8 getting started with CSS

Adding a Little Style

Don't get me wrong, the hair, the hat, it all looks great. But don't you think he'd like it if you spent a little more time adding some style to your XHTML?



I was told there'd be CSS in this book. So far you've been concentrating on learning XHTML to create the structure of your Web pages. But as you can see, the browser's idea of style leaves a lot to be desired. Sure, we could call the fashion police, but we don't need to. With CSS, you're going to completely control the presentation of your pages, often without even changing your XHTML. Could it really be so easy? Well, you *are* going to have to learn a new language; after all, Webville is a bilingual town. After reading this chapter's guide to learning the language of CSS, you're going to be able to stand on *either* side of Main Street and hold a conversation.

You're not in Kansas anymore

You've been a good sport learning about markup and structure and validation and proper syntax and nesting and compliance, but now you get to really start having some fun by styling your pages. But no worries, all those XHTML pushups you've been doing aren't going to waste. In fact, you're going to see that a solid understanding of XHTML is crucial to learning (and using) CSS. And, learning CSS is just what we're going to do over the next several chapters.

Just to tease you a bit, on these two pages we've sprinkled a few of the designs you're going to work with in the rest of the book. Quite a difference from the pages you've been creating so far, isn't it? So, what do you need to do to create them? Learn the language of CSS of course.

Let's get started...

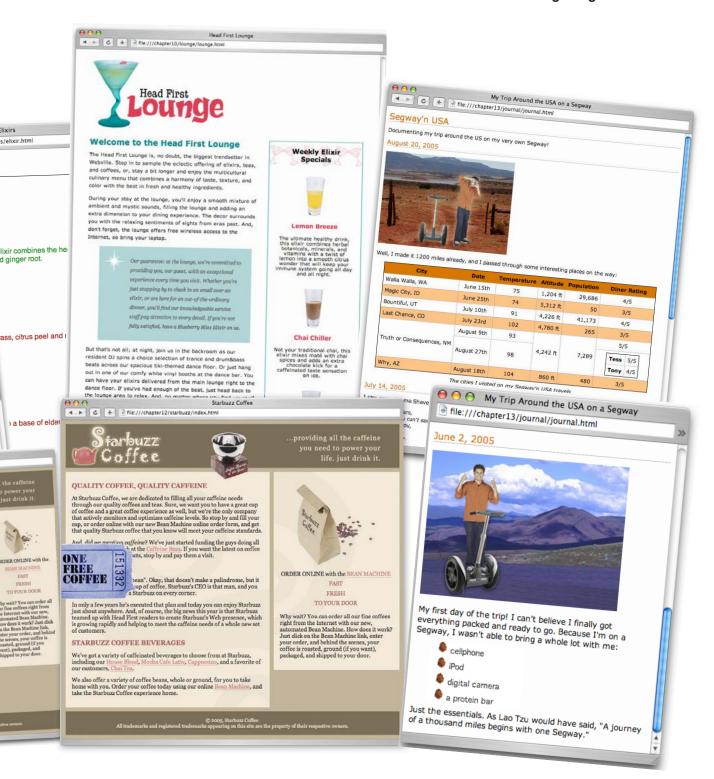
Remember the Wizard of Oz? Well, this is the part of the book where things go from black & white to color.

Head First Lounge I

+ 6 file:///chapter8/lounge/beverage

Our Elixirs





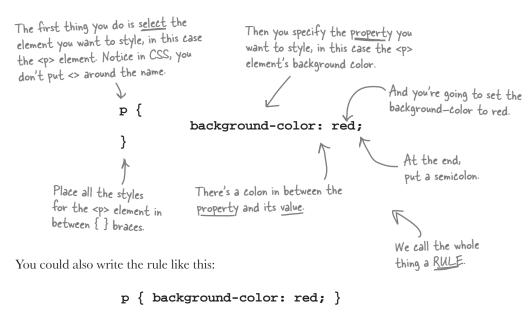
Overheard on Webville's "Trading Spaces"

Not up on the latest reality TV? No problem, here's a recap: take two neighbors, two homes, and \$1,000. The two neighbors switch homes, and using the \$1,000, totally redesign a room or two in 48 hours. Let's listen in...



Using CSS with XHTML

We're sure CSS has a bright future in the home design category, but let's get back to XHTML. XHTML doesn't have rooms, but it does have elements and those elements are going to be the locations that we're styling. Want to paint the walls of your elements red? No problem; only paragraphs don't have walls, so you're going to have to settle for the paragraph's background-color property instead. Here's how you do that:



Here, all we've done is remove the linebreaks. Like XHTML, you can format your CSS pretty much as you like. For longer rules you'll usually want to add some linebreaks and indenting to make the CSS more readable (for you).

Wanna add more style?

You can add as many properties and values as you like in each CSS rule. Say you wanted to put a border around your paragraphs, too. Here's how you do that:

```
background-color: red; All you have to do is add another property and value.

border: 1px solid gray;

The  element will have a border... ...that is I pixel thick, solid, and gray.
```

Dumb Questions

Does every element have the same style? Or can I, say, make two paragraphs different colors?

A: The CSS rules we've used so far define the style for *all* paragraphs, but CSS is very expressive: it can be used to specify styles in lots of different ways, for lots of different elements – even subsets of elements. You'll see how to make paragraphs two different colors later in this chapter.

• How do I know what properties I can set on an element?

Well, there are *lots* of properties that can be set on elements, certainly more than you'd want to memorize, in any case. You're going to get quite familiar with the more common properties in the next few chapters. You'll probably also want to find a good CSS reference. There are plenty of references online, and O'Reilly's *CSS Pocket Reference* is a great little book.

Remind me why I'm defining all this style in a separate language, rather than in XHTML. Since the elements are written in XHTML, wouldn't it be easier just to write style in XHTML, too?

A: You're going to start to see some big advantages to using CSS in the next few chapters. But, here's a quick answer: CSS really is better suited for specifying style information than XHTML. Using just a small bit of CSS, you can create fairly large effects on the style of your XHTML. You're also going to see that CSS is a much better way to handle styles for multiple pages. You'll see how that works later in this chapter.



Say you have an element inside a paragraph. If you change the background color of the paragraph, do you think you also have to change the background of the element so it matches the background color of the paragraph?

Getting CSS into your XHTML

Okay, you know a little about CSS syntax now. You know how to select an element and then write a rule with properties and values inside it. But you still need to get this CSS into some XHTML. First, we need some XHTML to put it in. In the next few chapters, we're going to revisit our old friends – Starbuzz, and Tony and his Segway journal – and make things a little more stylish. But, who do you think is dying to have their site styled first? Of course, the Head First Lounge guys. So, here's the XHTML for the Head First Lounge main page. Remember, in the last chapter we fixed things up a little and made it strict XHTML (would you have expected any less of us?). Now, we're adding some style tags, the easiest way to get style into your pages.

But not necessarily the best way. We'll come back to this later in the chapter and see another way.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en" >
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Head First Lounge</title>
                                         Here's what we're interested in: the <style> element.
                                         To add CSS style directly to your XHTML, add
    <style type="text/css">
                                         opening and closing style tags in the <head> element
                                           And a style type of "text/ess".
                                           And your CSS rules are going to go right in here
  </head>
  <body>
    <h1>Welcome to the Head First Lounge</h1>
       <img src="images/drinks.gif" alt="Drinks" />
    >
       Join us any evening for refreshing
       <a href="beverages/elixir.html">elixirs</a>,
       conversation and maybe a game or two
       of <em>Dance Dance Revolution</em>.
       Wireless access is always provided;
       BYOWS (Bring your own web server).
    <h2>Directions</h2>
    <q>>
       You'll find us right in the center of downtown
       Webville. If you need help finding us, check out our
       <a href="about/directions.html">detailed directions</a>.
       Come join us!
    </body>
</html>
```

Adding style to the lounge

Now that you've got the **<style>** element in your XHTML, you're going to add some style to the Lounge to get a feel for writing CSS. This design probably won't win you any "design awards," but you gotta start somewhere.

The first thing we're going to do is change the color (something to match those red lounge couches) of the text in the paragraphs. To do that, we'll use the CSS **color** property like this:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
                <html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
                   <head>
                     <meta http-equiv="Content-Type"</pre>
Here's the rule
                            content="text/html; charset=ISO-8859-1" />
that is going to
                     <title>Head First Lounge</title>
 specify the font
                                                            . The property to change the font color is
                     <style type="text/css">
 color of the
                                                            named "color" (you might think it would be
 paragraphs.
                                                            "font-color" or "text-color", but it's not).
                         p {
                              color: maroon;
                                                            We're setting the text to a lovely maroon color that happens to
We're selecting just
the  element to
apply this style to.
                                                            match the lounge couches.
                     </style>
                  </head>
                  <body>
                     <h1>Welcome to the Head First Lounge</h1>
                                                                                  The P selector
                     >
                                                                                   selects all the
                        <img src="images/drinks.gif" alt="Drinks" />
                                                                                  paragraphs in the
                     XHTML.
                     >
                        Join us any evening for refreshing
                        <a href="beverages/elixir.html">elixirs</a>,
                        conversation and maybe a game or two
                        of <em>Dance Dance Revolution</em>.
                        Wireless access is always provided;
                        BYOWS (Bring your own web server).
                     <h2>Directions</h2>
                     >
                        You'll find us right in the center
                        of downtown Webville. If you need
                        help finding us, check out our
                        <a href="about/directions.html">detailed directions</a>.
                        Come join us!
                     </body>
                </html>
```

Cruising with style: the test drive

Go ahead and make all the changes from the last couple of pages to your "lounge.html" file in the "chapter8/lounge" folder, save, and reload the page in your browser. You'll see that the paragraph text color has changed to maroon:





Instead of setting the color, what if you set background-color of the elements to maroon instead? How would it change the way the browser displays the page?

Style the heading

Now let's give those headings some style. How about changing the font a bit? Let's change both the type of font, and also the color of the heading fonts:

```
h1 {
    font-family: sans-serif;
    color: gray;
}
h2 {
    font-family: sans-serif;
    color: gray;
}

p {
    color: maroon;
}
```

there's the rule to select <hl>
elements and change the
font—family to sans—serif
and the font color to gray.
We'll talk a lot more about
fonts later.

And here's another rule to do the exact same thing to the <h2> element.

How about a different font for the Lounge headings? Make them *really* stand out. I'm seeing big, clean, gray...



Actually, since these rules are *exactly* the same, we can combine them, like this:

```
h1, h2 {
    font-family: sans-serif;
    color: gray;
}

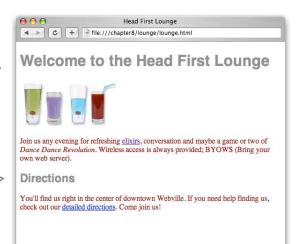
p {
    color: maroon;
}
```

To write a rule for more than one element, just put commas between the selectors, like "hl, h2".

Test drive...

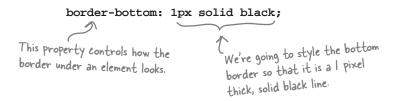
Add this new CSS to your "lounge.html" file and reload. You'll see that with one rule, you've selected both the **<h1>** and **<h2>** headings.

Both of the headings on the page are now styled with a sans-serif font and colored gray.

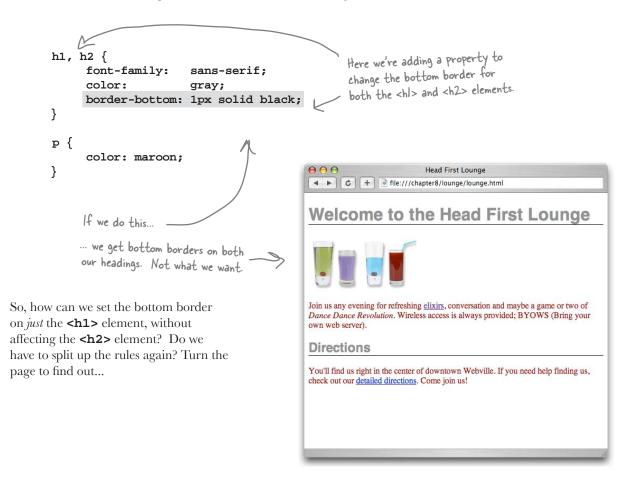


Let's put a line under the welcome message too

Let's touch up the welcome heading a bit more. How about a line under it? That should set the main heading apart visually and add a nice touch. Here's the property we'll use to do that:



The trouble is, if we add this property and value to the combined "h1, h2" rule in our CSS, we'll end up with borders on both our headings:



We have the technology: specifying a second rule, just for the <h1>

We don't have to split the "h1, h2" rule up, we just need to add another rule that is only for "h1" and add the border style to it.

```
h1, h2 {
    font-family: sans-serif;
    color: gray;
}

h1 {
    border-bottom: 1px solid black;
}

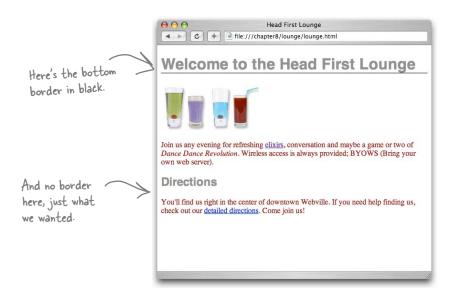
both <hl> and <h2>.

But now we're adding a second rule that adds another property just to <hl>: the border-bottom property.

Color: maroon;
}
```

Another test drive...

Change your CSS and reload the page. You'll see that the new rule added a black border to the bottom of the main heading, which gives us a nice underline on the heading and really makes it stand out.



Dumb Questions

So how does that work when you have more than one rule for an element?

A: You can have as many rules as you want for an element. Each rule adds to the style information of the rule before it. In general, you try to group together all the common styles between elements, like we did with <h1> and <h2>, and then any style that is specific to an element, you write in another rule, like we did with the border-bottom style for the main heading.

What's the advantage of that approach? Isn't it better to organize each element separately, so you know exactly what styles it has?

A: Not at all. If you combine common styles together, then if they change, you only have to change them in one rule. If you break them up, then there are many rules you have to change, which is error-prone.

Q: Why do we use a bottom border to underline text? Isn't there an underline style for text?

Good question. There is an underline style for text and we could use that instead. However, the two styles have slightly different effects on the page: if you use border-bottom then the line will extend to the edge of the page. An underline is only shown under the text itself. The property to set text underline is called text-decoration and has a value of "underline" for underlined text. Give it a try and check out the differences.

So, how do selections really work?

You've seen how to select an element to style it, like this:

```
We call this the selector.

The style is applied to the elements described by the selector - in this case, <hl> elements.
```

Or, how to select more than one element, like this:

```
Another selector. The style is applied to <hl> and <h2> elements.

h1, h2 {

color: gray;
}
```

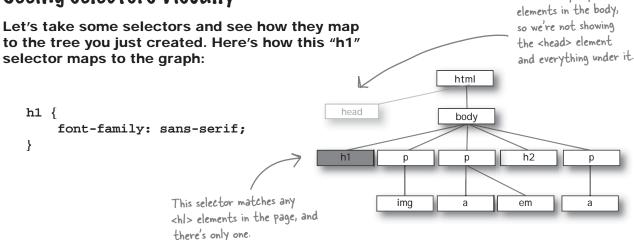
You're going to see that CSS allows you to specify all kinds of selectors that determine which elements your styles are applied to. Knowing how to use these selectors is the first step in mastering CSS, and to do that you need to understand the organization of the XHTML that you're styling. After all, how can you select elements for styling if you don't have a good mental picture of what elements are in the XHTML, and how they relate to one another?

So, let's get that picture of the Lounge XHTML in your head, and then we'll dive back into selectors.

Markup Magnets Like this. html Remember drawing the diagram of HTML elements in Chapter 3? body head You're going to do that again for the Lounge's main page. Below, you'll find all the element magnets you need to complete the title diagram. Using the Lounge's XHTML (on the right), complete the tree below. We've done a couple for you already. You'll find the answer in the back of the chapter. html title img h1 body p h2 р meta head style em

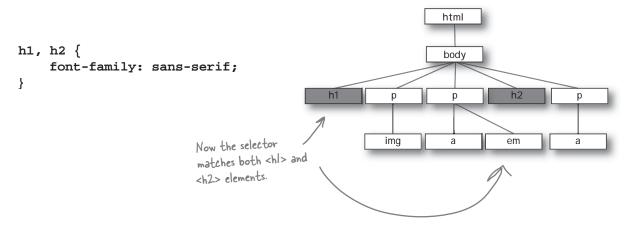
```
The Head First
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"</pre>
                                                                 Lounge XHTML.
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Head First Lounge</title>
    <style type="text/css">
       h1, h2 {
              font-family:
                             sans-serif;
              color:
                             gray;
       }
       h1 {
              border-bottom: 1px solid black;
       }
       p {
              color: maroon;
    </style>
  </head>
  <body>
    <h1>Welcome to the Head First Lounge</h1>
       <img src="images/drinks.gif" alt="Drinks" />
    >
       Join us any evening for refreshing
       <a href="beverages/elixir.html">elixirs</a>,
       conversation and maybe a game or two
       of <em>Dance Dance Revolution</em>.
       Wireless access is always provided;
       BYOWS (Bring your own web server).
    <h2>Directions</h2>
    >
       You'll find us right in the center of downtown
       Webville. If you need help finding us, check out our
       <a href="about/directions.html">detailed directions</a>.
       Come join us!
    </body>
</html>
```

Seeing selectors visually

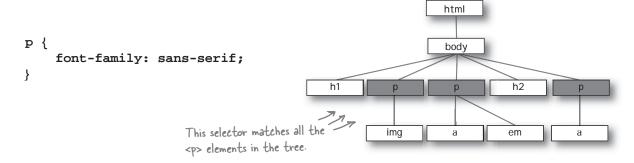


We can only style

And here's how the "h1, h2" selector looks:



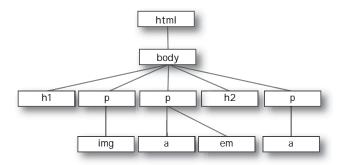
If we use a "p" selector, here's how that looks:



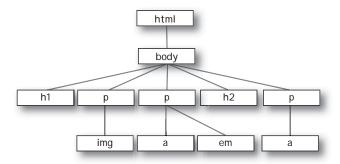
Sharpen your pencil -

Color in the elements that are **selected** by these selectors:

```
p, h2 {
    font-family: sans-serif;
}
```



```
p, em {
    font-family: sans-serif;
}
```



Five-Minute

Mystery

The Case of Brute Force versus Style

When we last left RadWebDesign in Chapter 4, they had just blown the corporate demo and lost RobotsRUs' business. CorrectWebDesign was put in charge of the entire RobotsRUs site and got to work getting everything nailed down before the site launch later in the month. But, you'll also remember that RadWebDesign decided to bone up on their XHTML & CSS. They decided to rework the RobotsRUs site on their own, using strict XHTML and style sheets, just to get some experience

under their belt before they took on another consulting job.

As fate would have it, just before RobotsRUs' big site launch, it happened again: RobotsRUs called CorrectWebDesign with an urgent message. "We're changing our corporate look and we need all the colors, backgrounds, and fonts changed on our site." At this point, the site consisted of almost a hundred pages, so CorrectWebDesign responded that it would take them a few days to rework the site. "We don't have a few days!" the CEO said. Desperate, the CEO decided to call in RadWebDesign for help. "You flubbed up the demo last month, but we really need your help. Can you help the CorrectWebDesign guys convert the site over to the new look and feel?" RadWebDesign said they could do better than that; in fact they could deliver the entire site to them in less than an hour.

How did RadWebDesign go from disgrace to Web page superheroes? What allowed them to change the look and feel of a hundred pages faster than a speeding bullet?



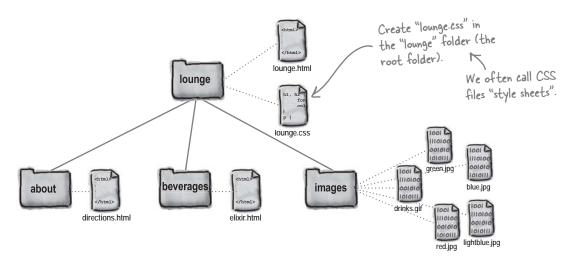
Getting the Lounge style into the elixirs and directions pages

It's great that we've added all this style to "lounge.html", but what about "elixir.html" and "directions.html"? They need to have a look that is consistent with the main page. Easy enough... just copy the style element and all the rules into each file, right? **Not so fast.** If you did that, then whenever you needed to change the style of the site, you'd have to change *every single file* – not what you want. But, luckily, there is a better way. Here's what you're going to do:

- Take the rules in "lounge.html" and place them in a file called "lounge.css".
- **2** Create an *external link* to this file from your "lounge.html" file.
- 3 Create the same external links in "elixir.html" and "directions.html".
- **4** Give all three files a good test drive.

Creating the "lounge.css" file

You're going to create a file called "lounge.css" to contain the style rules for all your Head First Lounge pages. To do that, create a new text file named "lounge.css" in your text editor.



Now type, or copy and paste from your "lounge.html" file, the CSS rules into the "lounge.css" file. Delete the rules from your "lounge.html" file while you're at it.

Note that you should *not* copy the **<style>** and **</style>** tags because the "lounge.css" file contains only CSS, not XHTML.

```
h1, h2 {
    font-family: sans-serif;
    color: gray;
}

/our "lounge.ess" file should
look like this. Remember, no

h1 {
    border-bottom: 1px solid black;
}

P {
    color: maroon;
}
```

Linking from "lounge.html" to the external style

Now we need a way to tell the browser that it should style this page with the styles in the external style sheet. We can do that with an XHTML element called **link>**. Here's how you use the **link>** element in your XHTML:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
                                                                          Here's the XHTML that links to the external style sheet.
    <meta http-equiv="Content-Type"</pre>
           content="text/html; charset=ISO-8859-1" />
    <title>Head First Lounge</title>
    <link type="text/css" rel="stylesheet" href="lounge.css" />
    <style type="text/css">
    </style>
                                                     You don't need the <style> element any more - just delete it.
  </head>
  <body>
    <h1>Welcome to the Head First Lounge</h1>
        <img src="drinks.gif" alt="Drinks" />
    The rest of the XHTML is the same
    </body>
</html>
```



XHTML UP Close

Let's take a closer look at the **link>** element since you haven't seen it before:

Use the link element
to "link in" external
information.

CSS style sheet.

The type of this information is
"text/css". In other words, a
CSS style sheet.

CSS style sheet.

The type of this information is
"text/css". In other words, a
CSS style sheet.

CSS style sheet.

The type of this information is
"text/css". In other words, a
css we're
using a relative link, but it could
be a full-blown URL).

The rel attribute specifies the relationship between
the XHTML file and the thing you're linking to. We're

The rel attribute specifies the relationship between
the XHTML file and the thing you're linking to. We're

linking to a style sheet, so we use the value "stylesheet".

Linking from "elixir.html" and "directions.html" to the external style sheet

Now you're going to link the "elixir.html" and "directions.html" files just as you did with "lounge.html". The only thing you need to remember is that "elixir.html" is in the "beverages" folder, and "directions.html" is in the "about" folder, so they both need to use the relative path "../lounge.css".

So, all you need to do is add the following **link>** element to both files:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                       "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Head First Lounge Elixirs</title>
    <link type="text/css" rel="stylesheet" href="../lounge.css" />
  </head>
  <body>
                                  __ This is "elixir.html". Just add the <link> line.
  </body>
</html>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                       "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Head First Lounge Directions</title>
    <link type="text/css" rel="stylesheet" href="../lounge.css" />
  </head>
  <body>
                          - Same for "directions.html". Add the line here.
```

</body>

Test driving the entire lounge...

Save each of these files and then open "lounge.html" with the browser. You should see no changes in its style, even though the styles are now coming from an external file. Now click on the "elixirs" and "detailed directions" links.

Wow! We have a whole new style for the Elixirs and Directions pages with only a one line change to the HTML in each file! Now



The Case of Brute Force versus Style

So, how did RadWebDesign become Web page superheroes? Or, maybe we should first ask how the "do no wrong" CorrectWebDesign firm flubbed things up this time? The root of the problem was that CorrectWebDesign was creating the RobotsRUs pages using circa 1998 techniques. They were putting their style rules right in with their HTML

(copying and pasting them each time), and, even worse, they were using a lot of old HTML elements like and <center> that have now been deprecated. So, when the call came to change the look and feel, that meant going into every Web page and making changes to the CSS. Worse, it meant going

through the HTML to change elements as well.

Compare that with what RadWebDesign did: they used strict XHTML 1.0, so they had no old presentation HTML in their pages, and they used an external style sheet. The result? To change the style of the entire site, all they had to do was go into their external style sheet and make a few changes to the CSS, which they easily did in minutes, not days. They even had time to try out multiple designs and have three different versions of the CSS ready for review before the site launch. Amazed, the RobotsRUs CEO not only promised RadWebDesign more business, but he also promised them the first robot that comes off the assembly line.

Five-Minute Mystery

