13 Formatting Tables

In this chapter, you will learn how to

- Apply table borders.
- Apply background and foreground fills.
- Change cell padding, spacing, and alignment.

Chapter 12, "Creating Tables," explained how to create tables structurally; now it's time to learn how to make them more attractive. By default, a table is just a plain container—no border, no shading, and no text formatting. It's up to you to add all those things if you want them.

Not every table needs elaborate formatting. If you are using a table as a container for a page layout, as demonstrated in Chapter 12, you probably want the table to be as unobtrusive as possible. But even unobtrusive tables can benefit from some of the small improvements you'll learn about in this chapter, such as adjusting the amount of space between the border of a cell and its content. (That's called *padding*, as you might remember from Chapter 8, "Formatting Paragraphs by Using Style Sheets.")

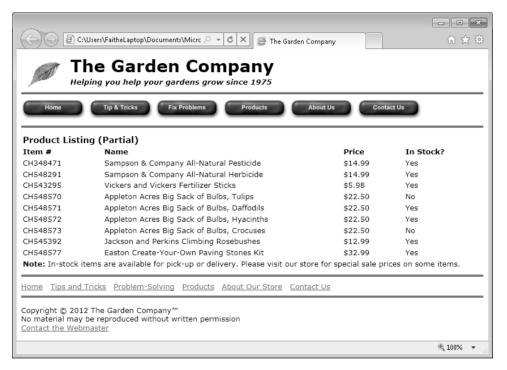
In this chapter, you'll learn how to apply borders to table cells and how to fill their backgrounds with color or images. You'll learn how to fine-tune cell spacing and padding, and how to make the contents of a cell align a certain way vertically and horizontally.

See Also Do you need only a quick refresher on the topics in this chapter? See the Key Points at the end of this chapter.

Practice Files Before you can use the practice files provided for this chapter, you need to install them from the book's companion content page to their default locations. See "Using the Practice Files" in the beginning of this book for more information.

Applying Table Borders

Tables created using the default settings are pretty plain—in fact, they're invisible—so it can be difficult to distinguish where one cell ends and the next cell begins. To help with this problem, you can place borders around cells, either globally or selectively. You might also choose to fill (shade) certain cells to help them stand out. For example, the spacing in the following table makes it difficult for a reader to follow a line across the page.



You could make it easier to read by applying borders as shown in the image that follows.



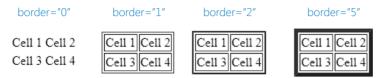
Tip If you don't like the double lines between each cell, set the cell spacing to 0. You'll learn how to do that in "Changing Cell Padding, Spacing, and Alignment," on page 245.

You can apply borders to a table either by adding attributes to the tag or with styles, either applied to the individual table or placed in an internal or external cascading style sheet. This chapter shows both methods, but the style method is the more modern and reliable one, because it produces consistent results across all browsers.

Applying Borders by Using Attributes

By default, a table has no border. To add a one-pixel border around both the table as a whole and around each individual cell, you can add this attribute to the tag, as shown in the following code:

As shown in the following examples, increasing the number increases the width of the outer border around the whole table, but not the inner borders:



You may recall from Chapter 12 that the *border="1"* attribute is a quick way to see the borders of a table for the purposes of learning or debugging.

Unfortunately, different browsers display the *border* attribute differently. The above examples show tables rendered in Internet Explorer; borders render similarly in Google Chrome. Netscape and Firefox, however, render the border using two shades of gray for the outer border. Here's what a *border="10"* attribute looks like in Firefox:



Note You can apply a beveled border in any browser, without worrying about incompatibility, by using style-based formatting (use *border-style:outset*). Style-based formatting is covered in the next section of this chapter.

The *border* attribute applies a border to all sides of all cells. If you do not want the border on some of the sides, you can use the *frame* and/or *rules* attributes. The *frame* attribute specifies which sides of the outer frame of the table will display the border. The valid values are:

- above Top border only
- below Bottom border only
- border All four sides
- box All four sides
- hsides Top and bottom only (stands for horizontal sides)
- vsides Left and right only (stands for vertical sides)
- Ihs Left side only (stands for left-hand side)
- rhs Right side only (stands for right-hand side)
- void No outer border

The *rules* attribute does the same thing for the inner lines of the table (the cell borders). The valid values are:

- all All inner lines
- cols Only vertical inner lines
- rows Only horizontal inner lines
- none No inner lines
- groups Lines around defined groups, if any (such as column groups, which you'll learn about later in this chapter)

For example, if you want only vertical borders in your table, around both the table as a whole and around each of the cells, apply these attributes to the tag:

Applying Borders by Using Styles

You can also apply borders by using cascading style sheets (CSS), which is the most flexibile and consistent method. You should choose the CSS method in most cases, especially on sites that you expect to be active for many years to come, because the older methods of formatting tables may be deprecated in the future.

In Chapter 8, you learned about style-based borders for paragraphs. You use them the same way for the and tags. To review:

- The *border-width* attribute controls the thickness of the border. Specify a value in pixels.
- The *border-color* attribute controls the color of the border. Specify a color by name, hexadecimal number, or RGB value.
- The *border-style* attribute controls the line style. Choose among solid, dotted, dashed, double, groove, ridge, inset, outset, or none.
- To set all three attributes at once, use the *border* attribute and then place the settings after it in this order: *width*, *color*, *style*.
- To format the border sides individually, replace the border attribute with the *border-top*, *border-bottom*, *border-left*, or *border-right* attribute.

You can apply these attributes either to the entire table (by using the tag or a style rule) or to individual cells (by using the tags). You can apply them to individual instances within the opening tags themselves, you can create rules in the < style > area

that govern all instances within a document, or you can create rules in the external style sheet that govern all documents that use it.

For example, the following code applies a black dotted border around the outside of a table and a silver grooved border around one specific cell:

To format all tables or all cells the same way, define the attributes in an embedded style sheet, like this:

```
<style>
table {border-style: dotted; border-color: black}
td {border-style: groove; border-color: silver}
</style>
```

This code produces a result that looks as follows:



As always, you can override the style rule with a style attribute placed specifically within an individual tag. For example, to make the first cell borderless, modify its tag like this:

```
Cell 1
```

This code produces a result that looks like this:



In this exercise, you will add default table border settings to an external style sheet, and then you will override those settings for an individual instance within a document.

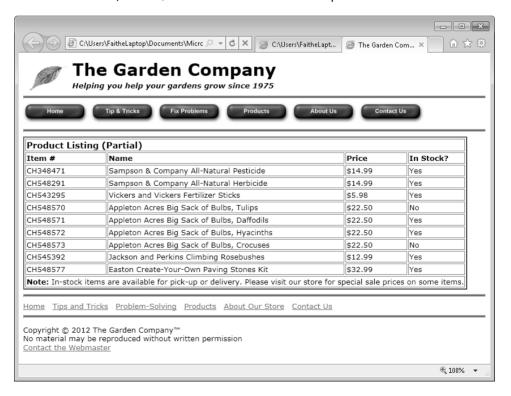


SET UP Use the *default.css* and *products.htm* files in the practice file folder for this topic. These files are located in the Documents\Microsoft Press\HTML5 SBS\13FmtTables\ApplyingBorders folder. Open the *default.css* file in Microsoft Notepad, and open the *products.htm* file in Internet Explorer.

1. Add the following style rules to the *default.css* style sheet:

```
table {border-style: outset; border-color: gray; border-width: 2px}
td {border-style: solid; border-color: gray; border-width: 1px}
```

2. Save and close *default.css*, and then refresh Internet Explorer.



3. Open *products.htm* in Notepad, and remove the outer border from all sides of the table.

4. Save the file, and then refresh Internet Explorer.

Each cell has a border around it, but there is no overall border surrounding the table.



5. Remove the border from the top row. (There is only one cell in this row because it is spanned.)

```
        <b>Product Listing
(Partial)</b>
```

6. Save the file, and then refresh Internet Explorer.

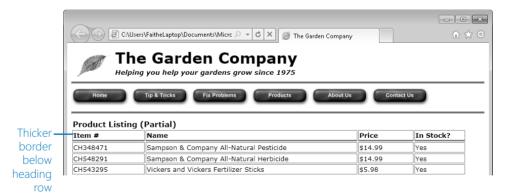
The top cell now appears to be floating above the rest of the table, borderless.



In the row containing the column headings, make the bottom border three pixels thick.

Note You can't apply the *style="border-bottom-width"* attribute to a tag because technically a row has no borders; it only has cells, which in turn have borders. Therefore, you must apply the border setting separately to each cell in the row.

Save the file, and then refresh Internet Explorer.



9. Remove the borders from all sides of the cells in the row containing the column headings. (Hint: type the attributes once, and then copy and paste.)

10. Remove the border from the bottom row of the table. (There is only one cell because it is spanned.)

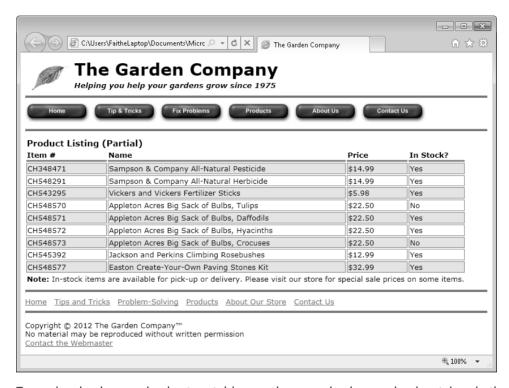
11. Save the file, and then refresh Internet Explorer.





Applying Background and Foreground Fills

Each table, row, and cell is its own distinct area, and each can have its own background. For example, you might want to apply a different color background to a heading row to make it stand out, or change the color of every other line in a listing to help visitors track a line across the table, as shown in the following example.



To apply a background color to a table, use the same *background-color* style rule that you use for documents. For example, to make a certain row orange, use the following:

The table background can also be a picture, just like a document background. Apply the *background-image* attribute to any portion of a table. For example, to apply it to the entire table, use this:

If the image is smaller than the allotted space, it will be tiled, just as when you apply an image to a page background.

Product Listing ((Partial)					
Item #	Name	E M	E SAI	E All	Price	In Stock?
CH348471	Sampson &	Company All-Natu	ral Pesticide		\$14.99	Yes
ĆH548291	Sampson &	Company All-Natu	ral Herbicide	7	\$14.99	Yés
CH543295	Vickers and	Vickers Fertilizer 9	Sticks		\$5.98	Yes
CH548670	Appleton Ac	res Big Sack of Bu	lbs, Tulips		\$22.50	No F
CH548571	Appleton Ac	res Big Sack of Bu	lbs, Daffodils	10000	\$22.50	Yes
CH548572	Appleton Ac	res Big Sack of Bu	lbs, Hyacinths		\$22.50	Yes
CH548573	Appleton Ac	res Big Sack of Bu	lbs, Crocuses	6	\$22,50	No No
CH548392	Jackson and	Perkins Climbing	Rosepushes		\$12,99	Yes
CH548577	Easton Crea	te-Your-Own Pavir	ng Stones Kit		\$32.99	Yes
Note: In-stock items are available for pick-up or delivery. Please visit our store for special sale prices on some items.						

Note If you apply both a background color and a background image to the same cell(s), the more specific application takes precedence. For example, if you apply a background color to the table as a whole, and then apply a different color to an individual cell, the different color will appear in that cell.

The foreground of an element is its text, as you learned in Chapter 4, "Using Lists and Backgrounds." You can set the color of any table element like this:

In this exercise, you will apply background and foreground colors to a table and use an image as a background.



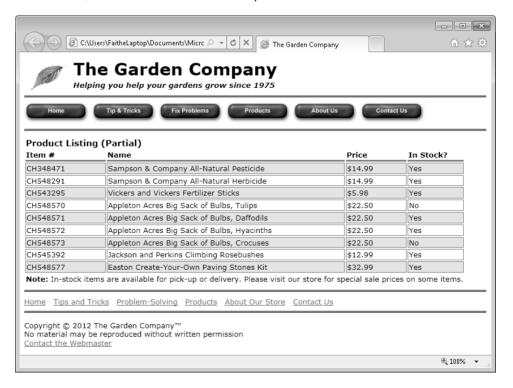
SET UP Use the *products.htm* file in the practice file folder for this topic. This file is located in the Documents\Microsoft Press\HTML5 SBS\13FmtTables\ ApplyingBackground folder. Open the *products* file in Notepad and in Internet Explorer.

1. Add a style to the second row of the table (*Sampson & Company All-Natural Pesticide*) that sets the background color to pale green.

2. Copy the edited tag from the second table row and insert it into every other row (the fourth, sixth, eighth, and tenth rows).

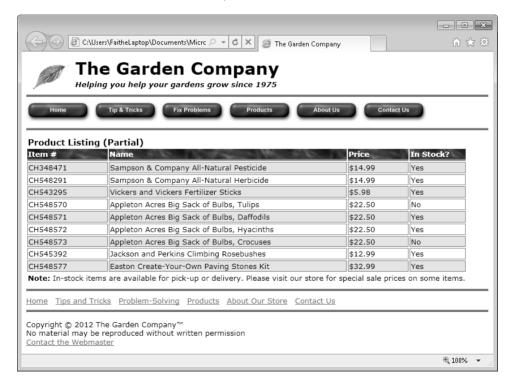
```
CH543295
 Vickers and Vickers Fertilizer Sticks
 $5.98
 Yes
CH548571
 Appleton Acres Big Sack of Bulbs, Daffodils
 $22.50
 Yes
CH548573
 Appleton Acres Big Sack of Bulbs, Crocuses
 $22.50
 No
CH548577
 Easton Create-Your-Own Paving Stones Kit
 $32.99
 Yes
```

3. Save the file, and then refresh Internet Explorer.



4. In Notepad, in the row containing the column headings, add a style rule that sets the background to the file *greenbk.jpg* (in the images folder) and sets the foreground (text) color to white.

Save the file and refresh Internet Explorer.

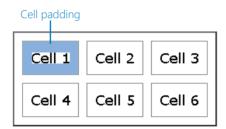




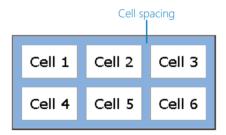
Changing Cell Padding, Spacing, and Alignment

Cell padding, cell spacing, and cell alignment are three different ways you can control how cell content appears on a page. You learned about these features in earlier chapters, but let's briefly review them.

 Padding refers to the amount of space between an element's content and its outer edge. For a table cell, padding refers to space between the cell border and the text or graphic within it.



 Spacing refers to the amount of space between the outside of an element and the adjacent element. For a table cell, spacing refers to the space between the border of one cell and the border of the adjacent cell.



 Alignment refers to the placement of the content within its allotted area, either vertically or horizontally. For normal paragraphs (not in a table), alignment refers only to horizontal placement between the margins. For a table cell, however, there are separate settings for vertical and horizontal alignment.

Setting Cell Padding

To set the padding for the entire table, use the *cellpadding* attribute in the tag. (The *cellpadding* attribute does not work with individual row and cell tags.)

To set the padding for an individual cell, use the *padding* attribute in a style, as you did in Chapter 8 for a paragraph.

To set padding in a style sheet:

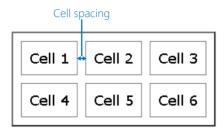
td {padding: 4px}

Note You can't apply padding to a row, because technically a row has no cells to be padded. The tag is just a container for cells, and only tagged cells (or an entire table) can have padding.

Setting Cell Spacing

The default table border looks like a double line, but this effect is just a combination of the border around the table as a whole and the border around each cell. The double effect is created by the spacing between the cells.

To make the borders a single solid line between one cell and another, set the cell spacing to zero:



Setting Horizontal and Vertical Alignment

A cell's content has two alignments: vertical (top, middle, or bottom) and horizontal (left, center, right, or justify). You can set these with attributes or with styles. To set alignment with attributes, use the *align* attribute to specify the horizontal alignment and the *valign* attribute to specify the vertical alignment, as shown in the following:

You can also set alignment with a style by using *text-align* to specify the horizontal alignment and *vertical-align* to specify the vertical alignment, like this:

These can be applied to the entire table, to individual rows, or to individual cells. (Yes, alignment works with rows, unlike spacing and padding.)

In this exercise, you will adjust the padding, spacing, and alignment of a table.

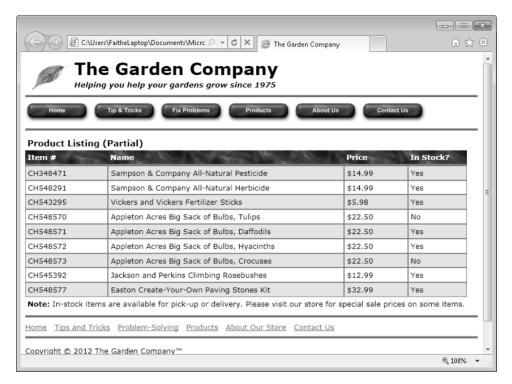


SET UP Use the *products.htm* file in the practice file folder for this topic. This file is located in the Documents\Microsoft Press\HTML5 SBS\13FmtTables\ ChangingPadding folder. Open the *products* file in Notepad and in Internet Explorer.

1. Set the padding for the entire table to **4px**.

2. Set the cell spacing for the entire table to 0px.

3. Save the file, and then refresh Internet Explorer.



Note Notice that wherever two bordered cells touch, the border appears double thick. You can change that by removing the border from one side of each of those cells. For example, you could remove the right and bottom border on a cell like this:

Alternatively, you could simply increase the table's outer border thickness so that it matches the thickness of the inner borders.



CLEAN UP Close the Notepad and Internet Explorer windows.

Key Points

- To apply a simple default border to a table, include the *border="1"* attribute in the table's opening tag. A value greater than 1 increases the table border but not the cell borders.
- The *frame* attribute specifies which sides of the table frame display the border; the *rules* attribute specifies which sides of the cell borders display the border.
- For maximum flexibility, specify borders by using style sheets. Border style attributes in tables are the same as border style attributes around paragraphs: border-width, border-color, and border-style.
- To format one side of a border individually, specify the side in your attribute: border-top-width, border-bottom-style, and so on.
- You can apply a background color by using the style="background-color: color" attribute for the whole table or for an individual row or cell. To set the text color (foreground color), use the color attribute.
- Padding is the amount of space between the border of the cell and its contents. Set
 it by using the *cellpadding* attribute in the tag. For an individual cell, set
 the padding by using a style, like this: *<td* style="padding: 4px">.
- Spacing is the amount of space between the outside of an element and an adjacent element. Set it by using the *cellspacing* attribute in the tag.
- Alignment is the placement of the content within the cell. For vertical alignment, use the *valign* attribute; for horizontal alignment, use *align*. To align using a style, use *text-align* for horizontal or *vertical-align* for vertical.

Chapter at a Glance

