

# Web Design

## HTML Tables

### When to use tables

Use them only for tabular data.

“The ‘would this make sense in a spreadsheet?’ test is usually appropriate.”

Chris Coyier, <http://css-tricks.com/complete-guide-table-element/>

### When Not to Use Tables

Do not use HTML tables for laying out a page – never. To layout a page, use the appropriate HTML elements and all the layout techniques you have learned in class.

### Anatomy of an HTML Table

Simple tables may have only four tags.

`<table>` defines the whole table.

`<tr>` defines a row of cells

`<th>` defines a header cell.

`<td>` defines a data cell.

Monday - Wednesday	9am to 7pm
Thursday & Friday	9am to 5:30pm
Saturday	10am to 4pm
Sunday	Closed

```
42 <table class="hours-table">
43   <caption>
44     Hours
45   </caption>
46   <tr>
47     <th scope="row">Monday - Wednesday</th>
48     <td>9am to 7pm</td>
49   </tr>
50   <tr>
51     <th scope="row">Thursday & Friday</th>
52     <td>9am to 5:30pm</td>
53   </tr>
54   <tr>
55     <th scope="row">Saturday</th>
56     <td>10am to 4pm</td>
57   </tr>
58   <tr>
59     <th scope="row">Sunday</th>
60     <td>Closed</td>
61   </tr>
62 </table>
```

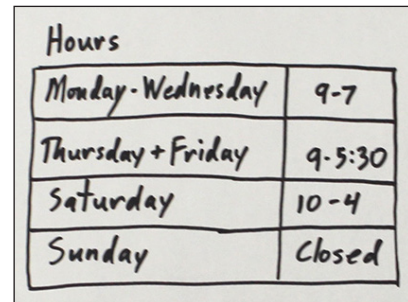
This image shows the HTML tags that define the table above. Notice there are four table rows (`<tr>`) each containing one header cell (`<th>`) and one data cell (`<td>`)

## Inserting a Table in Dreamweaver

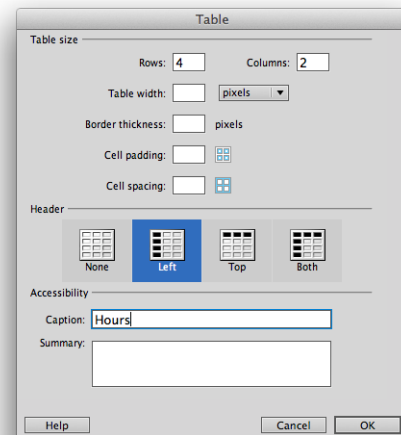
### First plan your table

Before inserting a table in Dreamweaver, sketch out on paper what your table will look like. Planning will help you determine how many rows and columns you need.

1. Open the contact.html page.
2. Place your cursor where you want the table in the HTML.
3. Go to Insert>Table
4. If necessary, delete all presentation fields: No border. No width. Those are jobs for the CSS.
5. Choose number of rows and columns.
6. Choose where the header cells will be – top, side or both.
7. Click Okay.
8. Type your data into the cells.
9. Style the cells in CSS.

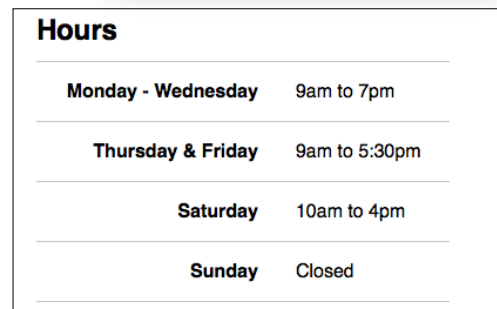


Hours	
Monday-Wednesday	9-7
Thursday+Friday	9-5:30
Saturday	10-4
Sunday	Closed



### A Better Way to Insert a Table

1. Type your data in a spreadsheet.
2. Export the data as a tab separated list.
3. Place your cursor where you want the table in the HTML.
4. Import the data into Dreamweaver...  
File > Import > Tabular Data...



Hours	
<b>Monday - Wednesday</b>	9am to 7pm
<b>Thursday &amp; Friday</b>	9am to 5:30pm
<b>Saturday</b>	10am to 4pm
<b>Sunday</b>	Closed

The Hours table styled with CSS.  
All the cells have padding.  
<th> is aligned right.  
<caption> is 1.5em and bold.  
<tr> has a border-top.  
The last <tr> has a border bottom.

## More Table Tags

In addition to the `<tr>`, `<td>` and `<th>` tags, a table with more data may have a few more tags.

TINY	SMALL	MEDIUM	LARGE
Unprecedented value - a great way to start your first website or blog.	Excellent choice for small websites with room to grow.	Ideal for websites and blogs that are gaining popularity.	Perfect for websites and blogs that need additional resources.
250 MB storage	1 GB storage	5 GB storage	15 GB storage
5 GB bandwidth	20 GB bandwidth	100 GB bandwidth	300 GB bandwidth
1 Domain	Unlimited Domains	Unlimited Domains	Unlimited Domains
24/7 Email + Live Chat Support	24/7 Email + Live Chat Support	24/7 Email + Live Chat Support	24/7 Email + Live Chat Support
\$35 <sub>year</sub>	\$5 <sub>month</sub>	\$10 <sub>month</sub>	\$20 <sub>month</sub>

Left: A more complex table.

Below: The HTML that defines the table to the left. Note the `<caption>`, `<col>`, `<thead>`, `<tfoot>` and `<tbody>` tags.

**<caption>** Describes the table. Caption is the first tag after the opening table tag. The caption text appears above the table.

**<thead>** Defines the main group of header cells for the table.

**<tfoot>** Defines the footer cells of the table (sometimes a repeat of the header cells to make the bottom of a long table easier to understand). The `<tfoot>` tag comes immediately after the `<thead>` tags, but the browser displays the table footer at the bottom of the table.

**<tbody>** Defines the data cells of the table

**<col>** Defines a column, mostly for styling.

**<colgroup>** Defines a group of columns.

### Attributes

Some attributes that can be applied to table tags:

**Colspan** Tells a `<td>` or `<th>` to stretch across two or more columns

**Rowspan** Tells a `<td>` or `<th>` to stretch down to cover two or more rows.

**Scope** Tells a browser if a `<th>` refers to a "row" or a "column."

### Forbidden Attributes

Never put presentational attributes in table tags. You should never have width, padding, border or bgcolor attributes in any table tag. If Dreamweaver sneaks one of these forbidden, presentational tags into a tag, delete it.

```

10 <table class="hosting-plans">
11 <caption>Hosting</caption>
12 <col>
13 <col>
14 <col>
15 <col>
16 <thead>
17 <tr>
18 <th scope="column">TINY</th>
19 <th scope="column">SMALL</th>
20 <th scope="column">MEDIUM</th>
21 <th scope="column">LARGE</th>
22 </tr>
23 </thead>
24 <tfoot>
25 <tr>
26 <td>$35/year</td>
27 <td>$5/month</td>
28 <td>$10/month</td>
29 <td>$20/month</td>
30 </tr>
31 </tfoot>
32 <tbody>
33 <tr>
34 <td>Unprecedented value </td>
35 <td>Excellent choice </td>
36 <td>Ideal for websites and blogs</td>
37 <td>Perfect for websites</td>
38 </tr>
39 <tr>
40 <td>250 MB storage</td>
41 <td>1 GB storage</td>
42 <td>5 GB storage</td>
43 <td>15 GB storage</td>
44 </tr>
45 <tr>
46 <td>5 GB bandwidth</td>
47 <td>20 GB bandwidth</td>
48 <td>100 GB bandwidth</td>
49 <td>300 GB bandwidth</td>
50 </tr>
51 <tr>
52 <td>1 Domain</td>
53 <td>Unlimited Domains</td>
54 <td>Unlimited Domains</td>
55 <td>Unlimited Domains</td>
56 </tr>
57 <tr>
58 <td>24/7 Email + Live Chat Support</td>
59 <td>24/7 Email + Live Chat Support</td>
60 <td>24/7 Email + Live Chat Support</td>
61 <td>24/7 Email + Live Chat Support</td>
62 </tr>
63 </tbody>
64 </table>

```

## Styling a Table

You can make CSS style rules to describe any table tag – the same way you have been making rules to style h1, h2, p, li, etc.

### CSS3 Selectors

You can do amazing things with CSS3 – more than just style tags. See the examples below:

#### Zebra Striping Aids In Comprehension

People can make sense of a data table easier if every other row has a slightly different background color. You could achieve **zebra striping** by styling every other table row with a rule like this:

```
tr:nth-child(even) {
    Background-color: #DDD;
}
```

State	Date of Poll	% Voting Dem.	% Voting GOP
AR	10/27	44	54
AZ	10/23	41	49
CO	10/26	51	42
FL	10/26	50	43
GA	10/27	47	48

An example of zebra striping from  
<http://www.cssnewbie.com/example/zebra-tables/>

You could style **just the third column** with a rule like this:

```
col:nth-child(3) {
    Background-color: pink;
}
```

You could style the **last cell in every row** with a rule like this:

```
td:last-child {
    Background-color: pink;
}
```

To learn more about the “nth” selectors check out these pages:

<http://css-tricks.com/how-nth-child-works/>  
<http://css-tricks.com/9657-useful-nth-child-recipes/>

### Progressive Enhancement

Progressive enhancement refers to how you and I code meaningful pages with HTML and then layer on the beauty with CSS. If a browser does not understand our CSS, our page may not be as beautiful, but with the correct tags in place, the content should still be understandable.

Some browsers may not understand the CSS3 selectors that create zebra striping. But the table will still look like a table and the viewer can still read the data. The user experience is acceptable without CSS, but the experience is “enhanced if the CSS works.”

## If you want cells to touch:

There is this weird thing about tables – by default the cells do not touch. If you fill them with a background color, there will be space between each cell. You can make the cells touch by putting the following rule in your CSS

```
table {
  border-collapse: collapse;
}
```

If you use *normalize.css*, the border-collapse rule is already covered for you.

Monday - Wednesday	9am to 7pm
Thursday & Friday	9am to 5:30pm
Saturday	10am to 4pm
Sunday	Closed

Without “border-collapse: collapse,” the cells will not touch each other

## Practice Styling a Table

Along with your instructor, use CSS to style the table below:

Hosting			
TINY	SMALL	MEDIUM	LARGE
Unprecedented value - a great way to start your first website or blog.	Excellent choice for small websites with room to grow.	Ideal for websites and blogs that are gaining popularity.	Perfect for websites and blogs that need additional resources.
250 MB storage	1 GB storage	5 GB storage	15 GB storage
5 GB bandwidth	20 GB bandwidth	100 GB bandwidth	300 GB bandwidth
1 Domain	Unlimited Domains	Unlimited Domains	Unlimited Domains
24/7 Email + Live Chat Support	24/7 Email + Live Chat Support	24/7 Email + Live Chat Support	24/7 Email + Live Chat Support
<b>\$35</b> /year	<b>\$5</b> /month	<b>\$10</b> /month	<b>\$20</b> /month

1. The table is in a class called “hosting-plans”
2. The caption is big, bold and aligned left, with a little padding to push it away from the table.
3. There are <thead> <tbody> and <tfoot> tags
4. All the cells are 25% wide, with some padding. Text is aligned center.
5. The header cells are dark gray with light gray type. The font is *not* bold, and the letters are spaced out a little. (change td’s to th’s by selecting them and checking the “header” box in the properties panel)
6. All the rows have a border bottom.
7. The last row does not have a border bottom.
8. Create alternating column colors — give every other data cell a light gray background.
9. Every other header cell has a black background.
10. The prices are in a class that makes them big, serif and dark blue. This is the only class allowed.

## Responsive Tables

Lastly, depending on the complexity of content, tables will often look pretty bad on mobile devices. If you happen to have a table that looks bad on a small screen, check out these HTML and CSS (no javascript) solutions to making your tables responsive. You'll see there are many perfectly imperfect approaches.

straight forward - <https://css-tricks.com/responsive-data-tables/>

a roundup of various solutions and examples - <https://css-tricks.com/responsive-data-table-roundup/>

"view an example" to dive into codepen - <http://joshnh.com/weblog/getting-responsive-tables-to-behave/>

## Assignment

The demo site we used in class ("12-tables start" on the Shared Items server) contains a mutual-funds.html page.

1. Open the Mutual Funds page.
2. Import the "mutual funds.txt" tabular data.
3. Design a beautiful table.
4. Your table must include caption, thead, tbody, and tfoot tags. (The tfoot should contain a repeat of the header cells.)
5. Use "nth-child" to create horizontal zebra striping.
6. Align all columns right.
7. Use nth-child selectors to align the first two columns left.
8. When you are done, really look at the table in a browser. Can viewers easily make sense of the data? For example, can you easily find the expense ratio for the "New Era" mutual fund? If not, keep working on your design.
9. When you are done, place the complete root folder in the appropriate folder on the Drop Boxes server.

### Hints:

- Give your table a class of ".mutual-funds-table"
- You can change <td> cells to <th> cells — select several cells and click the "Header" check-box in the Properties Panel.
- I often have to type long compound selector names like

```
.mutual-fund-table td, .mutual-fund-table th {  
    ...  
}
```
- I made all the cells 8% wide. Then made the second column of cells 16% wide.
- Style the caption text to look like an H1 header.