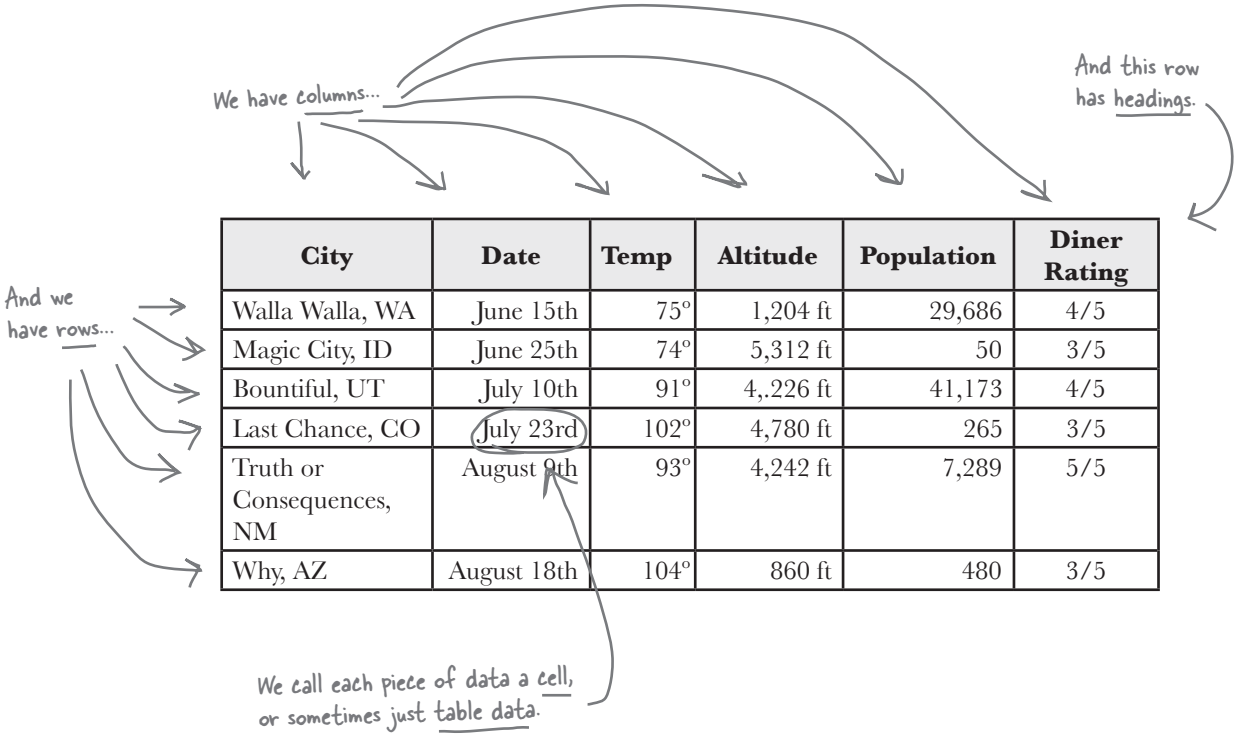
Getting Tabular

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 XHTML; but how? Well, have we got a deal for you: order now and in a single chapter we'll reveal the secrets that will allow you to put your very own data right inside XHTML tables. But there's more: with every order we'll throw in our exclusive guide to styling XHTML tables. And, if you act now, as a special bonus, we'll throw in our guide to styling XHTML lists. Don't hesitate, call now!

City	Date	Temperature	Altitude	Population	Diner Rating
Walla Walla, WA	June 15	75	1,204 ft	29, 686	4/5
Magic City, ID	June 25	74	5,312 ft	50	3/5
Bountiful, UT	July 10	91	4,226 ft	41, 173	4/5
Last Chance, CO	July 23	102	4,780 ft	265	3/5
Truth or Consequences, NM	August 9	93	4,242 ft	7, 289	5/5
Why, AZ	August 18	104	860 ft	480	3/5

How do you make tables with XHTML?

Tony's right; you really haven't seen a good way of using XHTML to represent his table, at least not yet. While you might think there's a way to use CSS and `<div>`s to create tables, XHTML has a **`<table>`** element to take care of all your tabular needs. Before we dive into the **`<table>`** element, let's first get an idea of what goes into a table:



City	Date	Temp	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75°	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74°	5,312 ft	50	3/5
Bountiful, UT	July 10th	91°	4,.226 ft	41,173	4/5
Last Chance, CO	July 23rd	102°	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
Why, AZ	August 18th	104°	860 ft	480	3/5

BRAIN POWER

If they put you in charge of XHTML, how would you design one or more elements that could be used to specify a table, including headings, rows, columns, and the actual table data?

How to create a table using XHTML

Before we pull out Tony's site and start making changes, let's get the table working like we want it in a separate XHTML file. We've started the table and already entered the headings and the first two rows of the table into an XHTML file called "table.html" in the "chapter13/journal/" folder. Check it out:

```
<!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" />
   <style type="text/css">
        td, th {border: 1px solid black;}
   </style>
   <title>Testing Tony's Travels</title>
</head>
<body>
   <table>
      <tr>
         <th>City</th>
         <th>Date</th>
         <th>Temperature</th>
         <th>Altitude</th>
         <th>Population</th>
         <th>Diner Rating</th>
      </tr>
      <tr>
         <td>Walla Walla, WA</td>
         <td>June 15th</td>
         <td>75</td>
         <td>1,204 ft</td>
         <td>29,686</td>
         <td>4/5</td>
      </tr>
      <tr>
         <td>Magic City, ID</td>
         <td>June 25th</td>
         <td>74</td>
         <td>5,312 ft</td>
         <td>50</td>
         <td>3/5</td>
      </tr>
   </table>
</body>
</html>
```

Just a small bit of CSS so we can see the structure of the table in the browser. Don't worry about this for now.

We use a <table> tag to start the table.

Here's the first row, which we start with a <tr>.

Each <th> element is a table heading for a column.

Notice that the table headings are listed one after each other. While these look like they might make up a column in the HTML, we are actually defining the entire table headings row. Look back at Tony's list to see how his headings map to these.

Each <tr> element forms a table row.

Here's the start of the second row, which is for the city Walla Walla.

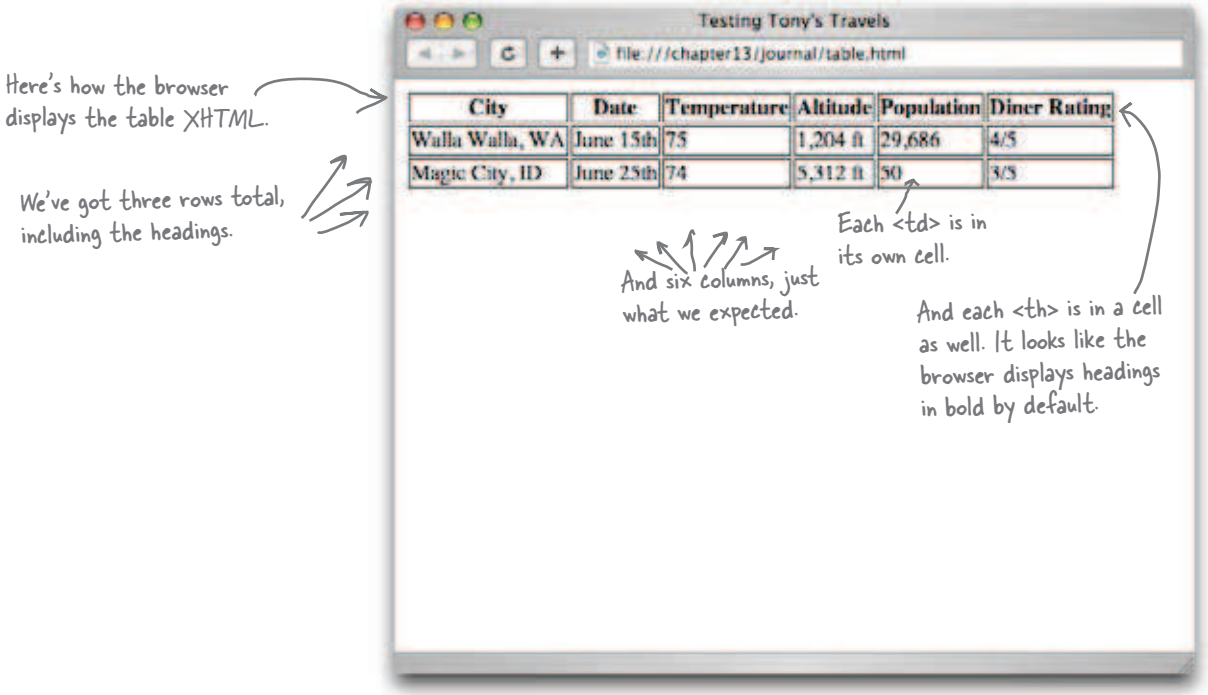
Each <td> element holds one cell of the table, and each cell makes a separate column.

All these <td>s make up one row.

And here's the third row. Again, the <td> elements each hold one piece of table data.

What the browser creates

Let's take a look at how the browser displays this XHTML table. We'll warn you now: this isn't going to be the *best-looking* table, but it *will* look like a table. We'll worry about how it looks shortly; for now let's make sure you've got the basics down.



Exercise

First type in the "Testing Tony's Travels" XHTML from the previous page. Typing this in, while tedious, will help get the structure of the <table>, <tr>, <th>, and <td> tags in your head. When you finish, give it a quick test, and then add the remaining items from Tony's table. Test that too.

Tables dissected

You've seen four elements used to create a single table: <table>, <tr>, <th> and <td>. Let's take a closer look at each one to see exactly what role it plays in the table.

The <table> tag is the tag that starts the whole thing off. When you want a table, start here.

The <th> element contains one cell in the heading of your table. It must be inside a table row.

The </tr> tag ends a row of the table.

```
<table>
<tr>
<tr>
<tr>
<tr>
<tr>
<tr>
```

City	Date	Temp	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75°	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74°	5,312 ft	50	3/5
Bountiful, UT	July 10th	91°	4,226 ft	41,173	4/5
Last Chance, CO	July 23rd	102°	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
Why, AZ	August 18th	104°	860 ft	480	3/5

```
<th>Date</th>
</tr>
</tr>
</tr>
</tr>
</tr>
</tr>
</tr>
```

Each <tr> element specifies a table row. So, all the table data that goes in a row is nested inside the <tr> element.

```
<td>August 9th</td>
```

The <td> element contains one data cell in your table. It must be inside a table row.

```
</table>
```

The </table> tag ends the table.

there are no Dumb Questions

Q: Why isn't there a table column element? That seems pretty important.

A: The designers of XHTML decided to let you specify tables by row, rather than by column. But notice that by specifying each row's <td> elements, you are implicitly specifying each column anyway.

Q: What happens if I have a row that doesn't have enough elements? In other words, I've got less things than the number of columns in the table?

A: The easiest way to deal with that is to just leave the content of the data cell empty; in other words, you write <td></td>. If you leave out the data cell, then the table won't line up properly, so all the data cells have to be there, even if they are empty.

Q: What if I want my table headings to be down the left side of the table, instead of across the top; can I do that?

A: Yes, you certainly can. You just need to put your table heading elements in each row instead of all in the first row. If your <th> element is the first item in each row, then the first column will consist of all table headings.

Q: My friend showed me a cool trick where he did all his page layout right within a table. He didn't even have to use CSS!

A: Go straight to CSS jail. Do not pass go; do not collect $200.

Using tables for layout was commonly done in the HTML era before CSS, when, frankly, there was no better way to do complex layouts. However, it is a poor way to do your layouts today. Using tables for layout is notoriously hard to get right and difficult to maintain. Tell your friend that his technique is old school, and he needs to get up to speed with the right way to do layout: CSS with XHTML.

Q: Isn't a table all about presentation? What happened to presentation versus structure?

A: Not really. With tables you are specifying the relationships between truly tabular data. We'll use CSS to alter the presentation of the table.

Tables give you a way to specify tabular data in your HTML.

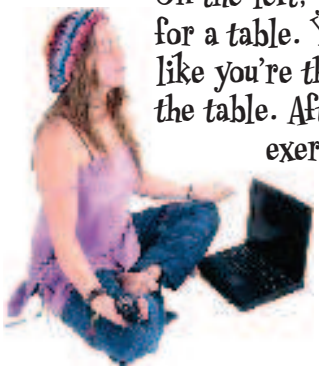
Tables consist of data cells within rows. Columns are implicitly defined within the rows.

The number of columns in your table will be the number of data cells you have in a row.

In general, tables are not meant to be used for presentation; that's the job of CSS.

BE the Browser

On the left, you'll find the XHTML for a table. Your job is to play like you're the browser displaying the table. After you've done the exercise, look at the end of the chapter to see if you got it right.

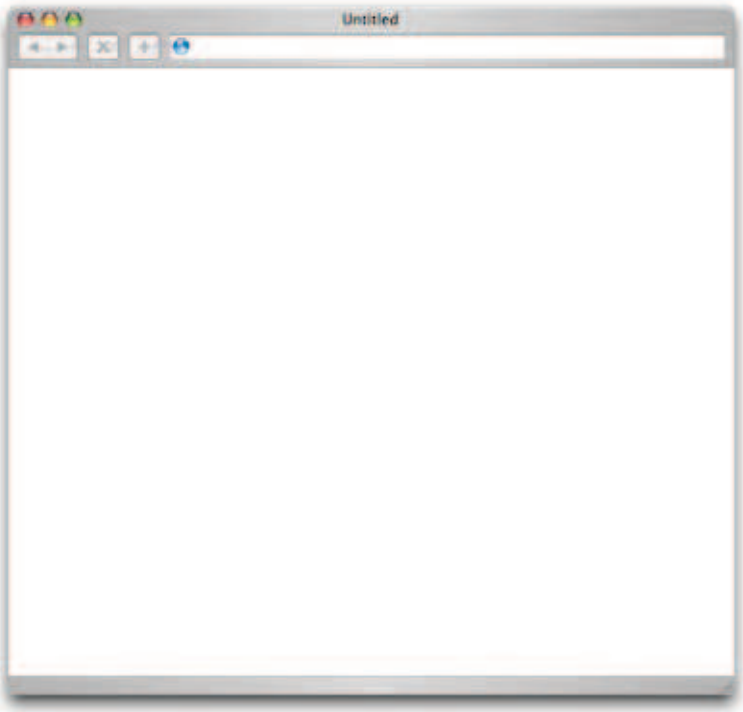


```
<table><tr><th>Artist</th>
<th>Album</th></tr><tr>
<td>Enigma</td><td>Le Roi Est Mort,
Vive Le Roi!</td></tr> <tr><td>LTJ
Bukem</td>
<td>Progression Sessions 6</td>
</tr><tr>
<td>Timo Maas</td>
<td>Pictures</td></tr></table>
```

Here's just the table XHTML...

Argh! Someone needs to learn how to format their XHTML.

Draw the table here.



Adding a caption and a summary

There are a couple of things you can do right off the bat to improve your tables, like adding a caption and a summary.

```
<table summary="This table holds data about the
cities I visited on my travels.  I've included the date
I was in each city, the temperature when I was there,
and altitude and population of each city.  I've also
included a rating of the diners where I had lunch, on a
scale from 1 to 5.">
    <caption>
        The cities I visited on my
        Segway'n USA travels
    </caption>
    <tr>
        <th>City</th>
        <th>Date</th>
        <th>Temperature</th>
        <th>Altitude</th>
        <th>Population</th>
        <th>Diner Rating</th>
    </tr>
    <tr>
        <td>Walla Walla, WA</td>
        <td>June 15th</td>
        <td>75</td>
        <td>1,204 ft</td>
        <td>29,686</td>
        <td>4/5</td>
    </tr>
    <tr>
        <td>Magic City, ID</td>
        <td>June 25th</td>
        <td>74</td>
        <td>5,312 ft</td>
        <td>50</td>
        <td>3/5</td>
    </tr>
    .
    .
    .
</table>
```

The summary doesn't appear in the Web page display. This is purely for accessibility, and acts as a bit of text a screen reader may read aloud to a user to describe the table.

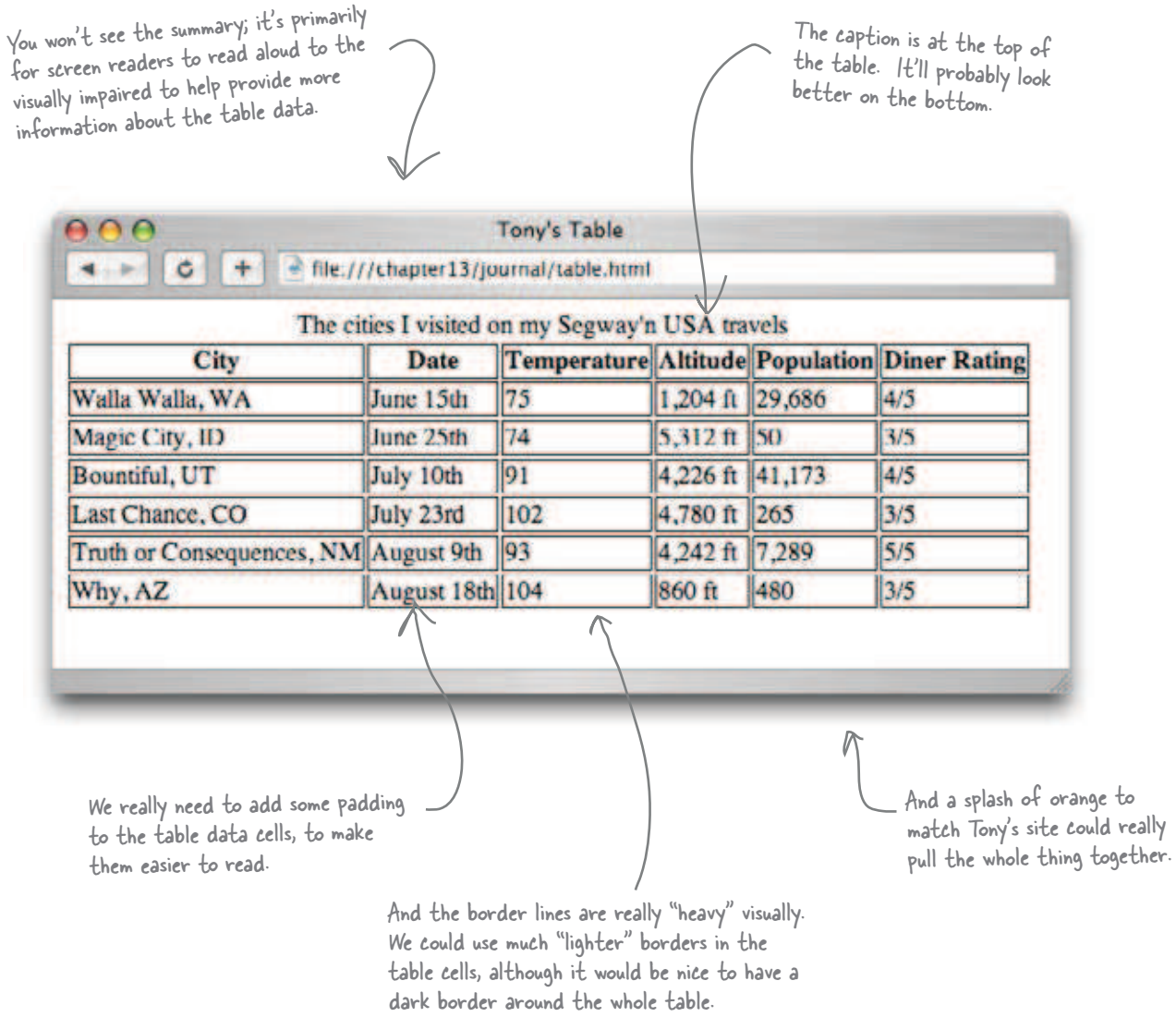
The caption, on the other hand, is displayed in the browser. By default, most browsers display this above the table.

If you don't like the default location of the caption, you can use CSS to reposition it (we'll give that a try in a sec), although some browsers don't fully support repositioning the caption yet.

The rest of the table rows go here.

Test drive... and start thinking about style

Add the summary and caption to your table. Save and reload.



Before we start styling, let's get the table into Tony's page

Before we start adding style to Tony's new table, we should really get the table into his main page. Remember that Tony's main page already has set a font-family, font-size, and a lot of other styles that our table is going to inherit. So without putting the table into his page we won't really know what the table looks like.

Start by opening the "journal.html" in the "chapter13/journal" folder, locate the August 20th entry, and make the following changes. When you've finished, move on to the next page before reloading.

```
<h2>August 20, 2005</h2>
<p>
   <img src="images/segway2.jpg" alt="Me and my Segway in New Mexico" />
</p>

<p>
Well, I made it 1200 miles already, and I passed through some interesting
places on the way:
</p>

<ol>
   <li>Walla Walla, WA</li>
   <li>Magic City, ID</li>
   <li>Bountiful, UT</li>
   <li>Last Chance, CO</li>
   <li>Truth or Consequences, NM</li>
   <li>Why, AZ</li>
</ol>
```

This is the old list of cities. Delete this because we're replacing it with the table.

```
<table summary="This table holds data about the cities I visited on my travels.  I've included
     the date I was in each city, the temperature when I was there, and altitude and population
     of each city.  I've also included a rating of the diners where I had lunch, on a
     scale from 1 to 5.">
   <caption>The cities I visited on my Segway'n USA travels</caption>
   <tr>
      <th>City</th>
      <th>Date</th>
      <th>Temperature</th>
      <th>Altitude</th>
      <th>Population</th>
      <th>Diner Rating</th>
   </tr>
  .
  .
  .
</table>
```

The new table goes here. Copying and pasting it from the previous file is the easiest way to get it here.

Now let's style the table

Now we need to copy the table styles into "journal.css". But, since we're going to change them anyway, let's just add new style instead. Add the new styles highlighted below at the bottom of the style sheet file.

```
body {
    font-family: Verdana, Geneva, Arial, sans-serif;
    font-size: small;
}
h1, h2 {
    font-weight: normal;
    color: #cc6600;
    border-bottom: thin dotted #888888;
}
h1 {
    font-size: 170%;
}
h2 {
    font-size: 130%;
}
blockquote {
    font-style: italic;
}
```

This is all the style that's currently in Tony's Web page. We added all this in Chapter 9. We're going to add the new style for the tables below it.

```
table {
    margin-left: 20px;
    margin-right: 20px;
    border: thin solid black;
    caption-side: bottom;
}

td, th {
    border: thin dotted gray;
    padding: 5px;
}

caption {
    font-style: italic;
    padding-top: 8px;
}
```

First, we'll style the table. We're going to add a margin on the left and right, and a thin, black border to the table.

And, we're going to move that caption to the bottom of the table.

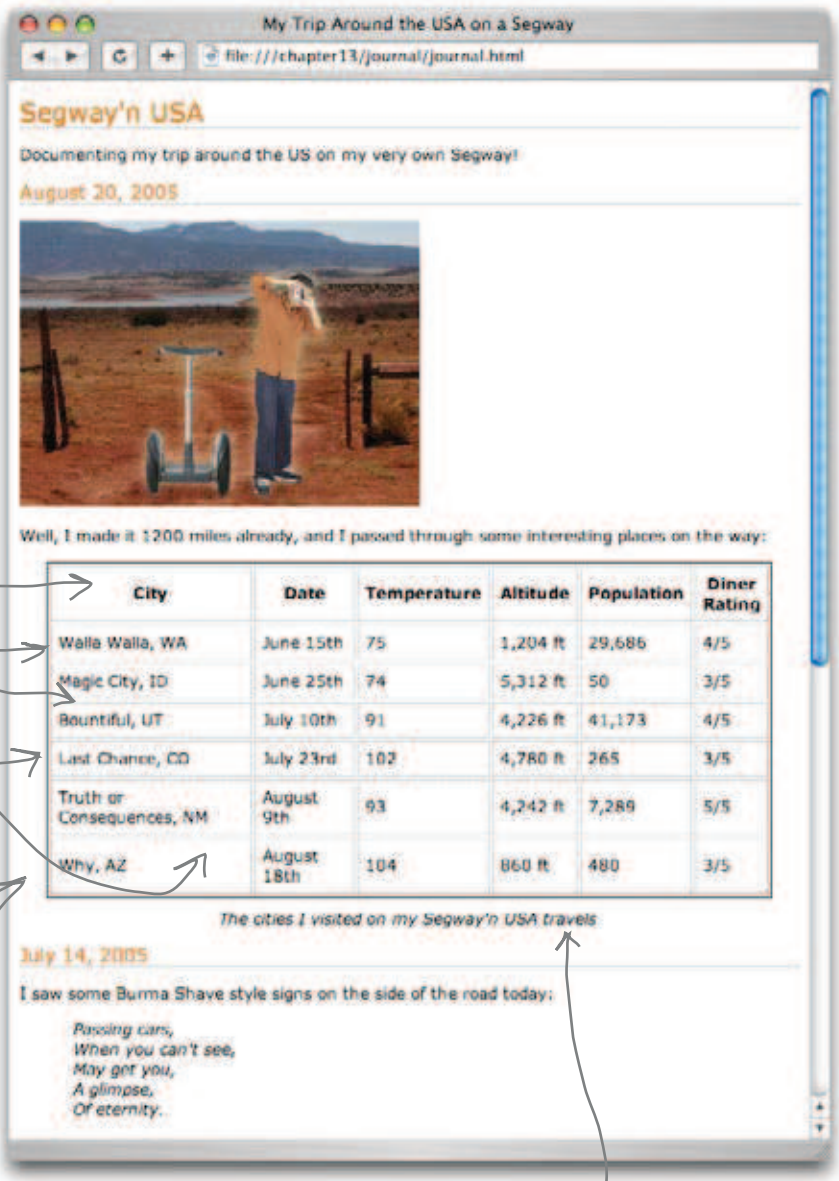
Let's also change the border on the table data cells to be a much lighter, dotted border in gray.

And let's add some padding to the data cells so there's some space between the data content and the border.

This rule styles the caption. We're changing the font-style to italic and adding some top padding.

Taking the styled tables for a test drive

That's a lot of changes at once. Make sure you save them, and you should validate as well. Then load "journal.html" into your browser.



The table looks quite different now that you've styled it. We're also inheriting a few styles that were already in Tony's journal.

All the fonts are now sans-serif and a smaller size. We picked that up from the previous styles already in the file.

Now we've got a dark border and dotted lines.

And we've got some margin on the table and some padding in each table cell.

Those dotted lines are looking really busy and distracting though. It doesn't help that they are duplicated between each pair of table cells.

Remember, in browsers that don't support the caption-side property, the caption will still be at the top of the table.

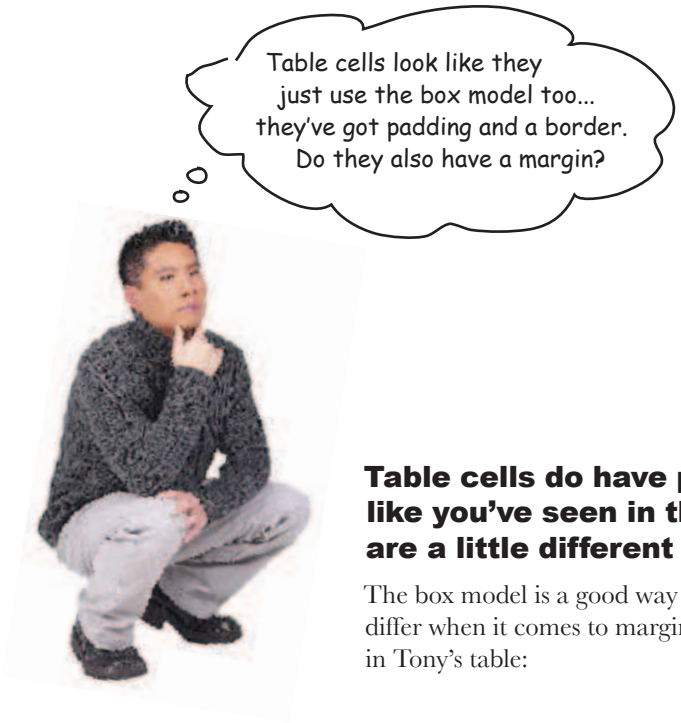
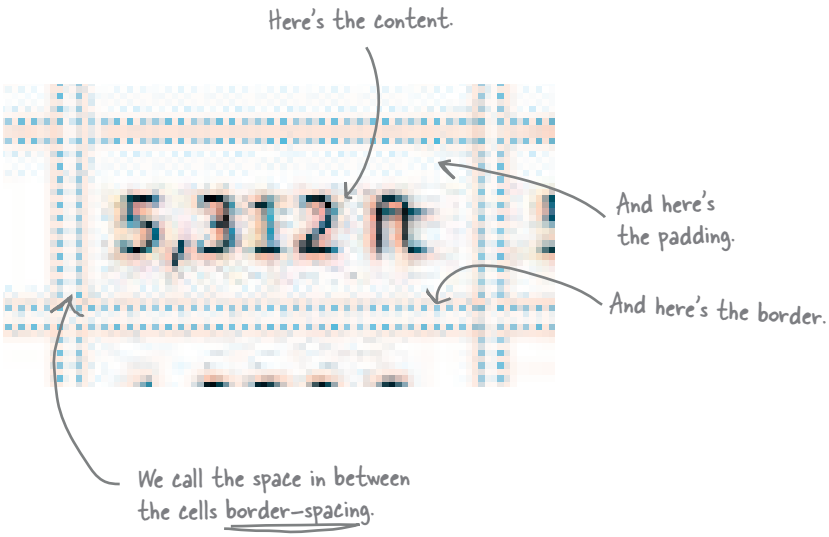


Table cells do have padding and a border – just like you've seen in the box model – but they are a little different when it comes to margins.

The box model is a good way to think about table cells, but they do differ when it comes to margins. Let's take a look at one of the cells in Tony's table:



So instead of a margin, we have a **`border-spacing`** property, which is defined over the entire table. In other words, you can't set the "margin" of an individual table cell; rather, you set a common spacing around all cells.

Sharpen your pencil

The double dotted lines are giving Tony's table a busy and distracting look. It would be much better, and wouldn't detract from the table, if we could just have one border around each table cell. Can you think of a way to do that with styling given what you've just learned? Give it a try and check your answer in the back of the chapter.

Dumb Questions

Q: So border spacing is defined for the entire table, while a margin can be set for an individual element?

A: Right. Table cells don't have margins; what they have is spacing around their borders, and this spacing is set for the entire table. You can't control the border spacing of each table cell separately.

Q: Well, is there any way to have different border spacing on the vertical than I have on the horizontal? That seems useful.

A: You sure can. You can specify your border spacing like this:

```
border-spacing: 10px 30px;
```

That sets ten pixels of horizontal border space and thirty pixels of vertical border space.

Q: The border-spacing doesn't seem to work in my browser.

A: Are you using Internet Explorer? We're sorry to report that IE version 6 doesn't support border-spacing. And, we're sorry we didn't tell you sooner. But, hey, you're not going to forget that now, are you?

Getting those borders to collaspe

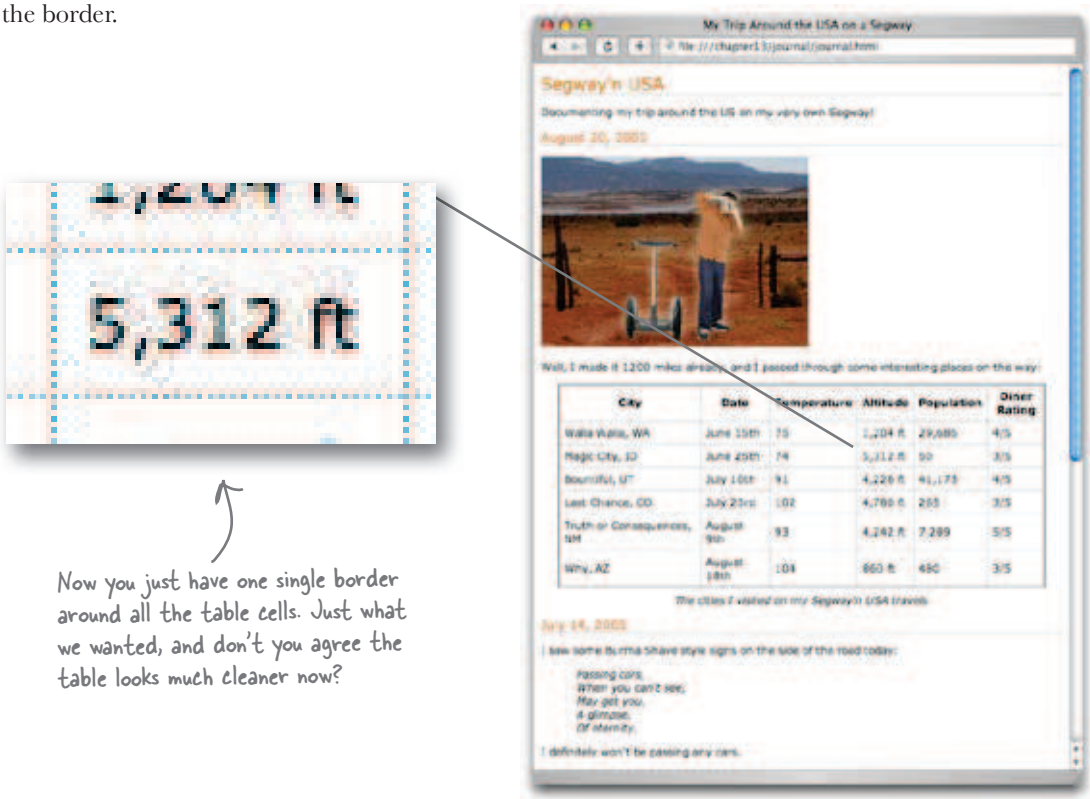
There is another way to solve the border dilemma, besides the **`border-spacing`** property. You can use a CSS property called **`border-collapse`** to collapse the borders so that there is no border spacing at all. When you do this, your browser will ignore any border spacing you have set on the table. It will also combine two borders that are right next to each other into one border. This "collapses" two borders into one.

Here's how you can set the **`border-collapse`** property. Follow along and make this change in your "journal.css" file:

```
table {
    margin-left: 20px;
    margin-right: 20px;
    border: thin solid black;
    caption-side: bottom;
    border-collapse: collapse;
}
```

Add a border-collapse property and set its value to "collapse".

Save the file and reload; then check out the changes in the border.



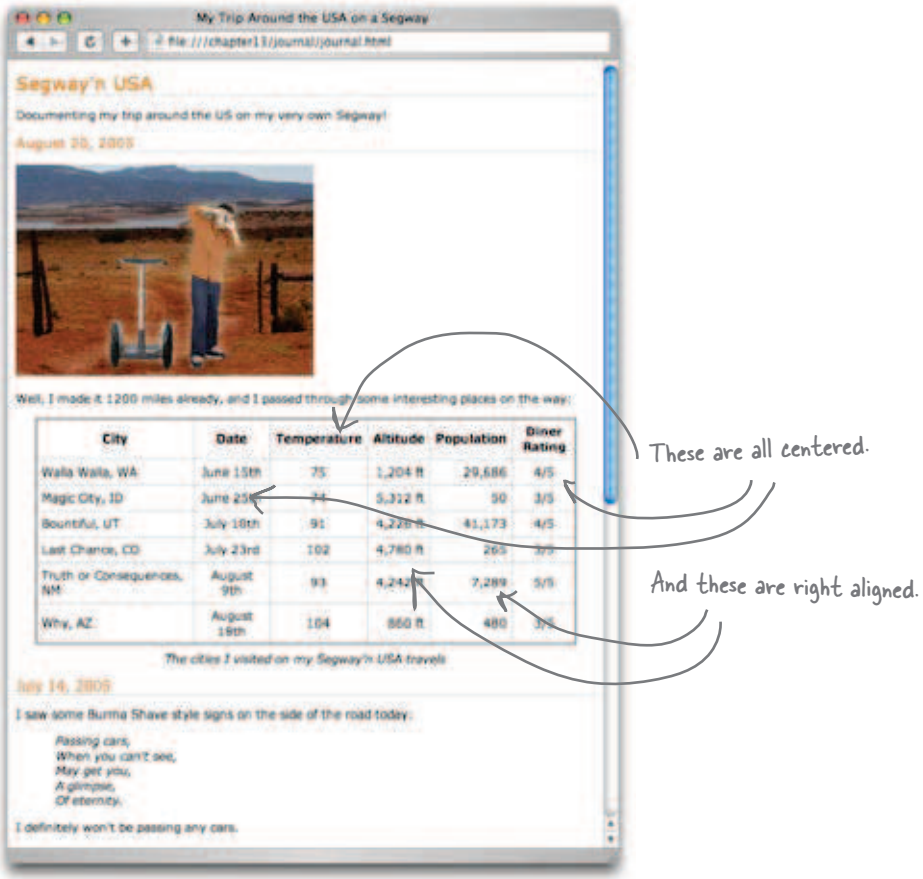
Now you just have one single border around all the table cells. Just what we wanted, and don't you agree the table looks much cleaner now?

Sharpen your pencil

You're becoming quite the pro at XHTML and CSS, so we don't mind giving you a little more to play with in these exercises. How about this: we'd like to spruce this table up even a little more, starting with some text alignment issues. Let's say we want the date, temperature, and diner rating to be center-aligned. And how about right alignment on the altitude and population? How would you do that?

Here's a hint: create two classes, one for center-aligned and one for right-aligned. Then just use the text-align property in each. Finally, add the appropriate class to the correct <td> elements.

This may sound tough, but take it step by step; you already know everything you need to finish this one. And, of course, you can find the answer in the back of the chapter, but give yourself the time to solve it before you peek.

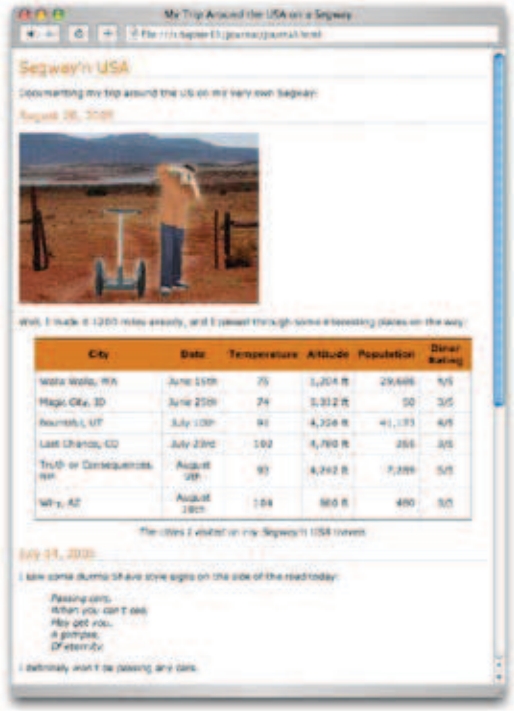


How about some color?

You know Tony loves his signature color and there's no reason not to add some color to his table; not only will it look great, but we can actually improve the readability of the table by adding some color. Just like for any other element, all you need to do is set the **background-color** property on a table cell to change its color (notice how everything you've learned about XHTML and CSS is starting to come together!). Here's how you do that:

```
th {
    background-color: #cc6600;
}
```

Add this new rule to your "journal.css" file and reload. Here's what you'll see:



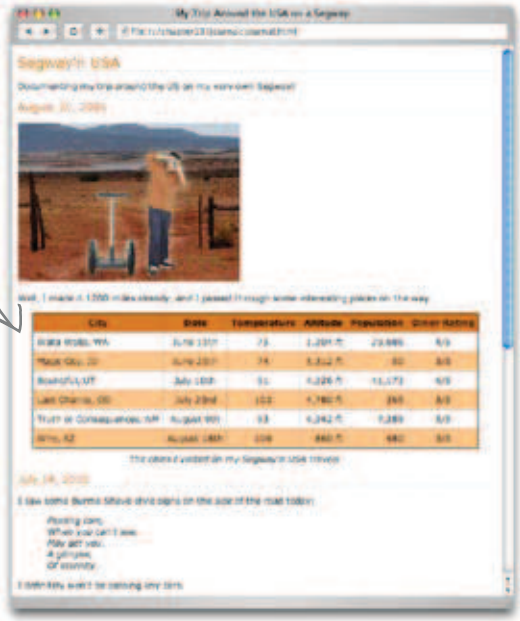
How about some color in the table rows?

So far the color is looking pretty nice. So let's take it to the next level. A common way to color tables is to give rows an alternating color, which allows you to more easily see each row without getting confused about which column goes with which row. Check it out:

Difficult to do in CSS? Nope. Here's how you can do this. First define a new class; let's call it "cellcolor":

```
.cellcolor {
    background-color: #fcba7a;
}
```

Now all you need to do is add this class attribute to each row you'd like to color. So in this case, you find the **<tr>** opening tags for Magic City, Last Chance, and Why, and add **class="cellcolor"** to each one.



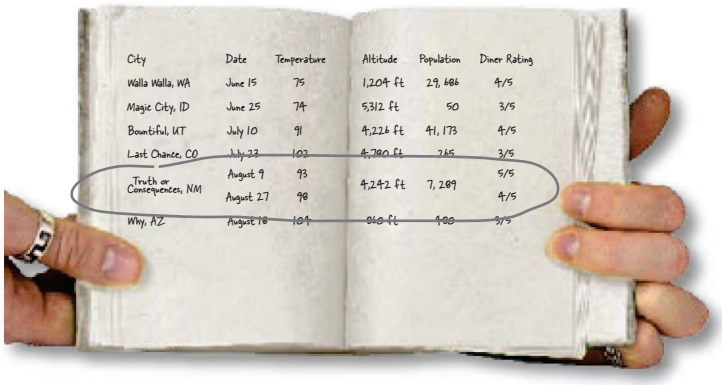
Exercise

Your turn. Add the class “cellcolor” to your CSS in “journal.css”, and then, in your XHTML, add class=”cellcolor” to each of the <tr> opening tags needed to make the rows alternating colors. Check your answers before moving on.

Did we mention that Tony made an interesting discovery in Truth or Consequences, New Mexico?

It’s fair to say Tony found something interesting about Truth or Consequences, New Mexico; in fact, he found *her* so interesting that after going to Arizona, he turned around and came right back.

We’re glad for Tony, but he’s really given us a conundrum with the table. While we could just add a new row for Truth or Consequences, we’d really like to do it in a more elegant way. What are we talking about? Turn the page to find out.



Another look at Tony's table

Based on his return trip to New Mexico, Tony's added a new entry for August 27th, just below the original Truth or Consequences entry. He's also reused a couple of cells where the information didn't change (a great technique for reducing the amount of information in a table). You can see that when he added the new row, all he needed to do was list the things that were different the second time around (the date, the temperature, and that he revisited the diner).

Here are both Tony's visits to Truth or Consequences.

City	Date	Temp	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75°	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74°	5,312 ft	50	3/5
Bountiful, UT	July 10th	91°	4,226 ft	41,173	4/5
Last Chance, CO	July 23rd	102°	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
	August 27th	98°			4/5
Why, AZ	August 18th	104°	860 ft	480	3/5

These table data cells span TWO rows now.

But where does this leave you with XHTML? It seems like you'd have to add a entirely new row and just duplicate the city, altitude and population, right? Well, not so fast. We have the technology... using XHTML tables, you can have cells span more than one row (or more than one column). Let's see how this works...

How to tell cells to span more than one row

What does it mean for a cell to span more than one row? Let's look at the entries for Truth or Consequences, NM in Tony's table again. The data cells for city, altitude, and population span *two rows*, not one, while the date, temp, and diner rating span one row, which is the normal, default behavior for data cells.

City	Date	Temp	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75°	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74°	5,312 ft	50	3/5
Bountiful, UT	July 10th	91°	4,226 ft	41,173	4/5
Last Chance, CO	July 23rd	102°	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
	August 27th	98°			4/5
Why, AZ	August 18th	104°	860 ft	480	3/5

These cells span two rows.

While the date, temp, and diner rating cells take up just one.

So, how do you do that in XHTML? It's easier than you might think: you use the **rowspan** attribute to specify how many rows a table data cell should take up, and then remove the corresponding table data elements from the other rows that the cell spans over. Have a look – it's easier to see than describe:

```
<tr>
   <td rowspan="2">Truth or Consequences, NM</td>
   <td class="center">August 9th</td>
   <td class="center">93</td>
   <td rowspan="2" class="right">4,242 ft</td>
   <td rowspan="2" class="right">7,289</td>
   <td class="center">5/5</td>
</tr>
<tr>

   <td class="center">August 27th</td>
   <td class="center">98</td>

   <td class="center">4/5</td>
</tr>
```

Here are the two table rows that have the New Mexico data.

For the data cells that don't change on the second visit (city, altitude, and population) we add a rowspan attribute indicating the table data spans two rows.

The city is not needed because of the rowspan.

Then in the second row we specify just the columns we need (date, temp, and a new rating).

Same with altitude and population.

Just to make sure you've got this down, draw an arrow from each <td> element to its corresponding cell in the table. Check your answers before moving on.

```
<tr>
   <td rowspan="2">Truth or Consequences, NM</td>
   <td class="center">August 9th</td>
   <td class="center">93</td>
   <td rowspan="2" class="right">4,242 ft</td>
   <td rowspan="2" class="right">7,289</td>
   <td class="center">5/5</td>
</tr>
<tr>

   <td class="center">August 27th</td>
   <td class="center">98</td>


   <td class="center">4/5</td>
</tr>
```

Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
	August 27th	98°			4/5

The new and improved table

Make the changes to the table in "journal.html" and give it a test run. Take a look at the table. Think about exactly what you're doing to the table: you're using XHTML to specify that certain cells should take up more than one row, and to do that, you're removing the **<td>**s they're displacing.

Now we've got a great-looking table that doesn't have any redundant information in it.

Dumb Questions

Q: You said you can have table data span columns too?

A: You sure can. Just add a colspan attribute to your <td> element and specify the number of columns. Unlike the rowspan, when you span columns, you remove table data elements that are in the *same* row (since you are spanning columns, not rows).

Q: Can I have a colspan and rowspan in the same <td>?

A: You sure can. Just make sure you adjust the other <td>s in the table to account for both the row and column spans. In other words, you'll need to remove the corresponding number of <td>s from the same row, *and* from the column.

Q: Do you really think these rowspans look better?

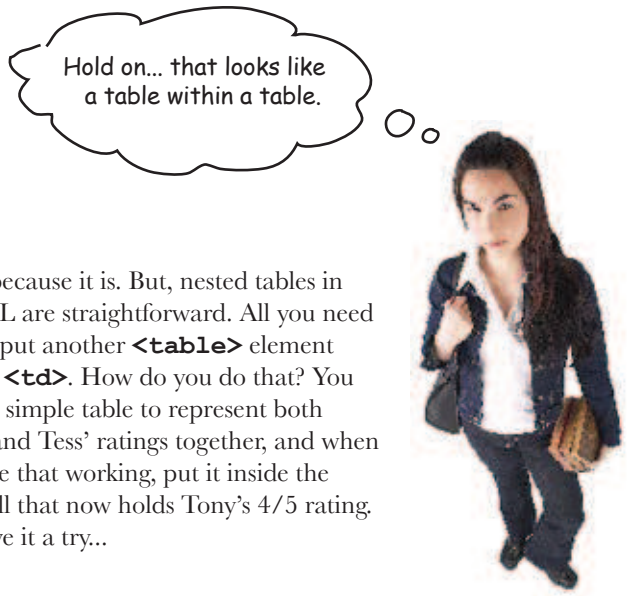
A: Well they certainly reduce the amount of information in the table, which is usually a good thing. And, if you look at a few tables out there in the real world you'll find that rowspans and colspans are quite common, so it's great to be able to do them in XHTML. But if you liked the table better before, feel free to change your XHTML and go back to the previous version.

Trouble in paradise?

It looks like we've got a disagreement on the diner rating for August 27th, and while we could ask Tony and Tess to come to a consensus, why should we? We've got tables and we should be able to get another rating in there. But how? We don't really want to add yet another entry just for Tess' review. Hmmm... why don't we do it like this?

City	Date	Temp	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75°	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74°	5,312 ft	50	3/5
Bountiful, UT	July 10th	91°	4,226 ft	41,173	4/5
Last Chance, CO	July 23rd	102°	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93°	4,242 ft	7,289	5/5
	August 27th	98°			Tess 5/5 Tony 4/5
Why, AZ	August 18th	104°	860 ft	480	3/5

Why not put both their ratings in the table? That way we get more accurate information.



That's because it is. But, nested tables in XHTML are straightforward. All you need to do is put another **<table>** element inside a **<td>**. How do you do that? You create a simple table to represent both Tony's and Tess' ratings together, and when you have that working, put it inside the table cell that now holds Tony's 4/5 rating. Let's give it a try...

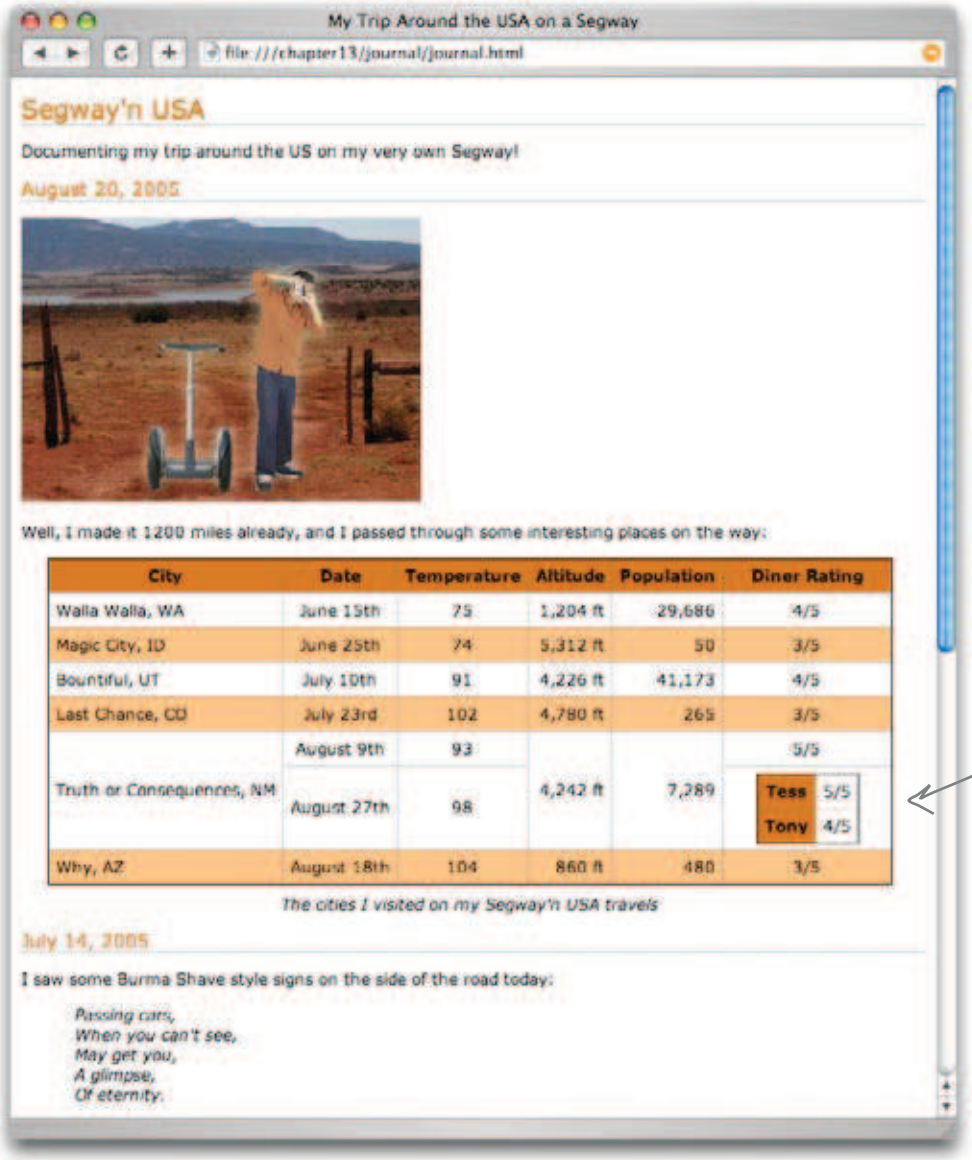
```
<tr>
   <td rowspan="2">Truth or Consequences, NM</td>
   <td class="center">August 9th</td>
   <td class="center">93</td>
   <td rowspan="2" class="right">4,242 ft</td>
   <td rowspan="2" class="right">7,289</td>
   <td class="center">5/5</td>
</tr>
<tr>
   <td class="center">August 27th</td>
   <td class="center">98</td>
   <td>
     4/5
     <table>
         <tr>
             <th>Tess</th>
             <td>5/5</td>
         </tr>
         <tr>
             <th>Tony</th>
             <td>4/5</td>
         </tr>
     </table>
   </td>
</tr>
```

First delete the old rating that represented Tony's rating...

... and put a table in its place. This table holds two diner ratings: one for Tess and one for Tony. We're using table headings for their names, and data cells for their ratings.

Test driving the nested table

Go ahead and type in the new table. Tables are easy to mistype, so make sure you validate and then reload your page. You should see the new, nested table.



Wow, looking nice. Only that background really is a bit much for a nested table. Let's keep the names bold, but take off the background color.

BRAIN BARBELL

It's time to fall back on all that training you've done. What you need to do is change the table heading background color for just Tony and Tess, and do it without changing the background of the main table headings. How? You need to find a selector that selects only the nested table headings.

City	Date	Temperature	Altitude	Population	Diner Rating
Walla Walla, WA	June 15th	75	1,204 ft	29,686	4/5
Magic City, ID	June 25th	74	5,312 ft	50	3/5
Bountiful, UT	July 10th	91	4,226 ft	41,173	4/5
Last Chance, CO	July 23rd	102	4,780 ft	265	3/5
Truth or Consequences, NM	August 9th	93	4,242 ft	7,289	5/5
	August 27th	98			Tess 5/5 Tony 4/5
Why, AZ	August 18th	104	860 ft	480	3/5

The cities I visited on my Segway'n USA travels

We want to change the background color of the nested table headers to white.

Determine the selector to select only the nested table heading elements.

```
_____ {
    background-color: white;
}
```

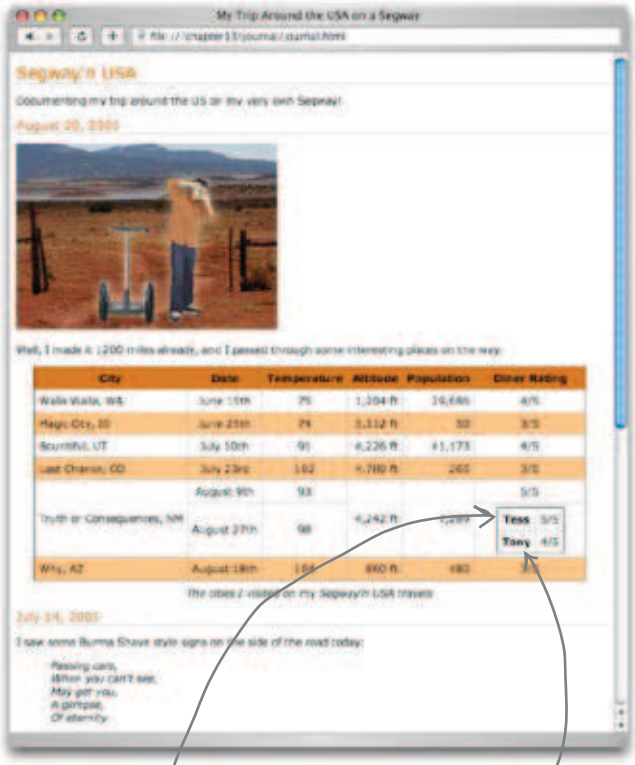
Stop! Don't turn the page until you do this exercise.

Overriding the CSS for the nested table headings

You can target just the **<th>** elements in the nested table using a descendant selector. Add a new rule to your CSS that uses the "table table th" selector to change the background color of the nested table headers to white:

```
table table th {
    background-color: white;
}
```

Now save the changes to your "journal.css" file and reload.



Dumb Questions

Q: I used a class to solve the Brain Barbell. I created a class called "nestedtable" and assigned each table heading to it. Then I created a rule like this:

```
.nestedtable {
    background-color: white;
}
```

Is that an okay solution too?

A: There are lots of different ways to solve problems using CSS, and certainly your solution is an effective and perfectly valid way to use CSS. We'll just point out that by using the descendant selector instead, we didn't have to make any changes to our XHTML. What if Tony and Tess keep adding reviews for diners? Then for every review, you'd have to make sure and add the class to each <th>. With our solution, the styling happens automatically.

BRAIN POWER

You want Tony and Tess to have different background colors on their table rows; say, blue and pink. Can you think of several ways to do that?

Giving Tony's site the final polish

Tony's page is really looking nice, but there's one more area we haven't spent any time styling yet: the list that contains the set of items he was preparing for his trip. You'll find this list in his June 2nd entry; check it out below:

We're looking at just the XHTML snippet from the June 2nd entry.

```
. . .
    <h2>June 2, 2005</h2>

    <p>
       <img src="images/segway1.jpg"
            alt="The first day of the trip" />
    </p>

    <p>
       My first day of the trip!  I can't
       believe I finally got everything
       packed and ready to go.  Because
       I'm on a Segway, I wasn't able
       to bring a whole lot with me:
    </p>
    <ul>
       <li>cellphone</li>
       <li>iPod</li>
       <li>digital camera</li>
       <li>a protein bar</li>
    </ul>
    <p>
       Just the essentials.  As Lao Tzu
       would have said, <q>A journey of
       a thousand miles begins with
       one Segway.</q>
    </p>
</body>
</html>
```

Here's the bottom of Tony's journal, "journal.html". Remember his packing list in his first journal entry?

Here's what the list looks like now.

Giving the list some style

You're probably figuring out that once you know the basic CSS font, text, color, and other properties, you can style just about anything. The same is true for lists; in fact, there are only a couple of properties that are specific to lists. The main list property is called **list-style-type** and it allows you to control the bullets (or "markers", as they are called) used in your lists. Here are a few ways you can do that:

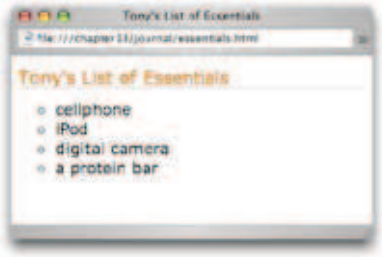
Here we're setting the style on the <li> element. You can also set it on the <ul> element, and it will be inherited by the <li> elements.

```
li {
    list-style-type: disc;
}
```

Disc is the default marker type.

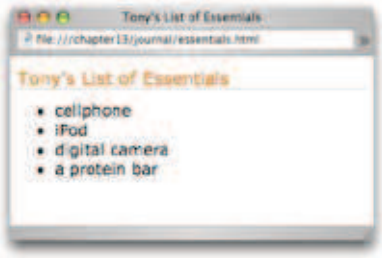

```
li {
    list-style-type: circle;
}
```

The circle property value gives you a simple circle marker.




```
li {
    list-style-type: square;
}
```

And square gives you a square marker.




```
li {
    list-style-type: none;
}
```

A value of none removes the marker altogether.

What if you want a custom marker?

Do you really think Tony would want anything less than his own custom marker? Well, luckily CSS has a property called **list-style-image** that lets you set an image to be the marker for a list. Let's give it a try on Tony's list:

Here's the list-style-image property, which we're setting to a URL.

The image "backpack.gif" is a small version of this backpack. Seems fitting doesn't it? And in Tony's signature color, too.

```
li {
    list-style-image: url(images/backpack.gif);
    padding-top: 5px;
    margin-left: 20px;
}
```

We're adding some margin to add space on the left of the list items, and also a little top padding to give each list item a bit of headroom.

And, the final test drive...

This is it: your last change to Tony's site. Add the rule for the list item to your CSS and then reload.

Here's the list with the marker replaced with an image and some extra margin and padding spacing.

there are no Dumb Questions

Q: What about ordered lists? What can I do to change their style?

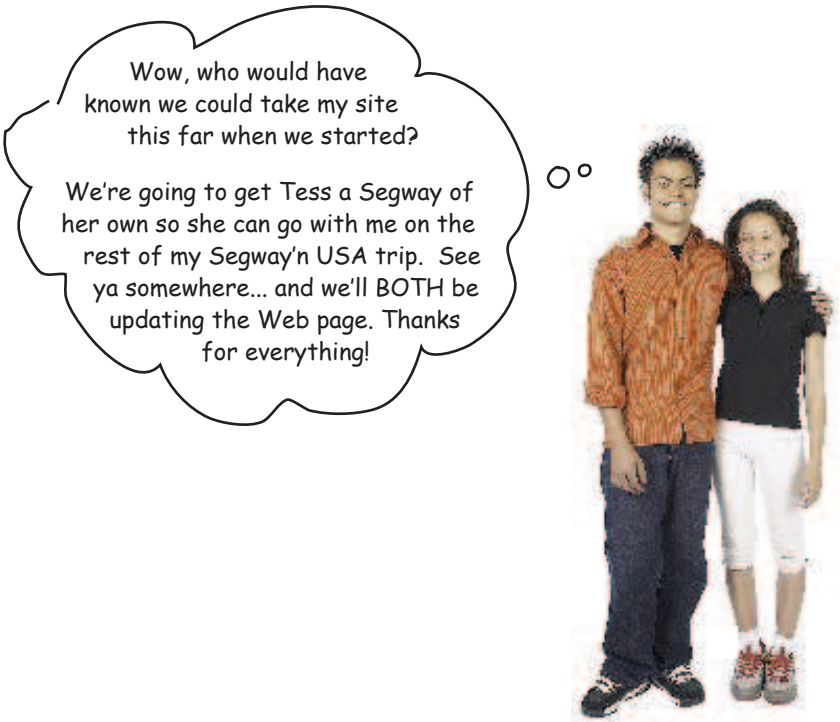
A: You style ordered and unordered lists in the same way. Of course, an ordered list has a sequence of numbers or letters for markers, not bullets. Using CSS you can control whether an ordered lists' markers are decimal numbers, roman numerals, or alphabetic letters (like a, b, c) with the list-style-type property. Common values are decimal, upper-alpha, lower-alpha, upper-roman, and lower-roman. Consult a CSS reference for more options (there are many).

Q: How can I control the text wrap on lists? In other words, how can I control whether text wraps underneath the marker or just underneath the text?

A: There's a property called list-style-position. If you set this property to "inside" then your text will wrap under the marker. If you set it to "outside" then it will wrap just under the text above it.

Q: Are you sure that's right? That seems backwards.

A: Yes, and here's what inside and outside *really* mean: if you set your line-style-position to "inside" then the *marker is inside* your list item and so text will wrap under it. If you set it to "outside", then the *marker is outside* your list item and so text will just wrap under itself. And, by "inside your item" we mean inside the border of the list item's box.

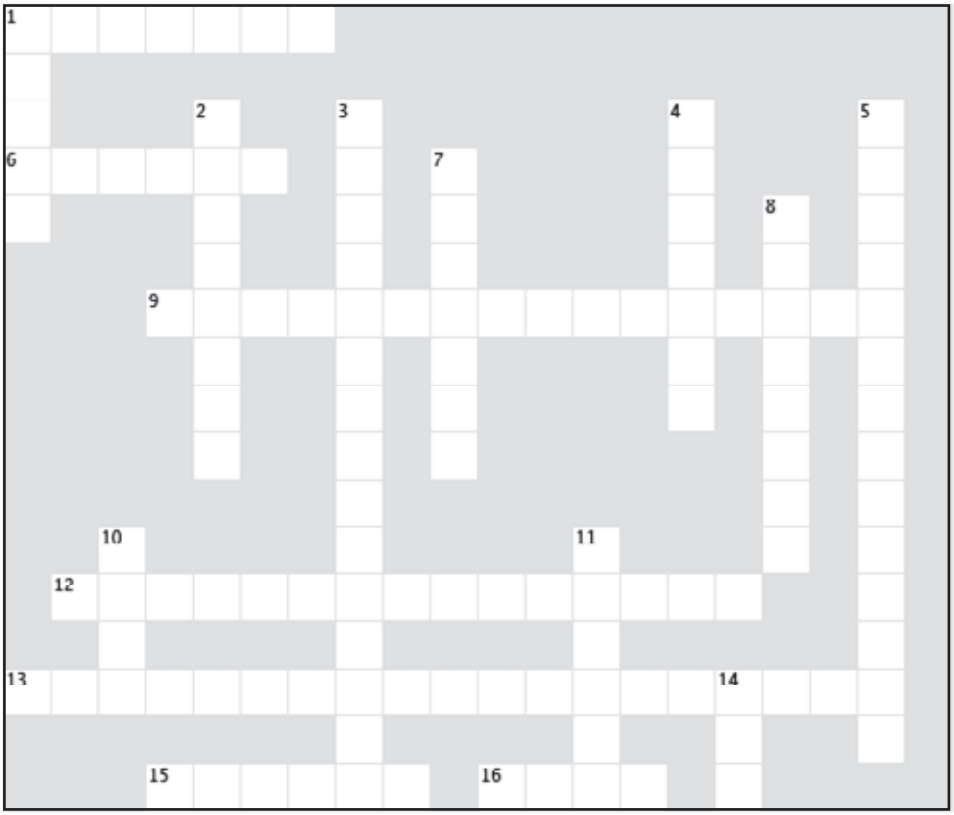


BULLET POINTS

- XHTML tables are used to structure tabular data.
- Use the HTML table elements, <table>, <tr>, <th>, and <td> together to create a table.
- The <table> element defines and surrounds the entire table.
- Tables are defined in rows, using the <tr> element.
- Each row contains one or more data cells, defined with the <td> element.
- Use the <th> element for data cells that are row or column headings.
- Tables are laid out in a grid. Each row corresponds to a <tr>...</tr> row in your HTML, and each column corresponds to the <td>...</td> content within the rows.
- You can provide additional information about your tables with the table summary attribute, and the <caption> element.
- Table data cells can have padding, borders, and border spacing, which is the space between cells.
- Just like you can control the padding, borders, and margins of elements, you can control the padding, borders, and border spacing of table cells with CSS.
- The border-collapse property is a special CSS property for tables that allows you to combine cell borders into one border for a cleaner look.
- You can change the alignment of the data in your table cells with the text-align and vertical-align CSS properties.
- You can add color to your tables with the background-color property. Background color can be added to the entire table, to each row, or to a single data cell.
- If you have no data for a data cell, put no content into the <td> element. You need to use a <td>...</td> element to maintain the alignment of the table, however.
- If your data cell needs to span multiple rows or columns, you can use the rowspan or colspan attributes of the <td> element.
- You can nest tables within tables by placing the <table> element and all its content inside a data cell.
- Tables should be used for tabular data, not for laying out your pages. Use CSS positioning to create multi-column page layouts as we described in Chapter 12.
- Lists can be styled with CSS just like any other element. There are a few CSS properties specific to lists, such as list-style-type and list-style-image.
- list-style-type allows you to change the type of the marker used in your list.
- list-style-image allows you to specify an image for your list marker.

XHTMLcross

That crossword looks a bit like a table, doesn't it? Give your left brain a workout and solve this crossword. All the words are from this chapter.



Across

1. Provides a longer description used for screen readers.
6. One table inside another is called _____.
9. Use this property to use an image instead of a built-in marker in your lists.
12. Used to merge borders.
13. Used to control whether the marker is inside or outside the list items border.
15. We call bullets a type of list _____.
16. <td> is for these.

Down

1. What a data cell does when it uses more than one row or column.
2. <th> is for these.
3. Use this property to change your list marker.
4. Table cells have padding and borders, but no _____.
5. Area between borders.
7. Adds a short description that is displayed with the table.
8. list-item-position can be used to control the behavior of text _____.
10. You specify HTML tables by _____, not columns.
11. Don't use tables for this.
14. Default position of the caption.