



Introduction to Web Technologies & HTML 5 Language

New Semantic & structural Elements In HTML 5



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HTML 5 Semantic & Structural Elements

□ Semantic Means:

- When people say they want to make something more semantic, they simply want to make that thing more meaningful.
- Semantic html is using html to reinforce structural meaning. It's about using tags, class names, and ids that reinforce the meaning of the content within the tags.

□ Why Semantic HTML is Important

- **Clean** — It's easier to read and edit, which saves time and money during maintenance.
- **More accessible** — It can be better understood by a greater variety of devices.
- **Search engine friendly** — This is still debatable as search engines rank content and not code.



□ Some New semantic Elements in HTML 5

- **Meter**
- **Progress**
- **Mark**
- **Time**
- **<header>**
- **<hgroup>**
- **<nav>**
- **<section>**
- **<article>**
- **<aside>**
- **<footer>**
- **<address>**



<meter>

- ❑ Representing scalar measurements or fractional values
- ❑ Meter is also known as a gauge
- ❑ It should not be used to indicate progress
- ❑ Attributes:
 - value
 - min
 - max
 - high
 - low
 - optimum



<meter> (Cont.)

□ Using <meter>



```
<meter value="0.6"  
        min=""  
        max=""  
        high ="0.6" >  
  Medium  
</meter>
```



<progress>

- ❑ Show completion progress of a task
- ❑ Progress bars are widely used in other applications
- ❑ Works with scripted applications
- ❑ Attributes
 - **value** : Specifies how much of the task has been completed
 - **max** : Specifies how much work the task requires in total
- ❑ Useful for:
 - Indicate loading progress of an AJAX application
 - Show user progress through a series of forms
 - Making impatient users wait



<progress> (Cont.)

□ Using <progress>



```
<progress id="pBar" max="100" value="10">  
</progress>
```



<mark>

- ❑ Marked or Highlighted text
- ❑ Indicates point of interest or relevance
- ❑ Useful for:
 - Highlighting relevant code in a code sample
 - Highlighting search keywords in a document (e.g. in Google Cache)

```
1 <p>Search results for "salamander":</p>
2
3 <hr>
4
5 <p>Several species of <mark>salamander</mark> inhabit the
  temperate rainforest of the Pacific Northwest.</p>
6
7 <p>Most <mark>salamander</mark>s are nocturnal, and hunt for
  insects, worms, and other small creatures.</p>
8
```

Output

Search results for "salamander":

Several species of **salamander** inhabit the temperate rainforest of the Pacific Northwest.

Most **salamanders** are nocturnal, and hunt for insects, worms, and other small creatures.



<Time>

- ❑ Time as you would expect is used to markup temporal information. It can be used for dates, times, or combinations of the two.
- ❑ 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.

```
<time>2011-07-14</time>
```

```
<time datetime="2011-07-14">July 14th, 2011</time>
```

```
<time datetime="2011-07-14T14:00">2pm on July 14th</time>
```

```
<time datetime="2011-01-25"> Revolution Day </time>
```



Structural Elements (Cont.)

□ Structural Semantic Elements:

- `<header>`
- `<hgroup>`
- `<nav>`
- `<section>`
- `<article>`
- `<aside>`
- `<footer>`
- `<address>`

□ More about Semantic & Structural Elements:

- <http://www.adobe.com/devnet/dreamweaver/articles/understanding-html5-semantics.html>
- http://www.webmonkey.com/2010/02/building_web_pages_with_html_5/



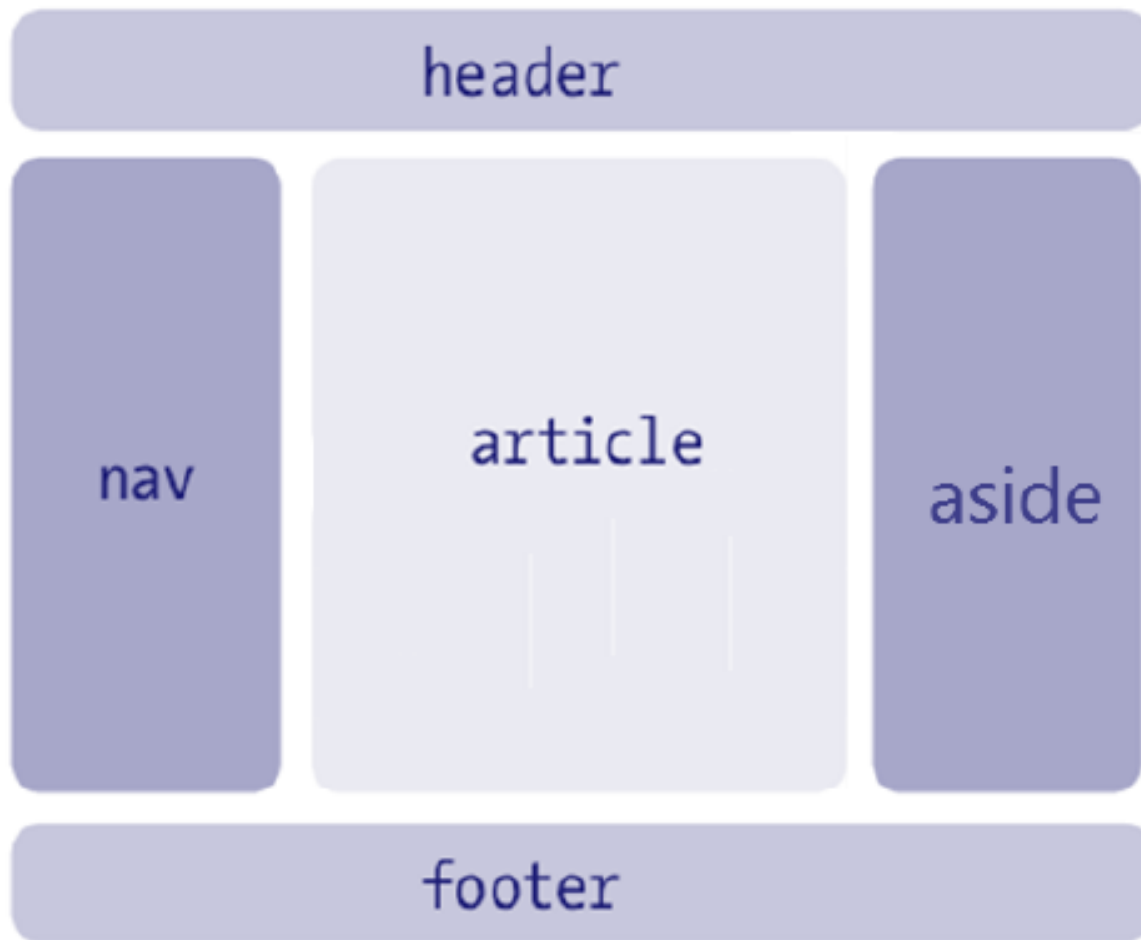
Structural Elements (Cont.)

□ Structural Semantic Usage:

Typical HTML4	Typical HTML5
<code><div id="header"></code>	<code><header></code>
<code><div id="menu"></code>	<code><nav></code>
<code><div id="content"></code>	<code><section></code>
<code><div id="post"></code>	<code><article></code>
<code><div id="footer"></code>	<code><footer></code>

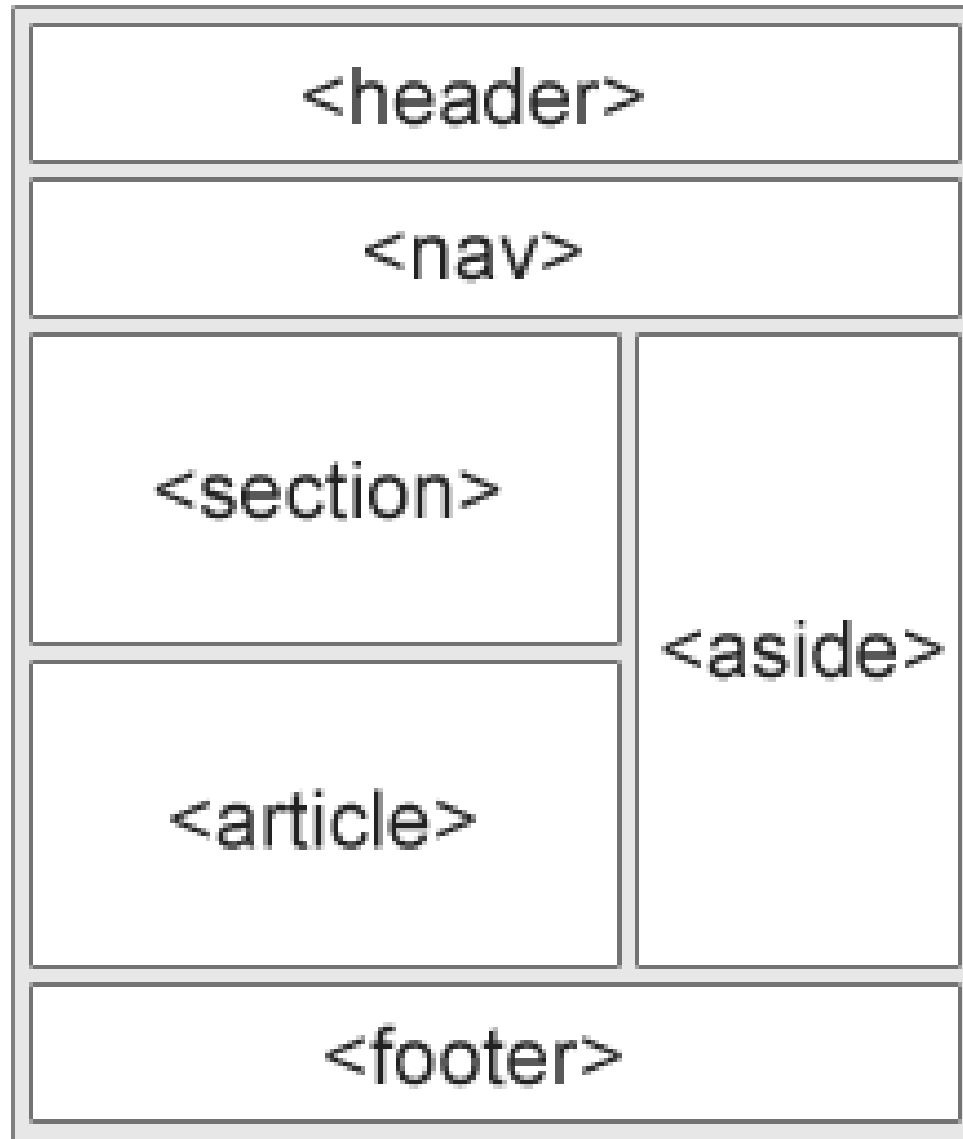


Structural Elements (Cont.)





Structural Elements (Cont.)





<Questions> ? </Questions>



Thank You...