

HTML5 Training for Web Developers

Laying out a Page with HTML5

Lesson 1, Activity 2: Page Structure

Laying out a Page with HTML 4 - the "old" way

HTML 4 includes semantic tags that describe the content they hold. For example, the `<h1>` tag holds a top-level heading. Web developers have (or at least should have) long since stopped using headings for formatting purposes alone. Likewise, using tables for laying out pages has been long frowned upon. Articles like [Throwing tables out the window](#) were written back in 2004. However, the alternative to tables, namely `divs`, is only one step in the right direction. It's a move from misusing a semantically meaningful element (`table`) to using a semantically meaningless element (`div`).

HTML5 takes the obvious next step. But before we look at it, let's take a quick look at a page laid out with HTML 4 using `divs`.

Code Sample:

<html5-laying-out-a-page/Demos/html4-layout.html>

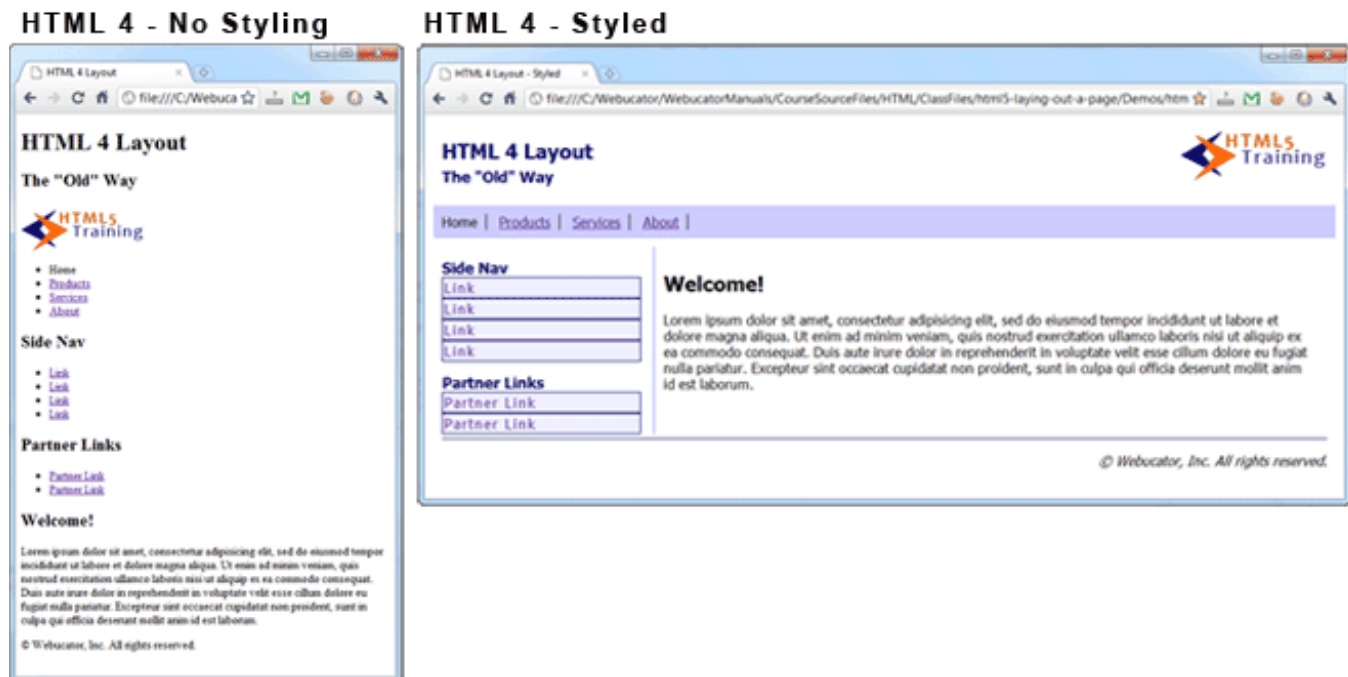
```
<body>
<div id="header">
  <div id="mainheadings">
    <h1>HTML 4 Layout</h1>
    <h2>The "Old" Way</h2>
  </div>
  
</div>
<ul id="mainnav">
  <li>Home</li>
  <li><a href="">Products</a></li>
  <li><a href="">Services</a></li>
  <li><a href="">About</a></li>
</ul>
<div id="container">
  <div id="sidebar">
    <h2>Side Nav</h2>
```

```

<ul id="sidenav">
  <li><a href="">Link</a></li>
  <li><a href="">Link</a></li>
  <li><a href="">Link</a></li>
  <li><a href="">Link</a></li>
</ul>
<h2>Partner Links</h2>
<ul id="partnerlinks">
  <li><a href="">Partner Link</a></li>
  <li><a href="">Partner Link</a></li>
</ul>
</div>
<div id="content">
  <h2>Welcome!</h2>
  <p>Lorem ipsum dolor ...</p>
</div>
</div>
<div id="footer">
  <p>&copy; Webucator, Inc. All rights reserved.</p>
</div>
</body>

```

The above code will render the following (with and without styling):



An interesting thing about this page is the use of `ids` to provide meaning (and hooks for CSS and JavaScript) to the `<div>` tags. We'll

come back to this after looking at how we would structure the same page with HTML5.

Laying out a Page with HTML5

Code Sample:

<html5-laying-out-a-page/Demos/html5-layout.html>

```
<!DOCTYPE HTML>
<html>
<head>
  <meta charset="UTF-8">
  <title>HTML5 Layout</title>
</head>
<body>
<header>
  <hgroup>
    <h1>HTML5 Layout</h1>
    <h2>The HTML5 Way</h2>
  </hgroup>
  
</header>
<nav id="mainnav">
  <ul>
    <li>Home</li>
    <li><a href="">Products</a></li>
    <li><a href="">Services</a></li>
    <li><a href="">About</a></li>
  </ul>
</nav>
<div id="container">
  <aside id="sidebar">
    <h2>Side Nav</h2>
    <nav id="sidenav">
      <ul>
        <li><a href="">Link</a></li>
        <li><a href="">Link</a></li>
        <li><a href="">Link</a></li>
        <li><a href="">Link</a></li>
      </ul>
    </nav>
    <h2>Partner Links</h2>
    <ul id="partnerlinks">
      <li><a href="">Partner Link</a></li>
      <li><a href="">Partner Link</a></li>
    </ul>
  </aside>
```

```
<div id="content">
  <h2>Welcome!</h2>
  <p>Lorem ipsum dolo...</p>
</div>
</div>
<footer>
  <p>&copy; Webucator, Inc. All rights reserved.</p>
</footer>
</body>
</html>
```

The above code will render the same as the HTML 4 version above. From your class files, open [html5-laying-out-a-page/Demos/html5-layout.html](#) and [html5-laying-out-a-page/Demos/html5-layout-styled.html](#) in your HTML5-compliant browser to see the pages.

In the next sections, we will review the differences between the HTML 4 and HTML5 files shown above.

Lesson 1, Activity 3: We mentioned that we used *meaningful* `ids` for *meaningless* `divs` in the HTML 4 layout.

However, these `ids` were only meaningful to us. The browser doesn't have any awareness of their meaning. HTML5 fixes this. Many of the structural tags coincide (and not coincidentally) with the most common values that existing web pages use for the `id` and `class` attributes. Opera researched the most common `class` values from more than 2 million URLs ([source](#)). The table below shows the 200 most popular (with some gaps):

Rank	Value	Frequency	%
1	footer	179,528	3.6%
2	menu	146,673	2.9%
3	style1	138,308	2.8%
4	msonormal	123,374	2.5%
5	text	122,911	2.5%
6	content	113,951	2.3%
7	title	91,957	1.8%
8	style2	89,851	1.8%
9	header	89,274	1.8%
10	copyright	86,979	1.7%
11	button	81,503	1.6%
12	main	69,620	1.4%
13	style3	69,349	1.4%
14	small	68,995	1.4%
15	nav	68,634	1.4%
16	clear	68,571	1.4%
188	mainlevel.nav	15,472	0.3%
89	section	16,297	0.3%
90	description	15,071	0.3%
185	row1	8,652	0.2%
186	article	8,649	0.2%
187	h1	8,625	0.2%

Source: <http://devfiles.myopera.com/articles/572/classlist-url.htm>

The highlighted rows show class names that have corresponding structural elements in HTML5:

1. **header** - holds the header content of the document or a section in the document.
2. **footer** - holds the footer content of the document or a section in the document.
3. **menu** - deprecated in HTML 4. Brought back to life in HTML5 to hold form controls (think of the **File** menu on a desktop application).
4. **nav** - holds navigational links.
5. **section** - holds a section of the document (covered in the next lesson).
6. **article** - holds an article (covered in the next lesson).

We saw the `header`, `footer`, and `nav` elements in the HTML5 code sample in the previous activity

(html5-laying-out-a-page/Demos/html5-layout.html in your class files).

We'll cover `section` and `article` later in the course.

Notably missing from the popular class names is **aside**. However, both **left** and **right** were in the top 25. "Aside" is a better name for an element as it catches the semantic meaning without implying page position.

A couple of notes on other popular class names in the list:

1. **content** (number 6) and **main** (number 12). When designing pages, we often break them up into header, footer, one or two side columns and a **main content area**. It is very helpful to be able to section off this main content area for CSS styling and for accessibility purposes (e.g., Skip Navigation links). However, for some reason there is no HTML5 element corresponding to this area.

2. **small** (number 14). The `<small>` tag is **not** new to HTML5, but it carries new significance. It is used to mark up the "small print" or side comments. The `<big>` tag, on the other hand, is deprecated in HTML5.

1 2 3 4 5 6 7 8 9 10 11 12 a

Lesson 1, Activity 4:

Lesson 1, Activity 5: **Page Simplification -
A Quick Note**

HTML5 has made some simplifications to the page:

1. The new doctype is simply: `<!DOCTYPE HTML>`.
2. The character set is simply declared with: `<meta charset="UTF-8">`.
3. The `type` attribute is no longer required on `<style>` and `<script>` tags. The default types are CSS and ECMAScript, respectively.

Lesson 1, Activity 7: **Converting an HTML 4 Page to an HTML5 Page**

Duration: 15 to 25 minutes.

In this exercise, you will convert a basic HTML 4 page to an HTML5 page. The CSS documents have already been created for you, such that, when you're finished, your HTML5 page should render exactly like the HTML 4 page.

1. Open [html5-laying-out-a-page/Exercises/html4-layout.html](#).
2. Save the file as [html5-layout.html](#).
3. Turn the page from an HTML 4 page into an HTML5 page. Make sure to change the the stylesheet reference to point to [style-html5.css](#).

Challenge

See if you can get your HTML5 page to look like the screenshot below without modifying the HTML at all:



Solution:

html5-laying-out-a-page/Solutions/html5-layout.html

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>HTML5 Layout - Exercise</title>
<link href="style-html5.css" rel="stylesheet">
</head>
<body>
<header>
<hgroup>
<h1>HTML5 Solutions</h1>
```

```

    <h2>HTML5 Products and Services</h2>
</hgroup>

</header>
<nav id="mainnav">
    <ul>
        <li>Home</li>
        <li><a href="">Products</a></li>
        <li><a href="">Services</a></li>
        <li><a href="">About</a></li>
    </ul>
</nav>
<div id="content">
    ---- C O D E   O M I T T E D ----
</div>
<aside id="partners">
    <div>
        <h3>Partner 1</h3>
        ---- C O D E   O M I T T E D ----

    </div>
</aside>
<footer>
    <p>&copy; Webucator, Inc. All rights reserved.</p>
</footer>
</body>
</html>

```

Note that we will further improve this page with `section` and `article` elements later in the course.

Challenge Solution:

<html5-laying-out-a-page/Solutions/style-html5-challenge.css>

```

body {
    font-family:tahoma;
}

header {
    display:block;
    padding:0px 0px 5px 0px;
    margin:0px 20px;
    height:80px;
    width:1030px;
}

```

```

float:left;
}

header hgroup {
display:block;
float:right;
}
---- C O D E   O M I T T E D ----
header #logo {
float:left;
}

nav#mainnav {
display:block;
clear:both;
width:1030px;
height:14px;
margin:10px 0px 0px 20px;
border-left:3px solid #ccf;
border-bottom:3px solid #ccf;
border-right:3px solid #ccf;
padding:5px;
background-color:#eee;
font-size:small;
letter-spacing: 4px;
word-spacing:20px;
text-align:center;
}

nav#mainnav ul {
margin:0px;
padding:0px;
}

nav#mainnav li {
display:inline;
}

#content {
margin:0px 20px;
float:left;
}
---- C O D E   O M I T T E D ----
#content div h2 {
clear:both;
float:right;
font-size:xx-large;
color:#006;
}

#content>div {

```

```
clear:both;
}

#content div div {
padding:10px;
margin-bottom:10px;
width: 700px;
border:1px solid #006;
font-size:small;
}

aside#partners {
width: 275px;
margin:40px 20px;
display:block;
float:left;
background-color:#eee;
border:3px solid #ccf;
}

aside#partners div {
padding:5px;
font-size:x-small;
}

aside#partners h2 {
margin-bottom:0px;
font-size:large;
color:#006;
}

footer {
display:block;
clear:both;
margin:10px 20px;
border-top:1px solid #006;
font-style:italic;
width:1040px;
text-align:right;
}

a:hover {
color:#f60;
}
```