**HTML Semantic Elements**

Semantic elements = elements with a meaning.

## **What are Semantic Elements?**

Both the browser and the developer can understand the meaning of a semantic element.

Non-semantic elements include <div> and <span>, which provide no information about the content.

<Form>, <table>, and <article> are examples of semantic elements. - Its content is clearly defined.

## **Semantic Elements in HTML**

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

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

A picture containing graphical user interface

Description automatically generated

## **HTML <section> Element**

The <section> element refers to section in a document.

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

Examples of where a <section> element can be used:

* Chapters
* Introduction
* News items
* Contact information

A web page could normally be split into sections for introduction, content, and contact information.

### **Example**

### Two sections in a document:

<section>  
<h1>WWF</h1>  
<p>The World Wide Fund for Nature (WWF) is an international organization working on issues regarding the conservation, research and restoration of the environment, formerly named the World Wildlife Fund. WWF was founded in 1961.</p>  
</section>  
  
<section>  
<h1>WWF's Panda symbol</h1>  
<p>The Panda has become the symbol of WWF. The well-known panda logo of WWF originated from a panda named Chi Chi that was transferred from the Beijing Zoo to the London Zoo in the same year of the establishment of WWF.</p>  
</section>

## **HTML <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 the <article> element can be used:

* Forum posts
* Blog posts
* User comments
* Product cards
* Newspaper articles

### **Example**

Three articles with independent, self-contained content:

<article>  
<h2>Google Chrome</h2>  
<p>Google Chrome is a web browser developed by Google, released in 2008. Chrome is the world's most popular web browser today!</p>  
</article>  
  
<article>  
<h2>Mozilla Firefox</h2>  
<p>Mozilla Firefox is an open-source web browser developed by Mozilla. Firefox has been the second most popular web browser since January, 2018.</p>  
</article>  
  
<article>  
<h2>Microsoft Edge</h2>  
<p>Microsoft Edge is a web browser developed by Microsoft, released in 2015. Microsoft Edge replaced Internet Explorer.</p>  
</article>

## **Nesting <article> in <section> or Vice Versa?**

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

A document's sections are defined by the <section> element.

As a result, HTML pages with section> elements that contain article> elements and article> elements that contain section> elements can be found.

## **HTML <header> Element**

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

A <header> element typically contains:

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

**Note:** You can have several <header> elements in one HTML document. However, <header> cannot be placed within a <footer>, <address> or another <header> element.

### **Example**

A header for an <article>:

<article>  
  <header>  
    <h1>What Does WWF Do?</h1>  
    <p>WWF's mission:</p>  
  </header>  
  <p>WWF's mission is to stop the degradation of our planet's natural environment,  
  and build a future in which humans live in harmony with nature.</p>  
</article>

## **HTML <footer> Element**

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

A <footer> element typically contains:

* authorship information
* copyright information
* contact information
* sitemap
* back to top links
* related documents

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

### **Example**

A footer section in a document:

<footer>  
  <p>Author: Hege Refsnes</p>  
  <p><a href="mailto:hege@example.com">hege@example.com</a></p>  
</footer>

## **HTML <nav> Element**

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

It's important to note that a nav> element should not contain all of a document's links. Only major blocks of navigation links should be placed in the nav> element.

This element can be used by browsers, such as screen readers for disabled users, to determine whether to skip the initial rendering of this content.

### **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>

## **HTML <aside> Element**

The aside> element specifies content that is not part of the main content (like a sidebar).

The content of the aside> should be related to the surrounding content in some way.

### **Example**

Display some content aside from the content it is placed in:

<p>My family and I visited The Epcot center this summer. The weather was nice, and Epcot was amazing! I had a great summer together with my family!</p>  
  
<aside>  
<h4>Epcot Center</h4>  
<p>Epcot is a theme park at Walt Disney World Resort featuring exciting attractions, international pavilions, award-winning fireworks and seasonal special events.</p>  
</aside>

## **HTML <figure> and <figcaption> Elements**

Self-contained content, such as illustrations, diagrams, photos, code listings, and so on, is specified by the <figure> tag.

A caption for a figure element is defined by the <figcaption> tag. A figcaption element can be the first or last child of a figure element.

The image/illustration is defined by the <img> element.

### **Example**

<figure>  
  <img src="pic\_trulli.jpg" alt="Trulli">  
  <figcaption>Fig1. - Trulli, Puglia, Italy.</figcaption>  
</figure>

## **Why Semantic Elements?**

" Data can be shared and reused across applications, enterprises, and communities thanks to the semantic Web."

## **Semantic Elements in HTML**

Below is a list of some of the semantic elements in HTML.

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