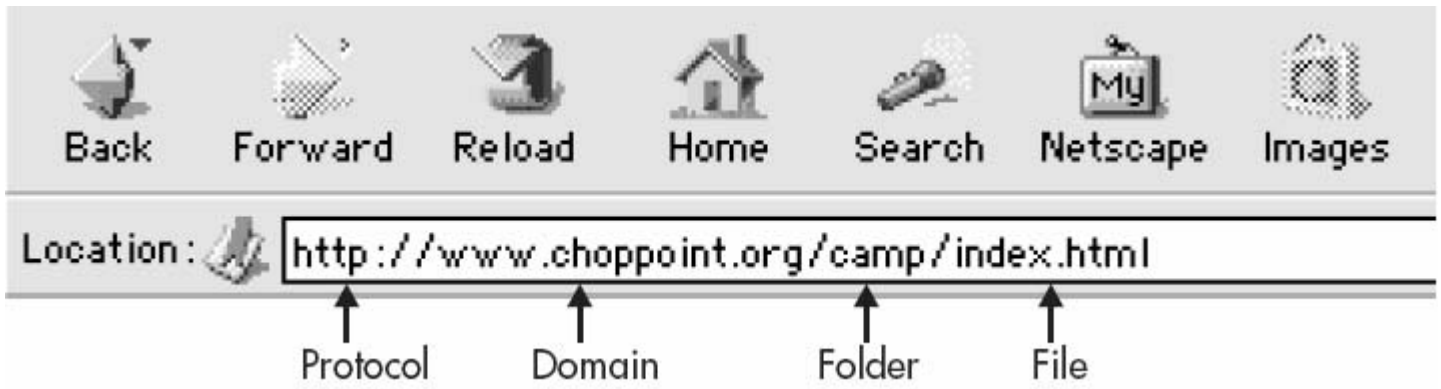
HTML

URL

- The stands for U*niform Resource Locator,*
- It is the web address for a website
- One part of a URL is the *domain name,* which helps to identify and locate computers on the internet. To avoid confusion, each domain name is unique. Behind that name there is a series of numbers, called an *IP address,* which gives the specific address.



Web server

- It is the combination of computer and the program installed on it.
- It interacts with the client through a web browser.
- It works on a client server model.
  - *Example:*
    - *Microsoft's Internet Information Services* (*IIS*),
    - *Microsoft's Personal Web Server* (*PWS*)
    - Open source *Apache Web Server*.

Default Web page

- There is a default web page that gets returned by the server if no explicit document path is specified (generally named as index.html)
- Can be accessed as
  - www.xyz.com

Web Browser

- A *web browser* is a piece of software that runs on personal computer and enables us to view web pages.
- Web browsers, often simply called “browsers,” interpret the HTML code and provide a visual layout displayed on the screen.
- Example
  - Microsoft Internet Explorer (also called IE).
  - Mozilla Firefox
  - Netscape

Planning for a website

- Identify your target audience
- Set goal for website
- Create website's structure
- Organize web content
- Develop website navigation

HyperText Markup Language (HTML)

- It is the markup language for web pages.
- HTML elements are the basic building-blocks of web pages
- The most powerful feature of HTML is its ability to link text and image to another document or section of a document
- These links are called hyperlinks.
- Browser by default highlights the hyperlinks with color and underline

HTML

- The purpose of a web browser is to read HTML documents and compose them into web pages.
- Most browser have source view (Ctrl + u) menu option which display the html code of the web page

Markup Language

- It is where we can embed special tags or formatting commands in the text
- Tags are used to describe how the text should be displayed
- HTML is a markup language as it uses special formatting codes (tags) to adjust fonts, create forms, display images etc.

WYSIWYG Editor

- It does not require HTML knowledge
- Simply drag and drop pieces of layout
- Eg.
  - Macromedia Dreamweaver
  - Adobe GoLive
  - Microsoft FrontPage

Create and View an HTML Document

1. Use an text editor to write the document.
2. Save the file as filename.html on a PC. This is called the Document Source.
3. Open Mozilla Firefox (or any browser) off-Line
4. Click on File, Open File and select the filename.html document that you just created.
5. Your HTML page should now appear just like any other Web page in Mozilla Firefox.

6. You may now switch back and forth between the Source and the HTML Document
   - switch to Notepad with the Document Source
   - make changes
   - save the document again
   - switch back to browser
   - click on RELOAD and view the new HTML Document

HTML Tags

- *HTML tag* is a command used to tell the browser how to display content on a page.
- Surrounded with angle brackets like this
  - <B> or <I>.
- Most tags come in pairs
  - exceptions:
, <li> tags …
- The first tag turns the action on, and the second turns it off.
- The second tag (off switch) starts with a forward slash.
  - For example ,<B> text </B>

Attributes

- Many tags have additional aspects that we can customize. These options are called *attributes* and are placed after the tag but before the final bracket.
  - For example, <P ALIGN=CENTER> centers the paragraph following it
- Each attribute has a *value,* which comes after an equal sign (=) and is placed within quotation marks.

Required Tags

- All HTML pages need to have the html, head, and body tags
  - Head
    - Contains information about the document like title
  - Body
    - Contains the actual matter of the document
    - Gets displayed within the browser window

Add Comments to an HTML File

- Sometimes we might not want our web site visitors to see personal comments we have added to our web pages. For this comment is used.
- <!-- This is a comment -->
- After the opening bracket, an exclamation mark and two hyphens (<!- -)signify the beginning of a comment.
- A space should appear after the opening comment code, as well as before the closing comment code.
- Two hyphens and closing bracket (-->) signify end comment
- Comments are not restricted in size but can cover many lines at a time.
- If we forget to close our comment tag, the rest of the page will not appear in browser.

Paragraph Breaks

- The p tag functions as a container for paragraphs. This means we use an opening p tag at the beginning of paragraph, and a closing p tag at the end.
  - Jack and Jill went up a hill
- It doesn't automatically indent paragraph. We could use the nonbreaking space character entity ( ) several times to indent paragraphs.
  -      Mary had a little lamb, its fleece was white as snow. Everywhere that Mary went, the lamb was sure to go.

Line Breaks

- The br tag is used to add a line break in HTML page.
- Typing the br tag in HTML is the same as pressing the ENTER key on keyboard in a word processor.
  -
    Jack and Jill went up a hill
    To catch a pail of water
    Jack fell down and broke his crown
    And Jill came tumbling after

Horizontal Rules and Borders

- We can separate sections of web page by using the hr tag.
- By default, this tag produces a thin, gray horizontal line called a *horizontal rule.*

Attribute	Possible Values	Description
`align`	left, center, right, justify (The default is "center".)	aligns the rule within the browser window.
`noshade`	noshade *Although no required value exists for this attribute, XHTML requires all attributes to have a value. To comply, simply repeat the attribute name as the value.	changes the look of the rule from 3-D to flat.
`size`	# of pixels (The default—also the smallest—is 2.)	changes the thickness or height of the rule.
`width`	# of pixels or % of screen (The default is "100 %".)	changes the horizontal length of the rule as it appears across the screen.

Fig: Attributes for the <hr>

Headings

- It is available in six levels of importance from <h1> down to <h6>
- Heading tags are similar to the headings used in a word processor like Microsoft Word.
- **h1** produces large text that is approximately 24 points in size by default, and **h6** creates small text sized at 8 or 9 points by default

Tag	Description
<b>	**Bold**
<big>	Increases the font size by 1 each time it is used (maximum size is 7, default size is 3)
<i>	*Italic*
<tt>	`typewriter font`
<small>	Decreases the font size by 1 each time it is used (minimum size is 1, default size is 3)
<sub>	$_{sub}$script
<sup>	^{super}script

Font Faces

- It refers to the name of the font we used on our page
-
  This paragraph is in Arial, size 5, and in red text color.

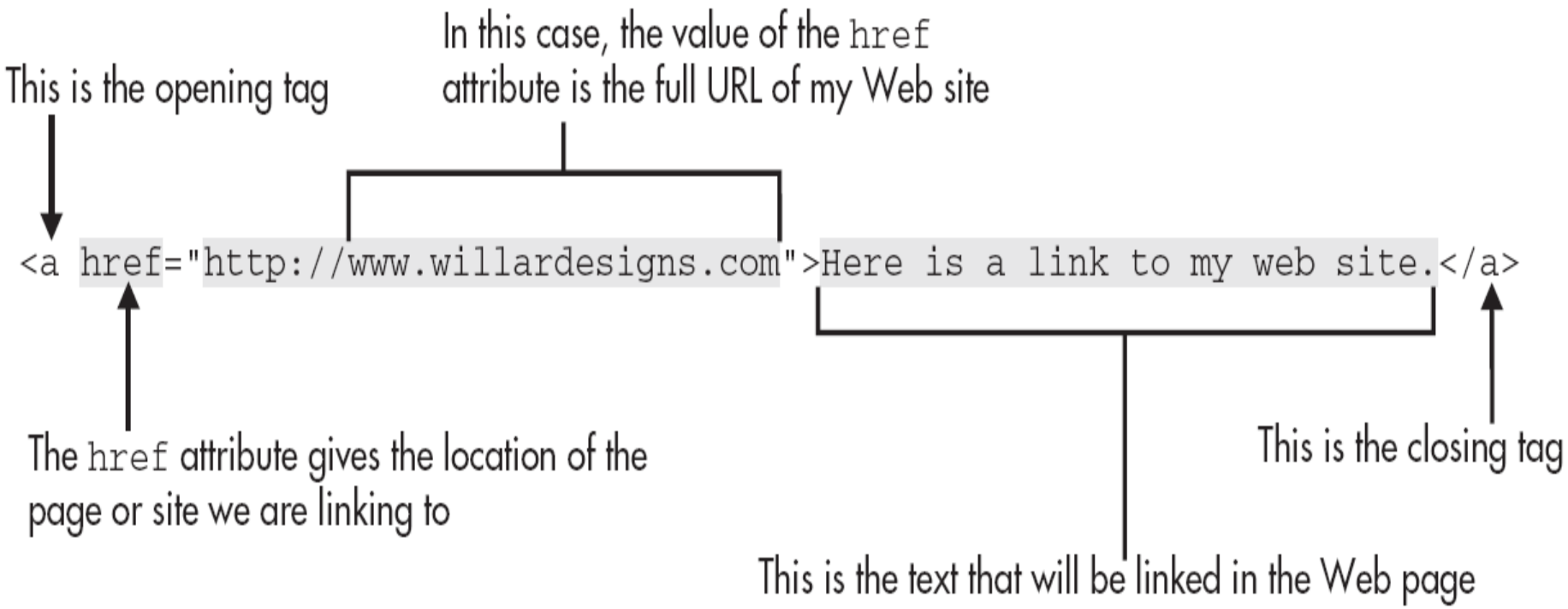
- Font Sizes
  - Absolute size: Number followed by the unit, as in 12pt (for 12 point)
  - Relative size: Value relative to the default size, as in “+2” will increase 2 sizes in the default font size

Font Name	Example Text	Availability
Arial	ABCdefg 123456 !?@	At least 99% of Windows and Mac systems
Arial Black	**ABCdefg 123456 !?@**	At least 97% of Windows and Mac systems
Arial Narrow	ABCdefg 123456 !?@	At least 84% of Windows and Mac systems
Century Gothic	ABCdefg 123456 !?@	At least 80% of Windows and 60% of Mac systems
Comic Sans MS	*ABCdefg 123456 !?@*	At least 96% of Windows and Mac systems
Courier	ABCdefg 123456 !?@	At least 97% of Windows and Mac systems
Courier New	ABCdefg 123456 !?@	At least 96% of Windows and Mac systems
Georgia	ABCdefg 123456 !?@	At least 95% of Windows and Mac systems
Helvetica	ABCdefg 123456 !?@	At least 88% of Windows and 99% of Mac systems
Impact	**ABCdefg 123456 !?@**	At least 95% of Windows and 84% of Mac systems
Tahoma	ABCdefg 123456 !?@	At least 88% of Windows and 55% of Mac systems
Times	ABCdefg 123456 !?@	At least 87% of Windows and 99% of Mac systems
Times New Roman	ABCdefg 123456 !?@	At least 98% of Windows and Mac systems
Trebuchet MS	ABCdefg 123456 !?@	At least 96% of Windows and Mac systems
Verdana	ABCdefg 123456 !?@	At least 98% of Windows and Mac systems

Fig: Popular and Widely Supported Web Fonts

Hyperlink

- The anchor tag a is used to create link
- The a tag itself doesn’t serve much purpose without its attributes.
- The most common attribute is href, which is short for *hypertext reference*: it tells the browser where to find the information to which you are linking.


In this case, the value of the href attribute is the full URL of my Web site
This is the opening tag
Here is a link to my web site.
The href attribute gives the location of the page or site we are linking to
This is the closing tag
This is the text that will be linked in the Web page

- The value of href attribute are two type of link
  - ***Absolute*** *links* are those that include the entire pathname.

Visit Yahoo!

  - ***Relative*** *links* don't include the entire pathname of the page to which you are linking. Instead, the pathname is relative to the current page.

Contact Me

  - This link looks for the contactme.html file in the same folder that contains this page. If you were linking to a file in *another* folder *below* the current one, the value of your href might look like the following:

Contact Me

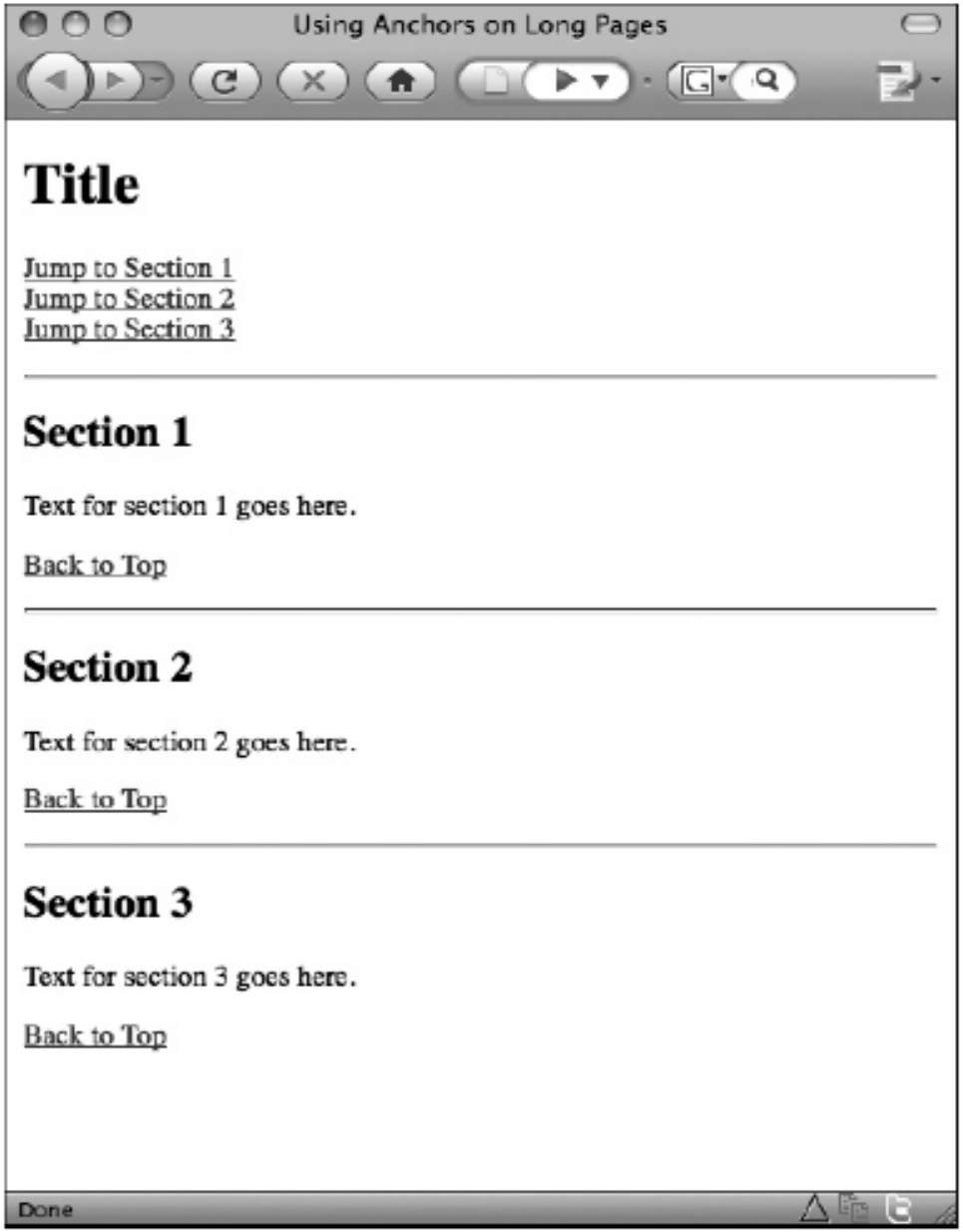
  - If you need to link to a file in a folder above the folder your page is in, you can add "../" for each directory up the tree. So, if the file you are linking to is two folders higher than the one you are in, you might use

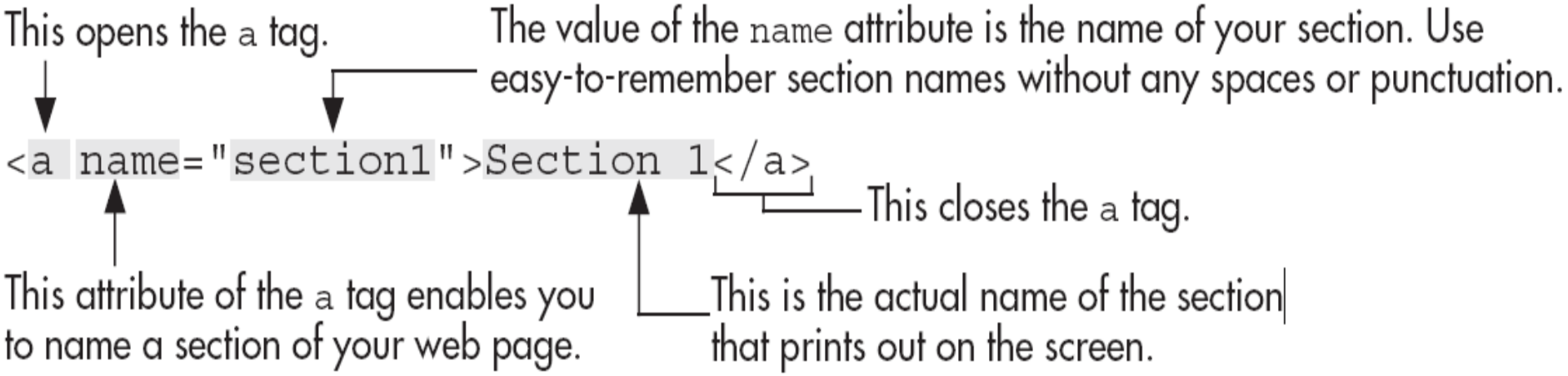
Contact Me

Add Links to Sections Within the Same Web Page

- *Create an Anchor*

An *anchor* is a place within a page that is given a special name, enabling you to link to it later. Without first naming a section, we cannot link to it.

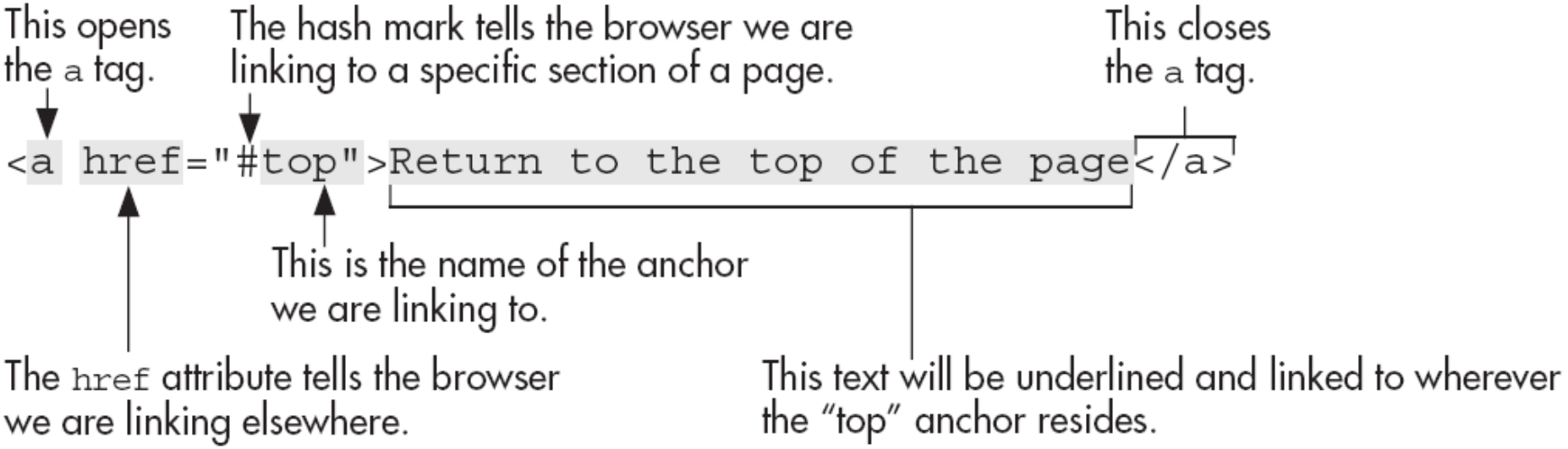




- In this example, the phrase in between the opening and closing a tags is displayed in the web page and labels the anchor as “Section 1.”

Link to an Anchor

- To create the link to an anchor, we again use the a tag and the href attribute, as we would when creating any other type of link. We need to include a hash symbol (#) and the anchor name as the value of the href attribute.



- If we need to create a link to a specific section with another page (not the one you are currently working on), then we use that page's filename and the anchor name separated by a hash mark (#), as in the following example.

```
<a href="genealogy.html#intro">View names beginning with an "A" on
genealogy page.</a>
```

- In this case, the browser will first look for genealogy.html and then locate an anchor named "intro" on that page.

Title

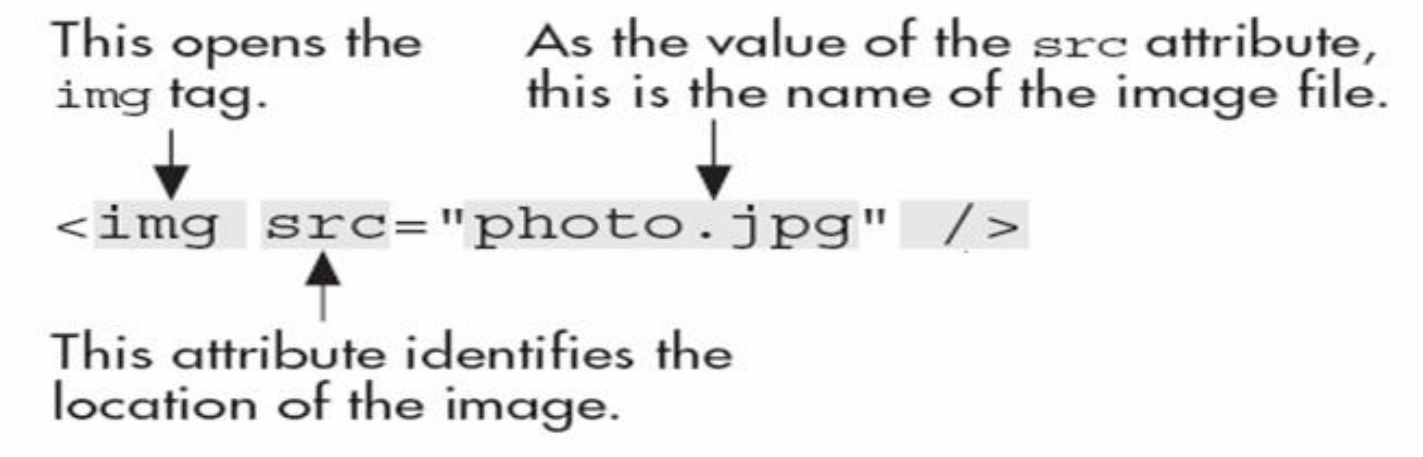
- The text appears as a “tool tip” when the cursor is placed over the link.
- For example, in the following code the title attribute alert users to the fact that clicking the link will take them to another web site.

```
<a href="http://www.yahoo.com" title="Click this link to leave our
site and visit Yahoo!">Visit Yahoo!</a>
```

Image

Use Images as Elements in the Foreground of a Web Page

- We add images anywhere on web page by using the img tag, where img is short for *image.*
- The src attribute (short for source), supply the appropriate value

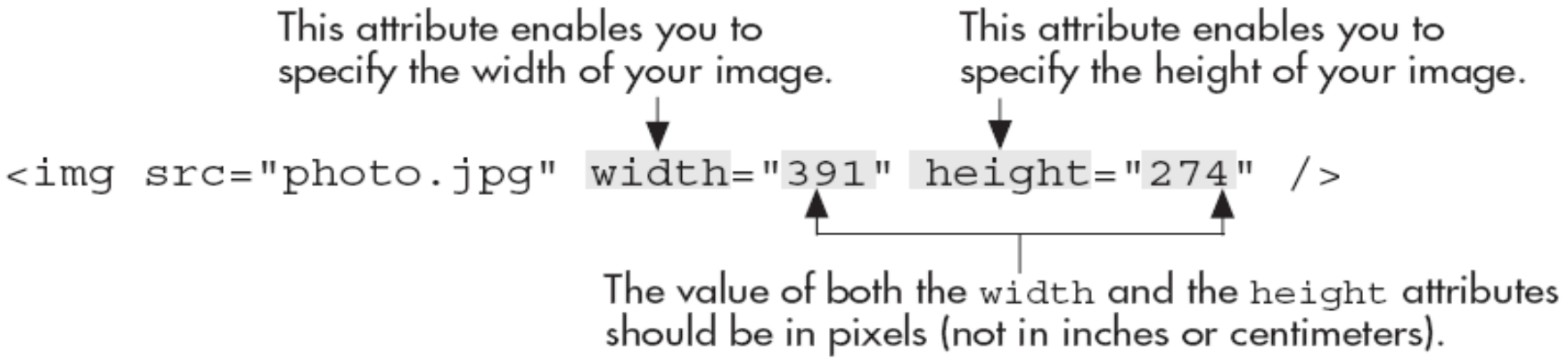


Remember the following few things:

- Your image should be in a web-friendly file format, such as GIF, JPEG, or PNG.
- The value of src attribute should include the correct pathname and location of file.
- Each image should serve a unique purpose and add something to web page. Because visitors have to wait while images download to their computers, it’s wise not to bog down page with graphics that serve little or no purpose.

Specify the Height and Width of Images

- We can speed the display of our web pages by telling the browser the sizes of images within the img tag. We do so with the height and width attributes.



Provide Alternative Text and Titles for Images

- Some people visiting your site won't be able to see the images on your pages. We can do something to help visitors understand the content of images, even if they can't see them.
- We can use the alt attribute of the img tag to provide alternative text for an image.

```
<img src="art-turtle.gif" width="600" height="412" alt="Drawing of
Turtle" />
```

- The text value of the alt attribute displays in the box where the image should be located, if the browser cannot find the image
- We can also add the title attribute to img tag.
- While the alt attribute specifies alternative text for images in case the images don’t load, the title attribute is displayed in a box near pointer arrow, when the arrow is positioned over the image.

```
<img src="art-turtle.gif" width="600" height="412" alt="Drawing of
Turtle" title="Drawing of a Turtle" />
```

Borders

- The value of the border attribute is expressed in pixels

```
<img src="map.gif" width="575" height="328" alt="Click your state"
usemap="#usa" border="0" /><br />Click the state in which you
currently live.
```

Alignment

```
<img src="townseal.gif" alt="Woolwich, Maine Town Seal" width="200" height="203"
align="left" />
```

Link Images to Other Content on a Web Site

- Link the Entire Image
- Link Sections of an Image

Link the Entire Image

- To link an entire image, we only need to add the a tag and the href attribute around the image.

```
<a href="http://www.choppoint.org"><img src="choppoint_468x60.gif"
width="468" height="60" alt="LINK: Chop Point Summer Camp in Woolwich,
Maine" /></a>
```

Link Sections of an Image

- You can also link sections of an image, creating *image maps.*
- When only sections of an image are linked (as opposed to the entire image), the visitor's pointer only changes to the hand when he moves his mouse over one of the predefined hot spots on the image. Each *hot spot* within an image map can link to its own web page,
- The technical term for the such type of image map is "client-side image map." *Client-side image maps are so called because all the work is done on the client's (or visitor's)* computer. The "work" refer to the computation of where the hot spot is located and to which link it corresponds. All the information about which hot spot is where and what it links to is included within the original HTML file. This makes for easy access by your visitor's web browser because it doesn't have to look for the information elsewhere.

- First, we have to tell the browser this image will be used as an image map. Use the usemap attribute to do that and tell the browser where to look for the map file:

```
<img src="map.gif" width="575" height="328" alt="Click your state"
 usemap="#usa" /><br />Click the state in which you currently live.
```

- Then we name the map:

```
<map name="usa">
```

- Then define each hot spot

```
<area shape="poly" coords="193,174,247,178,244,236,187,243,192,175"
href="/newmexico.html" alt="New Mexico" />
<area shape="poly" coords="215,243,304,309,335,260,326,214,275,210,275,
184,248,182,245,238,216,244" href="/texas.html" alt="Texas" />
```

- After defining all the hot spots in the image, close the map tag:

```
</map>
```

Attribute	Value	Description
shape	rect, poly, or circle	Defines the shape of your hot spot: rect for rectangles, poly for polygons, and circle for circles.
coords	rect: x1, y1, x2, y2 poly: x1, y1, x2, y2, x3, y3 circle: x, y, r	Defines the boundaries of your hot spot, where x and y are the horizontal and vertical coordinates, respectively, and r is the radius (for circles only). - Rectangles are defined by the upper-left and lower-right points. - Polygons are defined by each of their points, in x,y couples. - Circles are defined by the x,y coordinates of the center point and the radius.
href	filename.html	Defines the page to which you want this hot spot to link.
alt	text string	Defines the alternative text that appears for that hot spot.

Table 6-1 Attributes for the `area` Tag

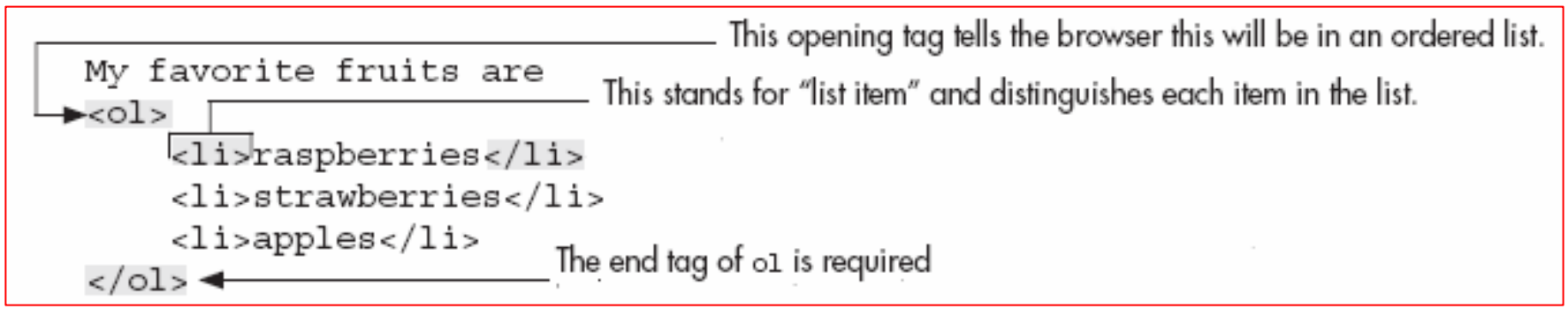
List

- There is a special set of tags for creating lists.
- There are three different types of lists in HTML:
  - Ordered lists
  - Unordered lists

Ordered Lists

- An *ordered list* is one in which each item is preceded by a number or letter. For example: My favorite fruits are

1. raspberries
2. strawberries
3. apples



- To change the type of ordered list, add the type attribute and its value to the opening ol tag.

```
<ol type="I">
    <li>Introduction</li>
    <li>Understanding the Medium</li>
    <li>Basic Page Structure</li>
</ol>
```

Type Attribute Value	Numbering Style	Example
1	Arabic numbers	1,2,3,…
a	Lowercase alphabet	a,b,c,…
A	Uppercase alphabet	A,B,C,…
i	Lowercase Roman numerals	i,ii,iii,…
I	Uppercase Roman numerals	I, II, III,…

- We can also specify the starting number or letter for an ordered list with the start attribute.
- The default for the starting number is 1. To change this, start attribute of ol tag is used

```
<ol type="a" start="3">
    <li>Color</li>
    <li>Working with Text</li>
    <li>Working with Links</li>
</ol>
```

- If you want to change an individual value—for example, if you want to make the third item in the list use the number 7—you can add the value attribute to the specific li tag.

```
<ol type="a" start="3">
    <li>Color</li>
    <li>Working with Text</li>
    <li value="7">Working with Links</li>
</ol>
```

Unordered List

- It don't use numbers or letters.
- These lists use bullets to precede each list item. The following is an example of an unordered list:
  - Red
  - Green
  - Blue

```
<ul>
    <li>red</li>
    <li>green</li>
    <li>blue</li>
</ul>
```

Table

Table Structure

`<table>` `</table>`	The `table` tag is a container for every other tag used to create a table in HTML. The opening and closing `table` tags should be placed at the beginning and end of your table.
`<tr>` `</tr>`	The `tr` tag stands for table row. The opening and closing `tr` tags surround the cells for that row.
`<th>` `</th>`	The `th` tag stands for table header. An optional tag used instead of the `td` tag, this tag defines a cell containing header information. By default, the content in header cells is bolded and centered.
`<td>` `</td>`	The `td` tag stands for table data and holds the actual content for the cell. There are opening and closing `td` tags for each cell in each row.

Popular Girls' Names	Popular Boys' Names
Emily	Jacob
Sarah	Michael

```
<table>
<tr>
    <th>Popular Girls' Names</th>
    <th>Popular Boys' Names</th>
</tr>
<tr>
    <td>Emily</td>
    <td>Jacob</td>
</tr>
<tr>
    <td>Sarah</td>
    <td>Michael</td>
</tr>
</table>
```

Borders

- Tables, by nature of their design, have internal and external borders.
- By default, most browsers set the border size to zero, making them invisible.
- Border attribute: it makes both internal & external border of the table

```
<table border="3">
```

- Frame Attribute: specifies which of the external borders surrounding the table will be displayed.

```
<table border="2" frame="lhs" frame="above">
```

Value	Description
void	Turns off all four sides (same as `border="0"`).
above	Turns on the top border only.
below	Turns on the bottom border only.
hsides	Turns on the horizontal borders (left and right) only.
vsides	Turns on the vertical borders (top and bottom) only.
lhs	Turns on the left-hand side border only.
rhs	Turns on the right-hand side border only.
box	Turns on all four sides (same as `border="n"`).

Fig: Possible Values for the frame Attribute

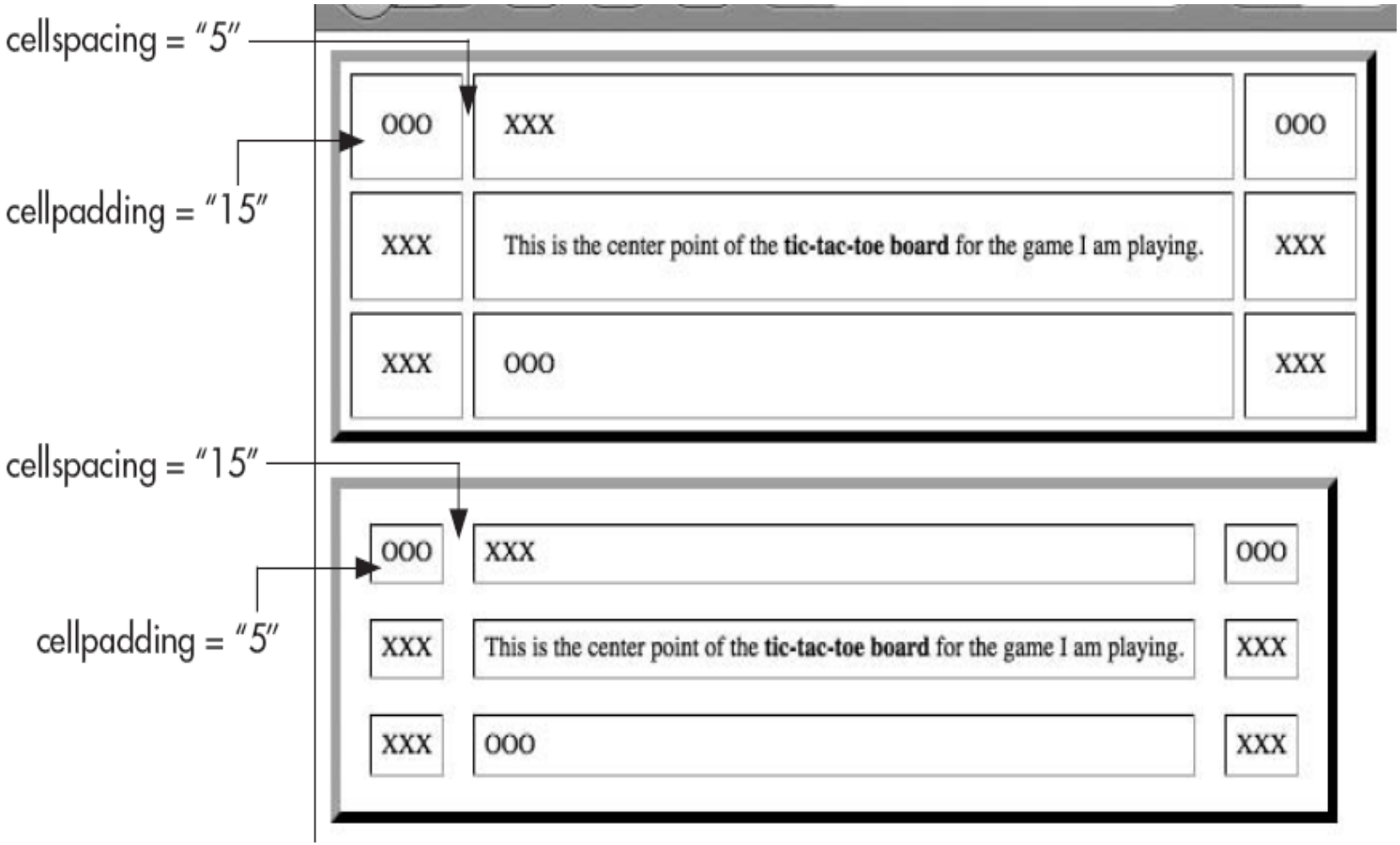
- Rules attribute: can be used to specify those internal borders of a table that should be displayed. As with the frame attribute, this attribute only works if you have specified a border

```
<table border="1" rules="cols">
```

Value	Description
none	Turns off all internal borders.
groups	Turns on the vertical internal borders between groups of columns and/or rows.
rows	Turns on the internal borders between rows only (horizontal).
cols	Turns on the internal borders between columns only (vertical).
all	Turns on all internal borders.

Cell Padding and Spacing

- Two attributes can be added to the table tag, so that we can control spaces.
  - **Cellpadding:** Space between the content within the cell and the edges of that cell
  - **Cellspacing:** Space in between each of the individual cells




```
<table border="5" cellpadding="15" cellspacing="5">
```

Captions

- The caption tag enables you to specify captions for your tables. This isn't an attribute of the table tag; it's a standalone element used after the table tag, but before the first table row.

```
<table border="3" align="right" bgcolor="#999">
<caption>This is a "cat's game" of tic-tac-toe.</caption>
<tr>
    <td>O</td>
    <td>X</td>
    <td>O</td>
</tr>
```

- We can use "align" attribute to specify weather the caption should be placed top or bottom of the table

```
<caption align = "bottom">This is a "cat's game" of tic-tac-toe.</caption>
```

Spanning Columns and Rows

- By default, each cell is set to *span* only one column.
- Using the colspan attribute enables us to change that, so that a cell spans two or more columns.

These two cells have been merged so the content from the first cell flows into the second.		3
4	5	6

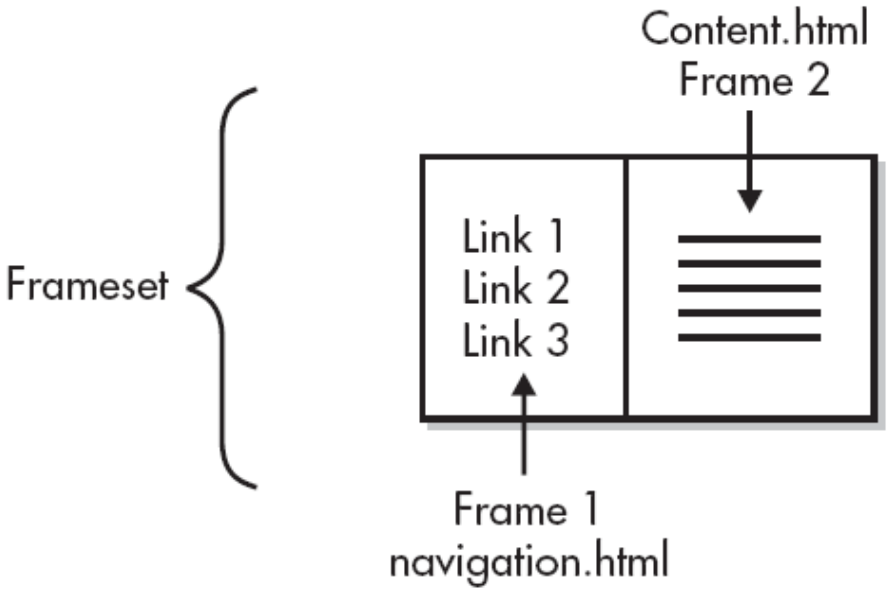
```
<table border="1">
<tr>
    <td colspan="2">These two cells have been merged so the content
from the first cell flows into the second.</td>
    <td>3</td>
</tr>
<tr>
    <td>4</td>
    <td>5</td>
    <td>6</td>
</tr>
</table>
```

<table>
<tr><td colspan="2">These two cells have been merged so the content from the first cell flows into the second.</td><td rowspan="2">These two cells have been merged so the content from the top one flows into the bottom one.</td></tr>
<tr><td>4</td><td>5</td></tr>
</table>

```
<table border="1">
<tr>
    <td colspan="2">These two cells have been merged so the content
from the first cell flows into the second.</td>
    <td rowspan="2">These two cells have been merged so the content
from the top one flows into the bottom one.</td>
</tr>
<tr>
    <td>4</td>
    <td>5</td>
</tr>
</table>
```

Frame

- With frames, we can display more than one HTML document in the same browser window.
- Each frame in the frameset displays a different HTML page

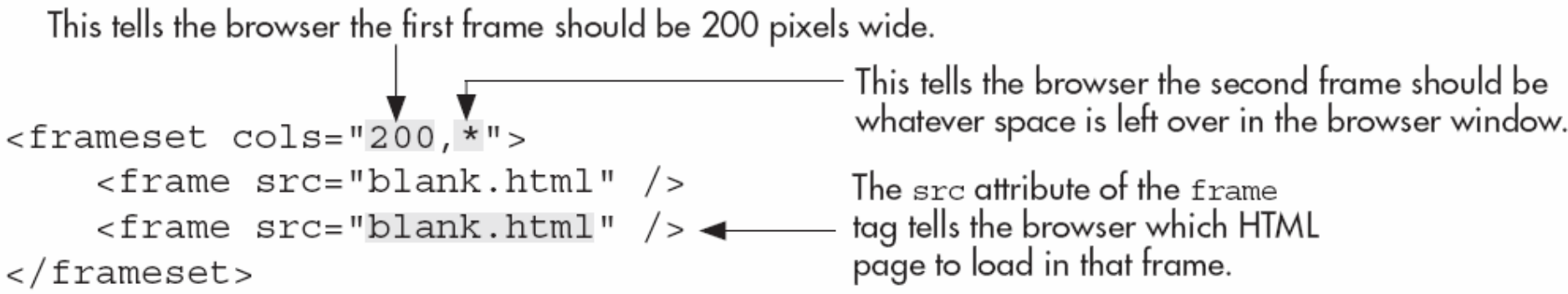


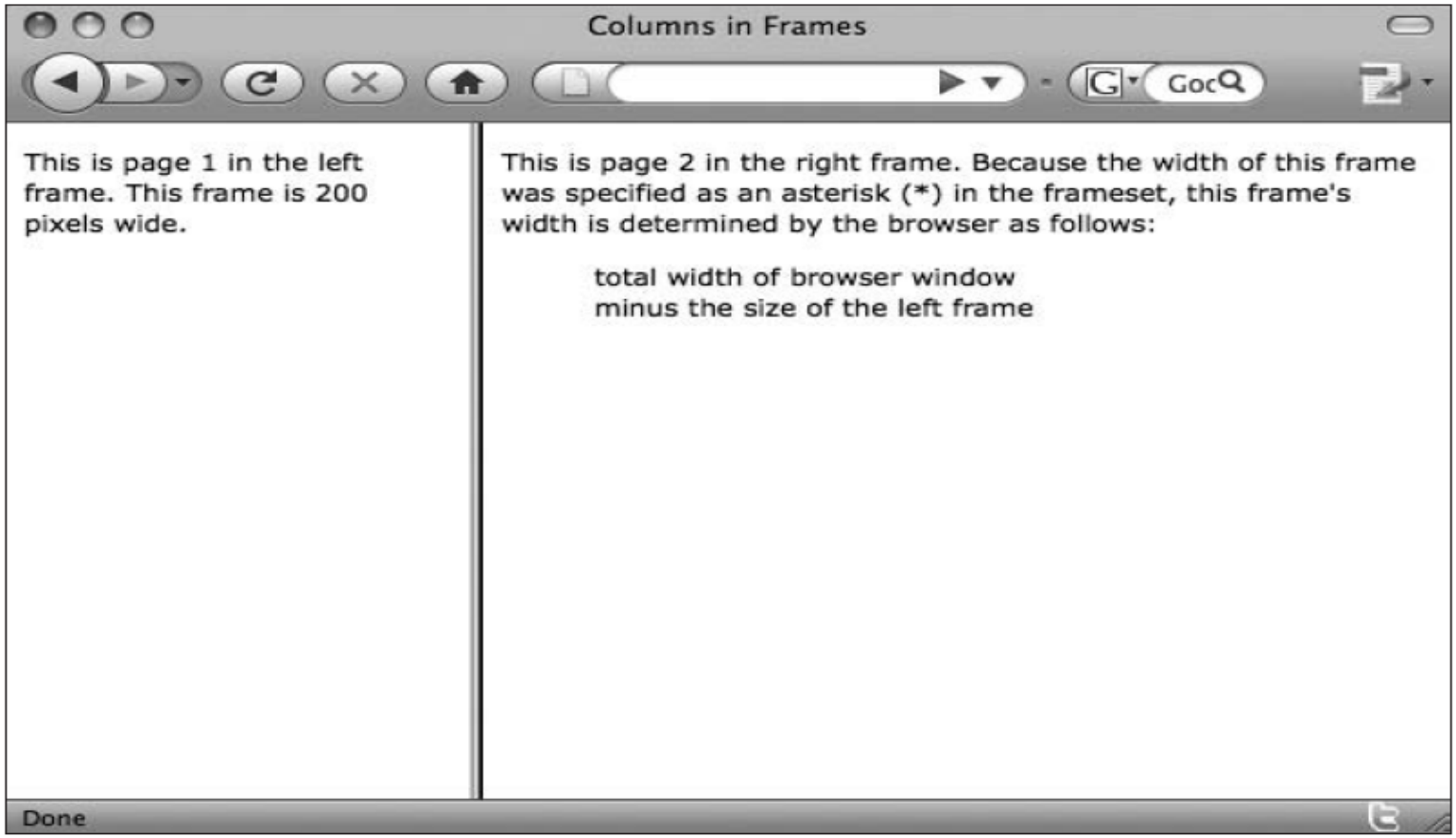
Frameset

- The frameset element holds one or more frame elements. Each frame element can hold a separate document.
- The frameset element states how many columns or rows there will be in the frameset, and how much percentage/pixels of space will occupy each of them.
- A frameset page doesn’t have a body tag.
- Instead of a body tag, frameset documents have opening and closing frameset tags that enclose the rest of the tags on the page

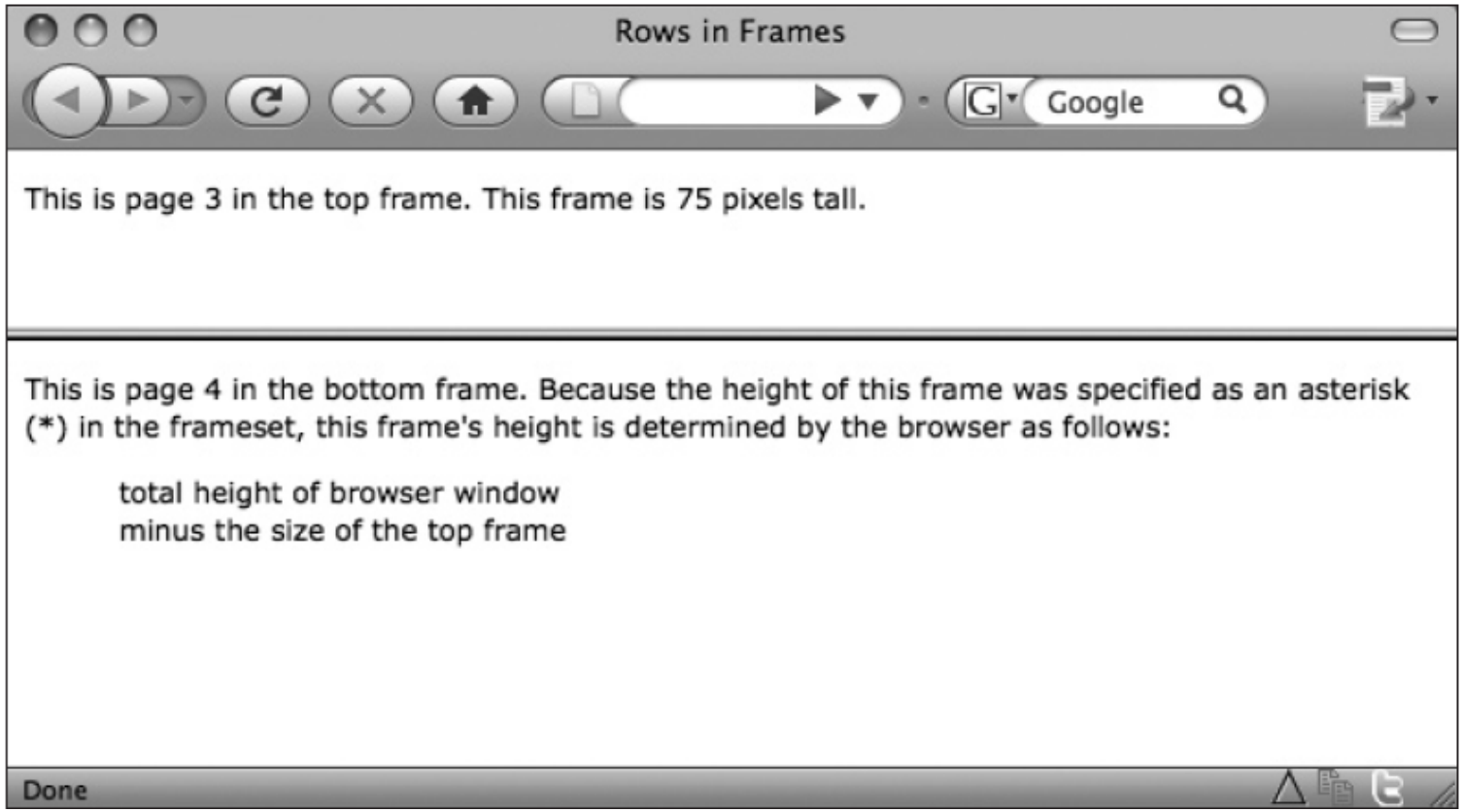
Columns and Rows

- We add the cols and rows attributes to the opening frameset tag to specify the size and location of each of the frames.
- Depending on the layout, we might use the cols attribute only (for vertical frames), the rows attribute only (for horizontal frames), or both the cols and rows attributes for a mixed layout.
- the value of cols or rows attribute is specified as a pixel value, a percentage, or *


This tells the browser the first frame should be 200 pixels wide.
This tells the browser the second frame should be whatever space is left over in the browser window.
<frameset cols="200,*">
<frame src="blank.html" />
<frame src="blank.html" />
</frameset>
The src attribute of the frame tag tells the browser which HTML page to load in that frame.




```
<frameset cols="200,*">
    <frame src="page1.html" />
    <frame src="page2.html" />
</frameset>
```




```
<frameset rows="75,*">
    <frame src="page3.html" />
    <frame src="page4.html" />
</frameset>
```

Naming

- It enables us to identify frames with a name.
- This is important because when we need to add a link to a page in one of the frames, we can tell the browser in which frame to load that link.

```
<frameset cols="150,*">
    <frame src="links.html" name="links" />
    <frame src="intro.html" name="intro" />
</frameset>
```

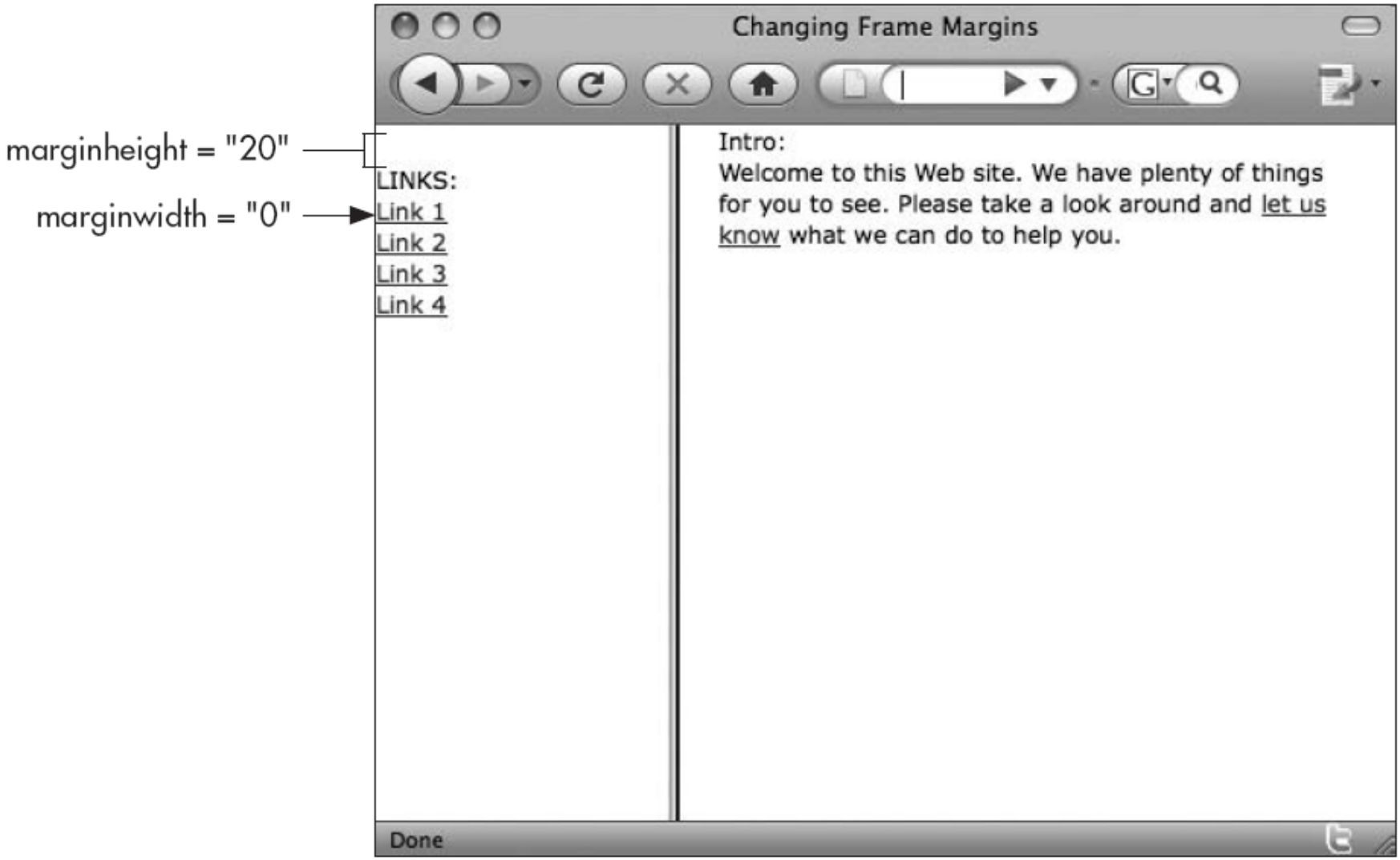
Borders

- By default, the browser separates each frame in a frameset with a gray border.
- At times, making those borders invisible might be necessary, giving the appearance of borderless frames.

```
<frameset cols="150,*">
    <frame src="links.html" name="links" frameborder="0" />
    <frame src="intro.html" name="intro" frameborder="0" />
</frameset>
```

Margin Height and Width

- In table the space between cell contents and the edges of those cells using the cellpadding attribute. We can use the marginheight and marginwidth attributes of the frame tag to do something similar.
  - **marginheight** Adjusts the space between the content of a frame and the top and bottom edges of that frame.
  - **marginwidth** Adjusts the space between the content of a frame and the left and right edges of that frame.



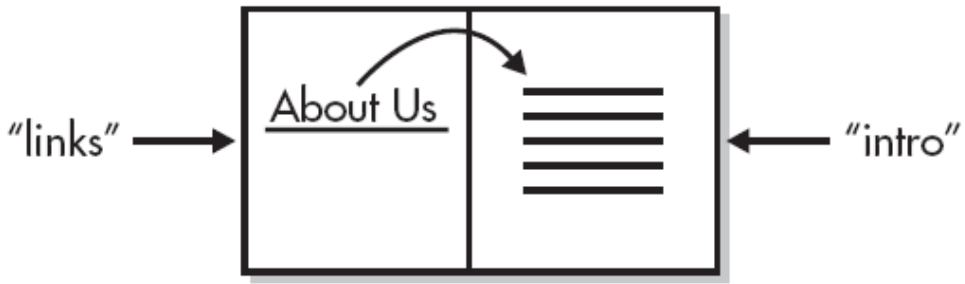

```
<frameset cols="150,*">
    <frame src="links.html" name="links" marginheight="20" marginwidth="0" />
    <frame src="intro.html" name="intro" marginheight="0" marginwidth="20" />
</frameset>
```

Create Links Between Frames

- By default, whenever a user clicks a link within a frame, the page loads within that same frame.

```
<frameset cols="150,*">
    <frame src="links.html" name="links" />
    <frame src="intro.html" name="intro" />
</frameset>
```

- Sometimes it becomes necessary to load a linked page within *another* frame.



1. Name the frame (using the name attribute), as in
   <frame src="intro.html“ name="intro" />
   in the frameset HTML document.
2. Then, in the HTML page containing the link, use the target attribute in the a tag to specify in which frame the link should load. For example,
   <a href="page3.html“ target="intro">.

Form

Form

- HTML forms are used to pass data to a server.
- A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more.

```
<form>
 ... content goes here ...
</form>
```

Single-Line Text Fields

- The most basic type of input control is the single-line text field. This control is a space, resembling a box, that can contain a single line of text.
- Usually, text fields are preceded by descriptive text telling the user what to enter in the box.

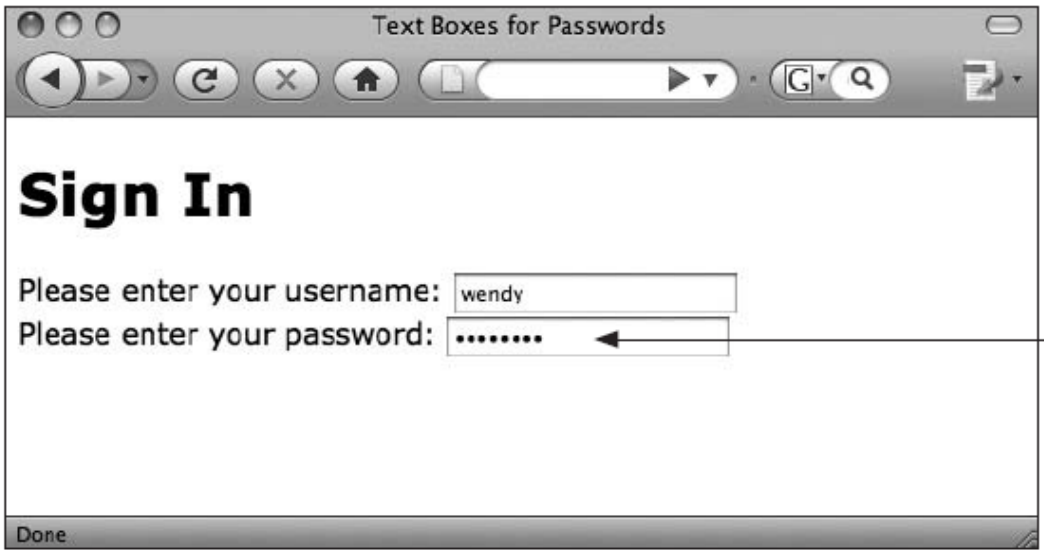

```
<form>
   Please enter your first name: <input type="text" /><br />
   Please enter your last name: <input type="text" />
</form>
```

Attribute	Value(s)	Description
`name`	Name	Identifies the control so that it's correctly handled when the form is processed. This information isn't displayed when the form is viewed through a browser.
`size`	Number	Specifies the length of the text field in characters.
`maxlength`	Number	Specifies the maximum number of characters that can be entered in the text field by the user.
`value`	Value	Defines what text, if any, should be present within the text field when it's initially displayed on the page.

Attributes for Text Fields

Text Fields for Passwords

- HTML enables us to create two types of text fields: one for regular text (as you just learned) and a second for passwords.




```
<form>
Please enter your username: <input type="text" name="UserName"><br />
Please enter your password: <input type="password" name="Password">
</form>
```

Multiple-Line Text Areas

- When it's necessary to allow web site visitors to enter more than a single line of text, we use a text area instead of a text field.
- Unlike most other form input controls, a *text area* uses the textarea tag instead of the input tag.
- To specify the size of the text area, we use the cols and rows attributes.
  - The cols attribute identifies the visible width of the text area
  - The rows attribute identifies the visible height of the text area, based on the number of text lines.

```
<form>
We welcome your thoughts and opinions about our products.<br />
<textarea name="Comments" cols="30" rows="5">Type your comments
here.</textarea>
</form>
```

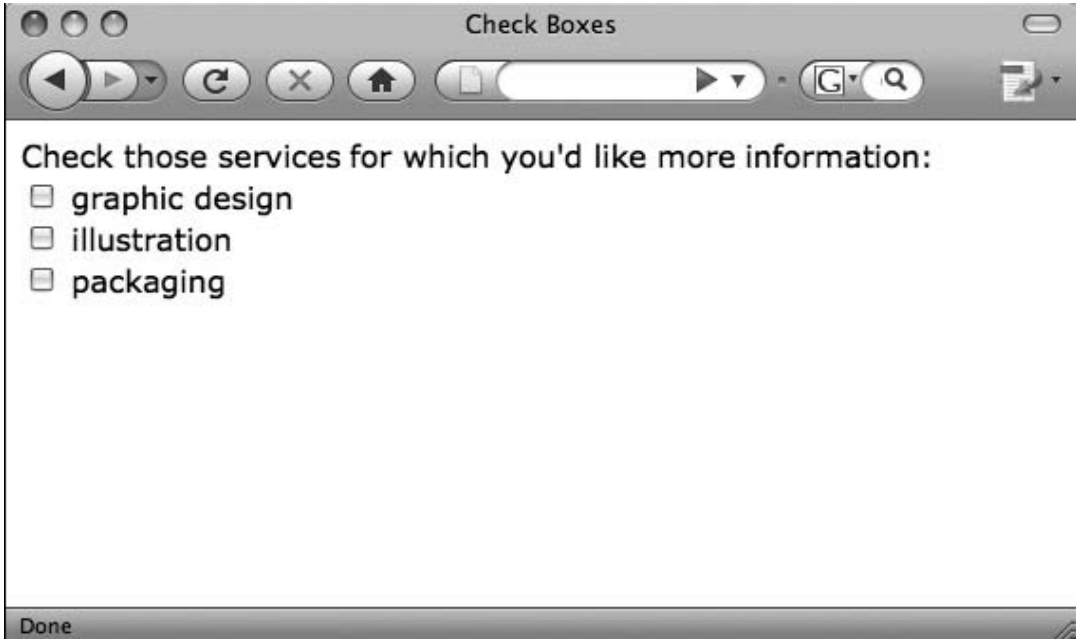
Radio Button

- *Radio buttons* are small, round buttons that enable users to select a single option from a list of choices.
- This is accomplished with the input tag and a value of "radio" in the type attribute.
- The name and value attributes are especially important to radio buttons because they help to make sure the data is processed correctly.


```
<form>
How would you like to receive more information about our company?<br />
<input type="radio" name="ContactMe" value="e-mail"> e-mail<br />
<input type="radio" name="ContactMe" value="phone"> phone<br />
<input type="radio" name="ContactMe" value="fax"> fax<br />
<input type="radio" name="ContactMe" value="mail"> regular mail<br />
</form>
```

Check Boxes

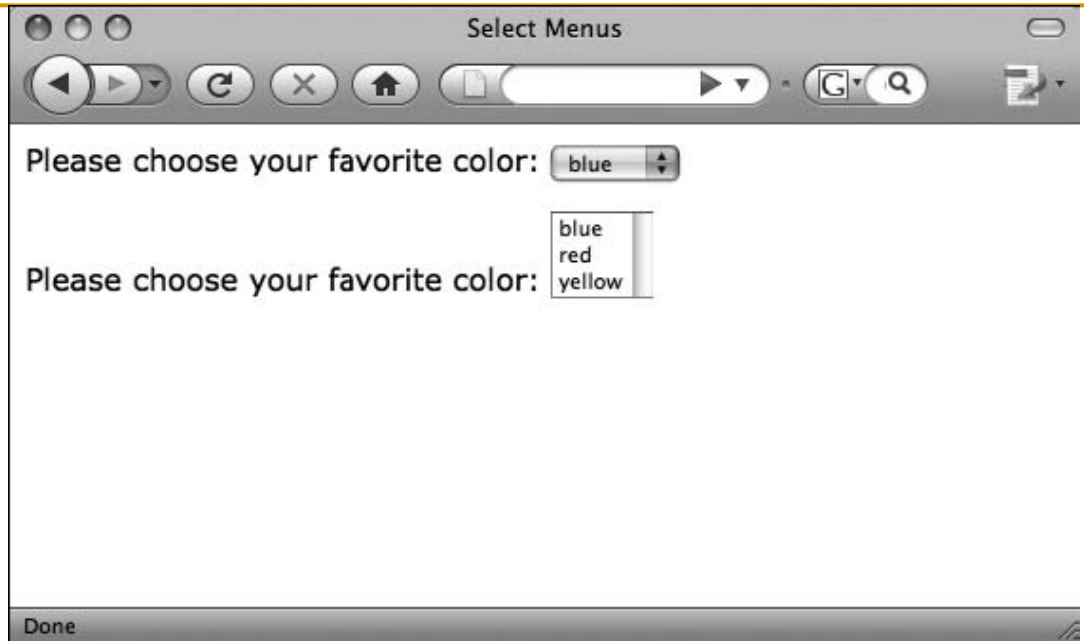
- *Check boxes* are similar to radio buttons in that they don't let users enter any data; they can only be clicked on or off.
- However, check boxes let the user select more than one choice from a list of options.




```
<form>
Which services are you interested in?<br />
<input type="checkbox" name="Services" value="graphic design"> graphic
design<br />
<input type="checkbox" name="Services" value="illustration">
illustration<br />
<input type="checkbox" name="Services" value="packaging"> packaging
</form>
```

Select Menus

- Whenever you want to let users select from a long list of options, you might consider using a select menu instead of check boxes or radio buttons.
- Select menus are lists that have been compressed into one or more visible options
- The select element is used to create the menu initially, while option tags surround each item in the menu.




```
<form>
Please choose your favorite color:
<select name="FavoriteColor" size="3">
     <option value="blue">blue</option>
     <option value="red">red</option>
     <option value="yellow">yellow</option>
     <option value="green">green</option>
     <option value="other">other</option>
     </select>
 </form>
```

Buttons

- *Buttons* enable users to interact with a form. For example, to tell the browser you're finished filling out a form and are ready to process it, you might click a button labeled Submit.
- There are three types of buttons :
  - **Submit buttons** Used to process a form
  - **Reset buttons** Used to reset a form
  - **Other buttons** Serving any alternative needs for buttons in a form

Type of Button	Description	HTML	Browser View
Submit	When pressed, this button processes the form.	`<input type="submit" value="Submit" />` or `<button type="submit">Submit</button>`	Submit
Reset	When pressed, this button resets all the form's fields back to their initial values.	`<input type="reset" value="Reset" />` or `<button type="reset">Reset</button>`	Reset
Button	When pressed, an action or event is triggered, based on a predefined script or function. (This usually involves some scripting language such as JavaScript.	`<input type="button" value="Verify Data" />` or `<button type="button">Verify Data</button>`	Verify Data