tag_p.asp) | Defines a paragraph |
| [<br>](http://www.w3schools.com/tags/tag_br.asp) | Inserts a single line break |
| [<hr>](http://www.w3schools.com/tags/tag_hr.asp) | Defines a thematic change in the content |
| [<!--...-->](http://www.w3schools.com/tags/tag_comment.asp) | Defines a comment |

Formatting

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<acronym>](http://www.w3schools.com/tags/tag_acronym.asp) | Not supported in HTML5. Use <abbr> instead. Defines an acronym |
| [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation |
| [<address>](http://www.w3schools.com/tags/tag_address.asp) | Defines contact information for the author/owner of a document/article |
| [<b>](http://www.w3schools.com/tags/tag_b.asp) | Defines bold text |
| [<bdi>](http://www.w3schools.com/tags/tag_bdi.asp) | Isolates a part of text that might be formatted in a different direction from other text outside it |
| [<bdo>](http://www.w3schools.com/tags/tag_bdo.asp) | Overrides the current text direction |
| [<big>](http://www.w3schools.com/tags/tag_big.asp) | Not supported in HTML5. Use CSS instead. Defines big text |
| [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) | Defines a section that is quoted from another source |
| [<center>](http://www.w3schools.com/tags/tag_center.asp) | Not supported in HTML5. Use CSS instead. Defines centered text |
| [<cite>](http://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work |
| [<code>](http://www.w3schools.com/tags/tag_code.asp) | Defines a piece of computer code |
| [<del>](http://www.w3schools.com/tags/tag_del.asp) | Defines text that has been deleted from a document |
| [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) | Defines a definition term |
| [<em>](http://www.w3schools.com/tags/tag_em.asp) | Defines emphasized text |
| [<font>](http://www.w3schools.com/tags/tag_font.asp) | Not supported in HTML5. Use CSS instead. Defines font, color, and size for text |
| [<i>](http://www.w3schools.com/tags/tag_i.asp) | Defines a part of text in an alternate voice or mood |
| [<ins>](http://www.w3schools.com/tags/tag_ins.asp) | Defines a text that has been inserted into a document |
| [<kbd>](http://www.w3schools.com/tags/tag_kbd.asp) | Defines keyboard input |
| [<mark>](http://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<meter>](http://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<pre>](http://www.w3schools.com/tags/tag_pre.asp) | Defines preformatted text |
| [<progress>](http://www.w3schools.com/tags/tag_progress.asp) | Represents the progress of a task |
| [<q>](http://www.w3schools.com/tags/tag_q.asp) | Defines a short quotation |
| [<rp>](http://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](http://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<s>](http://www.w3schools.com/tags/tag_s.asp) | Defines text that is no longer correct |
| [<samp>](http://www.w3schools.com/tags/tag_samp.asp) | Defines sample output from a computer program |
| [<small>](http://www.w3schools.com/tags/tag_small.asp) | Defines smaller text |
| [<strike>](http://www.w3schools.com/tags/tag_strike.asp) | Not supported in HTML5. Use <del> instead. Defines strikethrough text |
| [<strong>](http://www.w3schools.com/tags/tag_strong.asp) | Defines important text |
| [<sub>](http://www.w3schools.com/tags/tag_sub.asp) | Defines subscripted text |
| [<sup>](http://www.w3schools.com/tags/tag_sup.asp) | Defines superscripted text |
| [<time>](http://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<tt>](http://www.w3schools.com/tags/tag_tt.asp) | Not supported in HTML5. Use CSS instead. Defines teletype text |
| [<u>](http://www.w3schools.com/tags/tag_u.asp) | Defines text that should be stylistically different from normal text |
| [<var>](http://www.w3schools.com/tags/tag_var.asp) | Defines a variable |
| [<wbr>](http://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |

Forms and Input

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<form>](http://www.w3schools.com/tags/tag_form.asp) | Defines an HTML form for user input |
| [<input>](http://www.w3schools.com/tags/tag_input.asp) | Defines an input control |
| [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp) | Defines a multiline input control (text area) |
| [<button>](http://www.w3schools.com/tags/tag_button.asp) | Defines a clickable button |
| [<select>](http://www.w3schools.com/tags/tag_select.asp) | Defines a drop-down list |
| [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) | Defines a group of related options in a drop-down list |
| [<option>](http://www.w3schools.com/tags/tag_option.asp) | Defines an option in a drop-down list |
| [<label>](http://www.w3schools.com/tags/tag_label.asp) | Defines a label for an <input> element |
| [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) | Groups related elements in a form |
| [<legend>](http://www.w3schools.com/tags/tag_legend.asp) | Defines a caption for a <fieldset> element |
| [<datalist>](http://www.w3schools.com/tags/tag_datalist.asp) | Specifies a list of pre-defined options for input controls |
| [<keygen>](http://www.w3schools.com/tags/tag_keygen.asp) | Defines a key-pair generator field (for forms) |
| [<output>](http://www.w3schools.com/tags/tag_output.asp) | Defines the result of a calculation |

Frames

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<frame>](http://www.w3schools.com/tags/tag_frame.asp) | Not supported in HTML5. Defines a window (a frame) in a frameset |
| [<frameset>](http://www.w3schools.com/tags/tag_frameset.asp) | Not supported in HTML5. Defines a set of frames |
| [<noframes>](http://www.w3schools.com/tags/tag_noframes.asp) | Not supported in HTML5. Defines an alternate content for users that do not support frames |
| [<iframe>](http://www.w3schools.com/tags/tag_iframe.asp) | Defines an inline frame |

Images

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<img>](http://www.w3schools.com/tags/tag_img.asp) | Defines an image |
| [<map>](http://www.w3schools.com/tags/tag_map.asp) | Defines a client-side image-map |
| [<area>](http://www.w3schools.com/tags/tag_area.asp) | Defines an area inside an image-map |
| [<canvas>](http://www.w3schools.com/tags/tag_canvas.asp) | Used to draw graphics, on the fly, via scripting (usually JavaScript) |
| [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](http://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content |

Audio / Video

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<audio>](http://www.w3schools.com/tags/tag_audio.asp) | Defines sound content |
| [<source>](http://www.w3schools.com/tags/tag_source.asp) | Defines multiple media resources for media elements (<video> and <audio>) |
| [<track>](http://www.w3schools.com/tags/tag_track.asp) | Defines text tracks for media elements (<video> and <audio>) |
| [<video>](http://www.w3schools.com/tags/tag_video.asp) | Defines a video or movie |

Links

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<a>](http://www.w3schools.com/tags/tag_a.asp) | Defines a hyperlink |
| [<link>](http://www.w3schools.com/tags/tag_link.asp) | Defines the relationship between a document and an external resource (most used to link to style sheets) |
| [<nav>](http://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |

Lists

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<ul>](http://www.w3schools.com/tags/tag_ul.asp) | Defines an unordered list |
| [<ol>](http://www.w3schools.com/tags/tag_ol.asp) | Defines an ordered list |
| [<li>](http://www.w3schools.com/tags/tag_li.asp) | Defines a list item |
| [<dir>](http://www.w3schools.com/tags/tag_dir.asp) | Not supported in HTML5. Use <ul> instead. Defines a directory list |
| [<dl>](http://www.w3schools.com/tags/tag_dl.asp) | Defines a description list |
| [<dt>](http://www.w3schools.com/tags/tag_dt.asp) | Defines a term/name in a description list |
| [<dd>](http://www.w3schools.com/tags/tag_dd.asp) | Defines a description of a term/name in a description list |
| [<menu>](http://www.w3schools.com/tags/tag_menu.asp) | Defines a list/menu of commands |
| [<menuitem>](http://www.w3schools.com/tags/tag_menuitem.asp) | Defines a command/menu item that the user can invoke from a popup menu |

Tables

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<table>](http://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<caption>](http://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<th>](http://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<tr>](http://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<td>](http://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<thead>](http://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |
| [<col>](http://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |

Styles and Semantics

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<style>](http://www.w3schools.com/tags/tag_style.asp) | Defines style information for a document |
| [<div>](http://www.w3schools.com/tags/tag_div.asp) | Defines a section in a document |
| [<span>](http://www.w3schools.com/tags/tag_span.asp) | Defines a section in a document |
| [<header>](http://www.w3schools.com/tags/tag_header.asp) | Defines a header for a document or section |
| [<footer>](http://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<section>](http://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<article>](http://www.w3schools.com/tags/tag_article.asp) | Defines an article |
| [<aside>](http://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<details>](http://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dialog>](http://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<summary>](http://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |

Meta Info

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<head>](http://www.w3schools.com/tags/tag_head.asp) | Defines information about the document |
| [<meta>](http://www.w3schools.com/tags/tag_meta.asp) | Defines metadata about an HTML document |
| [<base>](http://www.w3schools.com/tags/tag_base.asp) | Specifies the base URL/target for all relative URLs in a document |
| [<basefont>](http://www.w3schools.com/tags/tag_basefont.asp) | Not supported in HTML5. Use CSS instead. Specifies a default color, size, and font for all text in a document |

Programming

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<script>](http://www.w3schools.com/tags/tag_script.asp) | Defines a client-side script |
| [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) | Defines an alternate content for users that do not support client-side scripts |
| [<applet>](http://www.w3schools.com/tags/tag_applet.asp) | Not supported in HTML5. Use <object> instead. Defines an embedded applet |
| [<embed>](http://www.w3schools.com/tags/tag_embed.asp) | Defines a container for an external (non-HTML) application |
| [<object>](http://www.w3schools.com/tags/tag_object.asp) | Defines an embedded object |
| [<param>](http://www.w3schools.com/tags/tag_param.asp) | Defines a parameter for an object |

HTML Global Attributes

HTML attributes give elements meaning and context.

The global attributes below can be used on **any** HTML element.

HTML Global Attributes

= Attribute added in HTML5.

|  |  |
| --- | --- |
| **Attribute** | **Description** |
| [accesskey](http://www.w3schools.com/tags/att_global_accesskey.asp) | Specifies a shortcut key to activate/focus an element |
| [class](http://www.w3schools.com/tags/att_global_class.asp) | Specifies one or more classnames for an element (refers to a class in a style sheet) |
| [contenteditable](http://www.w3schools.com/tags/att_global_contenteditable.asp) | Specifies whether the content of an element is editable or not |
| [contextmenu](http://www.w3schools.com/tags/att_global_contextmenu.asp) | Specifies a context menu for an element. The context menu appears when a user right-clicks on the element |
| [data-\*](http://www.w3schools.com/tags/att_global_data.asp) | Used to store custom data private to the page or application |
| [dir](http://www.w3schools.com/tags/att_global_dir.asp) | Specifies the text direction for the content in an element |
| [draggable](http://www.w3schools.com/tags/att_global_draggable.asp) | Specifies whether an element is draggable or not |
| [dropzone](http://www.w3schools.com/tags/att_global_dropzone.asp) | Specifies whether the dragged data is copied, moved, or linked, when dropped |
| [hidden](http://www.w3schools.com/tags/att_global_hidden.asp) | Specifies that an element is not yet, or is no longer, relevant |
| [id](http://www.w3schools.com/tags/att_global_id.asp) | Specifies a unique id for an element |
| [lang](http://www.w3schools.com/tags/att_global_lang.asp) | Specifies the language of the element's content |
| [spellcheck](http://www.w3schools.com/tags/att_global_spellcheck.asp) | Specifies whether the element is to have its spelling and grammar checked or not |
| [style](http://www.w3schools.com/tags/att_global_style.asp) | Specifies an inline CSS style for an element |
| [tabindex](http://www.w3schools.com/tags/att_global_tabindex.asp) | Specifies the tabbing order of an element |
| [title](http://www.w3schools.com/tags/att_global_title.asp) | Specifies extra information about an element |
| [translate](http://www.w3schools.com/tags/att_global_translate.asp) | Specifies whether the content of an element should be translated or not |

HTML <!--...--> Tag

Example

An HTML comment:

<!--This is a comment. Comments are not displayed in the browser-->  
  
<p>This is a paragraph.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_comment)

Definition and Usage

The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers.

You can use comments to explain your code, which can help you when you edit the source code at a later date. This is especially useful if you have a lot of code.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <!--...--> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Tips and Notes

You can also use the comment tag to "hide" scripts from browsers without support for scripts (so they don't show them as plain text):

<script type="text/javascript">  
<!--  
function displayMsg()  
{  
alert("Hello World!")  
}  
//-->  
</script>

**Note:** The two forward slashes at the end of comment line (//) is the JavaScript comment symbol. This prevents JavaScript from executing the --> tag.

Standard Attributes

The comment tag does not support any standard attributes.

More information about [Standard Attributes](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The comment tag does not support any event attributes.

More information about [Event Attributes](http://www.w3schools.com/tags/ref_eventattributes.asp).

# HTML <!DOCTYPE> Declaration

## Example

<!DOCTYPE html>  
<html>  
<head>  
<title>Title of the document</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_doctype)

## Definition and Usage

The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag.

The <!DOCTYPE> declaration is not an HTML tag; it is an instruction to the web browser about what version of HTML the page is written in.

In HTML 4.01, the <!DOCTYPE> declaration refers to a DTD, because HTML 4.01 was based on SGML. The DTD specifies the rules for the markup language, so that the browsers render the content correctly.

HTML5 is not based on SGML, and therefore does not require a reference to a DTD.

**Tip:** Always add the <!DOCTYPE> declaration to your HTML documents, so that the browser knows what type of document to expect.

## Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <!DOCTYPE> | Yes | Yes | Yes | Yes | Yes |

## Differences Between HTML 4.01 and HTML5

There are three different <!DOCTYPE> declarations in HTML 4.01. In HTML5 there is only one:

<!DOCTYPE html>

## HTML Elements and Doctypes

Look at our table of all [HTML elements, and what Doctype each element appears in](http://www.w3schools.com/tags/ref_html_dtd.asp).

## Tips and Notes

**Note:** The <!DOCTYPE> tag does not have an end tag.

**Tip:** The <!DOCTYPE> declaration is NOT case sensitive.

**Tip:** Use [W3C's Validator](http://validator.w3.org/) to check that you have written a valid HTML / XHTML document!

## Common DOCTYPE Declarations

### HTML 5

<!DOCTYPE html>

### HTML 4.01 Strict

This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">

### HTML 4.01 Transitional

This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

### HTML 4.01 Frameset

This DTD is equal to HTML 4.01 Transitional, but allows the use of frameset content.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">

### XHTML 1.0 Strict

This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font). Framesets are not allowed. The markup must also be written as well-formed XML.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

### XHTML 1.0 Transitional

This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font). Framesets are not allowed. The markup must also be written as well-formed XML.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

### XHTML 1.0 Frameset

This DTD is equal to XHTML 1.0 Transitional, but allows the use of frameset content.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">

### XHTML 1.1

This DTD is equal to XHTML 1.0 Strict, but allows you to add modules (for example to provide ruby support for East-Asian languages).

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

HTML <a> Tag

Example

A link to W3Schools.com:

<a href="http://www.w3schools.com">Visit W3Schools.com!</a>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_test)

More "Try it Yourself" examples below.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <a> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The following attributes: download, hreflang, media, rel, target, and type cannot be present if the href attribute is not present.

**Tip:** A linked page is normally displayed in the current browser window, unless you specify another target.

**Tip:** Use CSS to style links.

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <a> tag could be either a hyperlink or an anchor. In HTML5, the <a> tag is always a hyperlink, but if it has no href attribute, it is only a placeholder for a hyperlink.

HTML5 has some new attributes, and some HTML 4.01 attributes are no longer supported.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [charset](http://www.w3schools.com/tags/att_a_charset.asp) | *char\_encoding* | Not supported in HTML5. Specifies the character-set of a linked document |
| [coords](http://www.w3schools.com/tags/att_a_coords.asp) | *coordinates* | Not supported in HTML5. Specifies the coordinates of a link |
| [download](http://www.w3schools.com/tags/att_a_download.asp) | *filename* | Specifies that the target will be downloaded when a user clicks on the hyperlink |
| [href](http://www.w3schools.com/tags/att_a_href.asp) | *URL* | Specifies the URL of the page the link goes to |
| [hreflang](http://www.w3schools.com/tags/att_a_hreflang.asp) | *language\_code* | Specifies the language of the linked document |
| [media](http://www.w3schools.com/tags/att_a_media.asp) | *media\_query* | Specifies what media/device the linked document is optimized for |
| [name](http://www.w3schools.com/tags/att_a_name.asp) | *section\_name* | Not supported in HTML5. Use the id attribute instead. Specifies the name of an anchor |
| [rel](http://www.w3schools.com/tags/att_a_rel.asp) | alternate author bookmark help license next nofollow noreferrer prefetch prev search tag | Specifies the relationship between the current document and the linked document |
| [rev](http://www.w3schools.com/tags/att_a_rev.asp) | *text* | Not supported in HTML5. Specifies the relationship between the linked document and the current document |
| [shape](http://www.w3schools.com/tags/att_a_shape.asp) | default rect circle poly | Not supported in HTML5. Specifies the shape of a link |
| [target](http://www.w3schools.com/tags/att_a_target.asp) | \_blank \_parent \_self \_top *framename* | Specifies where to open the linked document |
| [type](http://www.w3schools.com/tags/att_a_type.asp) | *MIME\_type* | Specifies the MIME type of the linked document |

Global Attributes

The <a> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <a> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Create hyperlinks](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link)  
How to create hyperlinks.

[An image as a link](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_image)  
How to use an image as a link.

[Open a link in a new browser window](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_target)  
How to open a link in a new browser window, so that the visitor does not have to leave your Web site.

[Create a mailto link](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_mailto)  
How to link to a mail message (will only work if you have mail installed).

[Create a mailto link 2](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_mailto2)  
Another mailto link.

[Link to an element with a specified id](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_a_href_anchor)  
How to link to an element with a specified id within a page (the name attribute is not supported in HTML5).

[Link to a JavaScript](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_a_href_script)  
How to add a JavaScript inside the href attribute.

Related Pages

HTML tutorial: [HTML Links](http://www.w3schools.com/html/html_links.asp)

HTML DOM reference: [Anchor object](http://www.w3schools.com/jsref/dom_obj_anchor.asp)

HTML <abbr> Tag

Example

An abbreviation is marked up as follows:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_abbr_test)

Definition and Usage

The <abbr> tag indicates an abbreviation or an acronym, like "WWW" or "NATO".

By marking up abbreviations you can give useful information to browsers, spell checkers, translation systems and search-engine indexers.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <abbr> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The global title attribute can be used in the <abbr> tag to show the full version of the abbreviation/acronym when you mouse over the <abbr> element.

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <abbr> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <abbr> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <acronym> Tag. Not Supported in HTML5.

Example

An acronym is marked up as follows:

Can I get this <acronym title="as soon as possible">ASAP</acronym>?

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_acronym_test)

Definition and Usage

The <acronym> tag is not supported in HTML5. Use the [<abbr>](http://www.w3schools.com/tags/tag_abbr.asp) tag instead.

The <acronym> tag defines an acronym.

An acronym can be spoken as if it were a word, example NATO, NASA, ASAP, GUI.

By marking up acronyms you can give useful information to browsers, spell checkers, translation systems and search-engine indexers.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <acronym> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The title attribute can be used to show the full version of the acronym when you mouse over it.

Differences Between HTML 4.01 and HTML5

The <acronym> tag is not supported in HTML5.

HTML <address> Tag

Example

Contact information for Example.com:

<address>  
Written by <a href="mailto:webmaster@example.com">Jon Doe</a>.<br>   
Visit us at:<br>  
Example.com<br>  
Box 564, Disneyland<br>  
USA  
</address>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_address)

Definition and Usage

The <address> tag defines the contact information for the author/owner of a document or an article.

If the <address> element is inside the <body> element, it represents contact information for the document.

If the <address> element is inside an <article> element, it represents contact information for that article.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <address> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The <address> tag should NOT be used to describe a postal address, unless it is a part of the contact information.

**Tip:** The <address> element will typically be included along with other information in a [<footer>](http://www.w3schools.com/tags/tag_footer.asp) element.

Differences Between HTML 4.01 and HTML5

HTML 4.01 does not support the <article> tag, so in HTML 4.01 the <address> tag always defines the contact information of the *document's* author/owner.

Global Attributes

The <address> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <address> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <applet> Tag. Not Supported in HTML5.

Example

An embedded Java applet:

<applet code="Bubbles.class" width="350" height="350">  
Java applet that draws animated bubbles.  
</applet>

Definition and Usage

The <applet> tag is not supported in HTML5. Use the [<object>](http://www.w3schools.com/tags/tag_object.asp) tag instead.

The <applet> tag defines an embedded applet.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <applet> | Not supported | Yes | Yes | Yes | Not supported |

**Note**: There is still some support for the <applet> tag in some browsers, but it requires additional plug-ins/installations to work.

Differences Between HTML 4.01 and HTML5

The <applet> tag is not supported in HTML5.

Required Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| code | *URL* | Specifies the file name of a Java applet |
| object | *name* | Specifies a reference to a serialized representation of an applet |

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| align | left right top bottom middle baseline | Specifies the alignment of an applet according to surrounding elements |
| alt | *text* | Specifies an alternate text for an applet |
| archive | *URL* | Specifies the location of an archive file |
| codebase | *URL* | Specifies a relative base URL for applets specified in the code attribute |
| height | *pixels* | Specifies the height of an applet |
| hspace | *pixels* | Defines the horizontal spacing around an applet |
| name | *name* | Defines the name for an applet (to use in scripts) |
| vspace | *pixels* | Defines the vertical spacing around an applet |
| width | *pixels* | Specifies the width of an applet |

HTML <area> Tag

Example

An image-map, with clickable areas:

<img src="planets.gif" width="145" height="126" alt="Planets"  
usemap="#planetmap">  
  
<map name="planetmap">  
<area shape="rect" coords="0,0,82,126" href="sun.htm" alt="Sun">  
<area shape="circle" coords="90,58,3" href="mercur.htm" alt="Mercury">  
<area shape="circle" coords="124,58,8" href="venus.htm" alt="Venus">  
</map>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_areamap)

Definition and Usage

The <area> tag defines an area inside an image-map (an image-map is an image with clickable areas).

The <area> element is always nested inside a <map> tag.

**Note:** The usemap attribute in the [<img>](http://www.w3schools.com/tags/tag_img.asp) tag is associated with the [<map>](http://www.w3schools.com/tags/tag_map.asp) element's name attribute, and creates a relationship between the image and the map.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <area> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

HTML5 has some new attributes, and some HTML 4.01 attributes are no longer supported.

Differences Between HTML and XHTML

In HTML the <area> tag has no end tag.

In XHTML the <area> tag must be properly closed.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [alt](http://www.w3schools.com/tags/att_area_alt.asp) | *text* | Specifies an alternate text for the area. Required if the href attribute is present |
| [coords](http://www.w3schools.com/tags/att_area_coords.asp) | *coordinates* | Specifies the coordinates of the area |
| [download](http://www.w3schools.com/tags/att_area_download.asp) | *filename* | Specifies that the target will be downloaded when a user clicks on the hyperlink |
| [href](http://www.w3schools.com/tags/att_area_href.asp) | *URL* | Specifies the hyperlink target for the area |
| [hreflang](http://www.w3schools.com/tags/att_area_hreflang.asp) | *language\_code* | Specifies the language of the target URL |
| [media](http://www.w3schools.com/tags/att_area_media.asp) | *media query* | Specifies what media/device the target URL is optimized for |
| [nohref](http://www.w3schools.com/tags/att_area_nohref.asp) | *value* | Not supported in HTML5. Specifies that an area has no associated link |
| [rel](http://www.w3schools.com/tags/att_area_rel.asp) | alternate author bookmark help license next nofollow noreferrer prefetch prev search tag | Specifies the relationship between the current document and the target URL |
| [shape](http://www.w3schools.com/tags/att_area_shape.asp) | default rect circle poly | Specifies the shape of the area |
| [target](http://www.w3schools.com/tags/att_area_target.asp) | \_blank \_parent \_self \_top *framename* | Specifies where to open the target URL |
| [type](http://www.w3schools.com/tags/att_area_type.asp) | *MIME\_type* | Specifies the MIME type of the target URL |

Global Attributes

The <area> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <area> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Area object](http://www.w3schools.com/jsref/dom_obj_area.asp)

HTML <article> Tag

Example

<article>  
  <h1>Google Chrome</h1>  
  <p>Google Chrome is a free, open-source web browser developed by Google,  
  released in 2008.</p>  
</article>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_article)

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

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <article> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <article> tag is new in HTML5.

Global Attributes

The <article> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <article> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <aside> Tag

Example

<p>My family and I visited The Epcot center this summer.</p>  
  
<aside>  
  <h4>Epcot Center</h4>  
  <p>The Epcot Center is a theme park in Disney World, Florida.</p>  
</aside>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_aside)

Definition and Usage

The <aside> tag defines some content aside from the content it is placed in.

The aside content should be related to the surrounding content.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <aside> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <aside> tag is new in HTML5.

Tips and Notes

**Tip:** The <aside> content could be placed as a sidebar in an article.

Global Attributes

The <aside> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <aside> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

# HTML <audio> Tag

## Example

Play a sound:

<audio controls>  
  <source src="horse.ogg" type="audio/ogg">  
  <source src="horse.mp3" type="audio/mpeg">  
  Your browser does not support the audio tag.  
</audio>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_audio)

## 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:

|  |  |  |  |
| --- | --- | --- | --- |
| **Browser** | **MP3** | **Wav** | **Ogg** |
| Internet Explorer | YES | NO | NO |
| Chrome | YES | YES | YES |
| Firefox | NO **Update:** Firefox 21 running on Windows 7, Windows 8, Windows Vista, and Android now supports MP3 | YES | YES |
| Safari | YES | YES | NO |
| Opera | NO | YES | YES |

### MIME Types for Audio Formats

|  |  |
| --- | --- |
| **Format** | **MIME-type** |
| MP3 | audio/mpeg |
| Ogg | audio/ogg |
| Wav | audio/wav |

## Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <audio> | 4.0 | 9.0 | 3.5 | 4.0 | 10.5 |

## Differences Between HTML 4.01 and HTML5

The <audio> tag is new in HTML5.

## Tips and Notes

**Tip:** Any text inside the between <audio> and </audio> will be displayed in browsers that do not support the <audio> tag.

## Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autoplay](http://www.w3schools.com/tags/att_audio_autoplay.asp) | autoplay | Specifies that the audio will start playing as soon as it is ready |
| [controls](http://www.w3schools.com/tags/att_audio_controls.asp) | controls | Specifies that audio controls should be displayed (such as a play/pause button etc) |
| [loop](http://www.w3schools.com/tags/att_audio_loop.asp) | loop | Specifies that the audio will start over again, every time it is finished |
| [muted](http://www.w3schools.com/tags/att_audio_muted.asp) | muted | Specifies that the audio output should be muted |
| [preload](http://www.w3schools.com/tags/att_audio_preload.asp) | auto metadata none | Specifies if and how the author thinks the audio should be loaded when the page loads |
| [src](http://www.w3schools.com/tags/att_audio_src.asp) | *URL* | Specifies the URL of the audio file |

## Global Attributes

The <audio> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

## Event Attributes

The <audio> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

## Related Pages

HTML DOM reference: [HTML Audio/Video DOM Reference](http://www.w3schools.com/tags/ref_av_dom.asp)

HTML <b> Tag

Example

<p>This is normal text - <b>and this is bold text</b>.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_b)

Definition and Usage

The <b> tag specifies bold text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <b> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Tips and Notes

**Note:** According to the HTML 5 specification, the <b> tag should be used as a LAST resort when no other tag is more appropriate. The HTML 5 specification states that headings should be denoted with the [<h1> to <h6>](http://www.w3schools.com/tags/tag_hn.asp) tags, emphasized text should be denoted with the [<em>](http://www.w3schools.com/tags/tag_phrase_elements.asp) tag, important text should be denoted with the [<strong>](http://www.w3schools.com/tags/tag_phrase_elements.asp) tag, and marked/highlighted text should use the [<mark>](http://www.w3schools.com/tags/tag_mark.asp) tag.

**Tip:** You can also use the CSS "font-weight" property to set bold text.

Global Attributes

The <b> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <b> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <base> Tag

Example

Specify a default URL and a default target for all links on a page:

<head>  
<base href="http://www.w3schools.com/images/" target="\_blank">  
</head>  
  
<body>  
<img src="stickman.gif" width="24" height="39" alt="Stickman">  
<a href="http://www.w3schools.com">W3Schools</a>  
</body>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_base_test)

Definition and Usage

The <base> tag specifies the base URL/target for all relative URLs in a document.

There can be at maximum one <base> element in a document, and it must be inside the <head> element.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <base> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Put the <base> tag as the *first* element inside the <head> element, so that other elements in the head section uses the information from the <base> element.

**Note:** If the <base> tag is present, it must have either an href attribute or a target attribute, or both.

Differences Between HTML 4.01 and HTML5

NONE.

Differences Between HTML and XHTML

In HTML the <base> tag has no end tag.

In XHTML the <base> tag must be properly closed.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [href](http://www.w3schools.com/tags/att_base_href.asp) | *URL* | Specifies the base URL for all relative URLs in the page |
| [target](http://www.w3schools.com/tags/att_base_target.asp) | \_blank \_parent \_self \_top *framename* | Specifies the default target for all hyperlinks and forms in the page |

Global Attributes and Events

The <base> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

NONE. The <base> tag does not support any event attributes.

Related Pages

HTML DOM reference: [Base object](http://www.w3schools.com/jsref/dom_obj_base.asp)

HTML <basefont> Tag. Not Supported in HTML5.

Example

Specify a default text-color and font-size for text on page:

<head>  
<basefont color="red" size="5">  
</head>  
  
<body>  
<h1>This is a heading</h1>  
<p>This is a paragraph.</p>  
</body>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basefont_test)

Definition and Usage

The <basefont> tag is not supported in HTML5. Use CSS instead.

The <basefont> tag specifies a default text-color, font-size, or font-family for all the text in a document.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <basefont> | Not supported | Not supported | Not supported | Not supported | Not supported |

**Note**: The <basefont> tag is supported in Internet Explorer 9, and earlier versions.

Differences Between HTML 4.01 and HTML5

The <basefont> tag is not supported in HTML5.

Compatibility Notes

[CSS Example: Specify a default text-color for a page](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basefont_color_css)

[CSS Example: Specify a default font-family for a page](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basefont_face_css)

[CSS Example: Specify a default font-size for a page](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basefont_size_css)

In our CSS tutorial you can find more information about [CSS text color](http://www.w3schools.com/css/css_text.asp) and [CSS fonts](http://www.w3schools.com/css/css_font.asp).

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [color](http://www.w3schools.com/tags/att_basefont_color.asp) | *color* | Not supported in HTML5. Specifies the default color for text in a document |
| [face](http://www.w3schools.com/tags/att_basefont_face.asp) | *font\_family* | Not supported in HTML5. Specifies the default font for text in a document |
| [size](http://www.w3schools.com/tags/att_basefont_size.asp) | *number* | Not supported in HTML5. Specifies the default size of text in a document |

HTML <bdi> Tag

[« Previous](http://www.w3schools.com/tags/tag_basefont.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_bdo.asp)

Example

Isolate the usernames from the surrounding text-direction settings:

<ul>  
<li>User <bdi>hrefs</bdi>: 60 points</li>  
<li>User <bdi>jdoe</bdi>: 80 points</li>  
<li>User <bdi>إيان</bdi>: 90 points</li>  
</ul>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_bdi)

Definition and Usage

bdi stands for Bi-directional Isolation.

The <bdi> tag isolates a part of text that might be formatted in a different direction from other text outside it.

This element is useful when embedding user-generated content with an unknown directionality.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <bdi> | 16.0 | Not supported | 10.0 | Not supported | Not supported |

Differences Between HTML 4.01 and HTML5

The <bdi> tag is new in HTML5.

Global Attributes

The <bdi> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <bdi> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <bdo> Tag

[« Previous](http://www.w3schools.com/tags/tag_bdi.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_big.asp)

Example

Specify the text direction:

<bdo dir="rtl">  
This text will go right-to-left.  
</bdo>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_bdo)

Definition and Usage

bdo stands for Bi-Directional Override.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <bdo> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Attributes

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

Global Attributes

The <bdo> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <bdo> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <big> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_bdo.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_blockquote.asp)

Example

Make text bigger than normal:

<p><big>Bigger text</big></p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_big)

Definition and Usage

The <big> tag is not supported in HTML5. Use CSS instead.

The <big> tag defines bigger text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <big> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <big> tag is not supported in HTML5.

Compatibility Notes

[CSS Example: Specify different font-sizes for HTML elements](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_big_css)

In our CSS tutorial you can find more information about [CSS fonts](http://www.w3schools.com/css/css_font.asp).

HTML <blockquote> Tag

[« Previous](http://www.w3schools.com/tags/tag_big.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_body.asp)

Example

A section that is quoted from another source:

<blockquote cite="http://www.worldwildlife.org/who/index.html">  
For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.  
</blockquote>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_blockquote_test)

Definition and Usage

The <blockquote> tag specifies a section that is quoted from another source.

Browsers usually indent <blockquote> elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <blockquote> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use [<q>](http://www.w3schools.com/tags/tag_q.asp) for inline (short) quotations.

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <blockquote> tag defines a long quotation.

In HTML5, the <blockquote> tag specifies a section that is quoted from another source.

Differences Between HTML and XHTML

**Note:** To validate a <blockquote> element as XHTML, it must contain only other block-level elements, like this:

<blockquote>  
<p>Here is a long quotation here is a long quotation.</p>  
</blockquote>

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [cite](http://www.w3schools.com/tags/att_blockquote_cite.asp) | *URL* | Specifies the source of the quotation |

Global Attributes

The <blockquote> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <blockquote> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Blockquote object](http://www.w3schools.com/jsref/dom_obj_blockquote.asp)

HTML <body> Tag

[« Previous](http://www.w3schools.com/tags/tag_blockquote.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_br.asp)

Example

A simple HTML document, with the minimum of required tags:

<html>  
<head>  
<title>Title of the document</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basic)

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.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <body> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

All layout attributes are removed in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [alink](http://www.w3schools.com/tags/att_body_alink.asp) | *color* | Not supported in HTML5. Specifies the color of an active link in a document |
| [background](http://www.w3schools.com/tags/att_body_background.asp) | *URL* | Not supported in HTML5. Specifies a background image for a document |
| [bgcolor](http://www.w3schools.com/tags/att_body_bgcolor.asp) | *color* | Not supported in HTML5. Specifies the background color of a document |
| [link](http://www.w3schools.com/tags/att_body_link.asp) | *color* | Not supported in HTML5.  Specifies the color of unvisited links in a document |
| [text](http://www.w3schools.com/tags/att_body_text.asp) | *color* | Not supported in HTML5.  Specifies the color of the text in a document |
| [vlink](http://www.w3schools.com/tags/att_body_vlink.asp) | *color* | Not supported in HTML5. Specifies the color of visited links in a document |

Global Attributes

The <body> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <body> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Elements](http://www.w3schools.com/html/html_elements.asp)

HTML DOM reference: [Body object](http://www.w3schools.com/jsref/dom_obj_body.asp)

HTML <br> Tag

[« Previous](http://www.w3schools.com/tags/tag_body.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_button.asp)

Example

A line break is marked up as follows:

This text contains<br>a line break.

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_br)

Definition and Usage

The <br> tag inserts a single line break.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <br> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The <br> tag is useful for writing addresses or poems.

**Note:** Use the <br> tag to enter line breaks, not to separate paragraphs.

Differences Between HTML 4.01 and HTML5

NONE.

Differences Between HTML and XHTML

In HTML, the <br> tag has no end tag.

In XHTML, the <br> tag must be properly closed, like this: <br />.

Global Attributes

The <br> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <br> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Paragraphs](http://www.w3schools.com/html/html_paragraphs.asp)

HTML <button> Tag

[« Previous](http://www.w3schools.com/tags/tag_br.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_canvas.asp)

Example

A clickable button is marked up as follows:

<button type="button">Click Me!</button>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_button_test)

Definition and Usage

The <button> tag defines a clickable button.

Inside a <button> element you can put content, like text or images. This is the difference between this element and buttons created with the <input> element.

**Tip:** Always specify the type attribute for a <button> element. Different browsers use different default types for the <button> element.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <button> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** If you use the <button> element in an HTML form, different browsers may submit different values. Use [<input>](http://www.w3schools.com/tags/tag_input.asp) to create buttons in an HTML form.

Differences Between HTML 4.01 and HTML5

HTML5 has the following new attributes: autofocus, form, formaction, formenctype, formmethod, formnovalidate, and formtarget.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autofocus](http://www.w3schools.com/tags/att_button_autofocus.asp) | autofocus | Specifies that a button should automatically get focus when the page loads |
| [disabled](http://www.w3schools.com/tags/att_button_disabled.asp) | disabled | Specifies that a button should be disabled |
| [form](http://www.w3schools.com/tags/att_button_form.asp) | *form\_id* | Specifies one or more forms the button belongs to |
| [formaction](http://www.w3schools.com/tags/att_button_formaction.asp) | *URL* | Specifies where to send the form-data when a form is submitted. Only for type="submit" |
| [formenctype](http://www.w3schools.com/tags/att_button_formenctype.asp) | application/x-www-form-urlencoded multipart/form-data text/plain | Specifies how form-data should be encoded before sending it to a server. Only for type="submit" |
| [formmethod](http://www.w3schools.com/tags/att_button_formmethod.asp) | get post | Specifies how to send the form-data (which HTTP method to use). Only for type="submit" |
| [formnovalidate](http://www.w3schools.com/tags/att_button_formnovalidate.asp) | formnovalidate | Specifies that the form-data should not be validated on submission. Only for type="submit" |
| [formtarget](http://www.w3schools.com/tags/att_button_formtarget.asp) | \_blank \_self \_parent \_top *framename* | Specifies where to display the response after submitting the form. Only for type="submit" |
| [name](http://www.w3schools.com/tags/att_button_name.asp) | *name* | Specifies a name for the button |
| [type](http://www.w3schools.com/tags/att_button_type.asp) | button reset submit | Specifies the type of button |
| [value](http://www.w3schools.com/tags/att_button_value.asp) | *text* | Specifies an initial value for the button |

Global Attributes

The <button> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <button> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Button object](http://www.w3schools.com/jsref/dom_obj_pushbutton.asp)

HTML <canvas> Tag

[« Previous](http://www.w3schools.com/tags/tag_button.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_caption.asp)

Example

Draw a red square, on the fly, and show it inside the <canvas> element:

<canvas id="myCanvas"></canvas>  
  
<script>  
var canvas=document.getElementById('myCanvas');  
var ctx=canvas.getContext('2d');  
ctx.fillStyle='#FF0000';  
ctx.fillRect(0,0,80,80);  
</script>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_canvas)

Definition and Usage

The <canvas> tag is used to draw graphics, on the fly, via scripting (usually JavaScript).

The <canvas> tag is only a container for graphics, you must use a script to actually draw the graphics.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <canvas> | 4.0 | 9.0 | 2.0 | 3.1 | 9.0 |

Differences Between HTML 4.01 and HTML5

The <canvas> tag is new in HTML5.

Tips and Notes

**Note:** Any text inside the <canvas> element will be displayed in browsers that does not support <canvas>.

**Tip:** For a complete reference of all the properties and methods that can be used with the canvas object, go to our [HTML Canvas Reference](http://www.w3schools.com/tags/ref_canvas.asp).

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [height](http://www.w3schools.com/tags/att_canvas_height.asp) | *pixels* | Specifies the height of the canvas |
| [width](http://www.w3schools.com/tags/att_canvas_width.asp) | *pixels* | Specifies the width of the canvas |

Global Attributes

The <canvas> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <canvas> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <caption> Tag

[« Previous](http://www.w3schools.com/tags/tag_canvas.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_center.asp)

Example

A table with a caption:

<table>  
  <caption>Monthly savings</caption>  
  <tr>  
    <th>Month</th>  
    <th>Savings</th>  
  </tr>  
  <tr>  
    <td>January</td>  
    <td>$100</td>  
  </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_caption_test)

Definition and Usage

The <caption> tag defines a table caption.

The <caption> tag must be inserted immediately after the <table> tag.

**Note:** You can specify only one caption per table.

**Tip:** By default, a table caption will be center-aligned above a table. However, the CSS properties [text-align](http://www.w3schools.com/cssref/pr_text_text-align.asp) and [caption-side](http://www.w3schools.com/cssref/pr_tab_caption-side.asp) can be used to align and place the caption.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <caption> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The align attribute is removed from HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_caption_align.asp) | left right top bottom | Not supported in HTML5. Defines the alignment of the caption |

Global Attributes

The <caption> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <caption> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <center> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_caption.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_cite.asp)

Example

Center-align text in an HTML page:

<center>This text will be center-aligned.</center>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_center_test)

Definition and Usage

The <center> tag is not supported in HTML5. Use CSS instead.

The <center> tag is used to center-align text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <center> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <center> tag is not supported in HTML5.

Compatibility Notes

[CSS Example: Center-align text](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_center_css)

In our CSS tutorial you can find more information about [CSS text alignment](http://www.w3schools.com/css/css_text.asp).

HTML <cite> Tag

[« Previous](http://www.w3schools.com/tags/tag_center.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_code.asp)

Example

Define the title of a work with the <cite> tag:

<p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_cite)

Definition and Usage

The <cite> tag defines the title of a work (e.g. a book, a song, a movie, a TV show, a painting, a sculpture, etc.).

**Note:** A person's name is not the title of a work.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <cite> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML5, the <cite> tag defines the title of a work.

In HTML 4.01, the <cite> tag defines a citation.

Global Attributes

The <cite> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <cite> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <code> Tag

[« Previous](http://www.w3schools.com/tags/tag_cite.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_col.asp)

Example

Format text in a document:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <code> tag is a phrase tag. It defines a piece of computer code.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <code> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <code> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <code> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

HTML <col> Tag

[« Previous](http://www.w3schools.com/tags/tag_code.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_colgroup.asp)

Example

Set the background color of the three columns with the <colgroup> and <col> tags:

<table>  
  <colgroup>  
    <col span="2" style="background-color:red">  
    <col style="background-color:yellow">  
  </colgroup>  
  <tr>  
    <th>ISBN</th>  
    <th>Title</th>  
    <th>Price</th>  
  </tr>  
  <tr>  
    <td>3476896</td>  
    <td>My first HTML</td>  
    <td>$53</td>  
  </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_col_test)

Definition and Usage

The <col> tag specifies column properties for each column within a [<colgroup>](http://www.w3schools.com/tags/tag_colgroup.asp) element.

The <col> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <col> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

Most of the attributes in HTML 4.01 are not supported in HTML5.

Differences Between HTML and XHTML

In HTML the <col> tag has no end tag.

In XHTML, the <col> tag must be properly closed.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_col_align.asp) | left right center justify char | Not supported in HTML5. Specifies the alignment of the content related to a <col> element |
| [char](http://www.w3schools.com/tags/att_col_char.asp) | *character* | Not supported in HTML5. Specifies the alignment of the content related to a <col> element to a character |
| [charoff](http://www.w3schools.com/tags/att_col_charoff.asp) | *number* | Not supported in HTML5. Specifies the number of characters the content will be aligned from the character specified by the char attribute |
| [span](http://www.w3schools.com/tags/att_col_span.asp) | *number* | Specifies the number of columns a <col> element should span |
| [valign](http://www.w3schools.com/tags/att_col_valign.asp) | top middle bottom baseline | Not supported in HTML5. Specifies the vertical alignment of the content related to a <col> element |
| [width](http://www.w3schools.com/tags/att_col_width.asp) | *% pixels relative\_length* | Not supported in HTML5. Specifies the width of a <col> element |

Global Attributes

The <col> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <col> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Column object](http://www.w3schools.com/jsref/dom_obj_col.asp)

HTML <colgroup> Tag

[« Previous](http://www.w3schools.com/tags/tag_col.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_datalist.asp)

Example

Set the background color of the three columns with the <colgroup> and <col> tags:

<table>  
  <colgroup>  
    <col span="2" style="background-color:red">  
    <col style="background-color:yellow">  
  </colgroup>  
  <tr>  
    <th>ISBN</th>  
    <th>Title</th>  
    <th>Price</th>  
  </tr>  
  <tr>  
    <td>3476896</td>  
    <td>My first HTML</td>  
    <td>$53</td>  
  </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_colgroup_test)

Definition and Usage

The <colgroup> tag specifies a group of one or more columns in a table for formatting.

The <colgroup> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.

**Note:** The <colgroup> tag must be a child of a <table> element, after any <caption> elements and before any <thead>, <tbody>, <tfoot>, and <tr> elements.

**Tip:** To define different properties to a column within a <colgroup>, use the [<col>](http://www.w3schools.com/tags/tag_col.asp) tag within the <colgroup> tag.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <colgroup> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

Most of the attributes in HTML 4.01 are not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_colgroup_align.asp) | left right center justify char | Not supported in HTML5. Aligns the content in a column group |
| [char](http://www.w3schools.com/tags/att_colgroup_char.asp) | *character* | Not supported in HTML5. Aligns the content in a column group to a character |
| [charoff](http://www.w3schools.com/tags/att_colgroup_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content will be aligned from the character specified by the char attribute |
| [span](http://www.w3schools.com/tags/att_colgroup_span.asp) | *number* | Specifies the number of columns a column group should span |
| [valign](http://www.w3schools.com/tags/att_colgroup_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content in a column group |
| [width](http://www.w3schools.com/tags/att_colgroup_width.asp) | *pixels % relative\_length* | Not supported in HTML5. Specifies the width of a column group |

Global Attributes

The <colgroup> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <colgroup> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [ColumnGroup object](http://www.w3schools.com/jsref/dom_obj_colgroup.asp)

HTML <datalist> Tag

[« Previous](http://www.w3schools.com/tags/tag_colgroup.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dd.asp)

Example

An <input> element with pre-defined values in a <datalist>:

<input list="browsers">  
  
<datalist id="browsers">  
  <option value="Internet Explorer">  
  <option value="Firefox">  
  <option value="Chrome">  
  <option value="Opera">  
  <option value="Safari">  
</datalist>

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_datalist)

Definition and Usage

The <datalist> tag specifies a list of pre-defined options for an <input> element.

The <datalist> tag is used to provide an "autocomplete" feature on <input> elements. Users will see a drop-down list of pre-defined options as they input data.

Use the <input> element's list attribute to bind it together with a <datalist> element.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <datalist> | 20.0 | 10.0 | 4.0 | Not supported | 9.0 |

Differences Between HTML 4.01 and HTML5

The <datalist> tag is new in HTML5.

Global Attributes

The <datalist> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <datalist> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <dd> Tag

[« Previous](http://www.w3schools.com/tags/tag_datalist.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_del.asp)

Example

A description list, with terms and descriptions:

<dl>  
  <dt>Coffee</dt>  
    <dd>Black hot drink</dd>  
  <dt>Milk</dt>  
    <dd>White cold drink</dd>  
</dl>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_dd_test)

Definition and Usage

The <dd> tag is used to describe a term/name in a description list.

The <dd> tag is used in conjunction with [<dl>](http://www.w3schools.com/tags/tag_dl.asp) (defines a description list) and [<dt>](http://www.w3schools.com/tags/tag_dt.asp) (defines terms/names).

Inside a <dd> tag you can put paragraphs, line breaks, images, links, lists, etc.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dd> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <dd> tag was used to describe an item in a definition list.

In HTML5, the <dd> tag is used to describe a term/name in a description list.

Global Attributes

The <dd> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <dd> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML <del> Tag

[« Previous](http://www.w3schools.com/tags/tag_dd.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_details.asp)

Example

A text with a deleted part, and a new, inserted part:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_del)

Definition and Usage

The <del> tag defines text that has been deleted from a document.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <del> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Also look at the [<ins>](http://www.w3schools.com/tags/tag_ins.asp) tag to markup inserted text.

**Tip:** Use <del> and <ins> to markup updates and modifications in a document. Browsers will normally strike a line through deleted text and underline inserted text.

Differences Between HTML 4.01 and HTML5

NONE.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [cite](http://www.w3schools.com/tags/att_del_cite.asp) | *URL* | Specifies a URL to a document that explains the reason why the text was deleted |
| [datetime](http://www.w3schools.com/tags/att_del_datetime.asp) | *YYYY-MM-DDThh:mm:ssTZD* | Specifies the date and time of when the text was deleted |

Global Attributes

The <del> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <del> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Del object](http://www.w3schools.com/jsref/dom_obj_del.asp)

HTML <details> Tag

[« Previous](http://www.w3schools.com/tags/tag_del.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dfn.asp)

Example

Using the <details> element:

<details>  
  <summary>Copyright 1999-2014.</summary>  
  <p> - by Refsnes Data. All Rights Reserved.</p>  
  <p>All content and graphics on this web site are the property of the company Refsnes Data.</p>  
</details>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_details)

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.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <details> | 12.0 | Not supported | Not supported | 6.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <details> tag is new in HTML5.

Tips and Notes

**Tip:** The [<summary>](http://www.w3schools.com/tags/tag_summary.asp) tag is used to specify a visible heading for the details. The heading can be clicked to view/hide the details.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [open](http://www.w3schools.com/tags/att_details_open.asp) | open | Specifies that the details should be visible (open) to the user |

Global Attributes

The <details> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <details> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <dfn> Tag

[« Previous](http://www.w3schools.com/tags/tag_details.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dialog.asp)

Example

Format text in a document:

<dfn>Definition term</dfn>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <dfn> tag is a phrase tag. It defines a definition term.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dfn> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <dfn> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <dfn> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

HTML <dialog> Tag

[« Previous](http://www.w3schools.com/tags/tag_dfn.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dir.asp)

Example

Using the <dialog> element:

<table>  
<tr>  
  <th>January <dialog open>This is an open dialog window</dialog></th>  
  <th>February</th>  
  <th>March</th>  
</tr>  
<tr>  
  <td>31</td>  
  <td>28</td>  
  <td>31</td>  
</tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_dialog)

Definition and Usage

The <dialog> tag defines a dialog box or window.

The <dialog> element makes it easy to create popup dialogs and modals on a web page.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dialog> | Canary | Not supported | Not supported | 6.0 | Not supported |

The <dialog> tag is currently only supported in Chrome Canary and Safari 6.

**Note:** Even though the <dialog> element is supported in Chrome Canary, you must enable a flag to use it. Write chrome://flags in your address bar and enable the "Enable experimental Web Platform features" flag. Once this is enabled, you must restart the browser for the change to take effect.

Differences Between HTML 4.01 and HTML5

The <dialog> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [open](http://www.w3schools.com/tags/att_dialog_open.asp) | open | Specifies that the dialog element is active and that the user can interact with it |

Global Attributes

The <dialog> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <dialog> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Dialog object](http://www.w3schools.com/jsref/dom_obj_dialog.asp)

HTML <dir> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_dialog.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_div.asp)

Example

A directory list:

<dir>  
  <li>html</li>  
  <li>xhtml</li>  
  <li>css</li>  
</dir>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_dir_test)

Definition and Usage

The <dir> tag is not supported in HTML5. Use CSS instead.

The <dir> tag is used to list directory titles.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dir> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use CSS to style lists! In our CSS tutorial you can find more details about [styling lists](http://www.w3schools.com/css/css_list.asp).

Differences Between HTML 4.01 and HTML5

The <dir> tag is not supported in HTML5.

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [compact](http://www.w3schools.com/tags/att_dir_compact.asp) | compact | Not supported in HTML5. Specifies that the list should render smaller than normal |

HTML <div> Tag

[« Previous](http://www.w3schools.com/tags/tag_dir.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dl.asp)

Example

A section in a document that will be displayed in blue:

<div style="color:#0000FF">  
  <h3>This is a heading</h3>  
  <p>This is a paragraph.</p>  
</div>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_div_test)

Definition and Usage

The <div> tag defines a division or a section in an HTML document.

The <div> tag is used to group block-elements to format them with CSS.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <div> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The <div> element is very often used together with CSS, to layout a web page.

**Note:** By default, browsers always place a line break before and after the <div> element. However, this can be changed with CSS.

Differences Between HTML 4.01 and HTML5

The align attribute not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_div_align.asp) | left right center justify | Not supported in HTML5. Specifies the alignment of the content inside a <div> element |

Global Attributes

The <div> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <div> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Layout](http://www.w3schools.com/html/html_layout.asp)

HTML <dl> Tag

[« Previous](http://www.w3schools.com/tags/tag_div.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_dt.asp)

Example

A description list, with terms and descriptions:

<dl>  
  <dt>Coffee</dt>  
    <dd>Black hot drink</dd>  
  <dt>Milk</dt>  
    <dd>White cold drink</dd>  
</dl>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_dd_test)

Definition and Usage

The <dl> tag defines a description list.

The <dl> tag is used in conjunction with [<dt>](http://www.w3schools.com/tags/tag_dt.asp) (defines terms/names) and [<dd>](http://www.w3schools.com/tags/tag_dd.asp) (describes each term/name).

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dl> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <dl> tag defines a definition list.

In HTML 5, the <dl> tag defines a description list.

Global Attributes

The <dl> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <dl> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML <dt> Tag

[« Previous](http://www.w3schools.com/tags/tag_dl.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_em.asp)

Example

A description list, with terms and descriptions:

<dl>  
  <dt>Coffee</dt>  
    <dd>Black hot drink</dd>  
  <dt>Milk</dt>  
    <dd>White cold drink</dd>  
</dl>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_dd_test)

Definition and Usage

The <dt> tag defines a term/name in a description list.

The <dt> tag is used in conjunction with [<dl>](http://www.w3schools.com/tags/tag_dl.asp) (defines a description list) and [<dd>](http://www.w3schools.com/tags/tag_dd.asp) (describes each term/name).

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <dt> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <dt> tag defines an item in a definition list.

In HTML5, the <dt> tag defines a term/name in a description list.

Global Attributes

The <dt> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <dt> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML <em> Tag

[« Previous](http://www.w3schools.com/tags/tag_dt.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_embed.asp)

Example

Format text in a document:

<em>Emphasized text</em>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <em> tag is a phrase tag. It renders as emphasized text.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <em> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <em> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <em> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

HTML <embed> Tag

[« Previous](http://www.w3schools.com/tags/tag_em.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_fieldset.asp)

Example

An embedded flash animation:

<embed src="helloworld.swf">

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_embed)

Definition and Usage

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <embed> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <embed> tag is new in HTML5.

**Note:** Many web browsers have supported the <embed> tag for a long time. However, the <embed> tag has not been a part of the HTML 4 specification. The <embed> tag is new in HTML5, and will validate in an HTML5 page. However, if you use it in an HTML 4 page, the page will not validate.

Attributes

= New in HTML5.

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

Global Attributes

The <embed> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <embed> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Embed object](http://www.w3schools.com/jsref/dom_obj_embed.asp)

HTML <fieldset> Tag

[« Previous](http://www.w3schools.com/tags/tag_embed.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_figcaption.asp)

Example

Group related elements in a form:

<form>  
  <fieldset>  
    <legend>Personalia:</legend>  
    Name: <input type="text"><br>  
    Email: <input type="text"><br>  
    Date of birth: <input type="text">  
  </fieldset>  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_fieldset)

Definition and Usage

The <fieldset> tag is used to group related elements in a form.

The <fieldset> tag draws a box around the related elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <fieldset> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The [<legend>](http://www.w3schools.com/tags/tag_legend.asp) tag defines a caption for the <fieldset> element.

Differences Between HTML 4.01 and HTML5

HTML5 has added new attributes for <fieldset>.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [disabled](http://www.w3schools.com/tags/att_fieldset_disabled.asp) | disabled | Specifies that a group of related form elements should be disabled |
| [form](http://www.w3schools.com/tags/att_fieldset_form.asp) | *form\_id* | Specifies one or more forms the fieldset belongs to |
| [name](http://www.w3schools.com/tags/att_fieldset_name.asp) | *text* | Specifies a name for the fieldset |

Global Attributes

The <fieldset> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <fieldset> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Fieldset object](http://www.w3schools.com/jsref/dom_obj_fieldset.asp)

HTML <figcaption> Tag

[« Previous](http://www.w3schools.com/tags/tag_fieldset.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_figure.asp)

Example

Use a <figure> element to mark up a photo in a document. The <figure> element also contains a caption:

<figure>  
  <img src="img\_pulpit.jpg" alt="The Pulpit Rock" width="304" height="228">  
  <figcaption>Fig1. - A view of the pulpit rock in Norway.</figcaption>  
</figure>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_figcaption)

Definition and Usage

The <figcaption> tag defines a caption for a [<figure>](http://www.w3schools.com/tags/tag_figure.asp) element.

The <figcaption> element can be placed as the first or last child of the <figure> element.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <figcaption> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <figcaption> tag is new in HTML5.

Global Attributes

The <figcaption> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <figcaption> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <figure> Tag

[« Previous](http://www.w3schools.com/tags/tag_figcaption.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_font.asp)

Example

Use a <figure> element to mark up a photo in a document:

<figure>  
  <img src="img\_pulpit.jpg" alt="The Pulpit Rock" width="304" height="228">  
</figure>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_figure)

Definition and Usage

The <figure> tag specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

While the content of the <figure> element is related to the main flow, its position is independent of the main flow, and if removed it should not affect the flow of the document.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <figure> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <figure> tag is new in HTML5.

Tips and Notes

**Tip:** The [<figcaption>](http://www.w3schools.com/tags/tag_figcaption.asp) element is used to add a caption for the <figure> element.

Global Attributes

The <figure> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <figure> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <font> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_figure.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_footer.asp)

Example

Specify the font size, font face and color of text:

<font size="3" color="red">This is some text!</font>  
<font size="2" color="blue">This is some text!</font>  
<font face="verdana" color="green">This is some text!</font>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_font)

Definition and Usage

The <font> tag is not supported in HTML5. Use CSS instead.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <font> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <font> tag is not supported in HTML5.

Compatibility Notes

[CSS Example: Set the color of text](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_font_color_css)

[CSS Example: Set the font of text](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_font_face_css)

[CSS Example: Set the size of text](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_font_size_css)

In our CSS tutorial you can find more information about [CSS text color](http://www.w3schools.com/css/css_text.asp) and [CSS fonts](http://www.w3schools.com/css/css_font.asp).

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [color](http://www.w3schools.com/tags/att_font_color.asp) | *rgb(x,x,x) #xxxxxx colorname* | Not supported in HTML5. Specifies the color of text |
| [face](http://www.w3schools.com/tags/att_font_face.asp) | *font\_family* | Not supported in HTML5. Specifies the font of text |
| [size](http://www.w3schools.com/tags/att_font_size.asp) | *number* | Not supported in HTML5. Specifies the size of text |

HTML <footer> Tag

[« Previous](http://www.w3schools.com/tags/tag_font.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_form.asp)

Example

A footer section in a document:

<footer>  
  <p>Posted by: Hege Refsnes</p>  
  <p>Contact information: <a href="mailto:someone@example.com">  
  someone@example.com</a>.</p>  
</footer>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_footer)

Definition and Usage

The <footer> tag defines a footer for a document or section.

A <footer> element should contain information about its containing element.

A footer typically contains the author of the document, copyright information, links to terms of use, contact information, etc.

You can have several <footer> elements in one document.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <footer> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <footer> tag is new in HTML5.

Tips and Notes

**Tip:** Contact information inside a <footer> element should go inside an [<address>](http://www.w3schools.com/tags/tag_address.asp) tag.

Global Attributes

The <footer> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <footer> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <form> Tag

[« Previous](http://www.w3schools.com/tags/tag_footer.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_frame.asp)

Example

An HTML form with two input fields and one submit button:

<form action="demo\_form.asp" method="get">  
  First name: <input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  <input type="submit" value="Submit">  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_form_submit)

More "Try it Yourself" examples below.

Definition and Usage

The <form> tag is used to create an HTML form for user input.

The <form> element can contain one or more of the following form elements:

* [<input>](http://www.w3schools.com/tags/tag_input.asp)
* [<textarea>](http://www.w3schools.com/tags/tag_textarea.asp)
* [<button>](http://www.w3schools.com/tags/tag_button.asp)
* [<select>](http://www.w3schools.com/tags/tag_select.asp)
* [<option>](http://www.w3schools.com/tags/tag_option.asp)
* [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp)
* [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp)
* [<label>](http://www.w3schools.com/tags/tag_label.asp)

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <form> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

HTML5 has added two new attributes: autocomplete and novalidate, and removed the accept attribute.

Differences Between HTML and XHTML

In XHTML, the name attribute is deprecated. Use the global id attribute instead.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [accept](http://www.w3schools.com/tags/att_form_accept.asp) | *MIME\_type* | Not supported in HTML5. Specifies the types of files that the server accepts (that can be submitted through a file upload) |
| [accept-charset](http://www.w3schools.com/tags/att_form_accept_charset.asp) | *character\_set* | Specifies the character encodings that are to be used for the form submission |
| [action](http://www.w3schools.com/tags/att_form_action.asp) | *URL* | Specifies where to send the form-data when a form is submitted |
| [autocomplete](http://www.w3schools.com/tags/att_form_autocomplete.asp) | on off | Specifies whether a form should have autocomplete on or off |
| [enctype](http://www.w3schools.com/tags/att_form_enctype.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 (only for method="post") |
| [method](http://www.w3schools.com/tags/att_form_method.asp) | get post | Specifies the HTTP method to use when sending form-data |
| [name](http://www.w3schools.com/tags/att_form_name.asp) | *text* | Specifies the name of a form |
| [novalidate](http://www.w3schools.com/tags/att_form_novalidate.asp) | novalidate | Specifies that the form should not be validated when submitted |
| [target](http://www.w3schools.com/tags/att_form_target.asp) | \_blank \_self \_parent \_top | Specifies where to display the response that is received after submitting the form |

Global Attributes

The <form> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <form> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Form with checkboxes](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_form_checkbox)  
A form with two checkboxes, and a submit button.

[Form with radiobuttons](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_form_radio)  
A form with two radio buttons, and a submit button.

Related Pages

HTML tutorial: [HTML Forms and Input](http://www.w3schools.com/html/html_forms.asp)

HTML DOM reference: [Form object](http://www.w3schools.com/jsref/dom_obj_form.asp)

HTML <frame> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_form.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_frameset.asp)

Example

A simple three-framed page:

<frameset cols="25%,50%,25%">  
  <frame src="frame\_a.htm">  
  <frame src="frame\_b.htm">  
  <frame src="frame\_c.htm">  
</frameset>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_cols)

More "Try it Yourself" examples below.

Definition and Usage

The <frame> tag is not supported in HTML5.

The <frame> tag defines one particular window (frame) within a <frameset>.

Each <frame> in a <frameset> can have different attributes, such as border, scrolling, the ability to resize, etc.

**Note:** If you want to validate a page containing frames, be sure the [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) is set to either "HTML Frameset DTD" or "XHTML Frameset DTD".

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <frame> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <frame> tag is not supported in HTML5.

Differences Between HTML and XHTML

In HTML, the <frame> tag has no end tag. In XHTML, the <frame> tag must be properly closed.

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [frameborder](http://www.w3schools.com/tags/att_frame_frameborder.asp) | 0 1 | Not supported in HTML5. Specifies whether or not to display a border around a frame |
| [longdesc](http://www.w3schools.com/tags/att_frame_longdesc.asp) | *URL* | Not supported in HTML5. Specifies a page that contains a long description of the content of a frame |
| [marginheight](http://www.w3schools.com/tags/att_frame_marginheight.asp) | *pixels* | Not supported in HTML5. Specifies the top and bottom margins of a frame |
| [marginwidth](http://www.w3schools.com/tags/att_frame_marginwidth.asp) | *pixels* | Not supported in HTML5. Specifies the left and right margins of a frame |
| [name](http://www.w3schools.com/tags/att_frame_name.asp) | *text* | Not supported in HTML5. Specifies the name of a frame |
| [noresize](http://www.w3schools.com/tags/att_frame_noresize.asp) | noresize | Not supported in HTML5. Specifies that a frame is not resizable |
| [scrolling](http://www.w3schools.com/tags/att_frame_scrolling.asp) | yes no auto | Not supported in HTML5. Specifies whether or not to display scrollbars in a frame |
| [src](http://www.w3schools.com/tags/att_frame_src.asp) | *URL* | Not supported in HTML5. Specifies the URL of the document to show in a frame |

Examples

Try it Yourself - Examples

[Horizontal frameset](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_rows)  
How to make a horizontal frameset with three different documents.

[Mixed frameset](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_mix)  
How to make a frameset with three documents, and how to mix them in rows and columns.

[Frameset with noresize="noresize"](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_noresize)  
How to use the "noresize" attribute. The border between frame A and B is not resizable.

HTML <frameset> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_frame.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_head.asp)

Example

A simple three-framed page:

<frameset cols="25%,\*,25%">  
  <frame src="frame\_a.htm">  
  <frame src="frame\_b.htm">  
  <frame src="frame\_c.htm">  
</frameset>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_cols)

More "Try it Yourself" examples below.

Definition and Usage

The <frameset> tag is not supported in HTML5.

The <frameset> tag defines a frameset.

The <frameset> element holds one or more [<frame>](http://www.w3schools.com/tags/tag_frame.asp) elements. Each <frame> element can hold a separate document.

The <frameset> element specifies HOW MANY columns or rows there will be in the frameset, and HOW MUCH percentage/pixels of space will occupy each of them.

**Note:** If you want to validate a page containing frames, be sure the [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) is set to either "HTML Frameset DTD" or "XHTML Frameset DTD".

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <frameset> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <frameset> tag is not supported in HTML5.

Differences Between HTML and XHTML

NONE

Optional Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [cols](http://www.w3schools.com/tags/att_frameset_cols.asp) | *pixels % \** | Not supported in HTML5. Specifies the number and size of columns in a frameset |
| [rows](http://www.w3schools.com/tags/att_frameset_rows.asp) | *pixels % \** | Not supported in HTML5. Specifies the number and size of rows in a frameset |

Examples

Try it Yourself - Examples

[Horizontal frameset](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_rows)  
How to make a horizontal frameset with three different documents.

[Mixed frameset](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_mix)  
How to make a frameset with three documents, and how to mix them in rows and columns.

[Frameset with noresize="noresize"](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_frame_noresize)  
How to use the "noresize" attribute. The frames are not resizable. Move the mouse over the borders between the frames and notice that you can not move the borders.

Related Pages

HTML DOM reference: [Frameset object](http://www.w3schools.com/jsref/dom_obj_frameset.asp)

HTML <head> Tag

[« Previous](http://www.w3schools.com/tags/tag_frameset.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_header.asp)

Example

An HTML document, with a required <title> tag in the head section:

<html>  
<head>  
<title>Title of the document</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basic)

More "Try it Yourself" examples below.

Definition and Usage

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

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

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

* [<title>](http://www.w3schools.com/tags/tag_title.asp) (this element is required in the head section)
* [<style>](http://www.w3schools.com/tags/tag_style.asp)
* [<base>](http://www.w3schools.com/tags/tag_base.asp)
* [<link>](http://www.w3schools.com/tags/tag_link.asp)
* [<meta>](http://www.w3schools.com/tags/tag_meta.asp)
* [<script>](http://www.w3schools.com/tags/tag_script.asp)
* [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp)

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <head> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The profile attribute is not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| profile | *URL* | Not supported in HTML5. Specifies a URL to a document that contains a set of rules. The rules can be read by browsers to clearly understand the information in the <meta> tag's content attribute |

Global Attributes

The <head> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Examples

Try it Yourself - Examples

[Use of the <base> tag in <head>](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_base_test)  
How to use the <base> tag to specify a default URL and a default target for all links on a page.

[Use of the <style> tag in <head>](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_style)  
How to add style information to the <head> section.

[Use of the <link> tag in <head>](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_tag)  
How to use the <link> tag to link to an external style sheet.

Related Pages

HTML tutorial: [HTML Head](http://www.w3schools.com/html/html_head.asp)

HTML <header> Tag

[« Previous](http://www.w3schools.com/tags/tag_head.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_hn.asp)

Example

A header for an <article>:

<article>  
  <header>  
    <h1>Internet Explorer 9</h1>  
    <p><time pubdate datetime="2011-03-15"></time></p>  
  </header>  
  <p>Windows Internet Explorer 9 (abbreviated as IE9) was released to  
  the  public on March 14, 2011 at 21:00 PDT.....</p>  
</article>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_header)

Definition and Usage

The <header> tag specifies a header for a document or section.

The <header> element should be used as a container for introductory content or set of navigational links.

You can have several <header> elements in one document.

**Note:** A <header> tag cannot be placed within a <footer>, <address> or another <header> element.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <header> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <header> tag is new in HTML5.

Global Attributes

The <header> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <header> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <h1> to <h6> Tags

[« Previous](http://www.w3schools.com/tags/tag_header.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_hr.asp)

Example

The six different HTML headings:

<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>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_headers)

Definition and Usage

The <h1> to <h6> tags are used to define HTML headings.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <h1> - <h6> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The "align" attribute is not supported in HTML5. Use CSS to align elements.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_hn_align.asp) | left center right justify | Not supported in HTML5. Specifies the alignment of a heading |

Global Attributes

The <h1> to <h6> tags also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <h1> to <h6> tags also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Headings](http://www.w3schools.com/html/html_headings.asp)

HTML <hr> Tag

[« Previous](http://www.w3schools.com/tags/tag_hn.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_html.asp)

Example

Use the <hr> tag to define a thematic change in the content:

<h1>HTML</h1>  
<p>HTML is a language for describing web pages.....</p>  
  
<hr>  
  
<h1>CSS</h1>  
<p>CSS defines how to display HTML elements.....</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_hr_test)

Definition and Usage

The <hr> tag defines a thematic break in an HTML page (e.g. a shift of topic).

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <hr> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML5, the <hr> tag defines a thematic break.

In HTML 4.01, the <hr> tag represents a horizontal rule.

However, the <hr> tag may still be displayed as a horizontal rule in visual browsers, but is now defined in semantic terms, rather than presentational terms.

All the layout attributes are removed in HTML5. Use CSS instead.

Differences Between HTML and XHTML

In HTML, the <hr> tag has no end tag.

In XHTML, the <hr> tag must be properly closed, like this: <hr />.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_hr_align.asp) | left center right | Not supported in HTML5. Specifies the alignment of a <hr> element |
| [noshade](http://www.w3schools.com/tags/att_hr_noshade.asp) | noshade | Not supported in HTML5. Specifies that a <hr> element should render in one solid color (noshaded), instead of a shaded color |
| [size](http://www.w3schools.com/tags/att_hr_size.asp) | *pixels* | Not supported in HTML5. Specifies the height of a <hr> element |
| [width](http://www.w3schools.com/tags/att_hr_width.asp) | *pixels %* | Not supported in HTML5. Specifies the width of a <hr> element |

Global Attributes

The <hr> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <hr> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <html> Tag

[« Previous](http://www.w3schools.com/tags/tag_hr.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_i.asp)

Example

A simple HTML5 document:

<!DOCTYPE HTML>  
<html>  
<head>  
<title>Title of the document</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basic)

Definition and Usage

The <html> tag tells the browser that this is an HTML document.

The <html> tag represents the root of an HTML document.

The <html> tag is the container for all other HTML elements (except for the [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) tag).

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <html> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

HTML5 has added a new attribute: manifest.

Differences Between HTML and XHTML

The xmlns attribute is required in XHTML, but is invalid in HTML.

However, the HTML validator at <http://w3.org> does not complain when the xmlns attribute is missing in an XHTML document. This is because the namespace "xmlns=http://www.w3.org/1999/xhtml" is default, and will be added to the <html> tag even if you do not include it.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [manifest](http://www.w3schools.com/tags/att_html_manifest.asp) | *URL* | Specifies the address of the document's cache manifest (for offline browsing) |
| [xmlns](http://www.w3schools.com/tags/att_html_xmlns.asp) | http://www.w3.org/1999/xhtml | Specifies the XML namespace attribute (If you need your content to conform to XHTML) |

Global Attributes

The <html> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

HTML <i> Tag

[« Previous](http://www.w3schools.com/tags/tag_html.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_iframe.asp)

Example

<p>He named his car <i>The lightning</i>, because it was very fast.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_i)

Definition and Usage

The <i> tag defines a part of text in an alternate voice or mood. The content of the <i> tag is usually displayed in italic.

The <i> tag can be used to indicate a technical term, a phrase from another language, a thought, or a ship name, etc.

Use the <i> element only when there is not a more appropriate semantic element, such as:

* [<em>](http://www.w3schools.com/tags/tag_em.asp) (emphasized text)
* [<strong>](http://www.w3schools.com/tags/tag_strong.asp) (important text)
* [<mark>](http://www.w3schools.com/tags/tag_mark.asp) (marked/highlighted text)
* [<cite>](http://www.w3schools.com/tags/tag_cite.asp) (the title of a work)
* [<dfn>](http://www.w3schools.com/tags/tag_dfn.asp) (a definition term)

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <i> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <i> tag was used to render text in italics. However, this is not necessarily the case with HTML5. Style sheets can be used to format the text inside the <i> element.

Global Attributes

The <i> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <i> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <iframe> Tag

[« Previous](http://www.w3schools.com/tags/tag_i.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_img.asp)

Example

An inline frame is marked up as follows:

<iframe src="http://www.w3schools.com"></iframe>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_iframe)

Definition and Usage

The <iframe> tag specifies an inline frame.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <iframe> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** To deal with browsers that do not support <iframe>, add a text between the opening <iframe> tag and the closing </iframe> tag.

**Tip:** Use CSS to style the <iframe> (even to include scrollbars).

Differences Between HTML 4.01 and HTML5

HTML5 has added some new attributes, and several HTML 4.01 attributes are removed from HTML5.

Differences Between HTML and XHTML

In XHTML, the name attribute is deprecated, and will be removed. Use the id attribute instead.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_iframe_align.asp) | left right top middle bottom | Not supported in HTML5. Specifies the alignment of an <iframe> according to surrounding elements |
| [frameborder](http://www.w3schools.com/tags/att_iframe_frameborder.asp) | 1 0 | Not supported in HTML5. Specifies whether or not to display a border around an <iframe> |
| [height](http://www.w3schools.com/tags/att_iframe_height.asp) | *pixels* | Specifies the height of an <iframe> |
| [longdesc](http://www.w3schools.com/tags/att_iframe_longdesc.asp) | *URL* | Not supported in HTML5. Specifies a page that contains a long description of the content of an <iframe> |
| [marginheight](http://www.w3schools.com/tags/att_iframe_marginheight.asp) | *pixels* | Not supported in HTML5. Specifies the top and bottom margins of the content of an <iframe> |
| [marginwidth](http://www.w3schools.com/tags/att_iframe_marginwidth.asp) | *pixels* | Not supported in HTML5. Specifies the left and right margins of the content of an <iframe> |
| [name](http://www.w3schools.com/tags/att_iframe_name.asp) | *text* | Specifies the name of an <iframe> |
| [sandbox](http://www.w3schools.com/tags/att_iframe_sandbox.asp) | "" allow-forms allow-same-origin allow-scripts allow-top-navigation | Enables a set of extra restrictions for the content in the <iframe> |
| [scrolling](http://www.w3schools.com/tags/att_iframe_scrolling.asp) | yes no auto | Not supported in HTML5. Specifies whether or not to display scrollbars in an <iframe> |
| [seamless](http://www.w3schools.com/tags/att_iframe_seamless.asp) | seamless | Specifies that the <iframe> should look like it is a part of the containing document |
| [src](http://www.w3schools.com/tags/att_iframe_src.asp) | *URL* | Specifies the address of the document to embed in the <iframe> |
| [srcdoc](http://www.w3schools.com/tags/att_iframe_srcdoc.asp) | *HTML\_code* | Specifies the HTML content of the page to show in the <iframe> |
| [width](http://www.w3schools.com/tags/att_iframe_width.asp) | *pixels* | Specifies the width of an <iframe> |

Global Attributes

The <iframe> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <iframe> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Iframes](http://www.w3schools.com/html/html_iframe.asp)

HTML DOM reference: [IFrame object](http://www.w3schools.com/jsref/dom_obj_frame.asp)

HTML <img> Tag

[« Previous](http://www.w3schools.com/tags/tag_iframe.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_input.asp)

Example

How to insert an image:

<img src="smiley.gif" alt="Smiley face" height="42" width="42">

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_image_test)

More "Try it Yourself" examples below.

Definition and Usage

The <img> tag defines an image in an HTML page.

The <img> tag has two required attributes: src and alt.

**Note:** Images are not technically inserted into an HTML page, images are linked to HTML pages. The <img> tag creates a holding space for the referenced image.

**Tip:** To link an image to another document, simply nest the <img> tag inside <a> tags.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <img> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The following attributes: align, border, hspace, longdesc, and vspace are not supported in HTML5.

Differences Between HTML and XHTML

In HTML the <img> tag has no end tag.

In XHTML the <img> tag must be properly closed.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_img_align.asp) | top bottom middle left right | Not supported in HTML5. Specifies the alignment of an image according to surrounding elements |
| [alt](http://www.w3schools.com/tags/att_img_alt.asp) | *text* | Specifies an alternate text for an image |
| [border](http://www.w3schools.com/tags/att_img_border.asp) | *pixels* | Not supported in HTML5. Specifies the width of the border around an image |
| crossorigin | anonymous  use-credentials | Allow images from third-party sites that allow cross-origin access to be used with canvas |
| [height](http://www.w3schools.com/tags/att_img_height.asp) | *pixels* | Specifies the height of an image |
| [hspace](http://www.w3schools.com/tags/att_img_hspace.asp) | *pixels* | Not supported in HTML5. Specifies the whitespace on left and right side of an image |
| [ismap](http://www.w3schools.com/tags/att_img_ismap.asp) | ismap | Specifies an image as a server-side image-map |
| [longdesc](http://www.w3schools.com/tags/att_img_longdesc.asp) | *URL* | Not supported in HTML5. Specifies the URL to a document that contains a long description of an image |
| [src](http://www.w3schools.com/tags/att_img_src.asp) | *URL* | Specifies the URL of an image |
| [usemap](http://www.w3schools.com/tags/att_img_usemap.asp) | *#mapname* | Specifies an image as a client-side image-map |
| [vspace](http://www.w3schools.com/tags/att_img_vspace.asp) | *pixels* | Not supported in HTML5. Specifies the whitespace on top and bottom of an image |
| [width](http://www.w3schools.com/tags/att_img_width.asp) | *pixels* | Specifies the width of an image |

Global Attributes

The <img> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <img> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Insert images from different locations](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_image_diffloc)  
How to insert images from another folder or from another web site.

[Make a hyperlink of an image](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_image_link)  
How to add a hyperlink to an image.

[Create an image map](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_areamap)  
How to create an image map, with clickable regions. Each region is a hyperlink.

Related Pages

HTML tutorial: [HTML Images](http://www.w3schools.com/html/html_images.asp)

HTML DOM reference: [Image object](http://www.w3schools.com/jsref/dom_obj_image.asp)

HTML <input> Tag

[« Previous](http://www.w3schools.com/tags/tag_img.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_ins.asp)

Example

An HTML form with three input fields; two text fields and one submit button:

<form action="demo\_form.asp">  
  First name: <input type="text" name="fname"><br>  
  Last name: <input type="text" name="lname"><br>  
  <input type="submit" value="Submit">  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_form_submit)

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.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <input> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

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

**Tip:** Use the [<label>](http://www.w3schools.com/tags/tag_label.asp) element to define labels for <input> elements.

Differences Between HTML 4.01 and HTML5

The "align" attribute is not supported in HTML5.

In HTML5, the <input> tag has several new attributes, and the type attribute has several new values.

Differences Between HTML and XHTML

In HTML, the <input> tag has no end tag.

In XHTML, the <input> tag must be properly closed, like this <input />.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [accept](http://www.w3schools.com/tags/att_input_accept.asp) | audio/\* video/\* image/\* *MIME\_type* | Specifies the types of files that the server accepts (only for type="file") |
| [align](http://www.w3schools.com/tags/att_input_align.asp) | left right top middle bottom | Not supported in HTML5. Specifies the alignment of an image input (only for type="image") |
| [alt](http://www.w3schools.com/tags/att_input_alt.asp) | *text* | Specifies an alternate text for images (only for type="image") |
| [autocomplete](http://www.w3schools.com/tags/att_input_autocomplete.asp) | on off | Specifies whether an <input> element should have autocomplete enabled |
| [autofocus](http://www.w3schools.com/tags/att_input_autofocus.asp) | autofocus | Specifies that an <input> element should automatically get focus when the page loads |
| [checked](http://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") |
| [disabled](http://www.w3schools.com/tags/att_input_disabled.asp) | disabled | Specifies that an <input> element should be disabled |
| [form](http://www.w3schools.com/tags/att_input_form.asp) | *form\_id* | Specifies one or more forms the <input> element belongs to |
| [formaction](http://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](http://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](http://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](http://www.w3schools.com/tags/att_input_formnovalidate.asp) | formnovalidate | Defines that form elements should not be validated when submitted |
| [formtarget](http://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](http://www.w3schools.com/tags/att_input_height.asp) | *pixels* | Specifies the height of an <input> element (only for type="image") |
| [list](http://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](http://www.w3schools.com/tags/att_input_max.asp) | *number date* | Specifies the maximum value for an <input> element |
| [maxlength](http://www.w3schools.com/tags/att_input_maxlength.asp) | *number* | Specifies the maximum number of characters allowed in an <input> element |
| [min](http://www.w3schools.com/tags/att_input_min.asp) | *number date* | Specifies a minimum value for an <input> element |
| [multiple](http://www.w3schools.com/tags/att_input_multiple.asp) | multiple | Specifies that a user can enter more than one value in an <input> element |
| [name](http://www.w3schools.com/tags/att_input_name.asp) | *text* | Specifies the name of an <input> element |
| [pattern](http://www.w3schools.com/tags/att_input_pattern.asp) | *regexp* | Specifies a regular expression that an <input> element's value is checked against |
| [placeholder](http://www.w3schools.com/tags/att_input_placeholder.asp) | *text* | Specifies a short hint that describes the expected value of an <input> element |
| [readonly](http://www.w3schools.com/tags/att_input_readonly.asp) | readonly | Specifies that an input field is read-only |
| [required](http://www.w3schools.com/tags/att_input_required.asp) | required | Specifies that an input field must be filled out before submitting the form |
| [size](http://www.w3schools.com/tags/att_input_size.asp) | *number* | Specifies the width, in characters, of an <input> element |
| [src](http://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](http://www.w3schools.com/tags/att_input_step.asp) | *number* | Specifies the legal number intervals for an input field |
| [type](http://www.w3schools.com/tags/att_input_type.asp) | button checkbox color date  datetime  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](http://www.w3schools.com/tags/att_input_value.asp) | *text* | Specifies the value of an <input> element |
| [width](http://www.w3schools.com/tags/att_input_width.asp) | *pixels* | Specifies the width of an <input> element (only for type="image") |

Global Attributes

The <input> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <input> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Forms](http://www.w3schools.com/html/html_forms.asp)

HTML DOM reference:

* [Input Button object](http://www.w3schools.com/jsref/dom_obj_button.asp)
* [Input Checkbox object](http://www.w3schools.com/jsref/dom_obj_checkbox.asp)
* [Input Color object](http://www.w3schools.com/jsref/dom_obj_color.asp)
* [Input Date object](http://www.w3schools.com/jsref/dom_obj_date.asp)
* [Input Datetime object](http://www.w3schools.com/jsref/dom_obj_datetime.asp)
* [Input DatetimeLocal object](http://www.w3schools.com/jsref/dom_obj_datetime-local.asp)
* [Input Email object](http://www.w3schools.com/jsref/dom_obj_email.asp)
* [Input FileUpload object](http://www.w3schools.com/jsref/dom_obj_fileupload.asp)
* [Input Hidden object](http://www.w3schools.com/jsref/dom_obj_hidden.asp)
* [Input Image object](http://www.w3schools.com/jsref/dom_obj_input_image.asp)
* [Input Month object](http://www.w3schools.com/jsref/dom_obj_month.asp)
* [Input Number object](http://www.w3schools.com/jsref/dom_obj_number.asp)
* [Input Password object](http://www.w3schools.com/jsref/dom_obj_password.asp)
* [Input Range object](http://www.w3schools.com/jsref/dom_obj_range.asp)
* [Input Radio object](http://www.w3schools.com/jsref/dom_obj_radio.asp)
* [Input Reset object](http://www.w3schools.com/jsref/dom_obj_reset.asp)
* [Input Search object](http://www.w3schools.com/jsref/dom_obj_search.asp)
* [Input Submit object](http://www.w3schools.com/jsref/dom_obj_submit.asp)
* [Input Text object](http://www.w3schools.com/jsref/dom_obj_text.asp)
* [Input Time object](http://www.w3schools.com/jsref/dom_obj_input_time.asp)
* [Input URL object](http://www.w3schools.com/jsref/dom_obj_url.asp)
* [Input Week object](http://www.w3schools.com/jsref/dom_obj_week.asp)
* HTML <ins> Tag
* [« Previous](http://www.w3schools.com/tags/tag_input.asp)
* [Complete HTML Reference](http://www.w3schools.com/tags/default.asp)
* [Next »](http://www.w3schools.com/tags/tag_kbd.asp)
* Example
* A text with a deleted part, and a new, inserted part:
* <p>My favorite color is <del>blue</del> <ins>red</ins>!</p>
* [**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_del)
* Definition and Usage
* The <ins> tag defines a text that has been inserted into a document.
* **Tip:** Also look at the [<del>](http://www.w3schools.com/tags/tag_del.asp) tag to markup deleted text.
* Browsers will normally strike a line through deleted text and underline inserted text.
* Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <ins> | Yes | Yes | Yes | Yes | Yes |

* Tips and Notes
* **Tip:** Use <ins> it together with <del> to markup updates and modifications in a document.
* Differences Between HTML 4.01 and HTML5
* NONE.
* Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [cite](http://www.w3schools.com/tags/att_ins_cite.asp) | *URL* | Specifies a URL to a document that explains the reason why the text was inserted/changed |
| [datetime](http://www.w3schools.com/tags/att_ins_datetime.asp) | *YYYY-MM-DDThh:mm:ssTZD* | Specifies the date and time when the text was inserted/changed |

* Global Attributes
* The <ins> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).
* Event Attributes
* The <ins> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).
* Related Pages
* HTML DOM reference: [Ins object](http://www.w3schools.com/jsref/dom_obj_ins.asp)
* HTML <kbd> Tag
* [« Previous](http://www.w3schools.com/tags/tag_ins.asp)
* [Complete HTML Reference](http://www.w3schools.com/tags/default.asp)
* [Next »](http://www.w3schools.com/tags/tag_keygen.asp)
* Example
* Format text in a document:
* <kbd>Keyboard input</kbd>
* [**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)
* 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.
* All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

* Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <kbd> | Yes | Yes | Yes | Yes | Yes |

* Differences Between HTML 4.01 and HTML5
* NONE.
* Global Attributes
* The <kbd> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).
* Event Attributes
* The <kbd> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).
* Related Pages
* HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)
* HTML <keygen> Tag
* [« Previous](http://www.w3schools.com/tags/tag_kbd.asp)
* [Complete HTML Reference](http://www.w3schools.com/tags/default.asp)
* [Next »](http://www.w3schools.com/tags/tag_label.asp)
* Example
* A form with a keygen field:
* <form action="demo\_keygen.asp" method="get">  
    Username: <input type="text" name="usr\_name">  
    Encryption: <keygen name="security">  
    <input type="submit">  
  </form>
* [**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_keygen)
* Definition and Usage
* The <keygen> tag specifies a key-pair generator field used for forms.
* When the form is submitted, the private key is stored locally, and the public key is sent to the server.
* Browser Support
* The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <keygen> | 1.0 | Not supported | 1.0 | 1.2 | 3.0 |

* Differences Between HTML 4.01 and HTML5
* The <keygen> element is new in HTML5.
* Attributes
* = New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autofocus](http://www.w3schools.com/tags/att_keygen_autofocus.asp) | autofocus | Specifies that a <keygen> element should automatically get focus when the page loads |
| challenge | challenge | Specifies that the value of the <keygen> element should be challenged when submitted |
| [disabled](http://www.w3schools.com/tags/att_keygen_disabled.asp) | disabled | Specifies that a <keygen> element should be disabled |
| [form](http://www.w3schools.com/tags/att_keygen_form.asp) | *form\_id* | Specifies one or more forms the <keygen> element belongs to |
| [keytype](http://www.w3schools.com/tags/att_keygen_keytype.asp) | rsa dsa ec | Specifies the security algorithm of the key |
| [name](http://www.w3schools.com/tags/att_keygen_name.asp) | *name* | Defines a name for the <keygen> element |

* Global Attributes
* The <keygen> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).
* Event Attributes
* The <keygen> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).
* Related Pages
* HTML DOM reference: [Keygen object](http://www.w3schools.com/jsref/dom_obj_keygen.asp)

HTML <label> Tag

[« Previous](http://www.w3schools.com/tags/tag_keygen.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_legend.asp)

Example

Two radio buttons with labels:

<form action="demo\_form.asp">  
  <label for="male">Male</label>  
  <input type="radio" name="sex" id="male" value="male"><br>  
  <label for="female">Female</label>  
  <input type="radio" name="sex" id="female" value="female"><br>  
  <input type="submit" value="Submit">  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_label)

Definition and Usage

The <label> tag defines a label for an <input> element.

The <label> element does not render as anything special for the user. However, it provides a usability improvement for mouse users, because if the user clicks on the text within the <label> element, it toggles the control.

The for attribute of the <label> tag should be equal to the id attribute of the related element to bind them together.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <label> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** A label can be bound to an element either by using the "for" attribute, or by placing the element inside the <label> element.

Differences Between HTML 4.01 and HTML5

The "form" attribute is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [for](http://www.w3schools.com/tags/att_label_for.asp) | *element\_id* | Specifies which form element a label is bound to |
| [form](http://www.w3schools.com/tags/att_label_form.asp) | *form\_id* | Specifies one or more forms the label belongs to |

Global Attributes

The <label> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <label> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Label object](http://www.w3schools.com/jsref/dom_obj_label.asp)

HTML <legend> Tag

[« Previous](http://www.w3schools.com/tags/tag_label.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_li.asp)

Example

Group related elements in a form:

<form>  
  <fieldset>  
    <legend>Personalia:</legend>  
    Name: <input type="text" size="30"><br>  
    Email: <input type="text" size="30"><br>  
    Date of birth: <input type="text" size="10">  
  </fieldset>  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_fieldset)

Definition and Usage

The <legend> tag defines a caption for the [<fieldset>](http://www.w3schools.com/tags/tag_fieldset.asp) element.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <legend> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The "align" attribute is not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_legend_align.asp) | top bottom left right | Not supported in HTML5. Specifies the alignment of the caption |

Global Attributes

The <legend> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <legend> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Legend object](http://www.w3schools.com/jsref/dom_obj_legend.asp)

HTML <li> Tag

[« Previous](http://www.w3schools.com/tags/tag_legend.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_link.asp)

Example

One ordered (<ol>) and one unordered (<ul>) HTML list:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_list_test)

More "Try it Yourself" examples below.

Definition and Usage

The <li> tag defines a list item.

The <li> tag is used in ordered lists([<ol>](http://www.w3schools.com/tags/tag_ol.asp)), unordered lists ([<ul>](http://www.w3schools.com/tags/tag_ul.asp)), and in menu lists ([<menu>](http://www.w3schools.com/tags/tag_menu.asp)).

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <li> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The "type" attribute is NOT supported in HTML5.

The "value" attribute was [deprecated](javascript:NewWindow('deprecated.htm')) in HTML 4.01, but IS supported in HTML5.

Tips and Notes

**Tip:** Use CSS to define the type of list**.**

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [type](http://www.w3schools.com/tags/att_li_type.asp) | 1 A a I i disc square circle | Not supported in HTML5. Specifies which kind of bullet point will be used |
| [value](http://www.w3schools.com/tags/att_li_value.asp) | *number* | Specifies the value of a list item. The following list items will increment from that number (only for <ol> lists) |

Global Attributes

The <li> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <li> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[A nested list](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_lists2)  
A list inside a list.

[Another nested list](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_nestedlists2)  
A more complicated nested list.

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML DOM reference: [Li object](http://www.w3schools.com/jsref/dom_obj_li.asp)

HTML <link> Tag

[« Previous](http://www.w3schools.com/tags/tag_li.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_main.asp)

Example

Link to an external style sheet:

<head>  
<link rel="stylesheet" type="text/css" href="theme.css">  
</head>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_link_tag)

Definition and Usage

The <link> tag defines the relationship between a document and an external resource.

The <link> tag is most used to link to style sheets.

Browser Support

When used for style sheets, the <link> tag is supported in all major browsers. No real support for anything else.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <link> | Yes | Yes | Yes | Yes | Yes |

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

**Note:** This element goes only in the head section, but it can appear any number of times.

Differences Between HTML 4.01 and HTML5

Some HTML 4.01 attributes are not supported in HTML5.

The "sizes" attribute is new in HTML5.

Differences Between HTML and XHTML

In HTML the <link> tag has no end tag.

In XHTML the <link> tag must be properly closed.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [charset](http://www.w3schools.com/tags/att_link_charset.asp) | *char\_encoding* | Not supported in HTML5. Specifies the character encoding of the linked document |
| [href](http://www.w3schools.com/tags/att_link_href.asp) | *URL* | Specifies the location of the linked document |
| [hreflang](http://www.w3schools.com/tags/att_link_hreflang.asp) | *language\_code* | Specifies the language of the text in the linked document |
| [media](http://www.w3schools.com/tags/att_link_media.asp) | *media\_query* | Specifies on what device the linked document will be displayed |
| [rel](http://www.w3schools.com/tags/att_link_rel.asp) | alternate archives author bookmark external first help icon last license next nofollow noreferrer pingback prefetch prev search sidebar stylesheet tag up | Required. Specifies the relationship between the current document and the linked document |
| [rev](http://www.w3schools.com/tags/att_link_rev.asp) | *reversed relationship* | Not supported in HTML5. Specifies the relationship between the linked document and the current document |
| [sizes](http://www.w3schools.com/tags/att_link_sizes.asp) | *Height*x*Width* any | Specifies the size of the linked resource. Only for rel="icon" |
| [target](http://www.w3schools.com/tags/att_link_target.asp) | \_blank \_self \_top \_parent *frame\_name* | Not supported in HTML5. Specifies where the linked document is to be loaded |
| [type](http://www.w3schools.com/tags/att_link_type.asp) | *MIME\_type* | Specifies the MIME type of the linked document |

Global Attributes

The <link> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <link> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Styles](http://www.w3schools.com/html/html_css.asp)

HTML DOM reference: [Link object](http://www.w3schools.com/jsref/dom_obj_link.asp)

HTML <main> Tag

[« Previous](http://www.w3schools.com/tags/tag_link.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_map.asp)

Example

<main>  
  <h1>Web Browsers</h1>  
  <p>Google Chrome, Firefox, and Internet Explorer are the most used browsers today.</p>  
  
  <article>  
    <h1>Google Chrome</h1>  
    <p>Google Chrome is a free, open-source web browser developed by Google,  
    released in 2008.</p>  
  </article>  
  
  <article>  
    <h1>Internet Explorer</h1>  
    <p>Internet Explorer is a free web browser from Microsoft, released in 1995.</p>  
  </article>  
  
  <article>  
    <h1>Mozilla Firefox</h1>  
    <p>Firefox is a free, open-source web browser from Mozilla, released in 2004.</p>  
  </article>  
</main>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_main)

Definition and Usage

The <main> tag specifies the main content of a document.

The content inside the <main> element should be unique to the document. It should not contain any content that is repeated across documents such as sidebars, navigation links, copyright information, site logos, and search forms.

**Note:** There must not be more than one <main> element in a document. The <main> element must NOT be a descendent of an <article>, <aside>, <footer>, <header>, or <nav> element.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <main> | 6.0 | Not supported | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <main> tag is new in HTML5.

Global Attributes

The <main> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <main> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <map> Tag

[« Previous](http://www.w3schools.com/tags/tag_main.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_mark.asp)

Example

An image-map, with clickable areas:

<img src="planets.gif" width="145" height="126" alt="Planets" usemap="#planetmap">  
  
<map name="planetmap">  
  <area shape="rect" coords="0,0,82,126" href="sun.htm" alt="Sun">  
  <area shape="circle" coords="90,58,3" href="mercur.htm" alt="Mercury">  
  <area shape="circle" coords="124,58,8" href="venus.htm" alt="Venus">  
</map>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_areamap)

Definition and Usage

The <map> tag is used to define a client-side image-map. An image-map is an image with clickable areas.

The required name attribute of the <map> element is associated with the <img>'s usemap attribute and creates a relationship between the image and the map.

The <map> element contains a number of [<area>](http://www.w3schools.com/tags/tag_area.asp) elements, that defines the clickable areas in the image map.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <map> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

**Note:** In HTML5, if the id attribute of the <map> tag is also specified, it must have the same value as the name attribute.

Differences Between HTML and XHTML

In XHTML, the name attribute is deprecated, and will be removed. Use the id attribute instead.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [name](http://www.w3schools.com/tags/att_map_name.asp) | *mapname* | Required. Specifies the name of an image-map |

Global Attributes

The <map> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <map> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <mark> Tag

[« Previous](http://www.w3schools.com/tags/tag_map.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_menu.asp)

Example

Highlight parts of a text:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_mark)

Definition and Usage

The <mark> tag defines marked text.

Use the <mark> tag if you want to highlight parts of your text.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <mark> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <mark> tag is new in HTML5.

Global Attributes

The <mark> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <mark> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <menu> Tag

[« Previous](http://www.w3schools.com/tags/tag_mark.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_menuitem.asp)

Example

A context menu with different <menuitem> elements:

<menu type="context" id="mymenu">  
  <menuitem label="Refresh" onclick="window.location.reload();" icon="ico\_reload.png">  
  </menuitem>  
  <menu label="Share on...">  
    <menuitem label="Twitter" icon="ico\_twitter.png"  
    onclick="window.open('//twitter.com/intent/tweet?text='+window.location.href);">  
    </menuitem>  
    <menuitem label="Facebook" icon="ico\_facebook.png"  
    onclick="window.open('//facebook.com/sharer/sharer.php?u='+window.location.href);">  
    </menuitem>  
  </menu>  
  <menuitem label="Email This Page"  
  onclick="window.location='mailto:?body='+window.location.href;"></menuitem>  
</menu>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_menuitem)

Definition and Usage

The <menu> tag defines a list/menu of commands.

The <menu> tag is used for context menus, toolbars and for listing form controls and commands.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <menu> | Not supported | Not supported | 8.0 (only context menus) | Not supported | Not supported |

Tips and Notes

**Tip:** Use CSS to style menu lists.

Differences Between HTML 4.01 and HTML5

The <menu> element was [deprecated](javascript:NewWindow('deprecated.htm')) in HTML 4.01.

The <menu> element is redefined in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [label](http://www.w3schools.com/tags/att_menu_label.asp) | *text* | Specifies a visible label for the menu |
| [type](http://www.w3schools.com/tags/att_menu_type.asp) | popup toolbar context | Specifies which type of menu to display |

Global Attributes

The <menu> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <menu> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <menuitem> Tag

[« Previous](http://www.w3schools.com/tags/tag_menu.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_meta.asp)

Example

A context menu with different <menuitem> elements:

<menu type="context" id="mymenu">  
  <menuitem label="Refresh" onclick="window.location.reload();" icon="ico\_reload.png">  
  </menuitem>  
  <menu label="Share on...">  
    <menuitem label="Twitter" icon="ico\_twitter.png"  
    onclick="window.open('//twitter.com/intent/tweet?text='+window.location.href);">  
    </menuitem>  
    <menuitem label="Facebook" icon="ico\_facebook.png"  
    onclick="window.open('//facebook.com/sharer/sharer.php?u='+window.location.href);">  
    </menuitem>  
  </menu>  
  <menuitem label="Email This Page"  
  onclick="window.location='mailto:?body='+window.location.href;"></menuitem>  
</menu>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_menuitem)

Definition and Usage

The <menuitem> tag defines a command/menu item that the user can invoke from a popup menu.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <menuitem> | Not supported | Not supported | 8.0 (for context menus) | Not supported | Not supported |

Differences Between HTML 4.01 and HTML5

The <menuitem> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [checked](http://www.w3schools.com/tags/att_menuitem_checked.asp) | checked | Specifies that the command/menu item should be checked when the page loads. Only for type="radio" or type="checkbox" |
| command |  |  |
| [default](http://www.w3schools.com/tags/att_menuitem_default.asp) | default | Marks the command/menu item as being a default command |
| [disabled](http://www.w3schools.com/tags/att_menuitem_disabled.asp) | disabled | Specifies that the command/menu item should be disabled |
| [icon](http://www.w3schools.com/tags/att_menuitem_icon.asp) | *URL* | Specifies an icon for the command/menu item |
| [label](http://www.w3schools.com/tags/att_menuitem_label.asp) | *text* | Required. Specifies the name of the command/menu item, as shown to the user |
| [radiogroup](http://www.w3schools.com/tags/att_menuitem_radiogroup.asp) | *groupname* | Specifies the name of the group of commands that will be toggled when the command/menu item itself is toggled. Only for type="radio" |
| [type](http://www.w3schools.com/tags/att_menuitem_type.asp) | checkbox command radio | Specifies the type of command/menu item. Default is "command" |

Global Attributes

The <menuitem> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <menuitem> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <meta> Tag

[« Previous](http://www.w3schools.com/tags/tag_menuitem.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_meter.asp)

Example

Describe metadata within an HTML document:

<head>  
<meta charset="UTF-8">  
<meta name="description" content="Free Web tutorials">  
<meta name="keywords" content="HTML,CSS,XML,JavaScript">  
<meta name="author" content="Hege Refsnes">  
</head>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_meta)

Definition and Usage

Metadata is data (information) about data.

The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable.

Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.

The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <meta> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** <meta> tags always goes inside the <head> element.

**Note:** Metadata is always passed as name/value pairs.

**Note:** The content attribute MUST be defined if the name or the http-equiv attribute is defined. If none of these are defined, the content attribute CANNOT be defined.

Differences Between HTML 4.01 and HTML5

The scheme attribute is not supported in HTML5.

HTML5 has a new attribute, charset, which makes it easier to define charset:

* HTML 4.01: <meta http-equiv="content-type" content="text/html; charset=UTF-8">
* HTML5: <meta charset="UTF-8">

Differences Between HTML and XHTML

In HTML the <meta> tag has no end tag.

In XHTML the <meta> tag must be properly closed.

Examples

**Example 1 - Define keywords for search engines:**

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

**Example 2 - Define a description of your web page:**

<meta name="description" content="Free Web tutorials on HTML and CSS">

**Example 3 - Define the author of a page:**

<meta name="author" content="Hege Refsnes">

**Example 4 - Refresh document every 30 seconds:**

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

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [charset](http://www.w3schools.com/tags/att_meta_charset.asp) | *character\_set* | Specifies the character encoding for the HTML document |
| [content](http://www.w3schools.com/tags/att_meta_content.asp) | *text* | Gives the value associated with the http-equiv or name attribute |
| [http-equiv](http://www.w3schools.com/tags/att_meta_http_equiv.asp) | content-type default-style refresh | Provides an HTTP header for the information/value of the content attribute |
| [name](http://www.w3schools.com/tags/att_meta_name.asp) | application-name author description generatorkeywords | Specifies a name for the metadata |
| [scheme](http://www.w3schools.com/tags/att_meta_scheme.asp) | *format/URI* | Not supported in HTML5. Specifies a scheme to be used to interpret the value of the content attribute |

Global Attributes

The <meta> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Related Pages

HTML tutorial: [HTML Head](http://www.w3schools.com/html/html_head.asp)

HTML DOM reference: [Meta object](http://www.w3schools.com/jsref/dom_obj_meta.asp)

HTML <meter> Tag

[« Previous](http://www.w3schools.com/tags/tag_meta.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_nav.asp)

Example

Use the meter element to measure data within a given range (a gauge):

<meter value="2" min="0" max="10">2 out of 10</meter><br>  
<meter value="0.6">60%</meter>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_meter)

Definition and Usage

The <meter> tag defines a scalar measurement within a known range, or a fractional value. This is also known as a gauge.

Examples: Disk usage, the relevance of a query result, etc.

**Note:** The <meter> tag should not be used to indicate progress (as in a progress bar). For progress bars, use the [<progress>](http://www.w3schools.com/tags/tag_progress.asp) tag.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <meter> | 8.0 | Not supported | 6.0 | 6.0 | 11.0 |

Differences Between HTML 4.01 and HTML5

The <meter> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [form](http://www.w3schools.com/tags/att_meter_form.asp) | *form\_id* | Specifies one or more forms the <meter> element belongs to |
| [high](http://www.w3schools.com/tags/att_meter_high.asp) | *number* | Specifies the range that is considered to be a high value |
| [low](http://www.w3schools.com/tags/att_meter_low.asp) | *number* | Specifies the range that is considered to be a low value |
| [max](http://www.w3schools.com/tags/att_meter_max.asp) | *number* | Specifies the maximum value of the range |
| [min](http://www.w3schools.com/tags/att_meter_min.asp) | *number* | Specifies the minimum value of the range |
| [optimum](http://www.w3schools.com/tags/att_meter_optimum.asp) | *number* | Specifies what value is the optimal value for the gauge |
| [value](http://www.w3schools.com/tags/att_meter_value.asp) | *number* | Required. Specifies the current value of the gauge |

Global Attributes

The <meter> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <meter> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Meter object](http://www.w3schools.com/jsref/dom_obj_meter.asp)

HTML <nav> Tag

[« Previous](http://www.w3schools.com/tags/tag_meter.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_noframes.asp)

Example

A set of navigation links:

<nav>  
  <a href="/html/">HTML</a> |  
  <a href="/css/">CSS</a> |  
  <a href="/js/">JavaScript</a> |  
  <a href="/jquery/">jQuery</a>  
</nav>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_nav)

Definition and Usage

The <nav> tag defines a set of navigation links.

Notice that NOT all links of a document should be inside a <nav> element. The <nav> element is intended only for major block of **navigation links**.

Browsers, such as screen readers for disabled users, can use this element to determine whether to omit the initial rendering of this content.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <nav> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <nav> tag is new in HTML5.

Global Attributes

The <nav> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <nav> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <noframes> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_nav.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_noscript.asp)

Example

A three-framed page, with a <noframes> tag:

<html>  
  
<frameset cols="25%,50%,25%">  
  <frame src="frame\_a.htm">  
  <frame src="frame\_b.htm">  
  <frame src="frame\_c.htm">  
  <noframes>Sorry, your browser does not handle frames!</noframes>  
</frameset>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_noframes)

Definition and Usage

The <noframes> tag is not supported in HTML5.

The <noframes> tag is a fallback tag for browsers that do not support frames. It can contain all the HTML elements that you can find inside the <body> element of a normal HTML page.

The <noframes> element can be used to link to a non-frameset version of the web site or to display a message to users that frames are required.

The <noframes> element goes inside the <frameset> element.

**Note:** If you want to validate a page containing frames, be sure the [<!DOCTYPE>](http://www.w3schools.com/tags/tag_doctype.asp) is set to either "HTML Frameset DTD" or "XHTML Frameset DTD".

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <noframes> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <noframes> tag is not supported in HTML5.

Differences Between HTML and XHTML

**Important:** In XHTML Frameset DTD, the **text** in the <noframes> element must be enclosed in a <body> element.

HTML <noscript> Tag

[« Previous](http://www.w3schools.com/tags/tag_noframes.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_object.asp)

Example

Use of the <noscript> tag:

<script>  
document.write("Hello World!")  
</script>  
<noscript>Your browser does not support JavaScript!</noscript>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_noscript)

Definition and Usage

The <noscript> tag defines an alternate content for users that have disabled scripts in their browser or have a browser that doesn't support script.

The <noscript> element can be used in both <head> and <body>.

When used inside the <head> element: <noscript> must contain <link>, <style>, and <meta> elements.

The content inside the <noscript> element will be displayed if scripts are not supported, or are disabled in the user's browser.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <noscript> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** It is also a good practice to use the [comment](http://www.w3schools.com/tags/tag_comment.asp) tag to "hide" scripts from browsers without support for client-side scripts (so they don't show them as plain text):

<script>  
<!--  
function displayMsg()  
{  
alert("Hello World!")  
}  
//-->  
</script>

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <noscript> tag can only be used inside the <body> element.

In HTML5, the <noscript> tag can be used both inside <head> and <body>.

Differences Between HTML and XHTML

In XHTML, the <noscript> tag is not supported.

Global Attributes

The <noscript> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Related Pages

HTML tutorial: [HTML Scripts](http://www.w3schools.com/html/html_scripts.asp)

HTML <object> Tag

[« Previous](http://www.w3schools.com/tags/tag_noscript.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_ol.asp)

Example

How to use the <object> element to embed a Flash file:

<object width="400" height="400" data="helloworld.swf"></object>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_object)

Definition and Usage

The <object> tag defines an embedded object within an HTML document. Use this element to embed multimedia (like audio, video, Java applets, ActiveX, PDF, and Flash) in your web pages.

You can also use the <object> tag to embed another webpage into your HTML document.

You can use the [<param>](http://www.w3schools.com/tags/tag_param.asp) tag to pass parameters to plugins that have been embedded with the <object> tag.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <object> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** An <object> element must appear inside the <body> element. The text between the <object> and </object> is an alternate text, for browsers that do not support this tag.

**Tip:** For images use the <img> tag instead of the <object> tag.

**Tip:** At least one of the "data" or "type" attribute MUST be defined.

Differences Between HTML 4.01 and HTML5

Some HTML 4.01 attributes are not supported in HTML5.

The "form" attribute is new in HTML5.

In HTML5, objects can be used and submitted in forms.

In HTML5, objects can no longer appear inside the <head> element of a document.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_object_align.asp) | top bottom middle left right | Not supported in HTML5. Specifies the alignment of the <object> element according to surrounding elements |
| archive | *URL* | Not supported in HTML5. A space separated list of URL's to archives. The archives contains resources relevant to the object |
| [border](http://www.w3schools.com/tags/att_object_border.asp) | *pixels* | Not supported in HTML5. Specifies the width of the border around an <object> |
| classid | *class\_ID* | Not supported in HTML5. Defines a class ID value as set in the Windows Registry or a URL |
| codebase | *URL* | Not supported in HTML5. Defines where to find the code for the object |
| codetype | *MIME\_type* | Not supported in HTML5. The internet media type of the code referred to by the classid attribute |
| [data](http://www.w3schools.com/tags/att_object_data.asp) | *URL* | Specifies the URL of the resource to be used by the object |
| declare | declare | Not supported in HTML5. Defines that the object should only be declared, not created or instantiated until needed |
| [form](http://www.w3schools.com/tags/att_object_form.asp) | *form\_id* | Specifies one or more forms the object belongs to |
| [height](http://www.w3schools.com/tags/att_object_height.asp) | *pixels* | Specifies the height of the object |
| [hspace](http://www.w3schools.com/tags/att_object_hspace.asp) | *pixels* | Not supported in HTML5. Specifies the whitespace on left and right side of an object |
| [name](http://www.w3schools.com/tags/att_object_name.asp) | *name* | Specifies a name for the object |
| standby | *text* | Not supported in HTML5. Defines a text to display while the object is loading |
| [type](http://www.w3schools.com/tags/att_object_type.asp) | *MIME\_type* | Specifies the MIME type of data specified in the data attribute |
| [usemap](http://www.w3schools.com/tags/att_object_usemap.asp) | *#mapname* | Specifies the name of a client-side image map to be used with the object |
| [vspace](http://www.w3schools.com/tags/att_object_vspace.asp) | *pixels* | Not supported in HTML5. Specifies the whitespace on top and bottom of an object |
| [width](http://www.w3schools.com/tags/att_object_width.asp) | *pixels* | Specifies the width of the object |

Global Attributes

The <object> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <object> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Object Element](http://www.w3schools.com/html/html_object.asp)

HTML DOM reference: [Object object](http://www.w3schools.com/jsref/dom_obj_object.asp)

HTML <ol> Tag

[« Previous](http://www.w3schools.com/tags/tag_object.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_optgroup.asp)

Example

2 different ordered lists:

<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>  
  
<ol start="50">  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_lists)

Definition and Usage

The <ol> tag defines an ordered list. An ordered list can be numerical or alphabetical.

Use the [<li>](http://www.w3schools.com/tags/tag_li.asp) tag to define list items.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <ol> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** For unordered list, use the [<ul>](http://www.w3schools.com/tags/tag_ul.asp) tag.

**Tip:** Use CSS to style lists.

Differences Between HTML 4.01 and HTML5

The "start" and "type" attributes were [deprecated](javascript:NewWindow('deprecated.htm')) in HTML 4.01, but IS supported in HTML5.

The "reversed" attribute is new in HTML5.

The "compact" attribute is not supported in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [compact](http://www.w3schools.com/tags/att_ol_compact.asp) | compact | Not supported in HTML5. Specifies that the list should render smaller than normal |
| [reversed](http://www.w3schools.com/tags/att_ol_reversed.asp) | reversed | Specifies that the list order should be descending (9,8,7...) |
| [start](http://www.w3schools.com/tags/att_ol_start.asp) | *number* | Specifies the start value of an ordered list |
| [type](http://www.w3schools.com/tags/att_ol_type.asp) | 1 A a I i | Specifies the kind of marker to use in the list |

Global Attributes

The <ol> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <ol> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML DOM reference: [Ol object](http://www.w3schools.com/jsref/dom_obj_ol.asp)

HTML <optgroup> Tag

[« Previous](http://www.w3schools.com/tags/tag_ol.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_option.asp)

Example

Group related options with <optgroup> tags:

<select>  
  <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>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_optgroup)

Definition and Usage

The <optgroup> 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.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <optgroup> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Attributes

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

Global Attributes

The <optgroup> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <optgroup> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [OptionGroup object](http://www.w3schools.com/jsref/dom_obj_optgroup.asp)

HTML <option> Tag

[« Previous](http://www.w3schools.com/tags/tag_optgroup.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_output.asp)

Example

A drop-down list with four options:

<select>  
  <option value="volvo">Volvo</option>  
  <option value="saab">Saab</option>  
  <option value="opel">Opel</option>  
  <option value="audi">Audi</option>  
</select>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_option)

Definition and Usage

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

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <option> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** The <option> tag can be used without any attributes, but you usually need the **value** attribute, which indicates what is sent to the server.

**Tip:** If you have a long list of options, you can group related options with the [<optgroup>](http://www.w3schools.com/tags/tag_optgroup.asp) tag.

Attributes

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

Global Attributes

The <option> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <option> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Option object](http://www.w3schools.com/jsref/dom_obj_option.asp)

HTML <output> Tag

[« Previous](http://www.w3schools.com/tags/tag_option.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_p.asp)

Example

Perform a calculation and show the result in an <output> element:

<form oninput="x.value=parseInt(a.value)+parseInt(b.value)">0  
  <input type="range" id="a" value="50">100  
  +<input type="number" id="b" value="50">  
  =<output name="x" for="a b"></output>  
</form>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_output)

Definition and Usage

The <output> tag represents the result of a calculation (like one performed by a script).

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <output> | 10.0 | Not supported | 4.0 | Not supported | 11.0 |

Differences Between HTML 4.01 and HTML5

The <output> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [for](http://www.w3schools.com/tags/att_output_for.asp) | *element\_id* | Specifies the relationship between the result of the calculation, and the elements used in the calculation |
| [form](http://www.w3schools.com/tags/att_output_form.asp) | *form\_id* | Specifies one or more forms the output element belongs to |
| [name](http://www.w3schools.com/tags/att_output_name.asp) | *name* | Specifies a name for the output element |

Global Attributes

The <output> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <output> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <p> Tag

[« Previous](http://www.w3schools.com/tags/tag_output.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_param.asp)

Example

A paragraph is marked up as follows:

<p>This is some text in a paragraph.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_paragraphs1)

More "Try it Yourself" examples below.

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).

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <p> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The align attribute is not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_p_align.asp) | left right center justify | Not supported in HTML5. Specifies the alignment of the text within a paragraph |

Global Attributes

The <p> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <p> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[More paragraphs](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_paragraphs2)  
Some default behaviors of paragraphs.

[Poem problems](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_poem)  
Examples of how you can NOT write a poem in HTML.

Related Pages

HTML tutorial: [HTML Paragraphs](http://www.w3schools.com/html/html_paragraphs.asp)

HTML <param> Tag

[« Previous](http://www.w3schools.com/tags/tag_p.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_pre.asp)

Example

Set the "autoplay" parameter to "true", so the sound will start playing as soon as the page loads:

<object data="horse.wav">  
  <param name="autoplay" value="true">  
</object>

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_param)

Definition and Usage

The <param> tag is used to define parameters for plugins embedded with an [<object>](http://www.w3schools.com/tags/tag_object.asp) element.

**Tip:** HTML 5 also includes two new elements for playing audio or video: The [<audio>](http://www.w3schools.com/tags/tag_audio.asp) and [<video>](http://www.w3schools.com/tags/tag_video.asp) tags.

Browser Support

The <param> tag is supported in all major browsers. However, the file format defined in <object> may not be supported in all browsers.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <param> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The "type" and "valuetype" attributes are not supported in HTML5.

Differences Between HTML and XHTML

In HTML the <param> tag has no end tag.

In XHTML the <param> tag must be properly closed, like this <param />.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [name](http://www.w3schools.com/tags/att_param_name.asp) | *name* | Specifies the name of a parameter |
| type | *MIME\_type* | Not supported in HTML5. Specifies the MIME type of the parameter |
| [value](http://www.w3schools.com/tags/att_param_value.asp) | *value* | Specifies the value of the parameter |
| valuetype | data ref object | Not supported in HTML5. Specifies the type of the value |

Global Attributes

The <param> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <param> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Parameter object](http://www.w3schools.com/jsref/dom_obj_param.asp)

HTML <pre> Tag

[« Previous](http://www.w3schools.com/tags/tag_param.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_progress.asp)

Example

Preformatted text:

<pre>  
Text in a pre element  
is displayed in a fixed-width  
font, and it preserves  
both      spaces and  
line breaks  
</pre>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_pre)

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.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <pre> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use the <pre> element when displaying text with unusual formatting, or some sort of computer code.

Differences Between HTML 4.01 and HTML5

The "width" attribute is not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [width](http://www.w3schools.com/tags/att_pre_width.asp) | *number* | Not supported in HTML5. Specifies the maximum number of characters per line |

Global Attributes

The <pre> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <pre> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <progress> Tag

[« Previous](http://www.w3schools.com/tags/tag_pre.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_q.asp)

Example

Downloading in progress:

<progress value="22" max="100"></progress>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_progress)

Definition and Usage

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

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <progress> | 8.0 | 10.0 | 16.0 | 6.0 | 11.0 |

Differences Between HTML 4.01 and HTML5

The <progress> tag is new in HTML5.

Tips and Notes

**Tip:** Use the <progress> tag in conjunction with JavaScript to display the progress of a task.

**Note**: The <progress> tag is not suitable for representing a gauge (e.g. disk space usage or relevance of a query result). To represent a gauge, use the [<meter>](http://www.w3schools.com/tags/tag_meter.asp) tag instead.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [max](http://www.w3schools.com/tags/att_progress_max.asp) | *number* | Specifies how much work the task requires in total |
| [value](http://www.w3schools.com/tags/att_progress_value.asp) | *number* | Specifies how much of the task has been completed |

Global Attributes

The <progress> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <progress> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Progress object](http://www.w3schools.com/jsref/dom_obj_progress.asp)

HTML <q> Tag

[« Previous](http://www.w3schools.com/tags/tag_progress.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_rp.asp)

Example

Mark up a short quotation:

<p>WWF's goal is to:   
<q>Build a future where people live in harmony with nature.</q>  
We hope they succeed.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_q)

Definition and Usage

The <q> tag defines a short quotation.

Browsers normally insert quotation marks around the quotation.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <q> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use [<blockquote>](http://www.w3schools.com/tags/tag_blockquote.asp) to mark up a section that is quoted from another source.

Differences Between HTML 4.01 and HTML5

NONE.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [cite](http://www.w3schools.com/tags/att_q_cite.asp) | *URL* | Specifies the source URL of the quote |

Global Attributes

The <q> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <q> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Quote object](http://www.w3schools.com/jsref/dom_obj_quote.asp)

HTML <rp> Tag

[« Previous](http://www.w3schools.com/tags/tag_q.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_rt.asp)

Example

A ruby annotation:

<ruby>  
漢 <rt><rp>(</rp>ㄏㄢˋ<rp>)</rp></rt>  
</ruby>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_rp)

Definition and Usage

The <rp> tag defines what to show if a browser does NOT support ruby annotations.

Ruby annotations are used for East Asian typography, to show the pronunciation of East Asian characters.

Use the <rp> tag together with the [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) and the [<rt>](http://www.w3schools.com/tags/tag_rt.asp) tags: The <ruby> element consists of one or more characters that needs an explanation/pronunciation, and an <rt> element that gives that information, and an optional <rp> element that defines what to show for browsers that not support ruby annotations.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <rp> | 5.0 | 5.5 | Not supported | 5.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <rp> tag is new in HTML5.

Global Attributes

The <rp> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <rp> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <rt> Tag

[« Previous](http://www.w3schools.com/tags/tag_rp.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_ruby.asp)

Example

A ruby annotation:

<ruby>  
漢 <rt> ㄏㄢˋ </rt>  
</ruby>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_ruby)

Definition and Usage

The <rt> tag defines an explanation or pronunciation of characters (for East Asian typography) in a ruby annotation.

Use the <rt> tag together with the [<ruby>](http://www.w3schools.com/tags/tag_ruby.asp) and the [<rp>](http://www.w3schools.com/tags/tag_rp.asp) tags: The <ruby> element consists of one or more characters that needs an explanation/pronunciation, and an <rt> element that gives that information, and an optional <rp> element that defines what to show for browsers that not support ruby annotations.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <rt> | 5.0 | 5.5 | Not supported | 5.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <rt> tag is new in HTML5.

Global Attributes

The <rt> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <rt> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <ruby> Tag

[« Previous](http://www.w3schools.com/tags/tag_rt.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_s.asp)

Example

A ruby annotation:

<ruby>  
漢 <rt> ㄏㄢˋ </rt>  
</ruby>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_ruby)

Definition and Usage

The <ruby> tag specifies a ruby annotation.

Ruby annotations are used for East Asian typography, to show the pronunciation of East Asian characters.

Use the <ruby> tag together with the [<rt>](http://www.w3schools.com/tags/tag_rt.asp) and/or the [<rp>](http://www.w3schools.com/tags/tag_rp.asp) tags: The <ruby> element consists of one or more characters that needs an explanation/pronunciation, and an <rt> element that gives that information, and an optional <rp> element that defines what to show for browsers that not support ruby annotations.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <ruby> | 5.0 | 5.5 | Not supported | 5.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <ruby> tag is new in HTML5.

Global Attributes

The <ruby> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <ruby> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <s> Tag

[« Previous](http://www.w3schools.com/tags/tag_ruby.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_samp.asp)

Example

Mark up text that is no longer correct:

<p><s>My car is blue.</s></p>  
<p>My new car is silver.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_s)

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>](http://www.w3schools.com/tags/tag_del.asp) tag to define replaced or deleted text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <s> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The <s> element was [deprecated](javascript:NewWindow('deprecated.htm')) in HTML 4.01, and was used to define strikethrough text.

The <s> element is redefined in HTML5, and is now used to define text that is no longer correct.

Global Attributes

The <s> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <s> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <samp> Tag

[« Previous](http://www.w3schools.com/tags/tag_s.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_script.asp)

Example

Format text in a document:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <samp> tag is a phrase tag. It defines sample output from a computer program.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <samp> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <samp> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <samp> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

HTML <script> Tag

[« Previous](http://www.w3schools.com/tags/tag_samp.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_section.asp)

Example

Write "Hello JavaScript!" with JavaScript:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_script)

Definition and Usage

The <script> tag is used to define a client-side script, such as a JavaScript.

The <script> element either contains scripting statements, or it points to an external script file through the src attribute.

Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <script> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** If the "src" attribute is present, the <script> element must be empty.

**Tip:** Also look at the [<noscript>](http://www.w3schools.com/tags/tag_noscript.asp) element for users that have disabled scripts in their browser, or have a browser that doesn't support client-side scripting.

**Note:** There are several ways an external script can be executed:

* If async="async": The script is executed asynchronously with the rest of the page (the script will be executed while the page continues the parsing)
* If async is not present and defer="defer": The script is executed when the page has finished parsing
* If neither async or defer is present: The script is fetched and executed immediately, before the browser continues parsing the page

Differences Between HTML 4.01 and HTML5

The "type" attribute is required in HTML 4, but optional in HTML5.

The "async" attribute is new in HTML5.

The HTML 4.01 attribute: "xml:space", is not supported in HTML5.

Differences Between HTML and XHTML

In XHTML, the content inside scripts is declared as #PCDATA (instead of CDATA), which means that entities will be parsed.

This means that in XHTML, all special characters should be encoded, or all content should be wrapped inside a CDATA section:

<script type="text/javascript">  
//<![CDATA[  
var i = 10;  
if (i < 5) {  
  // some code  
}  
//]]>  
</script>

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [async](http://www.w3schools.com/tags/att_script_async.asp) | async | Specifies that the script is executed asynchronously (only for external scripts) |
| [charset](http://www.w3schools.com/tags/att_script_charset.asp) | *charset* | Specifies the character encoding used in an external script file |
| [defer](http://www.w3schools.com/tags/att_script_defer.asp) | defer | Specifies that the script is executed when the page has finished parsing (only for external scripts) |
| [src](http://www.w3schools.com/tags/att_script_src.asp) | *URL* | Specifies the URL of an external script file |
| [type](http://www.w3schools.com/tags/att_script_type.asp) | *MIME-type* | Specifies the MIME type of the script |
| xml:space | preserve | Not supported in HTML5. Specifies whether whitespace in code should be preserved |

Global Attributes

The <script> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Related Pages

HTML tutorial: [HTML Scripts](http://www.w3schools.com/html/html_scripts.asp)

HTML DOM reference: [Script object](http://www.w3schools.com/jsref/dom_obj_script.asp)

HTML <section> Tag

[« Previous](http://www.w3schools.com/tags/tag_script.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_select.asp)

Example

A section in a document, explaining what WWF is:

<section>  
  <h1>WWF</h1>  
  <p>The World Wide Fund for Nature (WWF) is....</p>  
</section>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_section)

Definition and Usage

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

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <section> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <section> tag is new in HTML5.

Global Attributes

The <section> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <section> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <select> Tag

[« Previous](http://www.w3schools.com/tags/tag_section.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_small.asp)

Example

Create a drop-down list with four options:

<select>  
  <option value="volvo">Volvo</option>  
  <option value="saab">Saab</option>  
  <option value="mercedes">Mercedes</option>  
  <option value="audi">Audi</option>  
</select>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_select)

Definition and Usage

The <select> element is used to create a drop-down list.

The [<option>](http://www.w3schools.com/tags/tag_option.asp) tags inside the <select> element define the available options in the list.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <select> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** The <select> element is a form control and can be used in a form to collect user input.

Differences Between HTML 4.01 and HTML5

HTML5 has added some new attributes.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autofocus](http://www.w3schools.com/tags/att_select_autofocus.asp) | autofocus | Specifies that the drop-down list should automatically get focus when the page loads |
| [disabled](http://www.w3schools.com/tags/att_select_disabled.asp) | disabled | Specifies that a drop-down list should be disabled |
| [form](http://www.w3schools.com/tags/att_select_form.asp) | *form\_id* | Defines one or more forms the select field belongs to |
| [multiple](http://www.w3schools.com/tags/att_select_multiple.asp) | multiple | Specifies that multiple options can be selected at once |
| [name](http://www.w3schools.com/tags/att_select_name.asp) | *name* | Defines a name for the drop-down list |
| [required](http://www.w3schools.com/tags/att_select_required.asp) | required | Specifies that the user is required to select a value before submitting the form |
| [size](http://www.w3schools.com/tags/att_select_size.asp) | *number* | Defines the number of visible options in a drop-down list |

Global Attributes

The <select> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <select> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Select object](http://www.w3schools.com/jsref/dom_obj_select.asp)

HTML <small> Tag

[« Previous](http://www.w3schools.com/tags/tag_select.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_source.asp)

Example

Define a smaller text:

<p>W3Schools.com - the world's largest web development site.</p>  
<p><small>Copyright 1999-2050 by Refsnes Data</small></p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_small)

Definition and Usage

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <small> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <small> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <small> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <source> Tag

[« Previous](http://www.w3schools.com/tags/tag_small.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_span.asp)

Example

An audio player with two source files. The browser should choose which file (if any) it has support for:

<audio controls>  
  <source src="horse.ogg" type="audio/ogg">  
  <source src="horse.mp3" type="audio/mpeg">  
Your browser does not support the audio element.  
</audio>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_source_src)

Definition and Usage

The <source> tag is used to specify multiple media resources for media elements, such as <video> and <audio>.

The <source> tag allows you to specify alternative video/audio files which the browser may choose from, based on its media type or codec support.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <source> | 4.0 | 9.0 | 3.5 | 4.0 | 10.5 |

Differences Between HTML 4.01 and HTML5

The <source> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [media](http://www.w3schools.com/tags/att_source_media.asp) | *media\_query* | Specifies the type of media resource |
| [src](http://www.w3schools.com/tags/att_source_src.asp) | *URL* | Specifies the URL of the media file |
| [type](http://www.w3schools.com/tags/att_source_type.asp) | *MIME\_type* | Specifies the MIME type of the media resource |

Global Attributes

The <source> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <source> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Source object](http://www.w3schools.com/jsref/dom_obj_source.asp)

HTML <span> Tag

[« Previous](http://www.w3schools.com/tags/tag_source.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_strike.asp)

Example

A <span> element used to color a part of a text:

<p>My mother has <span style="color:blue">blue</span> eyes.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_span)

Definition and Usage

The <span> tag is used to group inline-elements in a document.

The <span> tag provides no visual change by itself.

The <span> tag provides a way to add a hook to a part of a text or a part of a document.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <span> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** When a text is hooked in a <span> element, you can style it with CSS, or manipulate it with JavaScript.

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <span> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <span> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <strike> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_span.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_strong.asp)

Example

Strikethrough text can be marked up as follows:

<p>Version 2.0 is <strike>not yet available!</strike> now available!</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_strike)

Definition and Usage

The <strike> tag is not supported in HTML5. Use the [<del>](http://www.w3schools.com/tags/tag_del.asp) tag instead.

The <strike> tag defines strikethrough text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <strike> | Yes | Yes | Yes | Yes | Yes |

HTML <strong> Tag

[« Previous](http://www.w3schools.com/tags/tag_strike.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_style.asp)

Example

Format text in a document:

<strong>Strong text</strong>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <strong> tag is a phrase tag. It defines important text.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <strong> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

In HTML 4.01, the <strong> tag defines strong emphasized text, but in HTML5 it defines important text.

Global Attributes

The <strong> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <strong> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

HTML <style> Tag

[« Previous](http://www.w3schools.com/tags/tag_strong.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_sub.asp)

Example

Use of the <style> element in an HTML document:

<html>  
<head>  
<style>  
h1 {color:red;}  
p {color:blue;}  
</style>  
</head>  
  
<body>  
<h1>A heading</h1>  
<p>A paragraph.</p>  
</body>  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_style)

Definition and Usage

The <style> tag is used to define style information for an HTML document.

Inside the <style> element you specify how HTML elements should render in a browser.

Each HTML document can contain multiple <style> tags.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <style> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** To link to an external style sheet, use the [<link>](http://www.w3schools.com/tags/tag_link.asp) tag.

**Tip:** To learn more about style sheets, please read our [CSS Tutorial](http://www.w3schools.com/css/default.asp).

**Note:** If the "scoped" attribute is not used, each <style> tag must be located in the head section.

Differences Between HTML 4.01 and HTML5

The "scoped" attribute is new in HTML5, which allows to define styles for a specified section of the document. If the "scoped" attribute is present, the styles only apply to the style element's parent element and that element's child elements.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [media](http://www.w3schools.com/tags/att_style_media.asp) | *media\_query* | Specifies what media/device the media resource is optimized for |
| [scoped](http://www.w3schools.com/tags/att_style_scoped.asp) | scoped | Specifies that the styles only apply to this element's parent element and that element's child elements |
| [type](http://www.w3schools.com/tags/att_style_type.asp) | text/css | Specifies the MIME type of the style sheet |

Global Attributes

The <style> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <style> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML CSS](http://www.w3schools.com/html/html_css.asp)

HTML DOM reference: [Style object](http://www.w3schools.com/jsref/dom_obj_style.asp)

HTML <sub> Tag

[« Previous](http://www.w3schools.com/tags/tag_style.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_summary.asp)

Example

Subscript text:

<p>This text contains <sub>subscript</sub> text.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_sup)

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.

**Tip:** Use the [<sup>](http://www.w3schools.com/tags/tag_sup.asp) tag to define superscripted text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <sub> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <sub> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <sub> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <summary> Tag

[« Previous](http://www.w3schools.com/tags/tag_sub.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_sup.asp)

Example

Using the <summary> element:

<details>  
<summary>Copyright 1999-2011.</summary>  
<p> - by Refsnes Data. All Rights Reserved.</p>  
<p>All content and graphics on this web site are the property of the company Refsnes Data.</p>  
</details>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_summary)

Definition and Usage

The <summary> tag defines a visible heading for the [<details>](http://www.w3schools.com/tags/tag_details.asp) element. The heading can be clicked to view/hide the details.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <summary> | 12.0 | Not supported | Not supported | 6.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <summary> tag is new in HTML5.

Tips and Notes

**Note:** The <summary> element should be the first child element of the <details> element.

Global Attributes

The <summary> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <summary> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <sup> Tag

[« Previous](http://www.w3schools.com/tags/tag_summary.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_table.asp)

Example

Superscript text:

<p>This text contains <sup>superscript</sup> text.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_sup)

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 WWW[1].

**Tip:** Use the [<sub>](http://www.w3schools.com/tags/tag_sub.asp) tag to define subscript text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <sup> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <sup> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <sup> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <table> Tag

[« Previous](http://www.w3schools.com/tags/tag_sup.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_tbody.asp)

Example

A simple HTML table, containing two columns and two rows:

<table>  
  <tr>  
    <th>Month</th>  
    <th>Savings</th>  
  </tr>  
  <tr>  
    <td>January</td>  
    <td>$100</td>  
  </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_test)

More "Try it Yourself" examples below.

Definition and Usage

The <table> tag defines an HTML table.

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <table> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

The "align", "bgcolor", "border", "cellpadding", "cellspacing", "frame", "rules", "summary", and "width" attributes are not supported in HTML5.

|  |  |
| --- | --- |
| **Note** | There has been some disagreement in W3C, about removing the "border" attribute in HTML5. Finally, it has been removed from the specification. Use CSS instead! |

Attributes

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

Global Attributes

The <table> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <table> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Table headers](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_header)  
How to create table headers.

[Table with a caption](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_caption_test)  
An HTML table with a caption.

[Tags inside a table](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_elements)  
How to display elements inside other elements.

[Cells that span more than one row/column](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)  
How to define table cells that span more than one row or one column.

Related Pages

HTML tutorial: [HTML Tables](http://www.w3schools.com/html/html_tables.asp)

HTML DOM reference: [Table object](http://www.w3schools.com/jsref/dom_obj_table.asp)

HTML <tbody> Tag

[« Previous](http://www.w3schools.com/tags/tag_table.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_td.asp)

Example

An HTML table with a <thead>, <tfoot>, and a <tbody> element:

<table>  
  <thead>  
  <tr>  
     <th>Month</th>  
     <th>Savings</th>  
  </tr>  
  </thead>  
  <tfoot>  
  <tr>  
      <td>Sum</td>  
      <td>$180</td>  
  </tr>  
  </tfoot>  
  <tbody>  
  <tr>  
     <td>January</td>  
     <td>$100</td>  
  </tr>  
  <tr>  
      <td>February</td>  
      <td>$80</td>  
  </tr>  
  </tbody>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_tbody)

Definition and Usage

The <tbody> tag is used to group the body content in an HTML table.

The <tbody> element is used in conjunction with the [<thead>](http://www.w3schools.com/tags/tag_thead.asp) and [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) elements to specify each part of a table (body, header, footer).

Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.

The <tbody> tag must be used in the following context: As a child of a <table> element, after any <caption>, <colgroup>, and <thead> elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <tbody> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** The <tbody> element must have one or more <tr> tags inside.

**Tip:** The <thead>, <tbody>, and <tfoot> elements will not affect the layout of the table by default. However, you can use CSS to style these elements.

Differences Between HTML 4.01 and HTML5

None of the HTML 4.01 attributes are supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_tbody_align.asp) | right left center justify char | Not supported in HTML5. Aligns the content inside the <tbody> element |
| [char](http://www.w3schools.com/tags/att_tbody_char.asp) | *character* | Not supported in HTML5. Aligns the content inside the <tbody> element to a character |
| [charoff](http://www.w3schools.com/tags/att_tbody_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content inside the <tbody> element will be aligned from the character specified by the char attribute |
| [valign](http://www.w3schools.com/tags/att_tbody_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content inside the <tbody> element |

Global Attributes

The <tbody> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <tbody> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <td> Tag

[« Previous](http://www.w3schools.com/tags/tag_tbody.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_textarea.asp)

Example

A simple HTML table, with two table cells:

<table>  
  <tr>  
    <td>Cell A</td>  
    <td>Cell B</td>  
  </tr>  
</table>

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_td)

More "Try it Yourself" examples below.

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>](http://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.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <td> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use the colspan and rowspan attribute to let the content span over multiple columns or rows!

Differences Between HTML 4.01 and HTML5

All layout attributes are removed in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [abbr](http://www.w3schools.com/tags/att_td_abbr.asp) | *text* | Not supported in HTML5. Specifies an abbreviated version of the content in a cell |
| [align](http://www.w3schools.com/tags/att_td_align.asp) | left right center justify char | Not supported in HTML5. Aligns the content in a cell |
| [axis](http://www.w3schools.com/tags/att_td_axis.asp) | *category\_name* | Not supported in HTML5. Categorizes cells |
| [bgcolor](http://www.w3schools.com/tags/att_td_bgcolor.asp) | *rgb(x,x,x) #xxxxxx colorname* | Not supported in HTML5. Specifies the background color of a cell |
| [char](http://www.w3schools.com/tags/att_td_char.asp) | *character* | Not supported in HTML5. Aligns the content in a cell to a character |
| [charoff](http://www.w3schools.com/tags/att_td_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content will be aligned from the character specified by the char attribute |
| [colspan](http://www.w3schools.com/tags/att_td_colspan.asp) | *number* | Specifies the number of columns a cell should span |
| [headers](http://www.w3schools.com/tags/att_td_headers.asp) | *header\_id* | Specifies one or more header cells a cell is related to |
| [height](http://www.w3schools.com/tags/att_td_height.asp) | *pixels %* | Not supported in HTML5. Sets the height of a cell |
| [nowrap](http://www.w3schools.com/tags/att_td_nowrap.asp) | nowrap | Not supported in HTML5. Specifies that the content inside a cell should not wrap |
| [rowspan](http://www.w3schools.com/tags/att_td_rowspan.asp) | *number* | Sets the number of rows a cell should span |
| [scope](http://www.w3schools.com/tags/att_td_scope.asp) | col colgroup row rowgroup | Not supported in HTML5. Defines a way to associate header cells and data cells in a table |
| [valign](http://www.w3schools.com/tags/att_td_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content in a cell |
| [width](http://www.w3schools.com/tags/att_td_width.asp) | *pixels %* | Not supported in HTML5. Specifies the width of a cell |

Global Attributes

The <td> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <td> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Table headers](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_header)  
How to create table headers.

[Table with a caption](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_caption_test)  
An HTML table with a caption.

[Tags inside a table](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_elements)  
How to display elements inside other elements.

[C](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)[ells that span more than one row/column](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)  
How to define table cells that span more than one row or one column.

Related Pages

HTML tutorial: [HTML Tables](http://www.w3schools.com/html/html_tables.asp)

HTML DOM reference: [Td object](http://www.w3schools.com/jsref/dom_obj_tabledata.asp)

HTML <textarea> Tag

[« Previous](http://www.w3schools.com/tags/tag_td.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_tfoot.asp)

Example

An HTML text area:

<textarea rows="4" cols="50">  
At w3schools.com you will learn how to make a website. We offer free tutorials in all web development technologies.   
</textarea>

[**Try it yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_textarea)

Definition and Usage

The <textarea> tag defines a multi-line text input control.

A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).

The size of a text area can be specified by the cols and rows attributes, or even better; through CSS' height and width properties.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <textarea> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

HTML5 has added several new attributes.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autofocus](http://www.w3schools.com/tags/att_textarea_autofocus.asp) | autofocus | Specifies that a text area should automatically get focus when the page loads |
| [cols](http://www.w3schools.com/tags/att_textarea_cols.asp) | *number* | Specifies the visible width of a text area |
| [disabled](http://www.w3schools.com/tags/att_textarea_disabled.asp) | disabled | Specifies that a text area should be disabled |
| [form](http://www.w3schools.com/tags/att_textarea_form.asp) | *form\_id* | Specifies one or more forms the text area belongs to |
| [maxlength](http://www.w3schools.com/tags/att_textarea_maxlength.asp) | *number* | Specifies the maximum number of characters allowed in the text area |
| [name](http://www.w3schools.com/tags/att_textarea_name.asp) | *text* | Specifies a name for a text area |
| [placeholder](http://www.w3schools.com/tags/att_textarea_placeholder.asp) | *text* | Specifies a short hint that describes the expected value of a text area |
| [readonly](http://www.w3schools.com/tags/att_textarea_readonly.asp) | readonly | Specifies that a text area should be read-only |
| [required](http://www.w3schools.com/tags/att_textarea_required.asp) | required | Specifies that a text area is required/must be filled out |
| [rows](http://www.w3schools.com/tags/att_textarea_rows.asp) | *number* | Specifies the visible number of lines in a text area |
| [wrap](http://www.w3schools.com/tags/att_textarea_wrap.asp) | hard soft | Specifies how the text in a text area is to be wrapped when submitted in a form |

Global Attributes

The <textarea> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <textarea> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Textarea object](http://www.w3schools.com/jsref/dom_obj_textarea.asp)

HTML <tfoot> Tag

[« Previous](http://www.w3schools.com/tags/tag_textarea.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_th.asp)

Example

An HTML table with a <thead>, <tfoot>, and a <tbody> element:

<table>  
  <thead>  
    <tr>  
      <th>Month</th>  
      <th>Savings</th>  
    </tr>  
  </thead>  
  <tfoot>  
    <tr>  
      <td>Sum</td>  
      <td>$180</td>  
    </tr>  
  </tfoot>  
  <tbody>  
    <tr>  
      <td>January</td>  
      <td>$100</td>  
    </tr>  
    <tr>  
      <td>February</td>  
      <td>$80</td>  
    </tr>  
  </tbody>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_tbody)

Definition and Usage

The <tfoot> tag is used to group footer content in an HTML table.

The <tfoot> element is used in conjunction with the [<thead>](http://www.w3schools.com/tags/tag_thead.asp) and [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) elements to specify each part of a table (footer, header, body).

Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.

The <tfoot> tag must be used in the following context: As a child of a <table> element, after any <caption>, <colgroup>, and <thead> elements and before any <tbody> and <tr> elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <tfoot> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** The <tfoot> element must have one or more <tr> tags inside.

**Tip:** The <thead>, <tbody>, and <tfoot> elements will not affect the layout of the table by default. However, you can use CSS to style these elements.

Differences Between HTML 4.01 and HTML5

None of the HTML 4.01 attributes are supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_tfoot_align.asp) | right left center justify char | Not supported in HTML5. Aligns the content inside the <tfoot> element |
| [char](http://www.w3schools.com/tags/att_tfoot_char.asp) | *character* | Not supported in HTML5. Aligns the content inside the <tfoot> element to a character |
| [charoff](http://www.w3schools.com/tags/att_tfoot_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content inside the <tfoot> element will be aligned from the character specified by the char attribute |
| [valign](http://www.w3schools.com/tags/att_tfoot_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content inside the <tfoot> element |

Global Attributes

The <tfoot> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <tfoot> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <th> Tag

[« Previous](http://www.w3schools.com/tags/tag_tfoot.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_thead.asp)

Example

A simple HTML table with two header cells and two data cells:

<table>  
 <tr>  
   <th>Month</th>  
   <th>Savings</th>  
 </tr>  
 <tr>  
   <td>January</td>  
   <td>$100</td>  
 </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_test)

More "Try it Yourself" examples below.

Definition and Usage

The <th> tag defines a header cell in an HTML table.

An HTML table has two kinds of cells:

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

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

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

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <th> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use the colspan and rowspan attribute to let the content span over multiple columns or rows!

Differences Between HTML 4.01 and HTML5

All layout attributes are removed in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [abbr](http://www.w3schools.com/tags/att_th_abbr.asp) | *text* | Specifies an abbreviated version of the content in a header cell |
| [align](http://www.w3schools.com/tags/att_th_align.asp) | left right center justify char | Not supported in HTML5. Aligns the content in a header cell |
| [axis](http://www.w3schools.com/tags/att_th_axis.asp) | *category\_name* | Not supported in HTML5. Categorizes header cells |
| [bgcolor](http://www.w3schools.com/tags/att_th_bgcolor.asp) | *rgb(x,x,x) #xxxxxx colorname* | Not supported in HTML5. Specifies the background color of a header cell |
| [char](http://www.w3schools.com/tags/att_th_char.asp) | *character* | Not supported in HTML5. Aligns the content in a header cell to a character |
| [charoff](http://www.w3schools.com/tags/att_th_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content will be aligned from the character specified by the char attribute |
| [colspan](http://www.w3schools.com/tags/att_th_colspan.asp) | *number* | Specifies the number of columns a header cell should span |
| [headers](http://www.w3schools.com/tags/att_th_headers.asp) | *header\_id* | Specifies one or more header cells a cell is related to |
| [height](http://www.w3schools.com/tags/att_th_height.asp) | *pixels %* | Not supported in HTML5. Sets the height of a header cell |
| [nowrap](http://www.w3schools.com/tags/att_th_nowrap.asp) | nowrap | Not supported in HTML5. Specifies that the content inside a header cell should not wrap |
| [rowspan](http://www.w3schools.com/tags/att_th_rowspan.asp) | *number* | Specifies the number of rows a header cell should span |
| [scope](http://www.w3schools.com/tags/att_th_scope.asp) | col colgroup row rowgroup | Specifies whether a header cell is a header for a column, row, or group of columns or rows |
| sorted | reversed *number* reversed *number* *number* reversed | Defines the sort direction of a column |
| [valign](http://www.w3schools.com/tags/att_th_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content in a header cell |
| [width](http://www.w3schools.com/tags/att_th_width.asp) | *pixels %* | Not supported in HTML5. Specifies the width of a header cell |

Global Attributes

The <th> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <th> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Table headers](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_header)  
How to create table headers.

[Table with a caption](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_caption_test)  
An HTML table with a caption.

[Tags inside a table](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_elements)  
How to display elements inside other elements.

[C](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)[ells that span more than one row/column](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)  
How to define table cells that span more than one row or one column.

Related Pages

HTML tutorial: [HTML Tables](http://www.w3schools.com/html/html_tables.asp)

HTML DOM reference: [Th object](http://www.w3schools.com/jsref/dom_obj_tabledata.asp)

HTML <thead> Tag

[« Previous](http://www.w3schools.com/tags/tag_th.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_time.asp)

Example

An HTML table with a <thead>, <tfoot>, and a <tbody> element:

<table>  
 <thead>  
  <tr>  
     <th>Month</th>  
     <th>Savings</th>  
  </tr>  
 </thead>  
 <tfoot>  
  <tr>  
     <td>Sum</td>  
     <td>$180</td>  
  </tr>  
 </tfoot>  
 <tbody>  
  <tr>  
     <td>January</td>  
     <td>$100</td>  
  </tr>  
  <tr>  
     <td>February</td>  
     <td>$80</td>  
  </tr>  
 </tbody>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_tbody)

Definition and Usage

The <thead> tag is used to group header content in an HTML table.

The <thead> element is used in conjunction with the [<tbody>](http://www.w3schools.com/tags/tag_tbody.asp) and [<tfoot>](http://www.w3schools.com/tags/tag_tfoot.asp) elements to specify each part of a table (header, body, footer).

Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.

The <thead> tag must be used in the following context: As a child of a <table> element, after any <caption>, and <colgroup> elements, and before any <tbody>, <tfoot>, and <tr> elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <thead> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** The <thead> element must have one or more <tr> tags inside.

**Tip:** The <thead>, <tbody>, and <tfoot> elements will not affect the layout of the table by default. However, you can use CSS to style these elements.

Differences Between HTML 4.01 and HTML5

None of the HTML 4.01 attributes are supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_thead_align.asp) | right left center justify char | Not supported in HTML5. Aligns the content inside the <thead> element |
| [char](http://www.w3schools.com/tags/att_thead_char.asp) | *character* | Not supported in HTML5. Aligns the content inside the <thead> element to a character |
| [charoff](http://www.w3schools.com/tags/att_thead_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content inside the <thead> element will be aligned from the character specified by the char attribute |
| [valign](http://www.w3schools.com/tags/att_thead_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content inside the <thead> element |

Global Attributes

The <thead> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <thead> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <time> Tag

[« Previous](http://www.w3schools.com/tags/tag_thead.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_title.asp)

Example

How to define a time and a date:

<p>We open at <time>10:00</time> every morning.</p>  
  
<p>I have a date on <time datetime="2008-02-14">Valentines day</time>.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_time)

Definition and Usage

The <time> tag defines either a time (24 hour clock), or a date in the Gregorian calendar, optionally with a time and a time-zone offset.

This element can be used as a way to encode dates and times in a machine-readable way so that, for example, user agents can offer to add birthday reminders or scheduled events to the user's calendar, and search engines can produce smarter search results.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <time> | 6.0 | 9.0 | 4.0 | 5.0 | 11.1 |

Differences Between HTML 4.01 and HTML5

The <time> tag is new in HTML5.

Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [datetime](http://www.w3schools.com/tags/att_time_datetime.asp) | *datetime* | Gives the date/time being specified. Otherwise, the date/time is given by the element's contents |

Global Attributes

The <time> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <time> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML DOM reference: [Time object](http://www.w3schools.com/jsref/dom_obj_time.asp)

HTML <title> Tag

[« Previous](http://www.w3schools.com/tags/tag_time.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_tr.asp)

Example

Define a title for your HTML document:

<html>  
  
<head>  
<title>HTML Reference</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_basic)

Definition and Usage

The <title> tag is required in all HTML documents and it defines the title of the document.

The <title> element:

* defines a title in the browser toolbar
* provides a title for the page when it is added to favorites
* displays a title for the page in search-engine results

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <title> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Note:** You can NOT have more than one <title> element in an HTML document.

**Tip:** If you omit the <title> tag, the document will not validate as HTML.

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <title> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Related Pages

HTML tutorial: [HTML Head](http://www.w3schools.com/html/html_head.asp)

HTML DOM reference: [Title object](http://www.w3schools.com/jsref/dom_obj_title.asp)

HTML <tr> Tag

[« Previous](http://www.w3schools.com/tags/tag_title.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_track.asp)

Example

A simple HTML table, containing two columns and two rows:

<table>  
  <tr>  
    <th>Month</th>  
    <th>Savings</th>  
  </tr>  
  <tr>  
    <td>January</td>  
    <td>$100</td>  
  </tr>  
</table>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_test)

More "Try it Yourself" examples below.

Definition and Usage

The <tr> tag defines a row in an HTML table.

A <tr> element contains one or more [<th>](http://www.w3schools.com/tags/tag_th.asp) or [<td>](http://www.w3schools.com/tags/tag_td.asp) elements.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <tr> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

All the layout attributes are removed in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [align](http://www.w3schools.com/tags/att_tr_align.asp) | right left center justify char | Not supported in HTML5. Aligns the content in a table row |
| [bgcolor](http://www.w3schools.com/tags/att_tr_bgcolor.asp) | *rgb(x,x,x) #xxxxxx colorname* | Not supported in HTML5. Specifies a background color for a table row |
| [char](http://www.w3schools.com/tags/att_tr_char.asp) | *character* | Not supported in HTML5. Aligns the content in a table row to a character |
| [charoff](http://www.w3schools.com/tags/att_tr_charoff.asp) | *number* | Not supported in HTML5. Sets the number of characters the content will be aligned from the character specified by the char attribute |
| [valign](http://www.w3schools.com/tags/att_tr_valign.asp) | top middle bottom baseline | Not supported in HTML5. Vertical aligns the content in a table row |

Global Attributes

The <tr> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <tr> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[Table headers](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_header)  
How to create table headers.

[Table with a caption](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_caption_test)  
An HTML table with a caption.

[Tags inside a table](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_elements)  
How to display elements inside other elements.

[C](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)[ells that span more than one row/column](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_table_span)  
How to define table cells that span more than one row or one column.

Related Pages

HTML tutorial: [HTML Tables](http://www.w3schools.com/html/html_tables.asp)

HTML DOM reference: [Tr object](http://www.w3schools.com/jsref/dom_obj_tablerow.asp)

HTML <track> Tag

[« Previous](http://www.w3schools.com/tags/tag_tr.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_tt.asp)

Example

A video with two subtitle tracks:

<video width="320" height="240" controls>  
  <source src="forrest\_gump.mp4" type="video/mp4">  
  <source src="forrest\_gump.ogg" type="video/ogg">  
  <track src="subtitles\_en.vtt" kind="subtitles" srclang="en" label="English">  
  <track src="subtitles\_no.vtt" kind="subtitles" srclang="no" label="Norwegian">  
</video>

Definition and Usage

The <track> tag specifies text tracks for media elements (<audio> and <video>).

This element is used to specify subtitles, caption files or other files containing text, that should be visible when the media is playing.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <track> | 18.0 | 10.0 | 31.0 | 6.0 | 15.0 |

Differences Between HTML 4.01 and HTML5

The <track> tag is new in HTML5.

Optional Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [default](http://www.w3schools.com/tags/att_track_default.asp) | default | Specifies that the track is to be enabled if the user's preferences do not indicate that another track would be more appropriate |
| [kind](http://www.w3schools.com/tags/att_track_kind.asp) | captions chapters descriptions metadata subtitles | Specifies the kind of text track |
| [label](http://www.w3schools.com/tags/att_track_label.asp) | *text* | Specifies the title of the text track |
| [src](http://www.w3schools.com/tags/att_track_src.asp) | *URL* | Required. Specifies the URL of the track file |
| [srclang](http://www.w3schools.com/tags/att_track_srclang.asp) | *language\_code* | Specifies the language of the track text data (required if kind="subtitles") |

Global Attributes

The <track> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <track> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <tt> Tag. Not Supported in HTML5.

[« Previous](http://www.w3schools.com/tags/tag_track.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_u.asp)

Example

Define teletype text:

<p><tt>Teletype text</tt></p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_tt)

Definition and Usage

The <tt> tag is not supported in HTML5. Use CSS instead.

The <tt> tag defines teletype text.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <tt> | Yes | Yes | Yes | Yes | Yes |

Compatibility Notes

CSS syntax: <p style="font-family:'Lucida Console', monospace">

[CSS Example: define teletype/monospace font for a <p> element](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_tt_css)

In our CSS tutorial you can find more details about specifying the [type of font](http://www.w3schools.com/css/css_font.asp) in a document.

Differences Between HTML 4.01 and HTML5

The <tt> tag is not supported in HTML5.

HTML <u> Tag

[« Previous](http://www.w3schools.com/tags/tag_tt.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_ul.asp)

Example

Underline a misspelled word with the <u> tag:

<p>This is a <u>parragraph</u>.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_u)

Definition and Usage

The <u> tag represents some text that should be stylistically different from normal text, such as misspelled words or proper nouns in Chinese.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <u> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Avoid using the <u> element where it could be confused for a hyperlink.

**Note:** The HTML 5 specification reminds developers that other elements are almost always more appropriate than <u>.

Differences Between HTML 4.01 and HTML5

The <u> element was [deprecated](javascript:NewWindow('deprecated.htm')) in HTML 4.01. (the <u> element was used to define underlined text).

The <u> element is redefined in HTML5, to represent text that should be stylistically different from normal text, such as misspelled words or proper nouns in Chinese.

Global Attributes

The <u> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <u> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <ul> Tag

[« Previous](http://www.w3schools.com/tags/tag_u.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_var.asp)

Example

An unordered HTML list:

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

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_lists4)

More "Try it Yourself" examples below.

Definition and Usage

The <ul> tag defines an unordered (bulleted) list.

Use the <ul> tag together with the [<li>](http://www.w3schools.com/tags/tag_li.asp) tag to create unordered lists.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <ul> | Yes | Yes | Yes | Yes | Yes |

Tips and Notes

**Tip:** Use CSS to style lists.

**Tip:** To create ordered lists, use the [<ol>](http://www.w3schools.com/tags/tag_ol.asp) tag.

Differences Between HTML 4.01 and HTML5

The "compact" and "type" attributes are not supported in HTML5.

Attributes

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [compact](http://www.w3schools.com/tags/att_ul_compact.asp) | compact | Not supported in HTML5. Specifies that the list should render smaller than normal |
| [type](http://www.w3schools.com/tags/att_ul_type.asp) | disc square circle | Not supported in HTML5. Specifies the kind of marker to use in the list |

Global Attributes

The <ul> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <ul> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Examples

Try it Yourself - Examples

[A nested list](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_lists2)  
A list inside a list.

[Another nested list](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_nestedlists2)  
A more complicated nested list.

Related Pages

HTML tutorial: [HTML Lists](http://www.w3schools.com/html/html_lists.asp)

HTML <var> Tag

[« Previous](http://www.w3schools.com/tags/tag_ul.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_video.asp)

Example

Format text in a document:

<var>Variable</var>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_phrase_test)

Definition and Usage

The <var> tag is a phrase tag. It defines a variable.

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

All phrase tags:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| <em> | Renders as emphasized text |
| <strong> | Defines important text |
| <dfn> | Defines a definition term |
| <code> | Defines a piece of computer code |
| <samp> | Defines sample output from a computer program |
| <kbd> | Defines keyboard input |
| <var> | Defines a variable |

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <var> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Global Attributes

The <var> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <var> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

Related Pages

HTML tutorial: [HTML Text Formatting](http://www.w3schools.com/html/html_formatting.asp)

# HTML <video> Tag

[« Previous](http://www.w3schools.com/tags/tag_var.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_wbr.asp)

## Example

Play a video:

<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>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_video)

## Definition and Usage

The <video> tag specifies video, such as a movie clip or other video streams.

Currently, there are 3 supported video formats for the <video> element: MP4, WebM, and Ogg:

|  |  |  |  |
| --- | --- | --- | --- |
| **Browser** | **MP4** | **WebM** | **Ogg** |
| Internet Explorer | YES | NO | NO |
| Chrome | YES | YES | YES |
| Firefox | YES **Update 1:** Firefox 21 on Windows and Android now supports MP4 **Update 2:** Firefox 30 on Linux now supports MP4 | YES | YES |
| Safari | YES | NO | NO |
| Opera | NO | YES | YES |

* MP4 = MPEG 4 files with H264 video codec and AAC audio codec
* WebM = WebM files with VP8 video codec and Vorbis audio codec
* Ogg = Ogg files with Theora video codec and Vorbis audio codec

### MIME Types for Video Formats

|  |  |
| --- | --- |
| **Format** | **MIME-type** |
| MP4 | video/mp4 |
| WebM | video/webm |
| Ogg | video/ogg |

## Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <video> | 4.0 | 9.0 | 3.5 | 4.0 | 10.5 |

## Differences Between HTML 4.01 and HTML5

The <video> tag is new in HTML5.

## Tips and Notes

**Tip:** Any text between the <video> and </video> tags will be displayed in browsers that do not support the <video> element.

## Optional Attributes

= New in HTML5.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Value** | **Description** |
| [autoplay](http://www.w3schools.com/tags/att_video_autoplay.asp) | autoplay | Specifies that the video will start playing as soon as it is ready |
| [controls](http://www.w3schools.com/tags/att_video_controls.asp) | controls | Specifies that video controls should be displayed (such as a play/pause button etc). |
| [height](http://www.w3schools.com/tags/att_video_height.asp) | *pixels* | Sets the height of the video player |
| [loop](http://www.w3schools.com/tags/att_video_loop.asp) | loop | Specifies that the video will start over again, every time it is finished |
| [muted](http://www.w3schools.com/tags/att_video_muted.asp) | muted | Specifies that the audio output of the video should be muted |
| [poster](http://www.w3schools.com/tags/att_video_poster.asp) | URL | Specifies an image to be shown while the video is downloading, or until the user hits the play button |
| [preload](http://www.w3schools.com/tags/att_video_preload.asp) | auto metadata none | Specifies if and how the author thinks the video should be loaded when the page loads |
| [src](http://www.w3schools.com/tags/att_video_src.asp) | *URL* | Specifies the URL of the video file |
| [width](http://www.w3schools.com/tags/att_video_width.asp) | *pixels* | Sets the width of the video player |

## Global Attributes

The <video> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

## Event Attributes

The <video> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

## Related Pages

HTML DOM reference: [HTML Audio/Video DOM Reference](http://www.w3schools.com/tags/ref_av_dom.asp)

HTML <wbr> Tag

[« Previous](http://www.w3schools.com/tags/tag_video.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_comment.asp)

Example

A text with word break opportunities:

<p>  
To learn AJAX, you must be familiar with the XML<wbr>Http<wbr>Request Object.  
</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml5_wbr)

Definition and Usage

The <wbr> (Word Break Opportunity) tag specifies where in a text it would be ok to add a line-break.

**Tip:** When a word is too long, or you are afraid that the browser will break your lines at the wrong place, you can use the <wbr> element to add word break opportunities.

Browser Support

The numbers in the table specifies the first browser version that fully supports the element.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <wbr> | 1.0 | Not supported | 3.0 | 4.0 | 11.7 |

Differences Between HTML 4.01 and HTML5

The <wbr> tag is new in HTML5.

Global Attributes

The <wbr> tag also supports the [Global Attributes in HTML](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The <wbr> tag also supports the [Event Attributes in HTML](http://www.w3schools.com/tags/ref_eventattributes.asp).

HTML <!--...--> Tag

[« Previous](http://www.w3schools.com/tags/ref_keyboardshortcuts.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_doctype.asp)

Example

An HTML comment:

<!--This is a comment. Comments are not displayed in the browser-->  
  
<p>This is a paragraph.</p>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_comment)

Definition and Usage

The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers.

You can use comments to explain your code, which can help you when you edit the source code at a later date. This is especially useful if you have a lot of code.

Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <!--...--> | Yes | Yes | Yes | Yes | Yes |

Differences Between HTML 4.01 and HTML5

NONE.

Tips and Notes

You can also use the comment tag to "hide" scripts from browsers without support for scripts (so they don't show them as plain text):

<script type="text/javascript">  
<!--  
function displayMsg()  
{  
alert("Hello World!")  
}  
//-->  
</script>

**Note:** The two forward slashes at the end of comment line (//) is the JavaScript comment symbol. This prevents JavaScript from executing the --> tag.

Standard Attributes

The comment tag does not support any standard attributes.

More information about [Standard Attributes](http://www.w3schools.com/tags/ref_standardattributes.asp).

Event Attributes

The comment tag does not support any event attributes.

More information about [Event Attributes](http://www.w3schools.com/tags/ref_eventattributes.asp).

# HTML <!DOCTYPE> Declaration

[« Previous](http://www.w3schools.com/tags/tag_comment.asp)

[Complete HTML Reference](http://www.w3schools.com/tags/default.asp)

[Next »](http://www.w3schools.com/tags/tag_a.asp)

## Example

<!DOCTYPE html>  
<html>  
<head>  
<title>Title of the document</title>  
</head>  
  
<body>  
The content of the document......  
</body>  
  
</html>

[**Try it Yourself »**](http://www.w3schools.com/tags/tryit.asp?filename=tryhtml_doctype)

## Definition and Usage

The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag.

The <!DOCTYPE> declaration is not an HTML tag; it is an instruction to the web browser about what version of HTML the page is written in.

In HTML 4.01, the <!DOCTYPE> declaration refers to a DTD, because HTML 4.01 was based on SGML. The DTD specifies the rules for the markup language, so that the browsers render the content correctly.

HTML5 is not based on SGML, and therefore does not require a reference to a DTD.

**Tip:** Always add the <!DOCTYPE> declaration to your HTML documents, so that the browser knows what type of document to expect.

## Browser Support

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** |  |  |  |  |  |
| <!DOCTYPE> | Yes | Yes | Yes | Yes | Yes |

## Differences Between HTML 4.01 and HTML5

There are three different <!DOCTYPE> declarations in HTML 4.01. In HTML5 there is only one:

<!DOCTYPE html>

## HTML Elements and Doctypes

Look at our table of all [HTML elements, and what Doctype each element appears in](http://www.w3schools.com/tags/ref_html_dtd.asp).

## Tips and Notes

**Note:** The <!DOCTYPE> tag does not have an end tag.

**Tip:** The <!DOCTYPE> declaration is NOT case sensitive.

**Tip:** Use [W3C's Validator](http://validator.w3.org/) to check that you have written a valid HTML / XHTML document!

## Common DOCTYPE Declarations

### HTML 5

<!DOCTYPE html>

### HTML 4.01 Strict

This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">

### HTML 4.01 Transitional

This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

### HTML 4.01 Frameset

This DTD is equal to HTML 4.01 Transitional, but allows the use of frameset content.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">

### XHTML 1.0 Strict

This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font). Framesets are not allowed. The markup must also be written as well-formed XML.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

### XHTML 1.0 Transitional

This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font). Framesets are not allowed. The markup must also be written as well-formed XML.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

### XHTML 1.0 Frameset

This DTD is equal to XHTML 1.0 Transitional, but allows the use of frameset content.

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">

### XHTML 1.1

This DTD is equal to XHTML 1.0 Strict, but allows you to add modules (for example to provide ruby support for East-Asian languages).

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

Bottom of Form