

Semantic Content Section

1-Body: 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.

2-HTML `<section>` Tag

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>
```

Definition and Usage

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

3-HTML `<nav>` Tag

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>
```

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.



4-HTML <h1> to <h6> Tags

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>
```

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.

5-HTML <header> Tag

Example-

A header for an <article>:

```
<article>
  <header>
    <h1>Most important heading here</h1>
    <h3>Less important heading here</h3>
    <p>Some additional information here</p>
  </header>
  <p>Lorem Ipsum dolor set amet....</p>
</article>
```

Definition and Usage

- The <header> element represents a container for introductory content or a set of navigational links.
- A <header> element typically contains:
 1. one or more heading elements (<h1> - <h6>)
 2. logo or icon
 3. authorship information
- You can have several <header> elements in one document.

Note: A <header> tag cannot be placed within a <footer>, <address> or another <header> element.

6-HTML <footer> Tag

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>
```

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> element typically contains:
 1. authorship information
 2. copyright information
 3. contact information
 4. sitemap
 5. back to top links
 6. related documents
- You can have several <footer> elements in one document.

7-HTML <address> Tag

```
<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>
```

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.

8-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>
```

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.

Content section

1-HTML <hr> Tag

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>
```

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.

2-HTML <pre> Tag

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>
```

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.

3-HTML <blockquote> Tag

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>
```

Definition and Usage

- The <blockquote> tag specifies a section that is quoted from another source.
- Browsers usually indent <blockquote> elements.

4-HTML Tag

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>
```

Definition and Usage

- The tag defines an ordered list. An ordered list can be numerical or alphabetical.
- Use the [](#) tag to define list items.

5-HTML Tag

Example

An unordered HTML list:

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

Definition and Usage

- The tag defines an unordered (bulleted) list.
- Use the tag together with the [](#) tag to create unordered lists.

6-HTML Tag

Example

One ordered () and one unordered () HTML list:

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

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

Definition and Usage

- The tag defines a list item.
- The tag is used in ordered lists([](#)), unordered lists ([](#)), and in menu lists ([<menu>](#)).

7-HTML <dl> Tag

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>
```

Definition and Usage

- The <dl> tag defines a description list.
- The <dl> tag is used in conjunction with [<dt>](#) (defines terms/names) and [<dd>](#) (describes each term/name).

8-HTML <dt> Tag

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>
```

Definition and Usage

- The <dt> tag defines a term/name in a description list.
- The <dt> tag is used in conjunction with [<dl>](#) (defines a description list) and [<dd>](#) (describes each term/name).

9-HTML <dd> Tag

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>
```

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>](#) (defines a description list) and [<dt>](#) (defines terms/names).
- Inside a <dd> tag you can put paragraphs, line breaks, images, links, lists, etc.

10-HTML <figure> Tag

Example

Use a <figure> element to mark up a photo in a document:

```
<figure>
  
</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.

11-HTML <figcaption> Tag

Example

Use a <figure> element to mark up a photo in a document.
The <figure> element can also contain a <figcaption>:

```
<figure>
  
  <figcaption>Fig.1 - Trulli, Puglia, Italy.</figcaption>
</figure>
```

Definition and Usage

- 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.

12-HTML <div> Tag

Example

A section in a document that will have a light blue background color:

```
<div style="background-color:lightblue">
  <h3>This is a heading</h3>
  <p>This is a paragraph.</p>
</div>
```

Definition and Usage

- The <div> tag defines a division or a section in an HTML document.
- The <div> element is often used as a container for other HTML elements to style them with CSS or to perform certain tasks with JavaScript.

Inline elements

1-HTML <a> Tag

Example

A link to W3Schools.com:

```
<a href="https://www.w3schools.com">Visit W3Schools.com!</a>
```

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:
 1. An unvisited link is underlined and blue
 2. A visited link is underlined and purple
 3. An active link is underlined and red

2-HTML <abbr> Tag

Example

An abbreviation is marked up as follows:

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

Definition and Usage

- The <abbr> tag defines an abbreviation or an acronym, like "HTML", "Mr.", "Dec.", "ASAP", "ATM".

3-HTML <bdo> Tag

Example

Specify the text direction:

`<bdo dir="rtl">`

This text will go right-to-left.

`</bdo>`

Definition and Usage

- bdo stands for Bi-Directional Override.
- The <bdo> tag is used to override the current text direction.

4-HTML
 Tag

Example

A line break is marked up as follows:

This text contains`
`a line break.

Definition and Usage

- The
 tag inserts a single line break.
- The
 tag is an empty tag which means that it has no end tag.

5-HTML <cite> Tag

Example

Define the title of a work with the <cite> tag:

`<p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>`

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.

6-HTML `<code>` Tag

Example

Format text in a document:

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

Definition and Usage

- The `<code>` tag is a phrase tag. It defines a piece of computer code.

7-HTML `<dfn>` Tag

Example

Mark up the defining instance of a term:

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

Definition and Usage

- The `<dfn>` tag represents the defining instance of a term in HTML.
- The defining instance is often the first use of a term in a document.
- The nearest parent of the `<dfn>` tag must also contain the definition/explanation for the term inside `<dfn>`.

The term inside the `<dfn>` tag can be any of the following:

1. The content of the `<dfn>` element (without a title attribute):

Example

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

2. The title attribute of the `<dfn>` tag:

Example

`<p><dfn title="HyperText Markup Language">HTML</dfn> is the standard markup language for creating web pages.</p>`

3. The title attribute of an `<abbr>` tag inside the `<dfn>` element:

Example

`<p><dfn><abbr title="HyperText Markup Language">HTML</abbr></dfn> is the standard markup language for creating web pages.</p>`

You can also add an id attribute to the `<dfn>` element. Then, whenever a term is used, it can refer back to the definition using an `<a>` tag:

Example

```
<p><dfn id="html-def">HTML</dfn> is the standard markup language for creating
web pages.</p>
<p>This is some text...</p>
<p>This is some text...</p>
<p>Learn <a href="#html-def">HTML</a> now.</p>
```

8-HTML Tag

Example

Format text in a document:

```
<em>Emphasized text</em>
```

Definition and Usage

- The tag is a phrase tag. It renders as emphasized text.

9-HTML <kbd> Tag

Example

Format text in a document:

```
<kbd>Keyboard input</kbd>
```

Definition and Usage

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

10-HTML <mark> Tag

Example

Highlight parts of a text:

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

Definition and Usage

- The <mark> tag defines marked text.
- Use the <mark> tag if you want to highlight parts of your text.

11-HTML <q> Tag

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>
```

Definition and Usage

- The <q> tag defines a short quotation.
- Browsers normally insert quotation marks around the quotation.

12-HTML <s> Tag

Example

Mark up text that is no longer correct:

```
<p><s>My car is blue.</s></p>
<p>My new car is silver.</p>
```

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 [](#) tag to define replaced or deleted text.

13-HTML <samp> Tag

Example

Format text in a document:

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

Definition and Usage

- The <samp> tag is a phrase tag. It defines sample output from a computer program.

14-HTML <small> Tag

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>
```

Definition and Usage

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

15-HTML Tag

Example

A element used to color a part of a text:

```
<p>My mother has <span style="color:blue">blue</span> eyes.</p>
```

Definition and Usage

- The tag is used to group inline-elements in a document.
- The tag provides no visual change by itself.
- The tag provides a way to add a hook to a part of a text or a part of a document.

16-HTML Tag

Example

Format text in a document:

```
<strong>Strong text</strong>
```

Definition and Usage

- The tag is a phrase tag. It defines important text.

17-HTML <sub> Tag

Example

Subscript text:

```
<p>This text contains <sub>subscript</sub> text.</p>
```

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.

18-HTML <sup> Tag

Example

Superscript text:

```
<p>This text contains <sup>superscript</sup> text.</p>
```

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].

19-HTML <time> Tag

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 20:00">Valentines  
day</time>.</p>
```

Definition and Usage

- The <time> tag defines a human-readable date/time.
- This element can also be used to encode dates and times in a machine-readable way so that user agents can offer to add birthday reminders or

scheduled events to the user's calendar, and search engines can produce smarter search results.

20-HTML <var> Tag

Example

Format text in a document:

```
<var>Variable</var>
```

Definition and Usage

- The <var> tag is a phrase tag. It defines a variable.

21-HTML <wbr> Tag

Example

A text with word break opportunities:

```
<p>
```

To learn AJAX, you must be familiar with the XML<wbr>Http<wbr>Request Object.

```
</p>
```

Definition and Usage

The <wbr> (Word Break Opportunity) tag specifies where in a text it would be ok to add a line-break.

Embedded content

1-HTML Tag

Example

How to insert an image:

```

```

Definition and Usage

- The tag defines an image in an HTML page.
- The 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 tag creates a holding space for the referenced image.

Tip: To link an image to another document, simply nest the tag inside <a> tags.

2-HTML <iframe> Tag

Example

An inline frame is marked up as follows:

```
<iframe src="https://www.w3schools.com"></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.

3-HTML <embed> Tag

Example

An embedded flash animation:

```
<embed src="helloworld.swf">
```

Definition and Usage

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

4-HTML <object> Tag

Example

How to use the <object> element to embed a Flash file:

```
<object width="400" height="400" data="helloworld.swf"></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>](#) tag to pass parameters to plugins that have been embedded with the <object> tag.

5-HTML <param> Tag

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>
```

Definition and Usage

- The <param> tag is used to define parameters for plugins embedded with an [<object>](#) element.

6-HTML <video> Tag

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>
```

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 from Firefox 21 from Firefox 30 for Linux | YES | YES |
| Safari | YES | NO | NO |
| Opera | YES From Opera 25 | 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 |

7-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>
```

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 | YES | YES | YES |
| Safari | YES | YES | NO |
| Opera | YES | YES | YES |

MIME Types for Audio Formats

| Format | MIME-type |
|--------|------------|
| MP3 | audio/mpeg |
| OGG | audio/ogg |
| WAV | audio/wav |

8-HTML <source> Tag

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>

Definition and Usage

- The <source> tag is used to specify multiple media resources for media elements, such as <video>, <audio>, and <picture>.
- The <source> tag allows you to specify alternative video/audio/image files which the browser may choose from, based on its media type, codec support or media query.

9-HTML <track> Tag

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.ogv" 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.