A Brain-Friendly Guide to HTML & CSS

Head First
HTML with CSS & XHTML

Launch your Web career in one chapter

Watch out for common HTML & CSS traps and pitfalls

Bend your mind around 100 puzzles & exercises

A learner’s guide to creating standards-based Web pages

Learn why everything your friends know about style is probably wrong

Avoid embarrassing validation mistakes

Elisabeth Freeman & Eric Freeman
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Table of Contents (the real thing)

Intro

**Your brain on HTML & CSS.** Here you are trying to *learn* something, while here your *brain* is doing you a favor by making sure the learning doesn’t *stick*. Your brain’s thinking, “Better leave room for more important things, like which wild animals to avoid and whether naked snowboarding is a bad idea.” So how do you trick your brain into thinking that your life depends on knowing HTML & CSS?

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getting to know html

The Language of the Web

The only thing that is standing between you and getting yourself on the Web is learning to speak the lingo: HyperText Markup Language, or HTML for short. So, get ready for some language lessons. After this chapter, not only are you going to understand some basic elements of HTML, but you’ll also be able to speak HTML with a little style. Heck, by the end of this book you’ll be talking HTML like you grew up in Webville.

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going further, with hypertext

Meeting the ‘HT’ in HTML

Did someone say “hypertext?” What’s that? Oh, only the entire basis of the Web. In Chapter 1 we kicked the tires of HTML and found it to be a nice markup language (the ‘ML’ in HTML) for describing the structure of Web pages. Now we’re going to check out the ‘HT’ in HTML, hypertext, which will let us break free of a single page and link to other pages. Along the way we’re going to meet a powerful new element, the <a> element, and learn how being “relative” is a groovy thing. So, fasten your seat belts – you’re about to learn some hypertext.

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building blocks

Web Page Construction

I was told I’d actually be creating Web pages in this book?

You’ve certainly learned a lot already: tags, elements, links, paths... but it’s all for nothing if you don’t create some killer Web pages with that knowledge. In this chapter we’re going to ramp up construction: you’re going to take a Web page from conception to blueprint, pour the foundation, build it, and even put on some finishing touches. All you need is your hard hat and your tool belt, as we’ll be adding some new tools and giving you some insider knowledge that would make Tim “The Toolman” Taylor proud.

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A Trip to Webville

Web pages are a dish best served on the Internet. So far you’ve only created HTML pages that live on your own computer. You’ve also only linked to pages that are on your own computer. We’re about to change all that. In this chapter we’ll encourage you to get those Web pages on the Internet where all your friends, fans, and customers can actually see them. We’ll also reveal the mysteries of linking to other pages by cracking the code of the h, t, t, p, ;, /, /, w, w, w. So, gather your belongings; our next stop is Webville.

Getting Starbuzz (or yourself) onto the Web
Finding a hosting company
How can you get a domain name?
Moving in
Getting your files to the root folder
As much FTP as you can possibly fit in two pages
Back to business...
Mainstreet, URL
What is the HTTP Protocol?
What’s an absolute path?
How default pages work
How do we link to other Web sites?
Linking to Caffeine Buzz
Web page fit and finish
Linking into a page
Using the <a> element to create a destination
How to link to destination anchors
Linking to a new window
Opening a new window using target
Exercise Solutions
adding images to your pages

5 Meeting the Media

Smile and say “cheese.” Actually, smile and say “gif”, “jpg”, or “png” – these are going to be your choices when “developing pictures” for the Web. In this chapter you’re going to learn all about adding your first media type to your pages: images. Got some digital photos you need to get online? No problem.

Got a logo you need to get on your page? Got it covered. But before we get into all that, don’t you still need to be formally introduced to the <img> element? So sorry, we weren’t being rude, we just never saw the right opening. To make up for it, here’s an entire chapter devoted to <img>. By the end of the chapter you’re going to know all the ins and outs of how to use the <img> element and its attributes. You’re also going to see exactly how this little element causes the browser to do a lot extra work to retrieve and display your images.

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Add the logo to the myPod Web page 211
Exercise Solutions 216
Serious HTML

What else is there to know about HTML? You’re well on your way to mastering HTML. In fact, isn’t it about time we move on to CSS and learn how to make all this bland markup look fabulous? Before we do, we need to make sure your HTML is really tight (you know... buttoned up, ship shape, nailed down) and we’re going to do that by getting serious about the way we write our HTML. Don’t get us wrong, you’ve been writing first-class HTML all along, but there’s a few things you can do to help the browser faithfully display your pages and to make sure that little mistakes don’t creep into your markup. What’s in it for you? Pages that display more uniformly across browsers (and are readable on mobile devices and screen readers for the visually impaired), pages that load faster, and pages that are guaranteed to play well with CSS. Get ready, this is the chapter where you move from Web tinkerer to Web professional.

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Fixing the nesting problem 249
One more chance to be strict... 250
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Fireside Chat 256
HTML Archeology 259
Exercise Solutions 263
moving to xhtml

Putting the ‘X’ into HTML

We’ve been keeping a dirty secret from you. We know you thought you bought an HTML book, but this is really an XHTML book in disguise. In fact, we’ve been teaching you mostly XHTML all along. You’re probably wondering, just what the heck is XHTML? Well, meet eXtensible HTML – otherwise known as XHTML – the next evolution of HTML. It’s leaner, meaner, and even more tuned for compatibility with a wide range of devices beyond browsers. In this short little chapter we’re going to get you from HTML to XHTML in three simple steps. So, turn the page, you’re almost there... (and then we’re on to CSS).

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So why would you want to use XHTML? 270
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I like keeping up with trends and technologies. XHTML is the future, and since it’s almost exactly like HTML, why not go with the better technology?
Adding a Little Style

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...
Overheard on Webville’s “Trading Spaces”
Using CSS with XHTML
Let’s put a line under the welcome message, too
Specifying a second rule, just for the <h1>
Getting the Lounge style into the elixirs and directions pages
Linking to the external style sheet
It’s time to talk about your inheritance...
What if we move the font up the family tree?
Overriding inheritance
Creating a selector for the class
Taking classes further...
The world’s smallest and fastest guide to how styles are applied
Who gets the inheritance?
Making sure the Lounge CSS validates
Exercise Solutions
Expanding your Vocabulary

Your CSS language lessons are coming along nicely.

You already have the basics of CSS down and you know how to create CSS rules to select and determine the style of the elements. Now what you need is to increase your vocabulary, and that means picking up some new properties and learning about what they can do for you. In this chapter we’re going to work through some of the most common properties that affect the display of text. To do that, you’ll need to learn a few things about fonts and color. You’re going to see you don’t have to be stuck with the fonts everyone else uses, or the clunky sizes and styles the browser uses as the defaults for paragraphs and headings. You’re also going to see there is a lot more to color than meets the eye.

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Specifying font families using CSS 347
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How do I deal with everyone having different fonts? 351
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Getting Intimate with Elements

To do advanced Web construction you really need to know your building materials. In this chapter we’re going to take a close look at our building materials: the XHTML elements. We’re going put block and inline elements right under the microscope and see what they’re made of. You’re going to see how you can control just about every aspect of how an element is constructed with CSS. But we’re not going to stop there; you’re also going to see how you can give elements unique identities. And, if that weren’t enough, you’re going to discover why you might want to use multiple style sheets.

The lounge gets an upgrade
Starting with a few simple upgrades
Checking out the new line height
Getting ready for some major renovations
A closer look at the box model...
What you can do to boxes...
Creating the guarantee style
Padding, border, and margins for the guarantee
Adding some padding
Now let’s add some margin
Adding a background image
Fixing the background image
How do you add padding only on the left?
How do you increase the margin just on the right?
A two-minute guide to borders
Border fit and finish
Interview with an HTML class.
The id attribute, 1002 uses
Using an id in the lounge
Remixing style sheets
Using multiple style sheets
Exercise Solutions
divs and spans

Advanced Web Construction

It’s time to get ready for heavy construction. In this chapter we’re going to roll out two new XHTML elements, called <div> and <span>. These are no simple “two by fours;” these are full blown steel beams. With <div> and <span>, you’re going to build some serious supporting structures, and once you’ve got those structures in place, you’re going to be able to style them all in new and powerful ways. Now, we couldn’t help but notice that your CSS toolbelt is really starting to fill up, so it’s time to show you a few shortcuts that will make specifying all these properties a lot easier. And, we’ve also got some special guests in this chapter, the pseudo-classes, which are going to allow you to create some very interesting selectors. (But, if you’re thinking that “pseudo-classes” would make a great name for your next band; too late, we beat you to it.)

A close look at the elixirs HTML
Let’s explore how we can divide a page into logical sections
Adding a border
An over-the-border test drive
Adding some real style to the elixirs section
The game plan
Working on the elixir width
Adding the basic styles to the elixirs
What we need is a way to select descendants
Changing the color of the elixirs headings
Fixing the line height
It’s time to take a little shortcut...
Adding <span>s in three easy steps
The <a> element and its multiple personalities
How can you style elements based on their state?
Putting those pseudo-classes to work
Isn’t it about time we talk about the “cascade”?
The cascade
Welcome to the “What’s my specificity game”
Putting it all together
Exercise Solutions
Arranging Elements

It’s time to teach your XHTML elements new tricks. We’re not going to let those XHTML elements just sit there anymore; it’s about time they get up and help us create some pages with real layouts. How? Well, you’ve got a good feel for the \texttt{<div> and \texttt{<span>} structural elements and you know all about how the box model works, right? So, now it’s time to use all that knowledge to craft some real designs. No, we’re not just talking about more background and font colors, we’re talking about full blown professional designs using multi-column layouts. This is the chapter where everything you’ve learned comes together.

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Positioning the award 529
How does fixed positioning work? 535
Using a negative left property value 537
Getting relative 539
To three-columns and beyond... 541
Exercise Solutions 544
tables and more lists

Getting Tabular

If it walks like a table and talks like a table... There comes a time in life when we have to deal with the dreaded tabular data. Whether you need to create a page representing your company’s inventory over the last year, or a catalog of your Beanie Babies collection (don’t worry, we won’t tell), you know you need to do it in HTML; but how? Well, have we got a deal for you: order now and in a single chapter we’ll reveal the secrets of tables that will allow you to put your very own data right inside HTML tables. But there’s more: with every order we’ll throw in our exclusive guide to styling HTML tables. And, if you act now, as a special bonus, we’ll throw in our guide to styling HTML lists. Don’t hesitate, call now!

How do we make tables with HTML? 551
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Overriding the CSS for the nested table headings 576
Giving Tony’s site the final polish 577
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<table>
<thead>
<tr>
<th>City</th>
<th>Date</th>
<th>Temperature</th>
<th>Altitude</th>
<th>Population</th>
<th>Dinner Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walla Walla, WA</td>
<td>June 1st</td>
<td>75</td>
<td>2,086 ft</td>
<td>19,660</td>
<td>4/5</td>
</tr>
<tr>
<td>Coeur d’Alene, ID</td>
<td>June 15th</td>
<td>64</td>
<td>3,312 ft</td>
<td>500</td>
<td>3/5</td>
</tr>
<tr>
<td>Bountiful, UT</td>
<td>July 9th</td>
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<td>4,173</td>
<td>4/5</td>
</tr>
<tr>
<td>Las Vegas, NV</td>
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<td>4,740 ft</td>
<td>266</td>
<td>4/5</td>
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<tr>
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<td>August 6th</td>
<td>93</td>
<td>4,242 ft</td>
<td>7,089</td>
<td>3/5</td>
</tr>
<tr>
<td>Truth or Consequences, NM</td>
<td>August 27th</td>
<td>98</td>
<td>4,242 ft</td>
<td>7,089</td>
<td>3/5</td>
</tr>
<tr>
<td>Why, AZ</td>
<td>August 1st</td>
<td>104</td>
<td>800 ft</td>
<td>480</td>
<td>3/5</td>
</tr>
</tbody>
</table>
Getting Interactive

So far all your Web communication has been one way: from your page to your visitors. Golly, wouldn’t it be nice if your visitors could talk back? That’s where HTML forms come in: once you enable your pages with forms (along with a little help from a Web server), your pages are going to be able to gather customer feedback, take an online order, get the next move in an online game, or collect the votes in a “hot or not” contest. In this chapter you’re going to meet a whole team of XHTML elements that work together to create Web forms. You’ll also learn a bit about what goes on behind the scenes in the server to support forms, and we’ll even talk about keeping those forms stylish (a controversial topic – read on and see why).
We covered a lot of ground, and you’re almost finished with this book. We’ll miss you, but before we let you go, we wouldn’t feel right about sending you out into the world without a little more preparation. We can’t possibly fit everything you’ll need to know into this relatively small chapter. Actually, we did originally include everything you need to know about XHTML and CSS (not already covered by the other chapters), by reducing the type point size to .00004. It all fit, but nobody could read it. So, we threw most of it away, and kept the best bits for this Top Ten chapter.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Selectors</td>
<td>640</td>
</tr>
<tr>
<td>Frames</td>
<td>642</td>
</tr>
<tr>
<td>Multimedia &amp; Flash</td>
<td>643</td>
</tr>
<tr>
<td>Tools for Creating Web Pages</td>
<td>644</td>
</tr>
<tr>
<td>Client-side Scripting</td>
<td>645</td>
</tr>
<tr>
<td>Server-side Scripting</td>
<td>646</td>
</tr>
<tr>
<td>Tuning for Search Engines</td>
<td>647</td>
</tr>
<tr>
<td>More about Style Sheets for Printing</td>
<td>648</td>
</tr>
<tr>
<td>Pages for Mobile Devices</td>
<td>649</td>
</tr>
<tr>
<td>Blogs</td>
<td>650</td>
</tr>
</tbody>
</table>