

Tutorial 2

Developing a Basic Web Site

HTML, CSS,
and Dynamic HTML

5TH EDITION



Objectives

- “ Explore how to storyboard a Web site
- “ Create navigation lists
- “ Create links between documents in a Web site
- “ Understand absolute and relative folder paths
- “ Set a base path
- “ Mark a location with the id attribute
- “ Create a link to an id

Objectives

- “ Mark an image as a link
- “ Create an image map
- “ Understand URLs
- “ Link to a resource on the Web
- “ Link to an e-mail address
- “ Work with hypertext attributes
- “ Work with metadata

Creating Hyperlinks

The `nav` element marks a list of hypertext links used to navigate through the pages in the Web site.

```
<nav>
  <ul>
    <li><a href="home.htm">Home</a></li>
    <li><a href="tips.htm">Tips</a></li>
    <li><a href="glossary.htm">Glossary</a></li>
  </ul>
</nav>
```

The `<a>` tag is used to mark hyperlinks to external documents or to locations within the current document. The `href` attribute indicates the reference or address of the linked resource.

A **storyboard** is a tool for diagramming the links connecting documents within a Web site.

Welcome to CAMshots, a site for people passionate about digital photography. This site has grown out of decades of photographic experience. I offer advice for both beginners and advanced users. I hope you enjoy what you find, but please be considerate of the work it took to do all this. The entire site contents including all images and articles are copyrighted. Please honor my work and do not copy anything without permission. If you are interested in publishing any of my images or articles or using them in other ways, please [contact me](#) and we can discuss your needs. Happy Shooting!

— Gerry

Photo of the Month

Colorado Double Rainbow by Watts21

- Camera: Nikon D5
- F-stop: f/7.1
- Exposure: 1/1000 sec.
- Focal Length: 100mm
- Aperture: f/7.1
- Flash Mode: No flash

F

F-stop
A numerical designation indicating

Flash Mode
The camera mode that determines

Focal Length
The distance from a point where a the camera lens.

By default, browsers underline hypertext links.

```
<a href="glossary.htm#flash_mode">Flash Mode</a>
```

Links to locations within a document are referenced using the form `file#id`, where file is the name of the file and id is the id marking the location within the file.

Clicking the link jumps the user to a specified location in the target document.

The flash_mode id marks the definition of flash mode.

```
<h2 id="F">F</h2>
<dl>
  <dt id="f-stop"><b>F-stop</b></dt>
  <dd>A numerical designation indicating aperture.</dd>
  <dt id="Flash_mode"><b>Flash Mode</b></dt>
  <dd>The camera mode that determines in the photo.</dd>
  <dt id="Focal_length"><b>Focal Length</b></dt>
  <dd>The distance from a point where focal point) to a point in or ne</dd>
</dl>
```

Exploring Web Site Structures

- “ A **storyboard** is a diagram of a Web site’s structure, showing all the pages in the site and indicating how they are linked together
- “ It is important to **storyboard** your Web site before you start creating your pages in order to determine which structure works best for the type of information the site contains
- “ A well-designed structure can ensure that users will be able to navigate the site without getting lost or missing important information

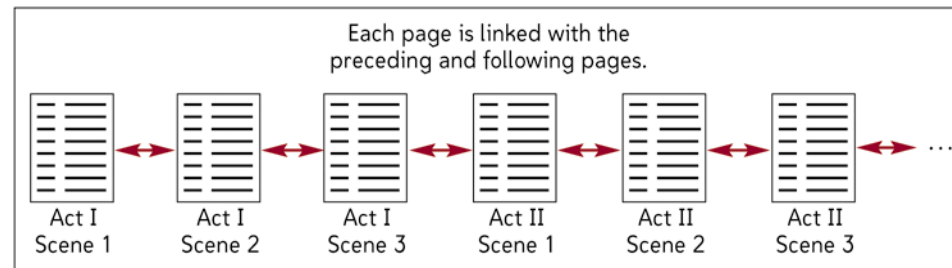
Linear Structures

- “ In a **linear structure**, each page is linked with the pages that follow and precede it
- “ **Linear structures** work for Web sites that are small in size and have a clearly defined order of pages
- “ In an **augmented linear structure**, each page contains an additional link back to an opening page

Linear Structures

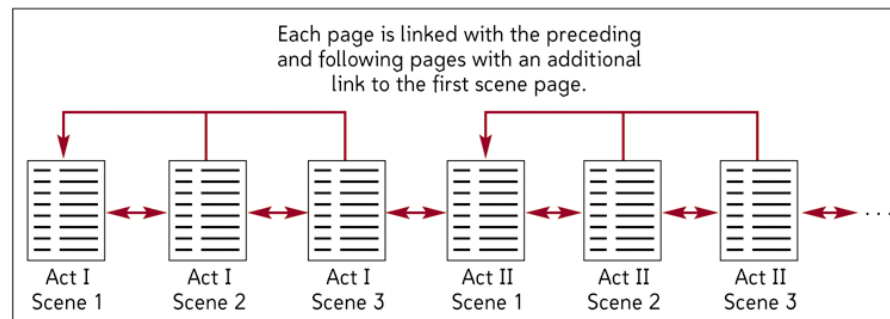
A linear structure

Figure 2-2 A linear structure



An augmented linear structure

Figure 2-3 An augmented linear structure

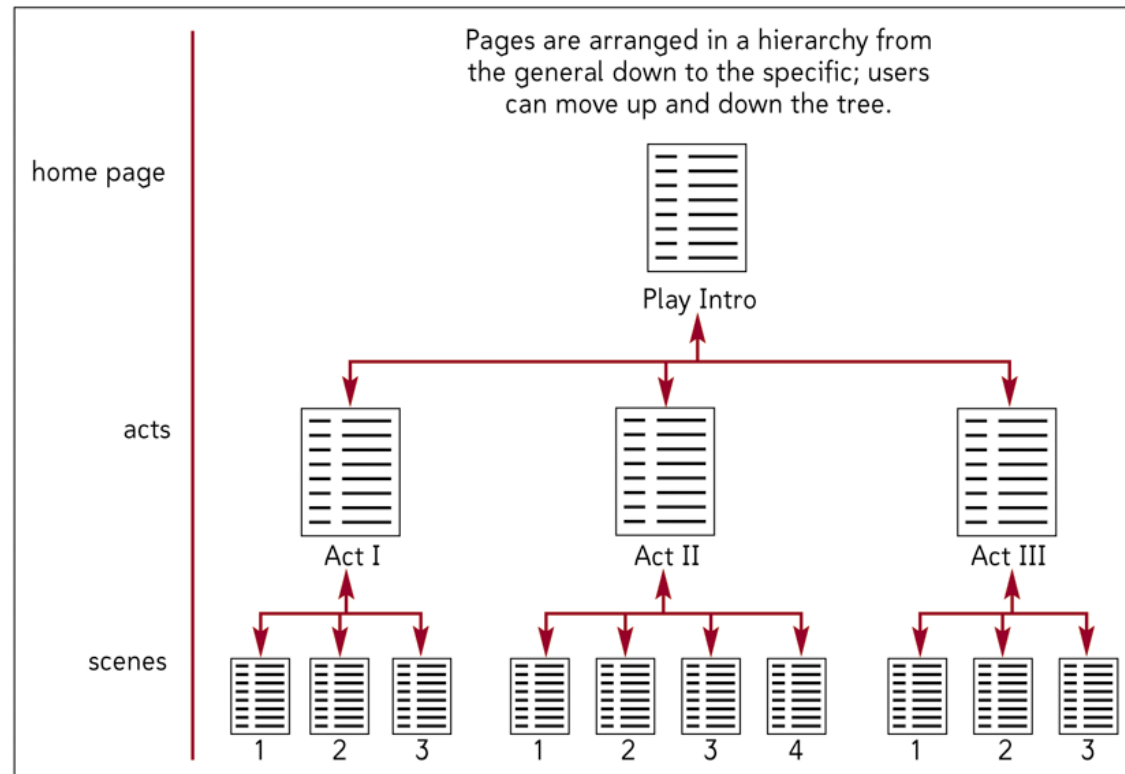


Hierarchical Structures

- “ In the **hierarchical structure**, the pages are linked going from the home page down to more specific pages
- “ Users can easily move from general to specific and back again

Hierarchical Structures

Figure 2-4 A hierarchical structure

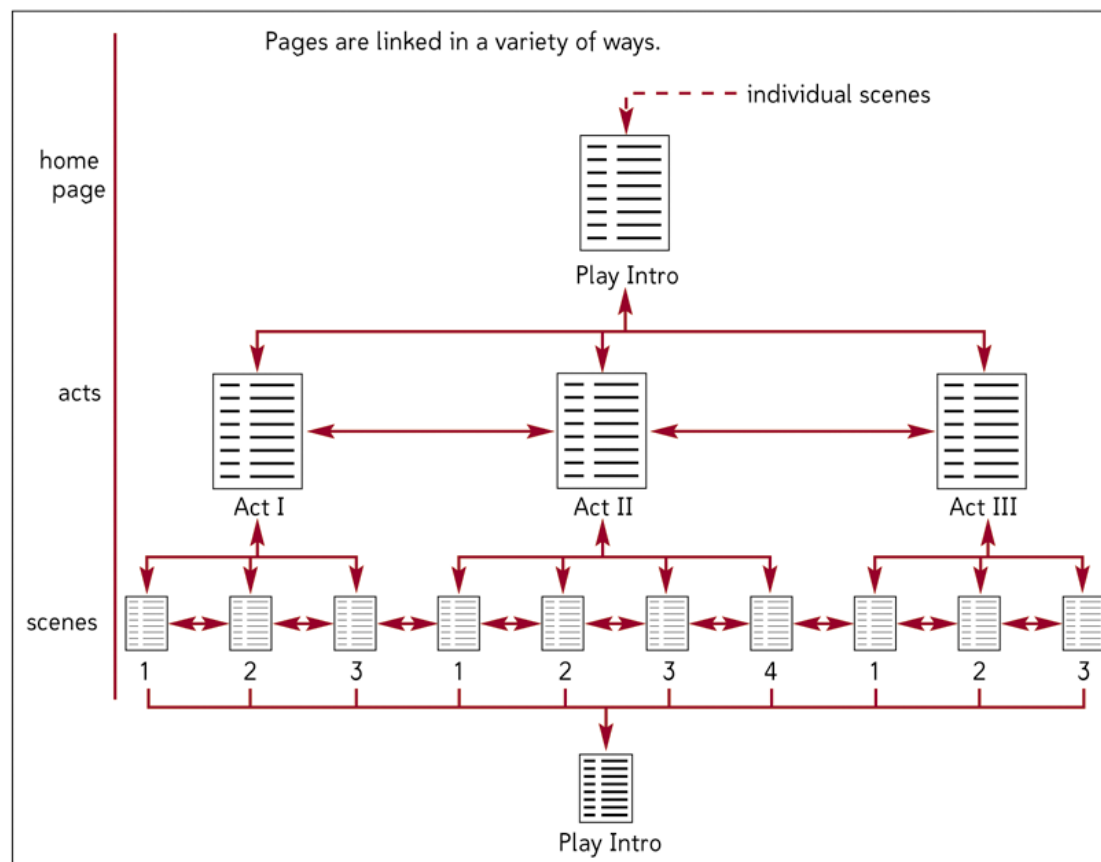


Mixed Structures

- “ As Web sites become larger and more complex, you often need to use a combination of several different structures
- “ The overall form can be **hierarchical**, allowing the user to move from general to specific; however, the links also allow users to move through the site in a **linear** fashion
- “ A **site index** is a page containing an outline of the entire site and its contents

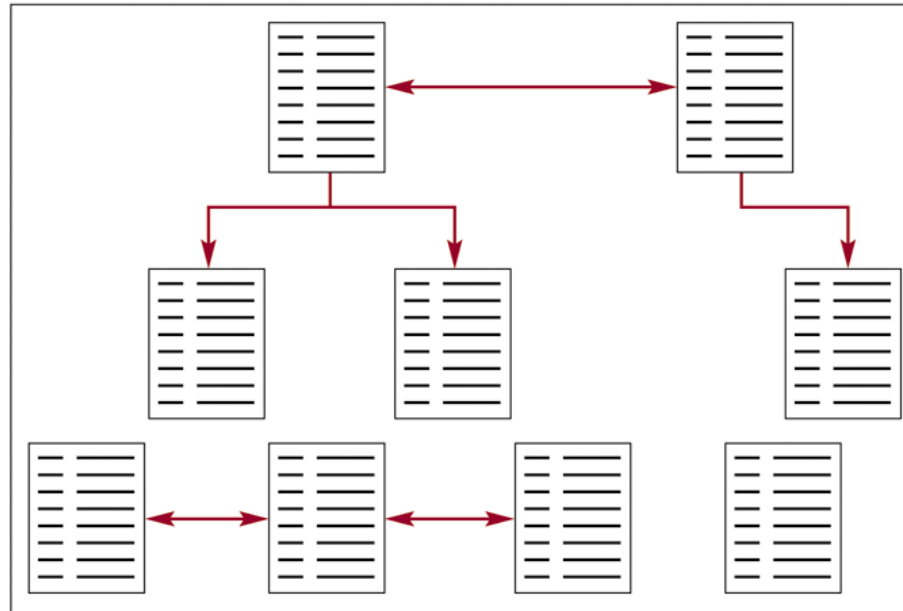
Mixed Structures

Figure 2-5 A mixed structure



Web Site with No Coherent Structure

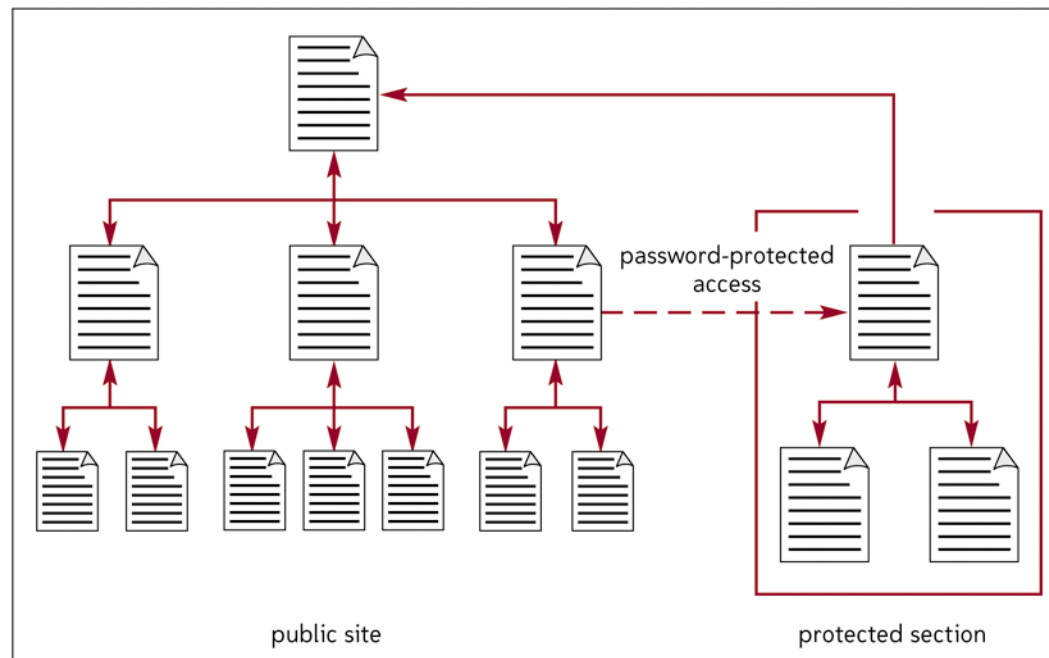
Figure 2-6 Web site with no coherent structure



Protected Structures

- Sections of most commercial Web sites are off-limits except to subscribers and registered customers

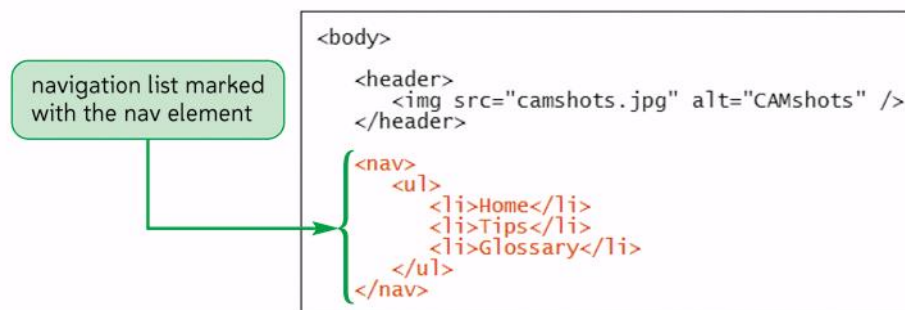
Figure 2-7 A protected structure



Creating a Navigation List

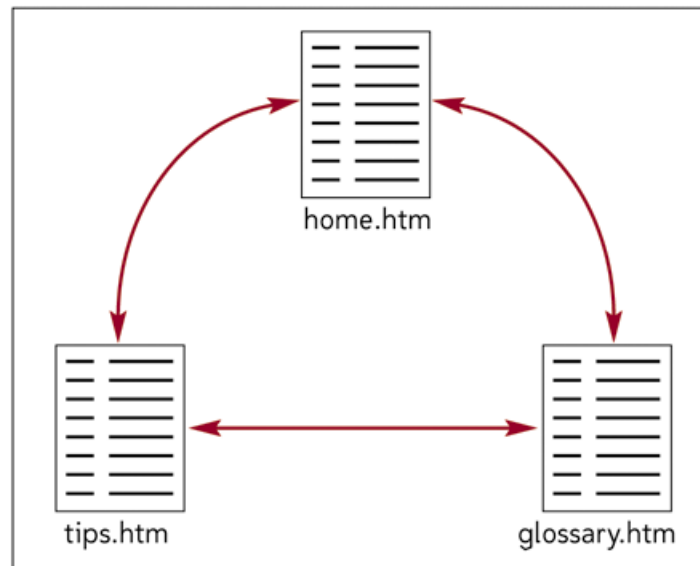
- “ Every Web site should include a **navigation list**, which is a list containing links to the main topic areas of the site
- “ HTML5 introduced the `nav` structural element to make it easier to mark up navigation lists

Figure 2-8 Marking a navigation list



Creating a Hypertext Link

Figure 2-10 Storyboard for the CAMshots sample Web site



Creating a Hypertext Link

“ Hypertext links are created by enclosing some document content within a set of opening and closing `<a>` tags

“ To mark content as a hypertext link, use

```
<a href="reference">content</a>
```

where *reference* is the location being linked to and *content* is the document content that is being marked as a link

Creating a Hypertext Link

Figure 2-11 Marking hypertext links in the navigation list

reference of the hypertext link

```
<nav>
  <ul>
    <li><a href="home.htm">Home</a></li>
    <li><a href="tips.htm">Tips</a></li>
    <li><a href="glossary.htm">Glossary</a></li>
  </ul>
</nav>
```

Figure 2-12 Viewing hypertext links in the navigation list

hypertext links underlined by default



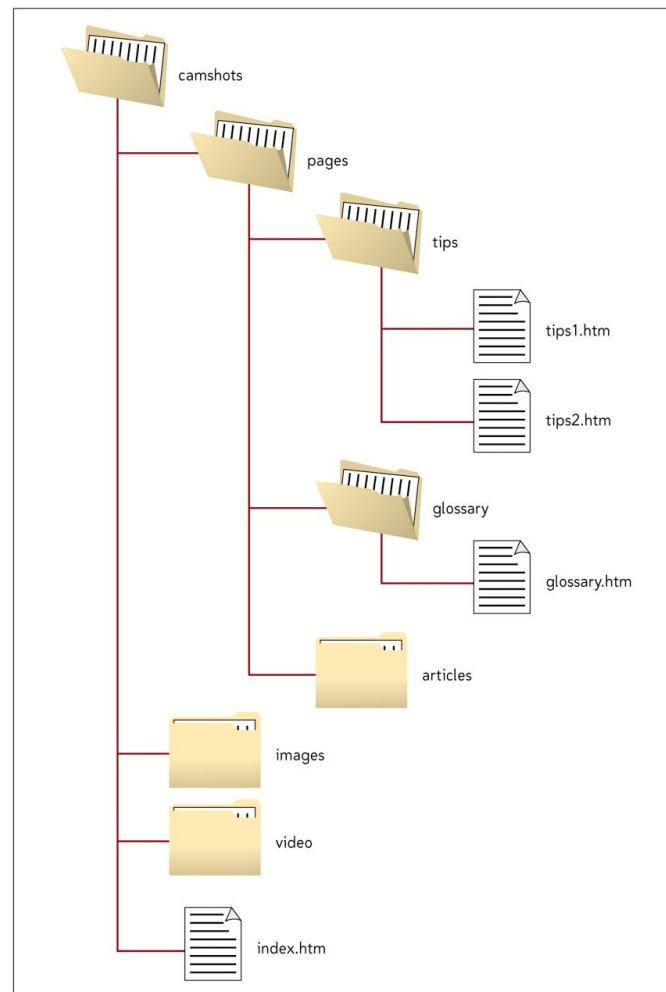
Attributes of the a Element

Figure 2-13 Attributes of the anchor (a) element

Attribute	Description
<code>charset="encoding"</code>	Specifies the character encoding used in the linked resource (<i>not supported in HTML5</i>)
<code>href="url"</code>	Indicates the resource targeted by the hypertext link
<code>media="media type"</code>	Indicates the media device in which the linked resource should be viewed (<i>HTML5</i>)
<code>name="name"</code>	Assigns a name for the section anchored by the <a> tag (<i>not supported in HTML5</i>)
<code>rel="relationship"</code>	Specifies the relationship between the current document and the linked resource
<code>ping="url"</code>	A space-separated list of resources that get notified when the user follows the hyperlink (<i>HTML5</i>)
<code>target="target_type"</code>	Specifies where to open the linked resource
<code>type="mime-type"</code>	Specifies the content (the mime-type) of the linked resource

Specifying a Folder Path

Figure 2-14 A sample folder structure



Specifying a Folder Path

- “ To create a link to a file located in a different folder than the current document, you must specify the file’s location, or **path**
- “ An **absolute path** specifies a file’s precise location within a computer’s entire folder structure
- “ A **relative path** specifies a file’s location in relation to the location of the current document
- “ If the file is in the same location as the current document, you do not have to specify the folder name
- “ If the file is in a subfolder of the current document, you have to include the name of the subfolder

Specifying a Folder Path

- “ If you want to go one level up the folder tree, you start the **relative path** with a double period (..), a forward slash, and then provide the name of the file
- “ To specify a different folder on the same level, known as a **sibling folder**, you move up the folder tree using the double period (..) and then down the tree using the name of the **sibling folder**
- “ You should almost always use **relative paths** in your links

Specifying a Folder Path

Figure 2-16 Relative paths

Relative Path from the /camshots/pages/tips Subfolder	Interpretation
tips1.htm	The tips1.htm file located in the current folder
tips2.htm	The tips2.htm file located in the current folder
../glossary/glossary.htm	The glossary.htm file located in the sibling glossary folder
../../index.htm	The index.htm file located in the parent camshots folder

Setting the Base Path

- “ A browser resolves relative paths based on the location of the current document
- “ You can change this behavior by using the base element to specify a different starting location for all relative paths
- “ To set the default location for a relative path, add the element

```
<base href="path" />
```

to the document head, where *path* is the folder location that you want browsers to use when resolving relative paths in the current document

Marking Locations with the `id` Attribute

- “ To jump to a specific location within a document, you first need to mark that location
- “ One way to identify elements in an HTML document is to use the **id attribute**
- “ **Id names** must be unique
- “ **Id names** are not case sensitive

Linking to Locations within Documents

Figure 2-19 Adding the id attribute to h2 headings

h2 heading marked with an id value of "A"

h2 heading marked with an id value of "B"

```
<h2 id="A">A</h2>
<dl>
  <dt><b>Ambient Light</b></dt>
  <dd>The natural light in a scene.</dd>
  <dt><b>Aperture</b></dt>
  <dd>The maximum size of the hole through which light enters the camera.</dd>
  <dt><b>Artifact</b></dt>
  <dd>Unwanted distortions in an image caused by image compression.</dd>
  <dt><b>Aspect Ratio</b></dt>
  <dd>The ratio between the width and height of an image.</dd>
</dl>
<h2 id="B">B</h2>
<dl>
  <dt><b>Bit</b></dt>
  <dd>The smallest unit of computer memory.</dd>
  <dt><b>Bitmap</b></dt>
  <dd>A method of storing information that maps an image pixel bit by bit.</dd>
  <dt><b>Byte</b></dt>
  <dd>A group of 8 bits, the basic unit of information for the computer.</dd>
</dl>
```

Linking to an id

- “ Once you’ve marked an element using the id attribute, you can create a hypertext link to that element using the a element

```
<a href="#id">content</a>
```

Creating Links between Documents

” To create a link to a specific location in another file, enter the code

```
<a href="reference#id">content</a>
```

where reference is a reference to an HTML or XHTML file and id is the id of an element marked within that file

Image Maps and External Links

Tip: E-mail links are created by setting the href attribute to `mailto:email`, where *email* is the recipient's e-mail address.

Tip: To include a blank space in a link, use the `%20` character entity.

`contact me`

decades of photographic experience. I offer advice for both beginners and advanced users. I hope you enjoy what you find, but please be considerate of the work it took to do this. The entire site contents including all images and articles are copyrighted. Please honor my work and do not copy anything without permission. If you are interested in publishing any of my images or articles or using them in other ways, please [contact me](#) and we can discuss your needs. Happy Shooting!

— Gerry

ADVICE AND NEWS FROM THE WORLD OF DIGITAL PHOTOGRAPHY

Clicking opens the link in an e-mail program, if one is available.

```
<a href="glossary.htm#flash_mode" title="View Definition">Flash Mode</a>
```

A subject line can be added by appending the text string `?subject=text` to the link, where *text* is the text of the subject line.

Use the **title** attribute to add descriptive **tooltips** to hypertext links.

IMAGE MAPS AND EXTERNAL LINKS

```

<map name="logomap">
  <area shape="circle" coords="82, 78,80" href="home.htm" alt="Home Page" />
  <area shape="rect" coords="235, 120, 310, 150" href="tips.htm" alt="Tips" />
  <area shape="rect" coords="340, 120, 510, 150" href="glossary.htm" alt="Glossary" />
</map>
```

An inline image is attached to an image map with the `usemap` attribute.

An **image map** maps areas called **hotspots** within an image to different linked documents.

Circular hotspots are defined with a shape attribute of "circle".

Rectangular hotspots are defined with a shape attribute of "rect".

Sample URLs to link to Internet resources

URL	Description
<code>file:///C:/server/camshots.htm</code>	Links to the <code>camshots.htm</code> file in the server folder on the C drive
<code>ftp://ftp.microsoft.com</code>	Links to the FTP server at <code>ftp.microsoft.com</code>
<code>http://www.camshots.com</code>	Links to the Web site <code>www.camshots.com</code>
<code>https://www.camshots.com</code>	Links to the Web site <code>www.camshots.com</code> over a secure connection

Working with Linked Images and Image Maps

“ A standard practice on the Web is to turn the Web site’s logo into a hypertext link pointing to the home page

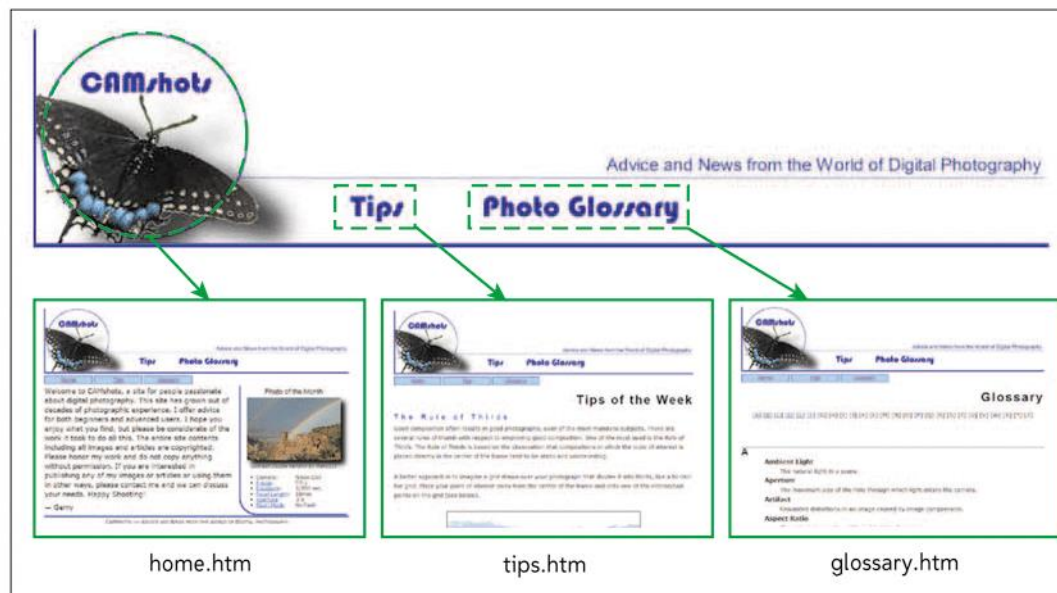
```
<a href="reference"></a>
```

“ **Thumbnail images** are small representations of larger image files

“ HTML also allows you to divide an image into different zones, or **hotspots**, each linked to a different destination

Working with Linked Images and Image Maps

Figure 2-30 Hotspots within the CAMshots header image



Working with Linked Images and Image Maps

- “ To define these hotspots, you create an **image map** that matches a specified region of the inline image to a specific destination
- “ HTML supports two kinds of image maps:
 - . Client-side image maps
 - . Server-side image maps

Client-Side Image Maps

- “ A **client-side image map** is inserted in an image map defined in the Web page
- “ The Web browser locally processes the image map
- “ Because all of the processing is done locally, you can easily test Web pages
- “ More responsive than server-side maps
- “ The browser’s status bar displays the target of each hotspot
- “ Older browsers do not support client-side images

Defining Hotspots

” Define a hotspot using two properties:

- . Its location in the image
- . Its shape

” Syntax of the hotspot element:

```
<area shape="shape" coords="coordinates"  
      href="url" alt="text" />
```

Creating a Rectangular Hotspot

” Two points define a **rectangular hotspot**:

- . the upper-left corner
- . the lower-right corner

” A sample code for a **rectangular hotspot** is:

```
<area shape="rect"  
  coords="384,61,499,271"  
  href="water.htm">
```

- . **Coordinates** are entered as a series of four numbers separated by commas
- . HTML expects that the first two numbers represent the coordinates for the upper-left corner of the rectangle, and the second two numbers indicate the location of the lower-right corner
- . The **hotspot** is a hypertext link to water.htm

Creating a Circular Hotspot

“ A **circular hotspot** is defined by the location of its center and its radius

“ A sample code for a **circular hotspot** is:

```
<area shape="circle" coords="307,137,66"  
      href="karts.htm">
```

- . ***Coordinates*** are (307, 137), and it has a radius of 66 pixels
- . The ***hotspot*** is a hypertext link to karts.htm

Creating a Polygonal Hotspot

” To create a polygonal hotspot, you enter the coordinates for each vertex in the shape

” A sample code for a **polygonal hotspot** is:

```
<area shape="polygon"  
  coords="13,60,13,270,370,270,370,225,230  
  ,225, 230,60" href="rides.htm">
```

- ***Coordinates*** are for each vertex in the shape
- The ***hotspot*** is a hypertext link to rides.htm

Creating a Default Hotspot

- “ `<area shape="default" coords="0, 0, x, y" ... />`
where *x* is the width of the inline image in pixels and *y* is the image's height
- “ Any spot that is not covered by another hotspot will activate the default hotspot link

Creating a Client-Side Image Map

Creating a Client-Side Image Map

- To create a client-side image map, insert the `map` element

```
<map name="text">
  hotspots
</map>
```

anywhere within the Web page body, where `text` is the name of the image map and `hotspots` is a list of hotspot areas defined within the image map. (Note: For XHTML, use the `id` attribute in place of the `name` attribute.)

- To add a hotspot to the image map, place the `area` element

```
<area shape="shape" coords="coordinates" href="reference"
      alt="text" />
```

within the `map` element, where `shape` is the shape of the hotspot region, `coordinates` is the list of points that defines the boundaries of the region, `reference` is the file or location that the hotspot is linked to, and `text` is alternate text displayed for non-graphical browsers.

- To define a rectangular-shaped hotspot, use

```
<area shape="rect" coords="x1, y1, x2, y2" ... />
```

where `x1`, `y1` are the coordinates of the upper-left corner of the rectangle and `x2`, `y2` are the coordinates of the lower-right corner of the rectangle.

- To define a circular hotspot, use

```
<area shape="circle" coords="x, y, r" ... />
```

where `x` and `y` are the coordinates of the center of the circle and `r` is the radius of the circle.

- To define a polygonal hotspot, use

```
<area shape="poly" coords="x1, y1, x2, y2, x3, y3, ..." ... />
```

where `(x1, y1)`, `(x2, y2)`, `(x3, y3)`, and so forth define the coordinates of each corner in the multisided shape.

- To define the default hotspot, use

```
<area shape="default" coords="0, 0, x, y" ... />
```

where `x` is the width of the inline image in pixels and `y` is the height in pixels.

- To apply an image map to an inline image, add the `usemap` attribute

```

```

to the inline image, where `map` is the name assigned to the image map.

Applying an Image Map

Figure 2-34 Creating the logomap image map

circular and
rectangular
hotspots

```
<header>
  
  <map name="logomap">
    <area shape="circle" coords="82, 78,80"
      href="home.htm" alt="Home Page" />
    <area shape="rect" coords="235, 120, 310, 150"
      href="tips.htm" alt="Tips" />
    <area shape="rect" coords="340, 120, 510, 150"
      href="glossary.htm" alt="Glossary" />
  </map>
</header>
```


Server-Side Image Maps

- “ In a **server-side image map**, the image map is stored on the Web server
- “ Server-side image maps are supported by most graphical browsers
- “ Server-side image maps can be slow to operate
- “ The browser’s status bar does not display the target of each hotspot

Introducing URLs

- “ To create a link to a resource on the Internet, you need to know its **URL**
- “ A **Uniform Resource Locator (URL)** specifies the precise location and type of a resource on the Internet
- “ A **protocol** is a set of rules defining how information is passed between two resources

Introducing URLs

- “ Your Web browser communicates with Web servers using the **Hypertext Transfer Protocol (HTTP)**
- “ The **URLs** for all Web pages must start with the http scheme
- “ Other Internet resources use different **protocols** and have different scheme names

Internet Protocols

Figure 2-36 Internet protocols

Protocol	Used To
file	Access documents stored locally on a user's computer
ftp	Access documents stored on an FTP server
http	Access Web pages
https	Access Web pages over a secure encrypted connection
mailto	Open a user's e-mail client and address a new message

Linking to a Web Site

A sample URL for a Web page

Figure 2-37 Parts of a URL



Linking to a Web Site

- “ If a **URL** includes no path, then it indicates the topmost folder in the server’s directory tree
- “ If a **URL** does not specify a filename, the server searches for the default home page
- “ The server name portion of the URL is also called the **domain name**
- “ The top level, called an **extension**, indicates the general audience supported by the Web server

```
<a href="http://www.apogeephoto.com">Apogee  
Photo</a>
```

Linking to a Web Site

Figure 2-39 Linking to sites on the Web

```
<article>
<h1>Photography Sites on the web</h1>
<p>The Web is an excellent resource for articles on photography and
digital cameras. Here are a few of my favorites.
</p>
<dl>
<dt>&#9758; <a href="http://www.apogeephoto.com">Apogee Photo</a></dt>
<dd>An established online photography magazine with articles by
top pros, discussion forums, workshops, and more.
</dd>
<dt>&#9758; <a href="http://www.outdoorphotographer.com">Outdoor Photographer</a></dt>
<dd>The premier magazine for outdoor photography. The site
includes extensive tips on photographing wildlife, action
sports, scenic vistas, and travel sites.
</dd>
<dt>&#9758; <a href="http://www.dpmag.com">Digital Photo</a></dt>
<dd>An excellent site for novices and professionals with
informative reviews and buying guides for the latest equipment
and software.
</dd>
<dt>&#9758; <a href="http://www.popphoto.com">Popular Photography and Imaging</a></dt>
<dd>A useful and informative site with articles from the
long-established magazine of professional and amateur
photographers.
</dd>
</dl>
</article>
```

Figure 2-40 Links on the Tips page

Photography Sites on the Web

The Web is an excellent resource for articles on photography and digital cameras. Here are a few of my favorites.

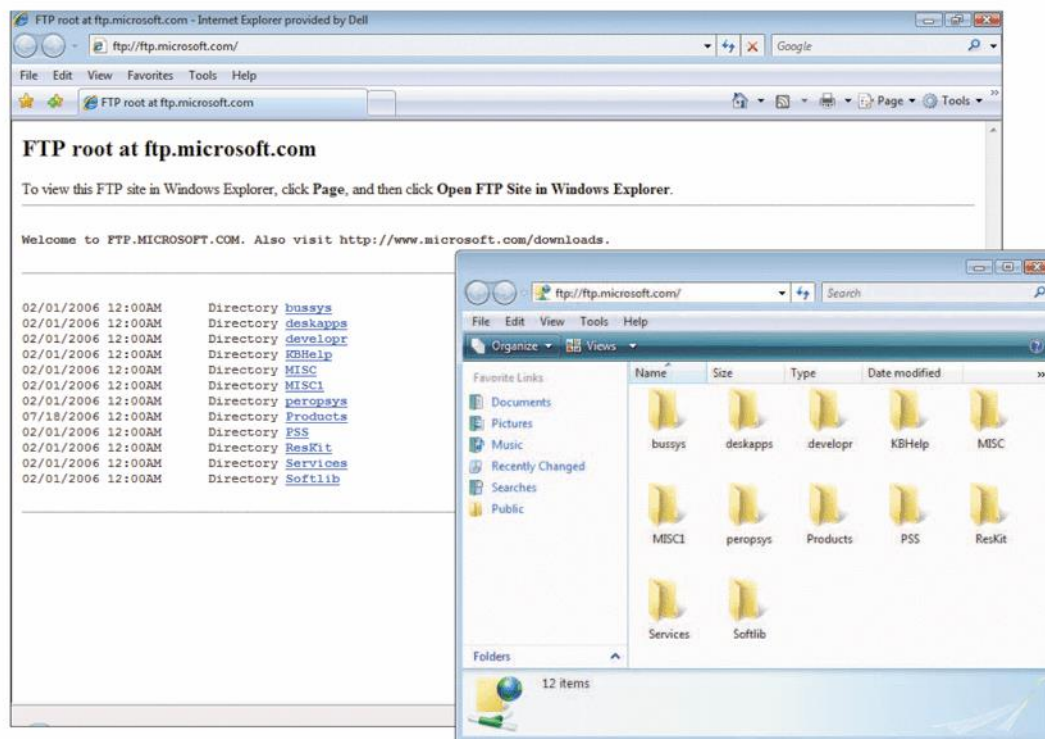
- ⇒ [Apogee Photo](#)
An established online photography magazine with articles by top pros, discussion forums, workshops, and more.
- ⇒ [Outdoor Photographer](#)
The premier magazine for outdoor photography. The site includes extensive tips on photographing wildlife, action sports, scenic vistas, and travel sites.
- ⇒ [Digital Photo](#)
An excellent site for novices and professionals with informative reviews and buying guides for the latest equipment and software.
- ⇒ [Popular Photography and Imaging](#)
A useful and informative site with articles from the long-established magazine of professional and amateur photographers.

Linking to FTP Servers

- “ **FTP servers** are another method of storing and sharing files on the Internet
- “ FTP servers transfer information using a communications protocol called **File Transfer Protocol (FTP)**
- “ An FTP server requires each user to enter a password and a username to access its files

Linking to FTP Servers

Figure 2-41 Accessing an FTP site over the Web



Linking to a Local File

- “ On occasion, you may see the URL for a file stored locally on your computer or local area network
- “ If you are accessing a file from your own computer, the server name might be omitted and replaced by an extra slash (/)
- “ The file scheme here does not imply any particular communication protocol; instead the browser retrieves the document using whatever method is the local standard for the type of file specified in the URL

Linking to an E-Mail Address

- “ Many Web sites use e-mail to allow users to communicate with a site’s owner, sales representative, or technical support staff
- “ You can turn an e-mail address into a hypertext link; when a user clicks the link, the user’s e-mail program opens and automatically inserts the address into the “To” field of the new outgoing message

Linking to an E-Mail Address

- “ The mailto protocol also allows you to add information to the e-mail, including the subject line and the text of the message
 - . `mailto:address?header1=value1&header2=value2& ...`
 - . `mailto:ghayward@camshotscom?Subject=Test&Body=This%20is%20a%20test%20message`
- “ Spaces are replaced with the `%20` character code since URLs cannot contain blank spaces

Linking to an E-Mail Address

- ” If you need to include an e-mail address in your Web page, you can take a few steps to reduce problems with spam:
- Replace all e-mail addresses in your page with inline images of those addresses
 - Write a program in a language JavaScript to scramble any e-mail address in the HTML code
 - Replace the characters of the e-mail address with escape characters (character codes)

Linking to an E-Mail Address

Linking to Internet Resources

- The URL for a Web page is

`http://server/path/filename#id`

where *server* is the name of the Web server, *path* is the path to a file on that server, *filename* is the name of the file, and if necessary, *id* is the name of an id or anchor within the file.

- The URL for an FTP site is

`ftp://server/path/filename`

where *server* is the name of the FTP server, *path* is the folder path, and *filename* is the name of the file.

- The URL for an e-mail address is

`mailto:address?header1=value1&header2=value2&...`

where *address* is the e-mail address; *header1*, *header2*, etc. are different e-mail headers; and *value1*, *value2*, and so on are the values of the headers.

- The URL to reference a local file is

`file://server/path/filename`

where *server* is the name of the local server or computer, *path* is the path to the file on that server, and *filename* is the name of the file. If you are accessing a file on your own computer, the server name is replaced by a third slash (/).

Working with Hypertext Attributes

- “ HTML provides several attributes to control the behavior and appearance of your links
- “ You can force a document to appear in a secondary window or tab by adding the **target attribute** to the tag `<a>` tag
- “ If you want to provide additional information to your users, you can provide a **tooltip** to your links
- “ A **tooltip** is a descriptive text that appears whenever a user positions the mouse pointer over a link

Working with Hypertext Attributes

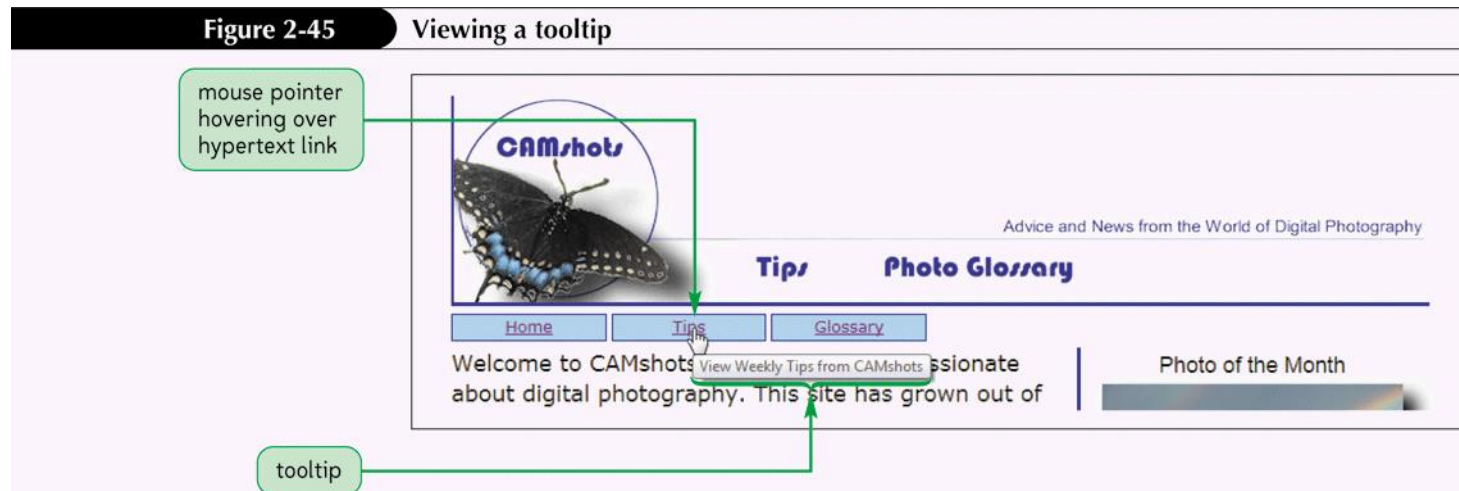
Opening a Link in a New Window or Tab

- To open a link in a new browser window or browser tab, add the attribute

```
target="window"
```

to the `<a>` tag, where *window* is a name assigned to the new browser window or tab. The target attribute can also be set to `_blank` for a new, unnamed browser window or tab, or to `_self` for the current browser window or tab.

Working with Hypertext Attributes



Creating a Semantic Link

- “ Two attributes, **rel** and **rev**, allow you to specify the relationship between a link and its destination
- “ The **rel** attribute describes the content of the destination document
- “ The **rev** attribute complements the **rel** attribute by describing the contents of the source document as viewed from the destination document’s perspective

Creating a Semantic Link

“ Links containing the **rel** and **rev** attributes are called **semantic links** because the tag contains information about the relationship between the link and its destination

Figure 2-46 Proposed values for the rel attribute

rel Attribute	Link To ...
alternate	An alternate version of the document
archives	A collection of historical documents
author	Information about the author of the document
external	An external document
first	The first document in a selection
help	A help document
index	An index for the document
last	The last document in a selection
license	Copyright information for the document
next	The next document in a selection
prev	The previous document in a selection
search	A search tool for the selection
sidebar	A document that should be shown in the browser's sidebar
stylesheet	An external style sheet

Using the `link` Element

- “ Another way to add a link to your document is to add a **link element** to the document’s head
- “ **Link elements** are intended only for the browser’s use
- “ Link elements do not appear as part of the Web page

Working with Metadata

- “ Web authors often turn to **search engine optimization (SEO)** tools to make their sites appear more prominently in search engines.
- “ Information about the site is called **metadata**
- “ Add metadata to your Web pages by adding a meta element to the head section of the document

```
<meta name="text" content="text"  
scheme="text" http-equiv="text" />
```

Working with Metadata

Figure 2-47 Examples of the uses of the meta element

Meta Name	Example	Description
author	<code><meta name="author" content="Gerry Hayward" /></code>	Supplies the name of the document author
classification	<code><meta name="classification" content="photography" /></code>	Classifies the document category
copyright	<code><meta name="copyright" content="© 2014 CAMshots" /></code>	Provides a copyright statement
description	<code><meta name="description" content="Digital photography and advice" /></code>	Provides a description of the document
generator	<code><meta name="generator" content="Dreamweaver" /></code>	Indicates the name of the program that created the HTML code for the document
keywords	<code><meta name="keywords" content="photography, cameras, digital imaging" /></code>	Provides a list of keywords describing the document
owner	<code><meta name="owner" content="CAMshots" /></code>	Indicates the owner of the document
rating	<code><meta name="rating" content="general" /></code>	Provides a rating of the document in terms of its suitability for minors
reply-to	<code><meta name="reply-to" content="ghayward@camshots.com (G. Hayward)" /></code>	Supplies a contact e-mail address and name for the document

Working with Metadata

- “ In recent years, search engines have become more sophisticated in evaluating Web sites
 - The meta element has decreased in importance, but it is still used by search engines when adding a site to their indexes

Working with Metadata

- To document the contents of your Web page, use the meta element
`<meta name="text" content="text" />`
where the name attribute specifies the type of metadata and the content attribute stores the metadata value.
- To add metadata or a command to the communication stream between the Web server and Web browser, use
`<meta http-equiv="text" content="text" />`
where the http-equiv attribute specifies the type of data or command attached to the communication stream and the content attribute specifies the data value or command.

Working with Metadata

- “ You can add information and commands to this communication stream with the meta element’s http-equiv attribute of the meta element
- Force the Web browser to refresh the Web page at timed intervals
`<meta http-equiv="refresh" content="60" />`
 - Redirect the browser from the current document to a new document
`<meta http-equiv="refresh"
content="5;url=www.camshots.com" />`