

Section I - HTML Basic

- ☐ Chapter 10: HTML Images
- ☐ Chapter 11: HTML Tables
- ☐ Chapter 12: HTML Lists
- ☐ Chapter 13: HTML Forms & Input
- ☐ Chapter 14: HTML Colors



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HTML IMAGES

In This Chapter

- ☐ `img` Tag and the `src` Attribute
- ☐ Insert Images from Different Locations
- ☐ Background Images
- ☐ Aligning Images
- ☐ Floating Images
- ☐ Adjusting Image Sizes
- ☐ `alt` Attribute
- ☐ Creating an Image Map



HTML IMAGES

img Tag and the src Attribute

In HTML, images are defined with the `` tag.

The `img` tag is empty, which means that it contains attributes only and it has no closing tag.

To display an image on a page, you need to use the `src` attribute. `src` stands for “source”. The value of the `src` attribute is the URL of the image you want to display on your page.

The syntax of defining an image:

```

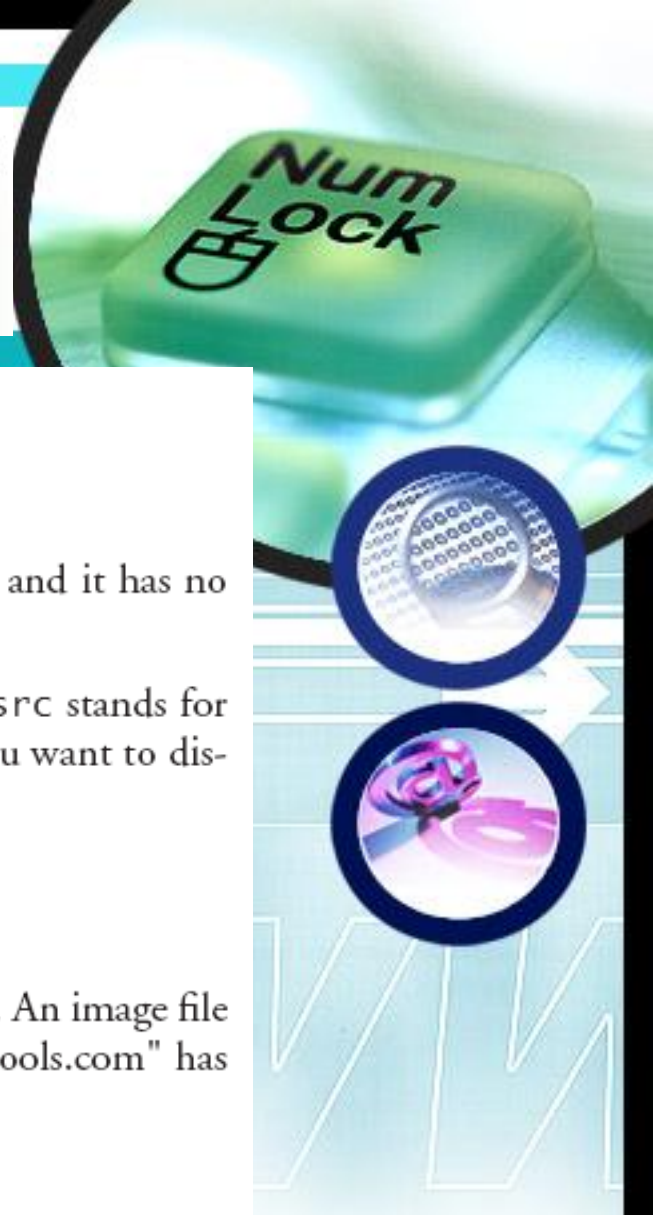
```

The URL points to the location or address where the image is stored. An image file named “boat.gif” located in the directory “images” on “www.w3schools.com” has the URL:

```
http://www.w3schools.com/images/boat.gif
```

NOTE

It is not necessary to have administrative access to the actual image file to which you are linking. You can link to any image as long as you know its URL.



CHAPTER 10

HTML IMAGES

The browser puts the image where the image tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

The following example demonstrates how to insert images to your Web page. The results of this code are shown in Figure 10.1.

Try it yourself >>

```
<html>
<body>

<p>
An image:

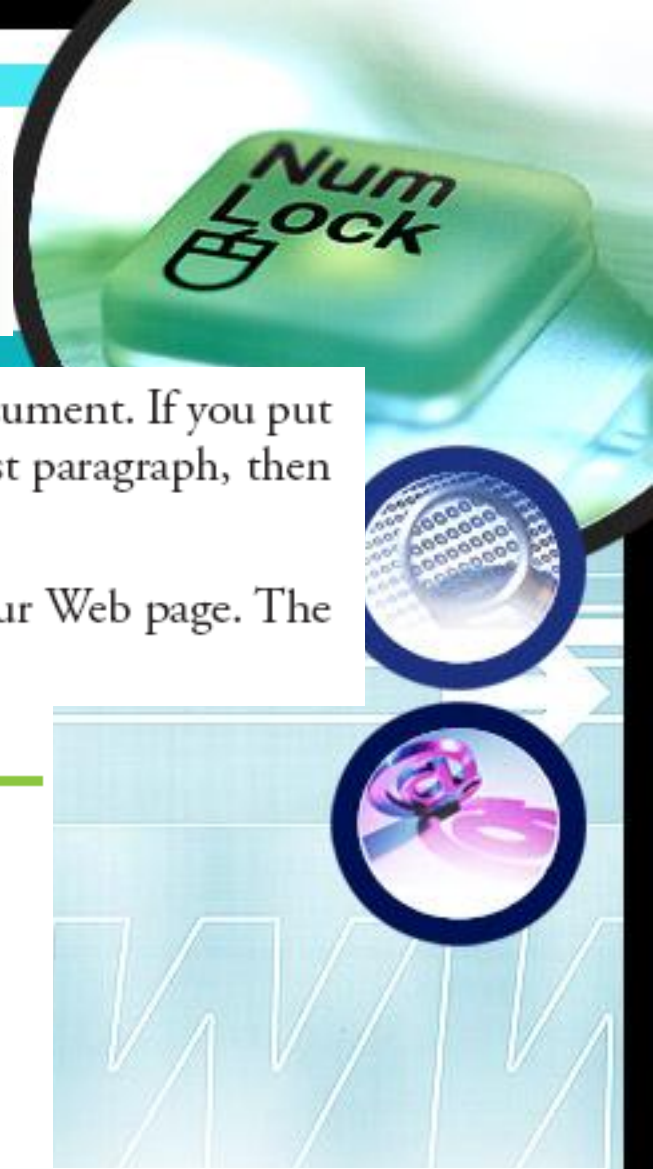
</p>

</body>
</html>
```

An image:



Figure 10.1



CHAPTER 10

HTML IMAGES

The browser puts the image where the image tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

The following example demonstrates how to insert images to your Web page. The results of this code are shown in Figure 10.1.

Try it yourself >>

```
<html>
<body>

<p>
An image:

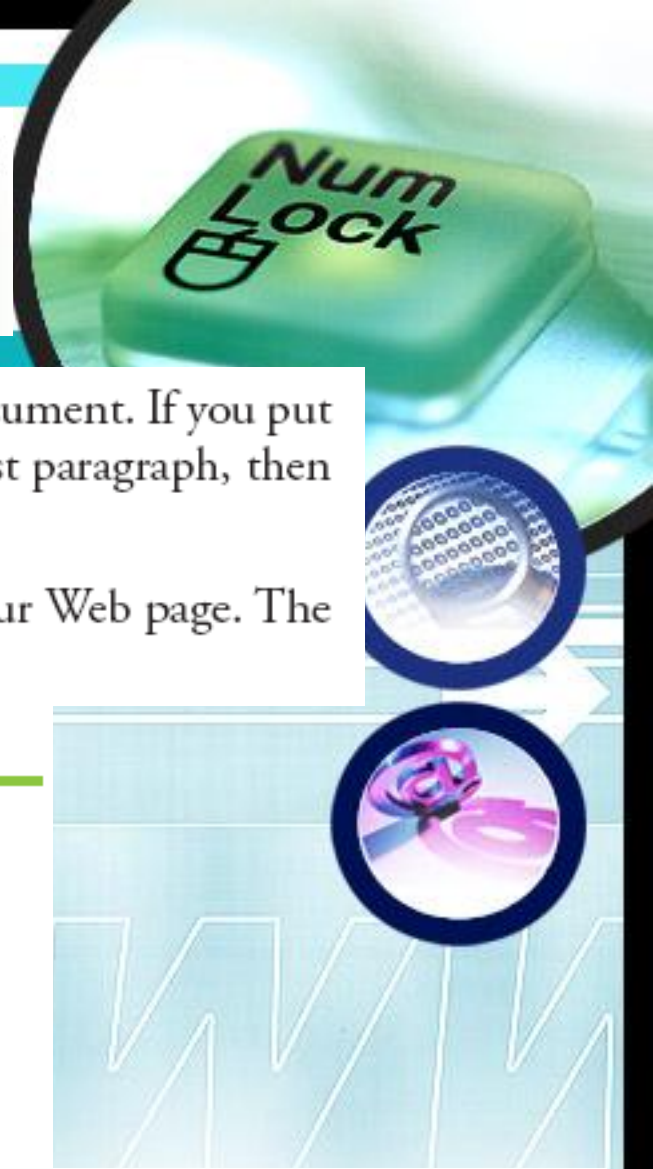
</p>

</body>
</html>
```

An image:



Figure 10.1



CHAPTER 10

HTML IMAGES

Insert Images from Different Locations

The example shown in Figure 10.2 demonstrates how to insert an image from another folder on your server or another location on the Web.

Try it yourself >>

```
<html>
<body>

<p>An image from another folder:</p>


<p>An image from w3schools:</p>


</body>
</html>
```

An image from another folder:



An image from w3schools:



W3Schools

HTML IMAGES

Insert Images from Different Locations

The example shown in Figure 10.2 demonstrates how to insert an image from another folder on your server or another location on the Web.

Try it yourself >>

```
<html>
<body>

<p>An image from another folder:</p>


<p>An image from w3schools:</p>


</body>
</html>
```

An image from another folder:

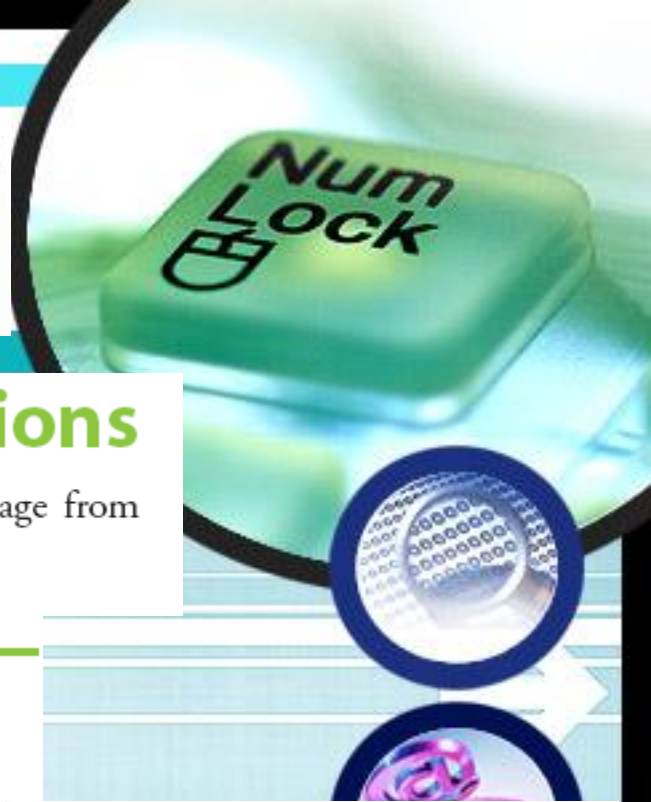


An image from w3schools:



TIP

Image files can take time to load in the browser, so use them sparingly.



HTML IMAGES

Insert Images from Different Locations

The example shown in Figure 10.2 demonstrates how to insert an image from another folder on your server or another location on the Web.

Try it yourself >>

```
<html>
<body>

<p>An image from another folder:</p>


<p>An image from w3schools:</p>


</body>
</html>
```

An image from another folder:

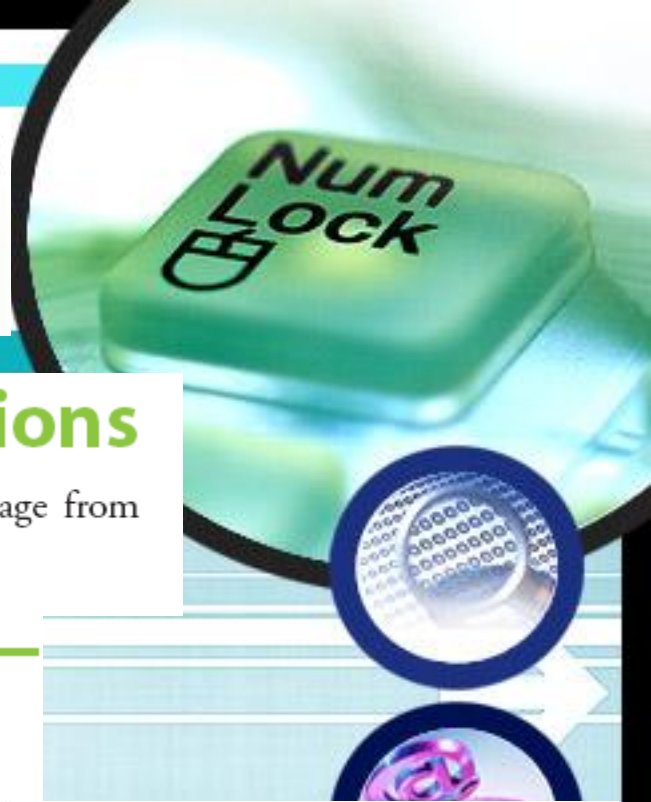


An image from w3schools:



TIP

Image files can take time to load in the browser, so use them sparingly.



HTML IMAGES

Background Images

The next example demonstrates how to add a background image to an HTML page. The results appear in Figure 10.3.

Try it yourself >>

```
<html>
<body background="background.jpg">

<h3>Look: A background image!</h3>

<p>Both gif and jpg files can be used as HTML backgrounds.</p>

<p>If the image is smaller than the page, the image will re-
peat itself.</p>

</body>
</html>
```

Look: A background image!

Both gif and jpg files can be used as HTML backgrounds.

If the image is smaller than the page, the image will repeat itself.



HTML IMAGES

Aligning Images

Figures 10.4 and 10.5 demonstrate different ways you can align images within the text.



Try it yourself >>

```
<html>
```

```
<body>
```

```
<p>The text is aligned with the image
```

```

```

```
at the bottom.</p>
```

```
<p>The text is aligned with the image
```

```

```

```
in the middle.</p>
```

```
<p>The text is aligned with the image
```

```

```

```
at the top.</p>
```

```
<p><b>Note:</b> The bottom alignment is the default!</p>
```

```
</html>
```

The text is aligned with the image



at the bottom.

The text is aligned with the image



in the middle.

The text is aligned with the image



at the top.

Note: The bottom alignment is the default!

CHAPTER 10

HTML IMAGES

Try it yourself >>

```
<html>
<body>
```

```
<p>This image appears

exactly where it is placed in the code.</p>
```


```
<p>
This image appears exactly where it is placed in the code.</
p>
```


```
<p>This image appears exactly where it is placed in the
code.
```


```
</p>
```

```
</body>
</html>
```



This image appears  exactly where it is placed in the code.

 This image appears exactly where it is placed in the code.

This image appears exactly where it is placed in the code. 

Floating Images

In the next example, you learn how to let an image float to the left or right of a paragraph. The results appear in figure 10.6.

Try it yourself >>

```
<html>
```

```
<body>
```

```
<p>
```

```

```

A paragraph with an image. The align attribute of the image is set to "left". The image will float to the left of this text.

```
</p>
```

```
<p>
```

```

```

A paragraph with an image. The align attribute of the image is set to "right". The image will float to the right of this text.

```
</p>
```

```
</body>
```

```
</html>
```


Floating Images

In the next example, you learn how to let an image float to the left or right of a paragraph. The results appear in figure 10.6.

Try it yourself >>

```
<html>
<body>

<p>

```

A paragraph with an image. The align attribute of the image is set to "left". The image will float to the left of this text.

```
</p>

<p>

```

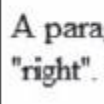
A paragraph with an image. The align attribute of the image is set to "right". The image will float to the right of this text.

```
</p>

</body>
</html>
```



A paragraph with an image. The align attribute of the image is set to "left". The image will float to the left of this text.



A paragraph with an image. The align attribute of the image is set to "right". The image will float to the right of this text.



Adjusting Image Sizes

The following example, shown in Figure 10.7, demonstrates how to display images in different sizes on the page.

The width and height attributes allow the page to render properly and more efficiently before the image is downloaded. Without them, the page will render once, then re-render when each image is loaded.

The image will be scaled to fit the stated height and width. Sometimes this can have a desired effect, other times it's disastrous.



Try it yourself >>



```
<html>
```

```
<body>
```

```
<p>
```

```

```

```
</p>
```

```
<p>
```

```

```

```
</p>
```

```
<p>
```

```

```

```
</p>
```

```
<p>You can make an image smaller or larger by changing the  
values of the height and width attributes.</p>
```

```
</body>
```

```
</html>
```



You can make an image smaller or larger by changing the values of the "height" and "width" attributes.

alt Attribute

The alt attribute is used to define an alternate text for an image. The alt attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image.

The value of the alt attribute is an author-defined text:

```

```

It is a good practice to include alternate text for every image on a page to improve the display and usefulness of your document for people who have text-only browsers.

The following example shows what happens when the image file is not available. The results are in Figure 10.8.

Try it yourself >>

```
<html>
```

```
<body>
```

```
<p>
```

An image:

```

```

```
</p>
```

```
</body>
```

```
</html>
```

An image:

 "Site_Under_Construction"



alt Attribute

The alt attribute is used to define an alternate text for an image. The alt attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image.

The value of the alt attribute is an author-defined text:

```

```

It is a good practice to include alternate text for every image on a page to improve the display and usefulness of your document for people who have text-only browsers.

The following example shows what happens when the image file is not available. The results are in Figure 10.8.

Try it yourself >>

```
<html>
```

```
<body>
```

```
<p>
```

An image:

```

```

```
</p>
```

```
</body>
```

```
</html>
```

An image:

 "Site_Under_Construction"



Creating an Image Map

The following example demonstrates how to create an image map with clickable regions. Each of the regions is a hyperlink. The results of this example are shown in Figure 10.9.

Try it yourself >>

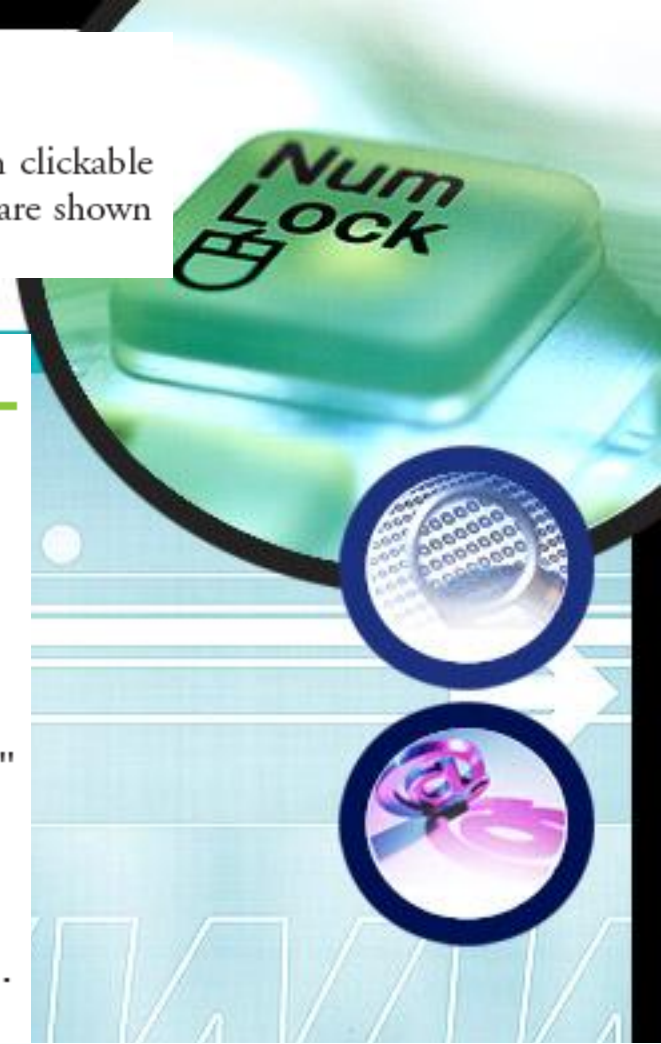
```
<html>
<body>

<p>Click on the sun or on one of the planets to watch it
  closer:</p>

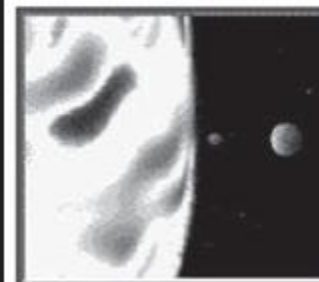


<map name="planetmap">
  <area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.
    htm" />
  <area shape="circle" coords="90,58,3" alt="Mercury"
    href="mercur.htm" />
  <area shape="circle" coords="124,58,8" alt="Venus"
    href="venus.htm" />
</map>

</body>
</html>
```



Click on the sun or on one of the planets to watch it closer:



Creating an Image Map

The following example demonstrates how to create an image map with clickable regions. Each of the regions is a hyperlink. The results of this example are shown in Figure 10.9.

Try it yourself >>

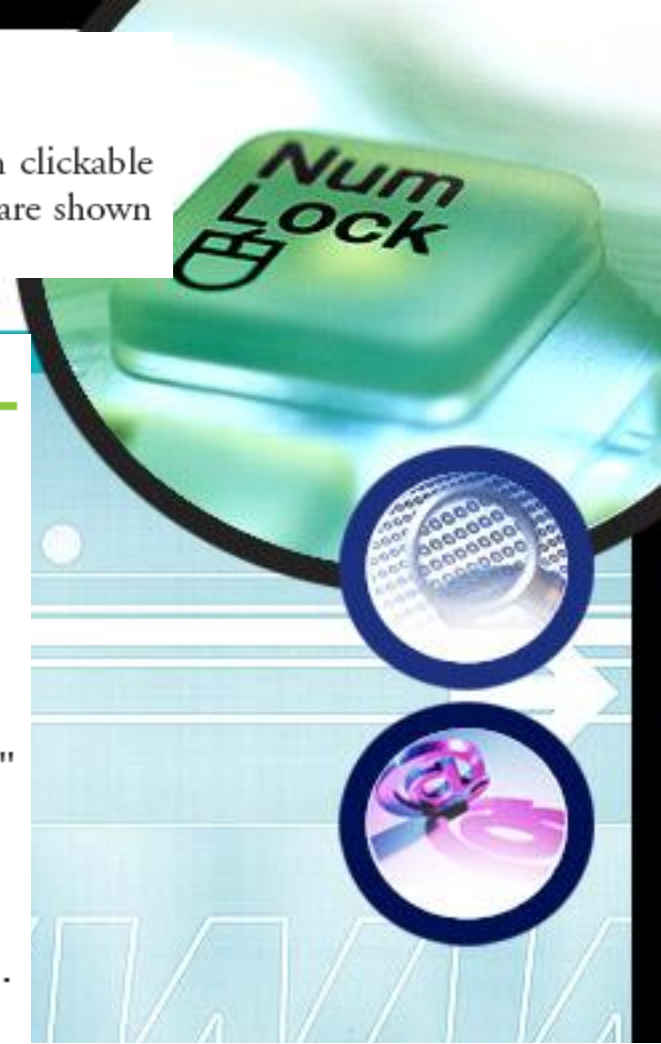
```
<html>
<body>

<p>Click on the sun or on one of the planets to watch it
  closer:</p>

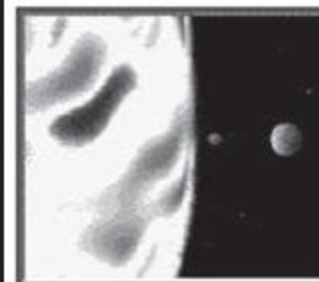


<map name="planetmap">
  <area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.
    htm" />
  <area shape="circle" coords="90,58,3" alt="Mercury"
    href="mercur.htm" />
  <area shape="circle" coords="124,58,8" alt="Venus"
    href="venus.htm" />
</map>

</body>
</html>
```



Click on the sun or on one of the planets to watch it closer:



HTML TABLES

In This Chapter

- ☐ Creating HTML Tables
- ☐ Table Borders
- ☐ Table with No Border
- ☐ Headings in a Table
- ☐ Table with a Caption
- ☐ Cells Spanning Multiple Columns
- ☐ Tags Inside a Table
- ☐ Cell Padding
- ☐ Cell Spacing
- ☐ Table Background Colors and Images
- ☐ Cell Background Colors and Images
- ☐ frame Attribute
- ☐ Using frame and border to Control Table Borders



HTML TABLES

Creating HTML Tables

Tables are an excellent way to organize and display information on a page. Tables are defined using the `<table>` tag.

A table is divided into rows with the `<tr>` tag, and each row is divided into data cells using the `<td>` tag. The letters `td` stand for “table data,” which is the content of a data cell. A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables, and so on. A simple HTML table appears in Figure 11.1.

HTML Tables

Apples	44%
Bananas	23%
Oranges	13%
Other	10%

A basic table includes the following tags:

- ▶▶ Each table starts with a `table` tag.
- ▶▶ Each table row starts with a `tr` tag.
- ▶▶ Each table data (cell) starts with a `td` tag.



CHAPTER 11

HTML TABLES

Following is an example of code for a table with one row and one column.

Try it yourself >>

```
<html>
<body>

<h4>One column:</h4>
<table border="1">
  <tr>
    <td>100</td>
  </tr>
</table>

</html>
</body>
```

The following code creates a table with one row and three columns.

Try it yourself >>

```
<html>
<body>

<table border="1">
  <tr>
    <td>100</td>
    <td>200</td>
    <td>300</td>
  </tr>
</table>
</html>
</body>
```



CHAPTER 11

HTML TABLES

Following is an example of code for a table with one row and one column.

Try it yourself >>

```
<html>
<body>

<h4>One column:</h4>
<table border="1">
  <tr>
    <td>100</td>
  </tr>
</table>

</html>
</body>
```

The following code creates a table with one row and three columns.

Try it yourself >>

```
<html>
<body>

<table border="1">
  <tr>
    <td>100</td>
    <td>200</td>
    <td>300</td>
  </tr>
</table>
</html>
</body>
```



CHAPTER 11

HTML TABLES



The following code creates a table with two rows and three columns.

Try it yourself >>

```
<html>
<body>

<table border="1">
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>

</body>
</html>
```

The results of these three example tables appear in Figure 11.2.

One column

100

The following code creates a table with one row and three columns.

100	200	300
-----	-----	-----

The following code creates a table with two rows and three columns.

100	200	300
400	500	600

Figure 11.2

Table Borders

The `border` attribute controls the appearance of the table's borders or lines. The default border is 0, so if you do not specify a `border` attribute, the table is displayed without any borders. Sometimes this is useful, but most of the time, you want the borders to be visible. The following example demonstrates the use of different table borders. The results of this example are shown in Figure 11.3.

Try it yourself >>

```
<html>
<body>

<h4>With a normal border:</h4>
<table border="1">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>With a thick border:</h4>
<table border="8">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>With a very thick border:</h4>
<table border="15">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

</body>
</html>
```

With a normal border:

First	Row
Second	Row

With a thick border:

First	Row
Second	Row

With a very thick border:

First	Row
Second	Row



CHAPTER 11

HTML TABLES

Table with No Border

If you don't provide a border attribute, the default is none. The following example shows two ways to create a table with no borders. Figure 11.4 displays the table as it appears in the browser. Figure 11.4 displays the table as it appears in the browser.

Try it yourself >>

```
<html>
<body>

<h4>This table has no borders:</h4>
<table>
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>

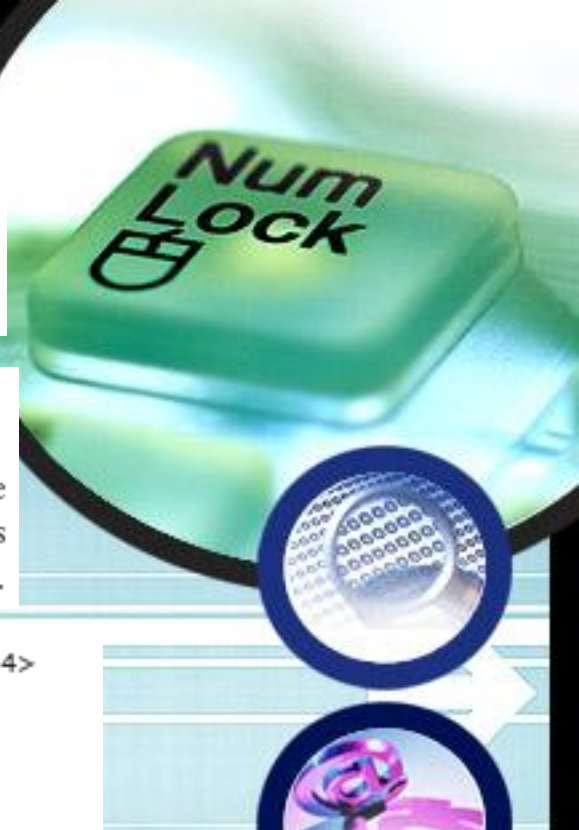
<h4>This table also has no borders:</h4>
<table border="0">
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>
</body>
</html>
```

This table has no borders:

100 200 300
400 500 600

This table also has no borders:

100 200 300
400 500 600



CHAPTER 11

HTML TABLES

Table with No Border

If you don't provide a border attribute, the default is none. The following example shows two ways to create a table with no borders. Figure 11.4 displays the table as it appears in the browser. Figure 11.4 displays the table as it appears in the browser.

Try it yourself >>

```
<html>
<body>

<h4>This table has no borders:</h4>
<table>
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>

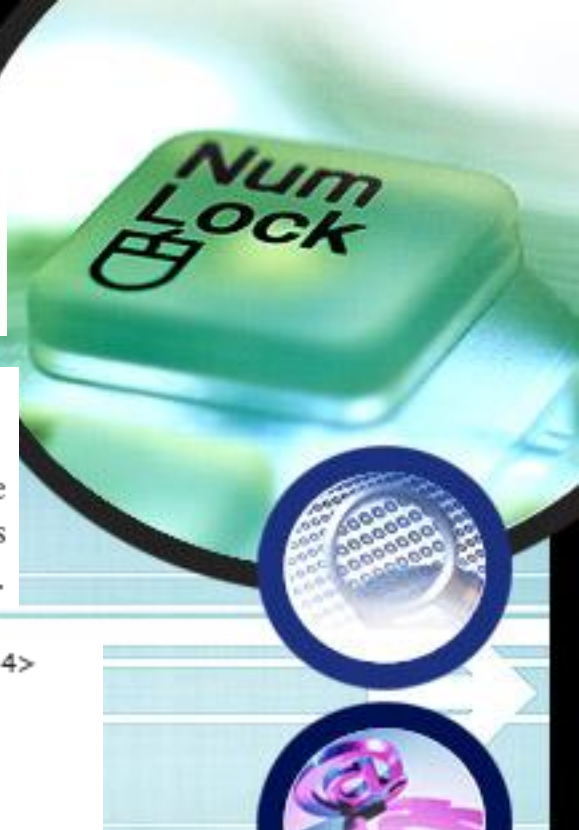
<h4>This table also has no borders:</h4>
<table border="0">
<tr>
  <td>100</td>
  <td>200</td>
  <td>300</td>
</tr>
<tr>
  <td>400</td>
  <td>500</td>
  <td>600</td>
</tr>
</table>
</body>
</html>
```

This table has no borders:

100 200 300
400 500 600

This table also has no borders:

100 200 300
400 500 600



Headings in a Table

Table headings are defined with the `<th>` tag. Figure 11.5 shows the table as it appears in the browser.

Try it yourself >>

```
<html>
<body>

    <table border="1">
    <tr>
    <th>Heading</th>
    <th>Another Heading</th>
    </tr>
    <tr>
    <td>row 1, cell 1</td>
    <td>row 1, cell 2</td>
    </tr>
    <tr>
    <th>Telephone:</th>
    <td>555 777 1854</td>
    </tr>
    <tr>
    <th>Telephone:</th>
    <td>555 777 1855</td>
    </tr>
    </table>
</body>
</html>
```

(continued)

Heading	Another Heading
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

Vertical headers:

First Name:	Bill Gates
Telephone:	555 777 1854
Telephone:	555 777 1855



HTML TABLES

Empty Cells in a Table

Table cells with no content do not display very well in most browsers. Notice that the borders around the empty table cell are missing (except when using Mozilla Firefox). Figure 11.6 shows the table as it appears in the browser.

Try it yourself >>

row 1, cell 1	row 1, cell 2
row 2, cell 1	

To avoid this, add a nonbreaking space (` `) to empty data cells to ensure the borders are visible, as shown in Figure 11.7.

Try it yourself >>

```
<table border="1">
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>&nbsp;</td>
</tr>
</table>
```

row 1, cell 1	row 1, cell 2
row 2, cell 1	



Table with a Caption

The following example demonstrates how to create a table with a caption, as shown in Figure 11.8.

Try it yourself >>

This table has a caption, and a thick border:

My Caption

100	200	300
400	500	600

```
<html>
```

```
<body>
```

```
<h4>This table has a caption, and a thick border:</h4>
```

```
<table border="6">
```

```
<caption>My Caption</caption>
```

```
<tr>
```

```
<td>100</td>
```

```
<td>200</td>
```

```
<td>300</td>
```

```
</tr>
```

```
<tr>
```

```
<td>400</td>
```

```
<td>500</td>
```

```
<td>600</td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

```
</html>
```

HTML TABLES

Cells Spanning Multiple Columns

In this example, you learn how to define table cells that span more than one row or one column, as shown in Figure 11.9.

Try it yourself >>

```
<html>
<body>

<h4>Cell that spans two columns:</h4>
<table border="1">
<tr>
  <th>Name</th>
  <th colspan="2">Telephone</th>
</tr>
<tr>
  <td>Bill Gates</td>
  <td>555 77 854</td>
  <td>555 77 855</td>
</tr>
</table>

<h4>Cell that spans two rows:</h4>
<table border="1">
<tr>
  <th>First Name:</th>
  <td>Bill Gates</td>
</tr>
<tr>
  <td>555 77 854</td>
  <td>555 77 855</td>
</tr>
</table>

</body>
</html>
```

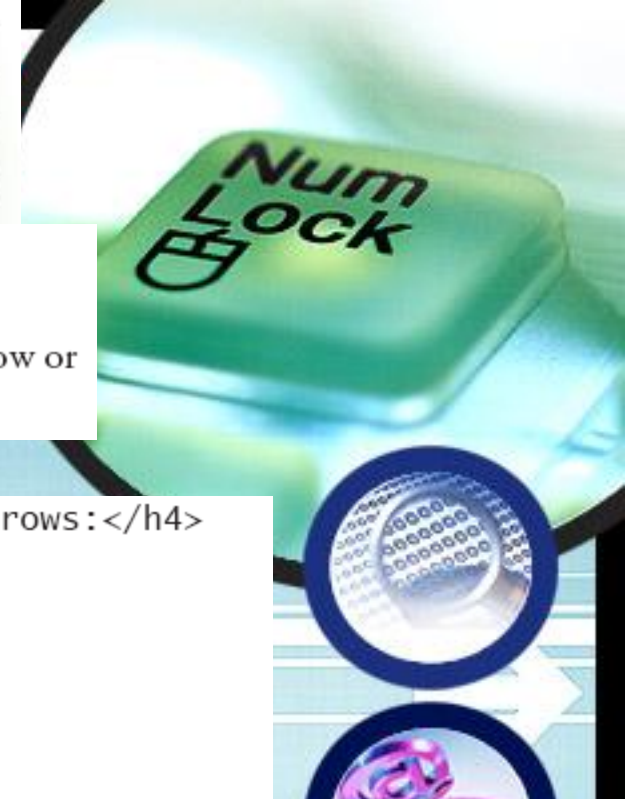
(continued)

Cell that spans two columns:

Name	Telephone	
Bill Gates	555 77 854	555 77 855

Cell that spans two rows:

First Name:	Bill Gates
Telephone:	555 77 854
	555 77 855



CHAPTER 11

HTML TABLES



Tags Inside a Table

This example demonstrates how to display elements inside other elements. The results appear in Figure 11.10.

Try it yourself >>

```
<html>
<body>

<table border="1">
<tr>
  <td>
    <p>This is a paragraph</p>
    <p>This is another paragraph</p>
  </td>
  <td>This cell contains a table:
```

```
<table border="1">
<tr>
  <td>A</td>
  <td>B</td>
</tr>
<tr>
  <td>C</td>
  <td>D</td>
</tr>
</table>
</td>
</tr>
```

```
<tr>
  <td>This cell contains a list
    <ul>
      <li>apples</li>
      <li>bananas</li>
      <li>pineapples</li>
    </ul>
  </td>
  <td>HELLO</td>
</tr>
</table>

</body>
</html>
```

CHAPTER 11

HTML TABLES



Tags Inside a Table

This example demonstrates how to display elements inside other elements. The results appear in Figure 11.10.

Try it yourself >>

```
<html>
<body>

<table border="1">
<tr>
  <td>
    <p>This is a paragraph</p>
    <p>This is another paragraph</p>
  </td>
  <td>This cell contains a table:
```

```

    <table border="1">
      <tr>
        <td>A</td>
        <td>B</td>
      </tr>
      <tr>
        <td>C</td>
        <td>D</td>
      </tr>
    </table>
  </td>
</tr>

      <tr>
        <td>This cell contains a list
        <ul>
          <li>apples</li>
          <li>bananas</li>
          <li>pineapples</li>
        </ul>
      </td>
      <td>HELLO</td>
    </tr>
  </table>

</body>
</html>
```

This is a paragraph	This cell contains a table:				
This is another paragraph	<table><tr><td>A</td><td>B</td></tr><tr><td>C</td><td>D</td></tr></table>	A	B	C	D
A	B				
C	D				
This cell contains a list <ul style="list-style-type: none">• apples• bananas• pineapples	HELLO				

CHAPTER 11

HTML TABLES

Cell Padding

This example demonstrates how to use cell padding to create more white space between the cell content and its borders. The results appear in Figure 11.11.

Try it yourself >>

```
<html>
<body>

<h4>Without cellpadding:</h4>
<table border="1">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>With cellpadding:</h4>
<table border="1" cellpadding="10">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>
</body>
</html>
```

Without cellpadding:

First	Row
Second	Row

With cellpadding:

First	Row
Second	Row

CHAPTER 11

HTML TABLES

Cell Spacing

This example demonstrates how to use cell spacing to increase the distance between the cells, as shown in Figure 11.12

Try it yourself >>

```
<html>
<body>

<h4>without cellspacing:</h4>
<table border="1">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>with cellspacing:</h4>
<table border="1" cellspacing="10">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>
</body>
</html>
```

Without cellspacing:

First	Row
Second	Row

With cellspacing:

First	Row
Second	Row



CHAPTER 11

HTML TABLES

Table Background Colors and Images

This example demonstrates how to add a background to a table, as shown in Figure 11.13.

Try it yourself >>

```
<html>
<body>

<h4>A background color:</h4>
<table border="1" bgcolor="gray">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>A background image:</h4>
<table border="1" background="bgdesert.jpg">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

</body>
</html>
```

A background color:

First	Row
Second	Row

A background image:

First	Row
Second	Row



HTML TABLES

Cell Background Colors and Images

The following example demonstrates how to add a background to one or more table cells. The result is shown in Figure 11.14.

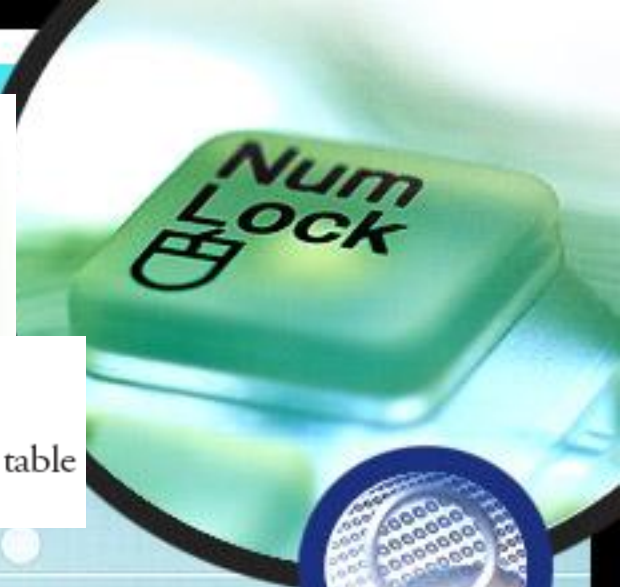
Try it yourself >>

Cell backgrounds:

```
<html>
<body>

<h4>Cell backgrounds:</h4>
<table border="1">
<tr>
  <td bgcolor="gray">First</td>
  <td>Row</td>
</tr>
<tr>
  <td background="bgdesert.jpg">
    Second</td>
  <td>Row</td>
</tr>
</table>
</body>
</html>
```

First	Row
Second	Row



Aligning Cell Content

This sample code demonstrates how to use the `align` attribute to align the content of cells to create a neatly organized table. The results of the code are shown in Figure 11.15.

Money spent on....	January	February
Clothes	\$241.10	\$50.20
Make-Up	\$30.00	\$44.45
Food	\$730.40	\$650.00
Sum	\$1001.50	\$744.65

Try it yourself >>

```
<html>
<body>

<table width="400" border="1">
  <tr>
    <th align="left">Money spent on....</th>
    <th align="right">January</th>
    <th align="right">February</th>
  </tr>
  <tr>
    <td align="left">Clothes</td>
    <td align="right">$241.10</td>
    <td align="right">$50.20</td>
  </tr>
  <tr>
    <td align="left">Make-Up</td>
    <td align="right">$30.00</td>
    <td align="right">$44.45</td>
  </tr>
  <tr>
    <td align="left">Food</td>
    <td align="right">$730.40</td>
    <td align="right">$650.00</td>
  </tr>
  <tr>
    <th align="left">Sum</th>
    <th align="right">$1001.50</th>
    <th align="right">$744.65</th>
  </tr>
</table>

</body>
</html>
```

frame Attribute

This example demonstrates how to use the frame attribute to control the border around the table. The results of these examples appear in Figures 11.16 through 11.18. If you see no frames around the tables in your browser, either your browser is too old or it does not support the attribute.

With frame="border":

First	Row
Second	Row

With frame="box":

First	Row
Second	Row

With frame="void":

First	Row
Second	Row

```

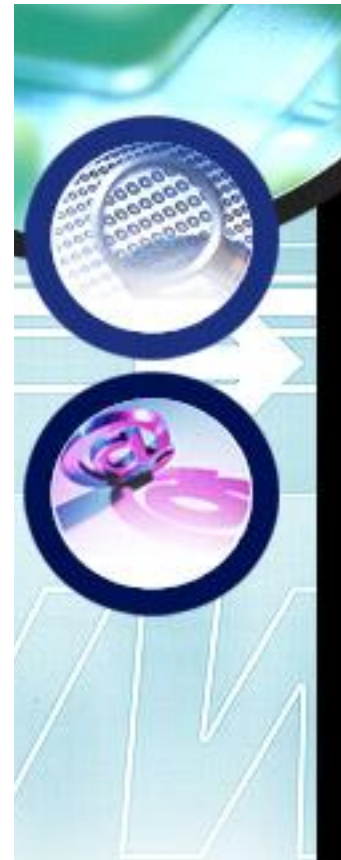
<html>
<body>

<h4>with frame="border":</h4>
<table frame="border">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>with frame="box":</h4>
<table frame="box">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>with frame="void":</h4>
<table frame="void">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>

```



CHAPTER 11

HTML TABLES

Try it yourself >>

```
<html>
<body>
<h4>with frame="above":</h4>
<table frame="above">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>with frame="below":</h4>
<table frame="below">
<tr>
```

(continued)

```
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>With frame="hsides":</h4>
<table frame="hsides">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>
</body>
</html>
```

With frame="above":

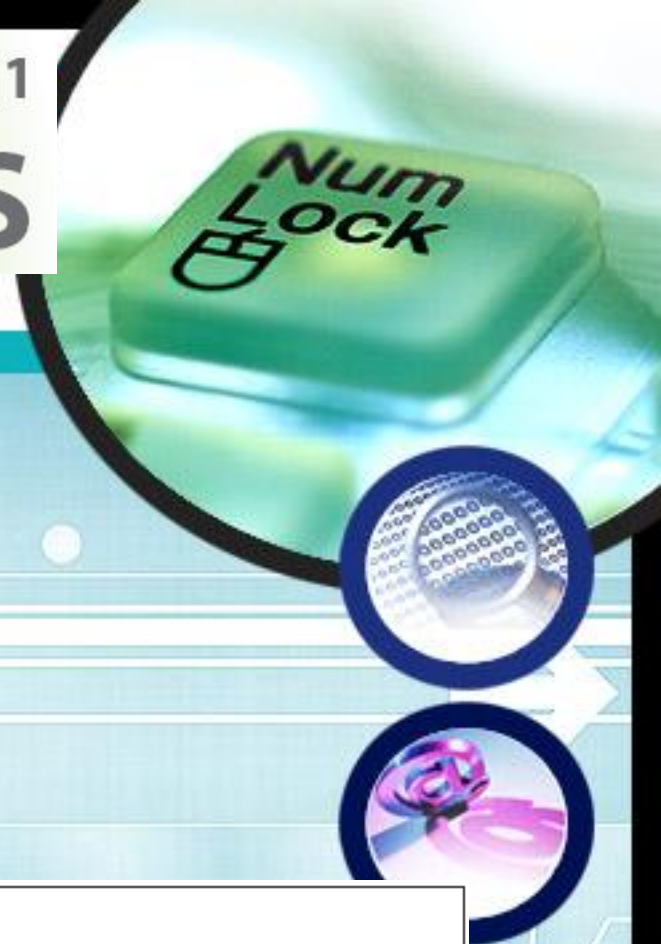
First	Row
Second	Row

With frame="below":

First	Row
Second	Row

With frame="hsides":

First	Row
Second	Row



CHAPTER 11

HTML TABLES

Try it yourself >>

```
<html>
<body>
<h4>With frame="vsides":</h4>
<table frame="vsides">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>

<h4>With frame="lhs":</h4>
<table frame="lhs">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>
```

```
<h4>With frame="rhs":</h4>
<table frame="rhs">
<tr>
  <td>First</td>
  <td>Row</td>
</tr>
<tr>
  <td>Second</td>
  <td>Row</td>
</tr>
</table>
(continued)

</body>
</html>
```

With frame="vsides":

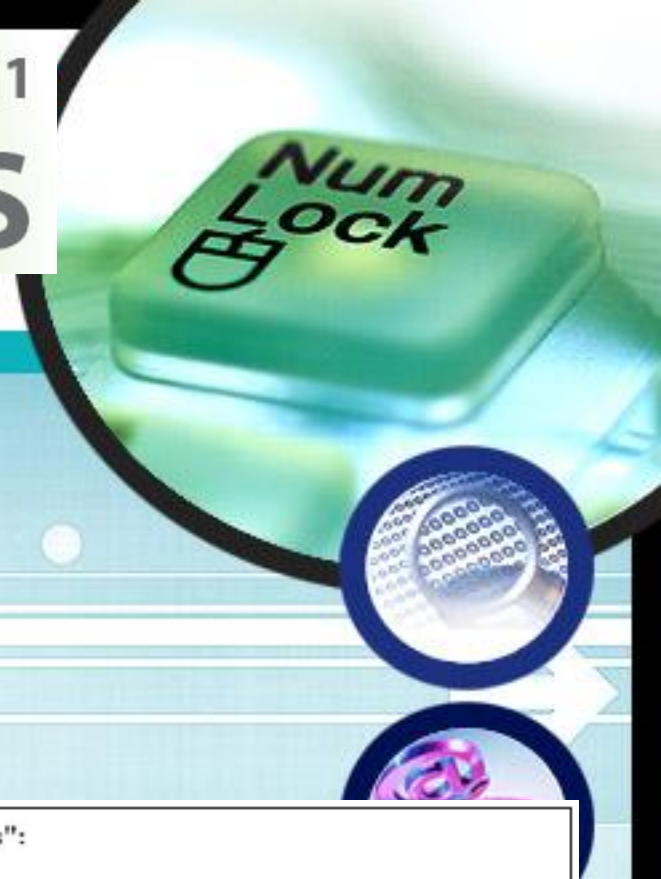
First	Row
Second Row	

With frame="lhs":

First	Row
Second Row	

With frame="rhs":

First	Row
Second Row	



HTML TABLES

Using frame and border to Control Table Borders

You can use the `frame` and `border` attributes to control the borders around the table. If you see no frames around the tables in these examples, your browser does not support the `frame` attribute.

Try it yourself >>



Table Tags

TAG	DESCRIPTION
<code><table></code>	Defines a table
<code><th></code>	Defines a table header
<code><tr></code>	Defines a table row
<code><td></code>	Defines a table cell
<code><caption></code>	Defines a table caption
<code><colgroup></code>	Defines groups of table columns
<code><col></code>	Defines the attribute values for one or more columns in a table
<code><thead></code>	Defines a table head
<code><tbody></code>	Defines a table body
<code><tfoot></code>	Defines a table footer



HTML LISTS

In This Chapter

- ☐ Unordered Lists
- ☐ Ordered Lists
- ☐ Definition Lists
- ☐ Nested Lists

Unordered Lists

HTML supports ordered, unordered, and definition lists. You can also nest one list within another.

An unordered list is a list of items. The list items are marked with bullets (typically small black circles), as shown in Figure 12.1.

« Tutorials



HTML & CSS REFERENCES

- [HTML 4 Tag Reference](#)
- [HTML 4 Event Reference](#)
- [HTML 5 Tag Reference](#)
- [HTML Color Reference](#)
- [HTML Color Picker](#)
- [HTML Color Mixer](#)
- [XHTML Tag Reference](#)
- [CSS Reference](#)

HTML LISTS

An unordered list starts with the `` tag. Each list item starts with the `` tag. Figure 12.2 displays how it looks in a browser.

Try it yourself >>

```
<html>
<body>

<h4>An Unordered List:</h4>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

An Unordered List:

- Coffee
- Tea
- Milk



HTML LISTS

Inside a list item, you can put paragraphs, line breaks, images, links, other lists, and so on.

You can display different kinds of bullets in an unordered list by using the type attribute. Figure 12.3 shows lists marked with discs, circles, and squares.

Try it yourself >>

(continued)

```
<html>
<body>

<h4>Disc bullets list:</h4>
<ul type="disc">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ul>
```

```
<h4>Circle bullets list:</h4>
<ul type="circle">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ul>
```

```
<h4>Square bullets list:</h4>
<ul type="square">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ul>
```

```
</body>
</html>
```

Disc bullets list:

- Apples
- Bananas
- Lemons

Circle bullets list:

- Apples
- Bananas
- Lemons

Square bullets list:

- Apples
- Bananas
- Lemons



HTML LISTS

Ordered Lists

An ordered list is also a list of items; the list items are numbered sequentially rather than bulleted.

An ordered list starts with the `` tag. Each list item starts with the `` tag. Figure 12.4 shows how the ordered list appears in the browser.

Try it yourself >>

```
<html>
<body>

<h4>An Ordered List:</h4>
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

An Ordered List:

1. Coffee
2. Tea
3. Milk



HTML LISTS

Different Types of Ordering

You can display different kinds of ordered lists by using the type attribute. Figure 12.5 shows lists marked with uppercase and lowercase letters; Figure 12.6 shows lists with uppercase and lowercase Roman numerals.

Try it yourself >>

```
<html>
<body>
(continued)
<h4>Letters list:</h4>
<ol type="A">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ol>

<h4>Lowercase letters list:</h4>
<ol type="a">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ol>

</body>
</html>
```

Letters list:

- A. Apples
- B. Bananas
- C. Lemons

Lowercase letters list:

- a. Apples
- b. Bananas
- c. Lemons



HTML LISTS

Try it yourself >>

```
<html>
<body>

<h4>Roman numbers list:</h4>
<ol type="I">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ol>

<h4>Lowercase Roman numbers list:</h4>
<ol type="i">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
</ol>

</body>
</html>
```

Roman numbers list:

- I. Apples
- II. Bananas
- III. Lemons

Lowercase Roman numbers list:

- i. Apples
- ii. Bananas
- iii. Lemons



HTML LISTS

Definition Lists

A definition list is not a list of single items. It is a list of items (terms), together with a description of each item (term).

A definition list starts with a `<dl>` tag (definition list).

Each term starts with a `<dt>` tag (definition term).

Each description starts with a `<dd>` tag (definition description).

Figure 12.7 shows how the definition list in the following example appears in a browser.

Try it yourself >>

```
<html>
<body>

<h4>A Definition List:</h4>
<dl>
  <dt>Coffee</dt>
  <dd>Black hot drink</dd>
  <dt>Milk</dt>
  <dd>White cold drink</dd>
</dl>

</body>
</html>
```

A Definition List:

Coffee

Black hot drink

Milk

White cold drink



HTML LISTS

Definition Lists

A definition list is not a list of single items. It is a list of items (terms), together with a description of each item (term).

A definition list starts with a `<dl>` tag (definition list).

Each term starts with a `<dt>` tag (definition term).

Each description starts with a `<dd>` tag (definition description).

Figure 12.7 shows how the definition list in the following example appears in a browser.

Try it yourself >>

```
<html>
<body>

<h4>A Definition List:</h4>
<dl>
  <dt>Coffee</dt>
  <dd>Black hot drink</dd>
  <dt>Milk</dt>
  <dd>White cold drink</dd>
</dl>

</body>
</html>
```

A Definition List:

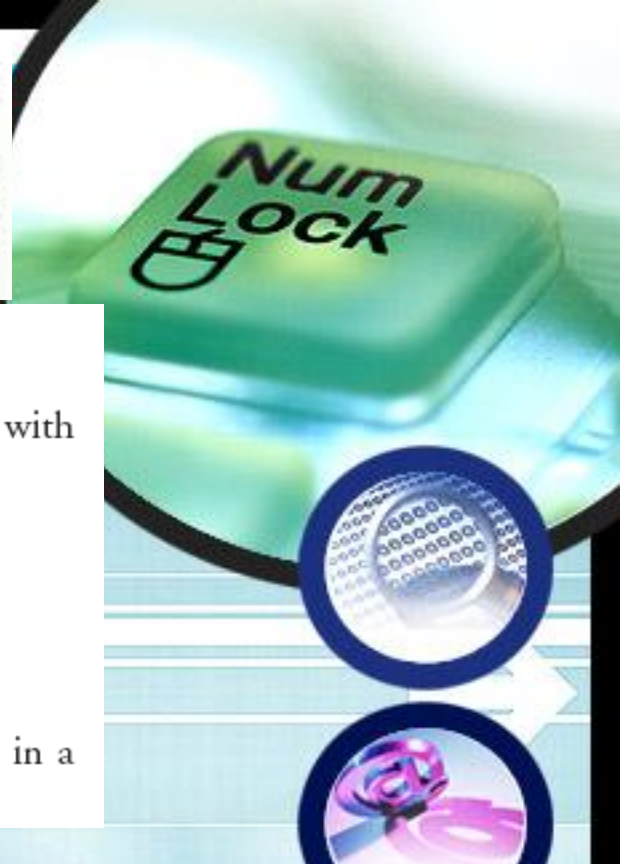
Coffee

Black hot drink

Milk

White cold drink

Inside the `<dd>` tag you can put paragraphs, line breaks, images, links, other lists, and so on.



HTML LISTS

Nested Lists

A nested list is a list within another list. Usually the second list is indented another level and the item markers will appear differently than the original list, as shown in Figure 12.8.

Try it yourself >>

```
<html>
<body>

<h4>A nested List:</h4>
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
      <li>Black tea</li>
      <li>Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>
```

```
</body>
```

```
</html>
```

A nested List:

- Coffee
- Tea
 - Black tea
 - Green tea
- Milk

Nested lists can be several levels deep, as shown in Figure 12.9.

Nested Lists

A nested list is a list within another list. Usually the second list is indented another level and the item markers will appear differently than the original list, as shown in Figure 12.8.

Try it yourself >>

```

<html>
<body>
  <h4>A nested List:</h4>
  <ul>
    <li>Coffee</li>
    <li>Tea
      <ul>
        <li>Black tea</li>
        <li>Green tea
          <ul>
            <li>China</li>
            <li>Africa</li>
          </ul>
        </li>
      </ul>
    </li>
  </ul>
  </body>
</html>
  
```

(continued)

```
</li>
```

```
<li>Milk</li>
```

```
</ul>
```

A nested List:

- Coffee
- Tea
 - Black tea
 - Green tea
 - China
 - Africa
- Milk



Nested Lists

A nested list is a list within another list. Usually the second list is indented another level and the item markers will appear differently than the original list, as shown in Figure 12.8.

Try it yourself >>

```

<html>
<body>
  <h4>A nested List:</h4>
  <ul>
    <li>Coffee</li>
    <li>Tea
      <ul>
        <li>Black tea</li>
        <li>Green tea
          <ul>
            <li>China</li>
            <li>Africa</li>
          </ul>
        </li>
      </ul>
    </li>
  </ul>
  </body>
</html>
  
```

(continued)

```
</li>
```

```
<li>Milk</li>
```

```
</ul>
```

A nested List:

- Coffee
- Tea
 - Black tea
 - Green tea
 - China
 - Africa
- Milk



HTML LISTS



List Tags

TAG	DESCRIPTION
	Defines an ordered list
	Defines an unordered list
	Defines a list item
<dl>	Defines a definition list
<dt>	Defines a term (an item) in a definition list
<dd>	Defines a description of a term in a definition list
<dir>	Deprecated. Use instead
<menu>	Deprecated. Use instead



HTML LISTS

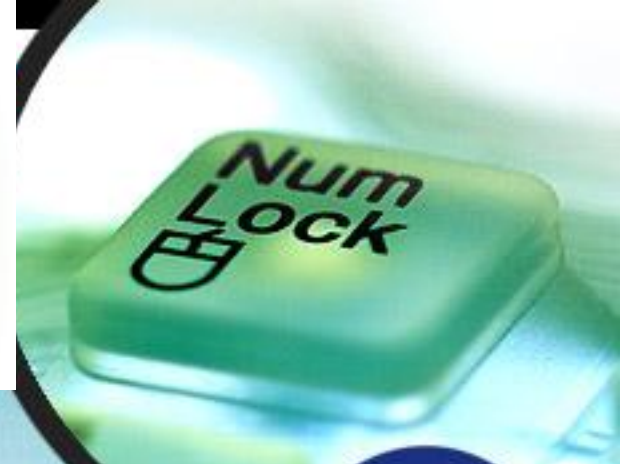


List Tags

TAG	DESCRIPTION
	Defines an ordered list
	Defines an unordered list
	Defines a list item
<dl>	Defines a definition list
<dt>	Defines a term (an item) in a definition list
<dd>	Defines a description of a term in a definition list
<dir>	Deprecated. Use instead
<menu>	Deprecated. Use instead



HTML FORMS & INPUT



In This Chapter

- ❑ Forms
- ❑ input Tag and Attributes
- ❑ action Attribute
- ❑ Form Examples

Forms

HTML forms are used to collect different kinds of user input. A form is an area that can contain form elements.

Form elements are elements that allow the user to enter information in a form (like text fields, text area fields, drop-down menus, radio buttons, check boxes, and so on).

A simple form example appears in Figure 13.1.

A form is defined with the `<form>` tag:

```
<form>
```

```
.
```

```
input elements
```

```
.
```

```
</form>
```

This form sends an e-mail to w3schools.

Name:

Mail:

Comment:

HTML FORMS & INPUT

input Tag and Attributes

The most used form tag is the `<input>` tag. The type of input is specified with the type attribute. The following types are the most commonly used input types.

Text Fields

Text fields are used when you want the user to type letters, numbers, and so on in a form. The form appears as shown in Figure 13.2. Note that the form itself is not visible.

Try it yourself >>

```
<html>
<body>

<form action="">
First name:
<input type="text" name="firstname" />
<br />
Last name:
<input type="text" name="lastname" />
</form>

</body>
</html>
```

First name:

Last name:



CHAPTER 13

HTML FORMS & INPUT



Check Boxes

This example demonstrates how to create check boxes on an HTML page like the ones shown in Figure 13.3. A user can select or deselect a check box.

Try it yourself >>

```
<html>
<body>

<form action="">
I have a bike:
<input type="checkbox" name="vehicle" value="Bike">
<br />
I have a car:
<input type="checkbox" name="vehicle" value="Car">
<br />
I have an airplane:
<input type="checkbox" name="vehicle" value="Airplane">
</form>

</body>
</html>
```

I have a bike: ☐
I have a car: ☐
I have an airplane: ☐



HTML FORMS & INPUT

Radio Buttons

The example demonstrated in Figure 13.4 shows how to create radio buttons on an HTML form. When a user clicks a radio button, that button becomes selected, and all other buttons in the same group become deselected.

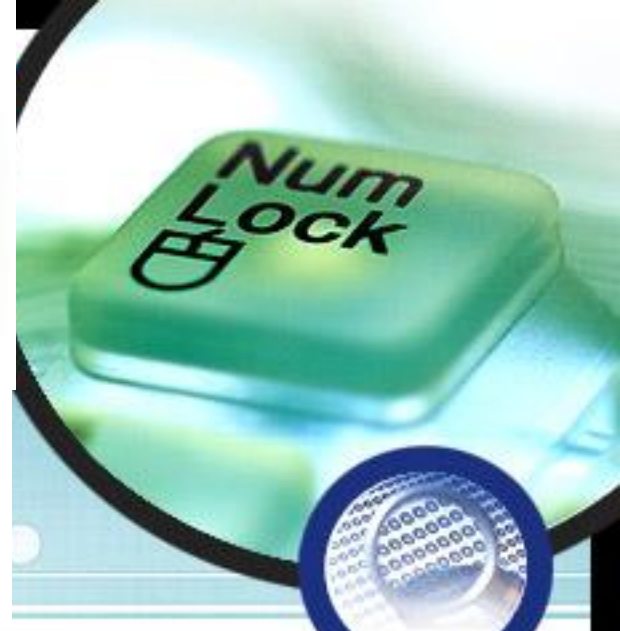
Try it yourself >>

Male: ☒
Female: ☐

```
<html>
<body>

<form action="">
Male:
<input type="radio" checked="checked"
name="Sex" value="male">
<br>
Female:
<input type="radio"
name="Sex" value="female">
</form>

</body>
</html>
```



HTML FORMS & INPUT

Drop-Down List

The next example shows how to create a simple drop-down list on an HTML page. A drop-down list is a selectable list.

Try it yourself >>

```
<html>
<body>

<form action="">
<select name="cars">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
<option value="fiat">Fiat</option>
<option value="audi">Audi</option>
</select>
</form>

</body>
</html>
```



HTML FORMS & INPUT

You can also display a simple drop-down list with a value preselected on the list, as shown in Figure 13.6.

Try it yourself >>

```
<html>
<body>

<form action="">
<select name="cars">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
<option value="fiat" selected="selected">Fiat</option>
<option value="audi">Audi</option>
</select>
</form>

</body>
</html>
```

Fiat ▼



HTML FORMS & INPUT

Text Area


Using a textarea (a multiline text input control) like the one in Figure 13.7, you can write an unlimited number of characters. A textarea can be in a form or elsewhere on a page.

Try it yourself >>

```
<html>
<body>

<textarea rows="10" cols="30"> The cat was playing in the
  garden. </textarea>

</body>
</html>
```



The cat was playing in the
garden.

HTML FORMS & INPUT

Text Area


Using a textarea (a multiline text input control) like the one in Figure 13.7, you can write an unlimited number of characters. A textarea can be in a form or elsewhere on a page.

Try it yourself >>

```
<html>
<body>

<textarea rows="10" cols="30"> The cat was playing in the
  garden. </textarea>

</body>
</html>
```



The cat was playing in the
garden.

HTML FORMS & INPUT

Buttons

Buttons are common items on a form. This example demonstrates how to create a button. You can define your own text on the face of the button. The results of this code appear in Figure 13.8.

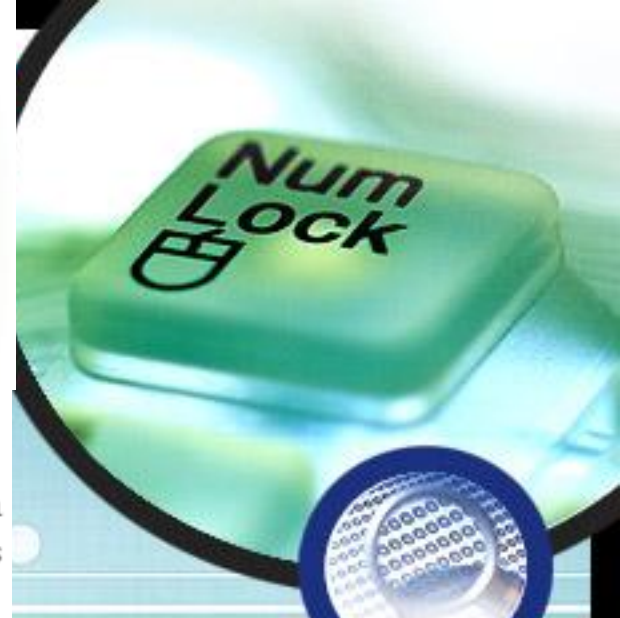
Try it yourself >>

```
<html>
<body>

<form action="">
<input type="button" value="Hello world!">
</form>
</body>
</html>
```

A screenshot of a web browser window. It features a single text input field with a light gray border. To the right of the input field is a button with a light gray background and a thin black border. The button contains the text "Hello world!" in a black, sans-serif font. The browser's address bar and other interface elements are not visible.

Hello world!



Fieldset

A fieldset is a grouping of data fields. This example demonstrates how to draw a border with a caption around your data, as shown in Figure 13.9.

Try it yourself >>

```
<html>
<body>

<fieldset>
<legend>
Health information:
</legend>
<form action="">
Height <input type="text" size="3">
Weight <input type="text" size="3">
</form>
</fieldset>

<p>
If there is no border around the input form, your browser is
too old.
</p>

</body>
</html>
```

Health information:

Height Weight

If there is no border around the input form, your browser is too old.



HTML FORMS & INPUT

action Attribute

When the user clicks the Submit button, the content of the form is sent to the server. The form's action attribute defines the name of the file to send the content to. The file defined in the action attribute usually does something with the received input.

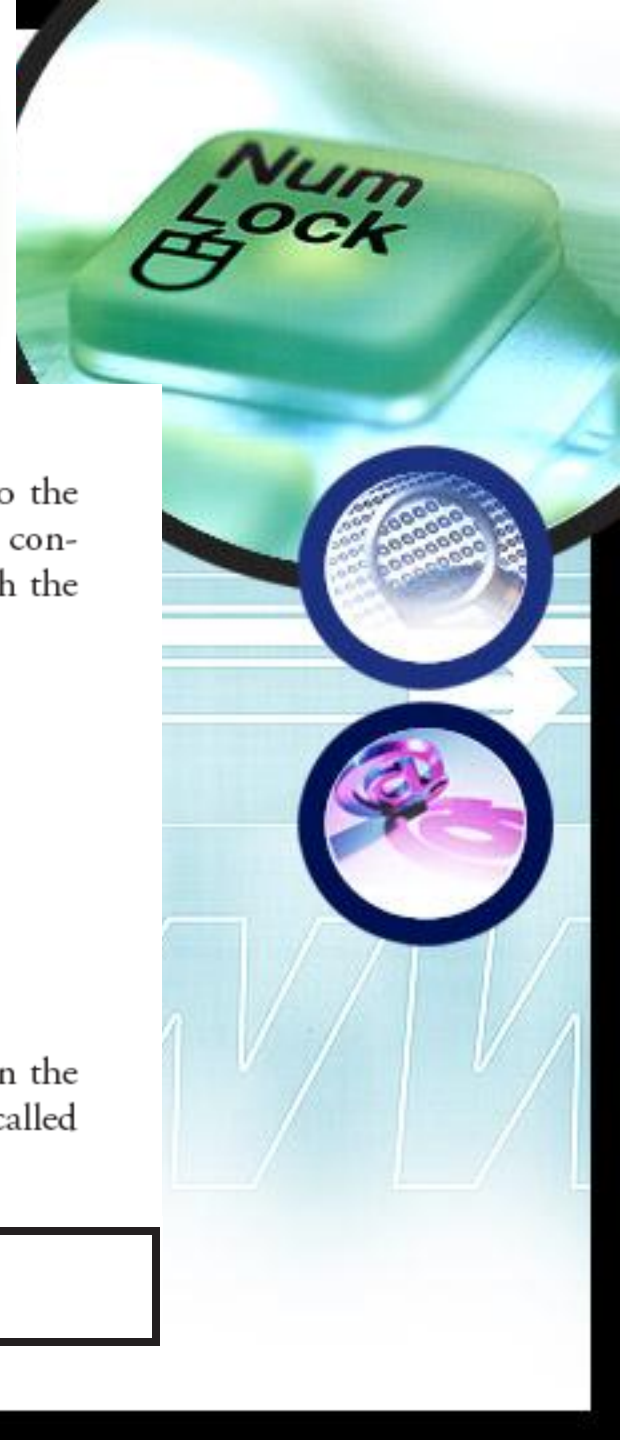
```
<form name="input" action="html_form_submit.asp"
      method="get">
```

Username:

```
<input type="text" name="user" />
<input type="submit" value="Submit" />
</form>
```

Figure 13.10 shows how it looks in a browser. If you type some characters in the text field and click the Submit button, the browser sends your input to a page called "html_form_submit.asp". The page will show you the received input.

Username:



CHAPTER 13

HTML FORMS & INPUT



Form Examples

This example demonstrates how to add a form to a page. The form contains two input fields and a Submit button. The resulting form appears in Figure 13.11.

Try it yourself >>

```
<html>
<body>

<form name="input" action="html_form_action.asp"
  method="get">

Type your first name:
<input type="text" name="FirstName" value="Mickey" size="20">
<br>Type your last name:
<input type="text" name="LastName" value="Mouse" size="20">
<br>
<input type="submit" value="Submit">
```

```
</form>
```

```
<p>
```

If you click the "Submit" button, you will send your input to a new page called html_form_action.asp.

```
</p>
```

```
</body>
```

```
</html>
```

Type your first name:

Type your last name:

If you click the "Submit" button, you will send your input to a new page called html_form_action.asp.

CHAPTER 13

HTML FORMS & INPUT



Form Examples

This example demonstrates how to add a form to a page. The form contains two input fields and a Submit button. The resulting form appears in Figure 13.11.

Try it yourself >>

```
<html>
<body>

<form name="input" action="html_form_action.asp"
  method="get">

Type your first name:
<input type="text" name="FirstName" value="Mickey" size="20">
<br>Type your last name:
<input type="text" name="LastName" value="Mouse" size="20">
<br>
<input type="submit" value="Submit">
```

```
</form>
```

```
<p>
```

If you click the "Submit" button, you will send your input to a new page called html_form_action.asp.

```
</p>
```

```
</body>
```

```
</html>
```

Type your first name:

Type your last name:

If you click the "Submit" button, you will send your input to a new page called html_form_action.asp.



THANK YOU