

HTML, XHTML, and XML

3rd Edition

Tutorial 8

Designing a Web Site with Frames

**Thanks to the author of the textbook for providing these
slides. We will skip this chapter.**

Turgay Korkmaz





Objectives

- Explore the uses of frames in a Web site
- Create a frameset consisting of rows and columns of frames
- Display a document within a frame
- Format the appearance of a frame



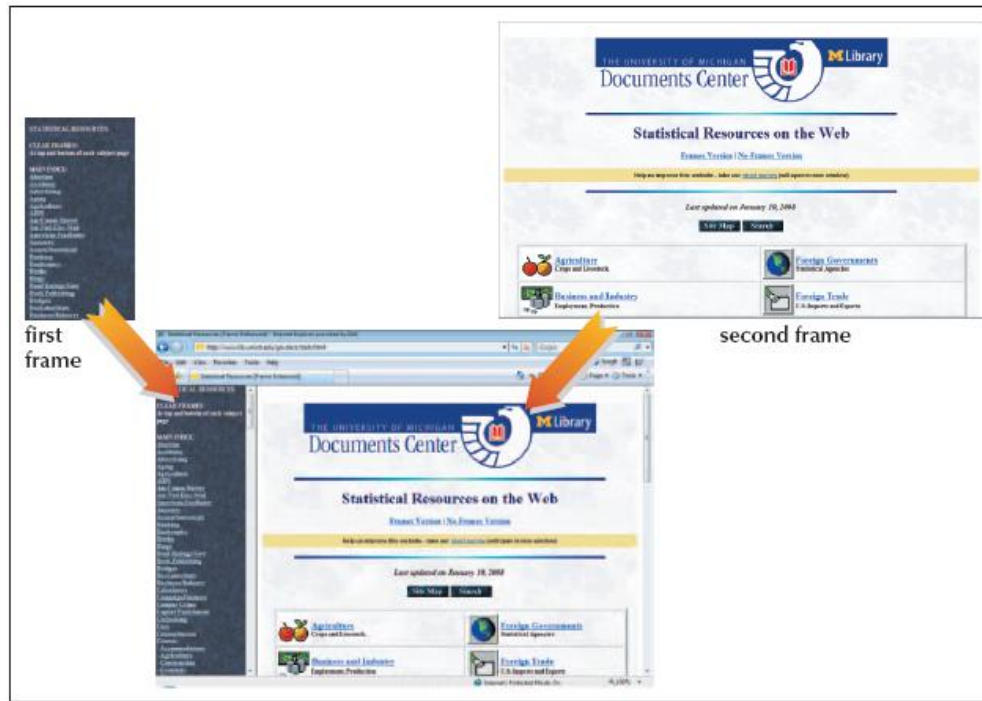
Objectives

- Create links targeted at frames
- Direct a link to a target outside of a frame layout
- Format the color and size of frame borders
- Create an inline frame



Introducing Frames

- A **frame** is a section of the browser window capable of displaying the contents of an entire Web page





Disadvantages to Using Frames

- The browser has to load multiple HTML files
- Difficult to bookmark the Web site
- Don't work well with Internet search engines

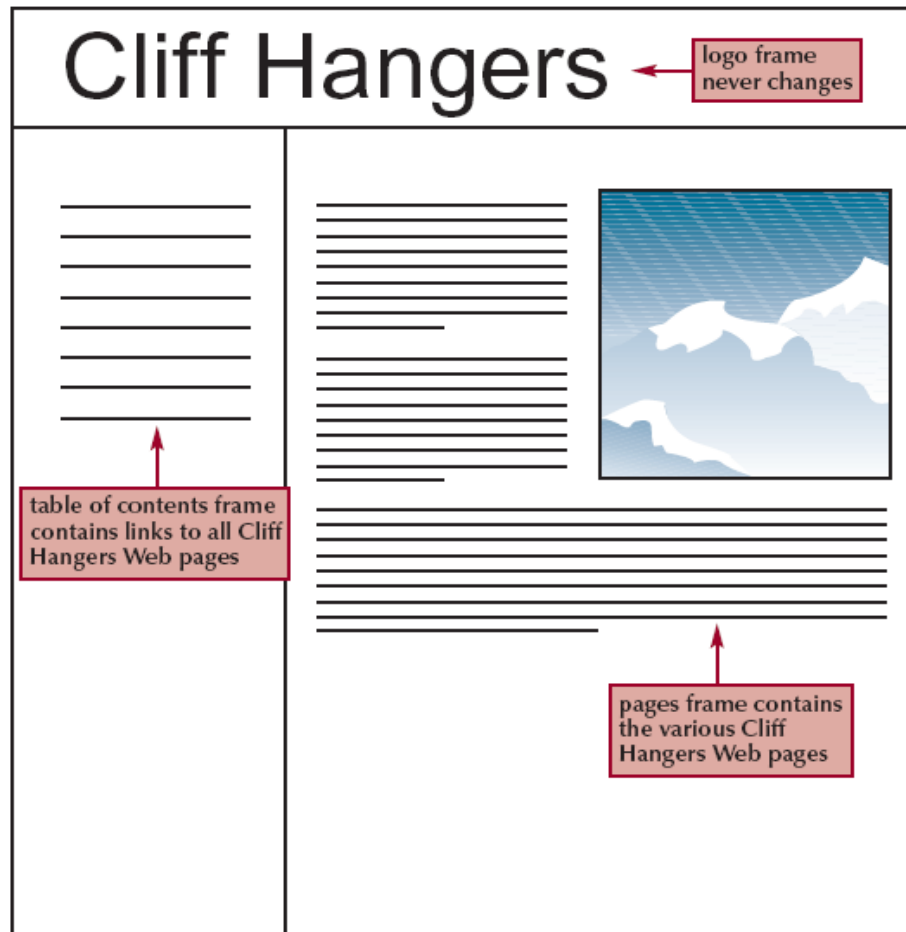


Planning Your Frames

- Before you start creating your frames, plan their appearance and how they are to be used:
 - What information will be displayed in each frame?
 - How do you want the frames placed on the Web page?
What is the size of each frame?
 - Which frames will be static—that is, always showing the same content?
 - Which frames will change in response to links being clicked?
 - What Web pages will users first see when they access the site?
 - Should users be permitted to resize the frames to suit their needs?



Planning Your Frames





Creating a Frameset

- A **frameset** describes the frame layout
- You must choose to layout your frames in either rows or columns
- To create a frame layout, you will use the rows and cols attributes of the **<frameset>** element
 - The rows attribute creates a row of frames
 - The cols attribute creates a column of frames

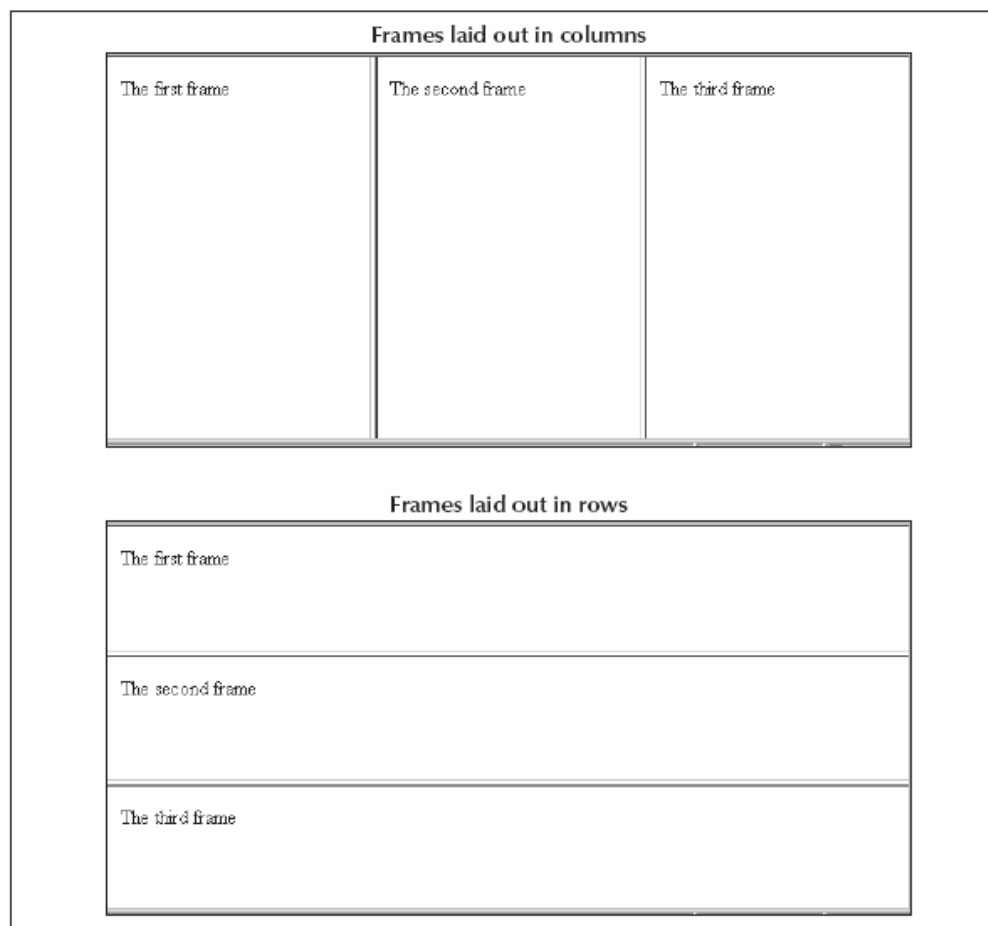


Creating a Frameset

- The **<frameset>** element is used to store the definitions of the various frames in the file. These definitions will typically include:
 - Size and location of the frame
 - Web pages the frames display
- The **<frameset>** code does not include an opening and closing **<body>** element
 - The reason for this is that this HTML file displays the contents of other Web pages; technically, it is not a Web page



Frames Defined in Either Rows or Columns





The Frame Syntax

- The syntax for creating a row or column frame layout is:
 - `<frameset rows="row1,row2,row3, . . .">`
`</frameset>`

Or:

- `<frameset cols="column1,column2,column3, . . .">` `</frameset>`

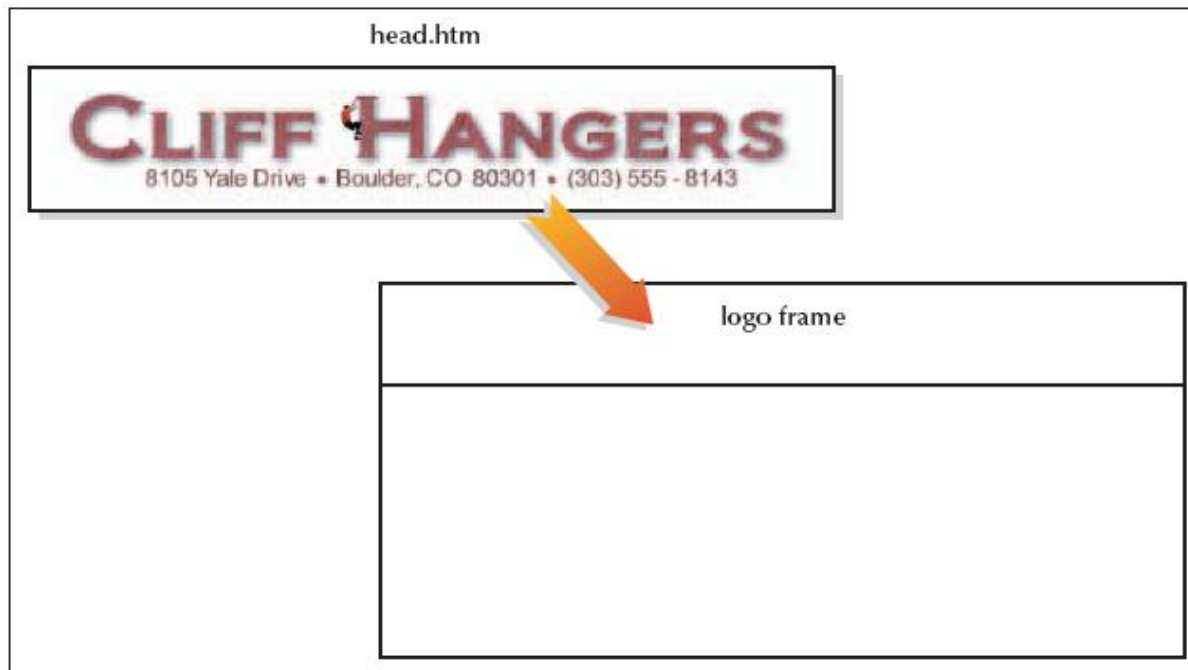


Specifying a Frame Source

- To specify a source for a frame, use the **<frame>** element with the syntax:
`<frame src="url" />`
- The URL is the filename and location of the page that you want to load
- You must insert the **<frame>** element between the opening and closing **<frameset>** elements



Logo and Placement





Nesting Framesets

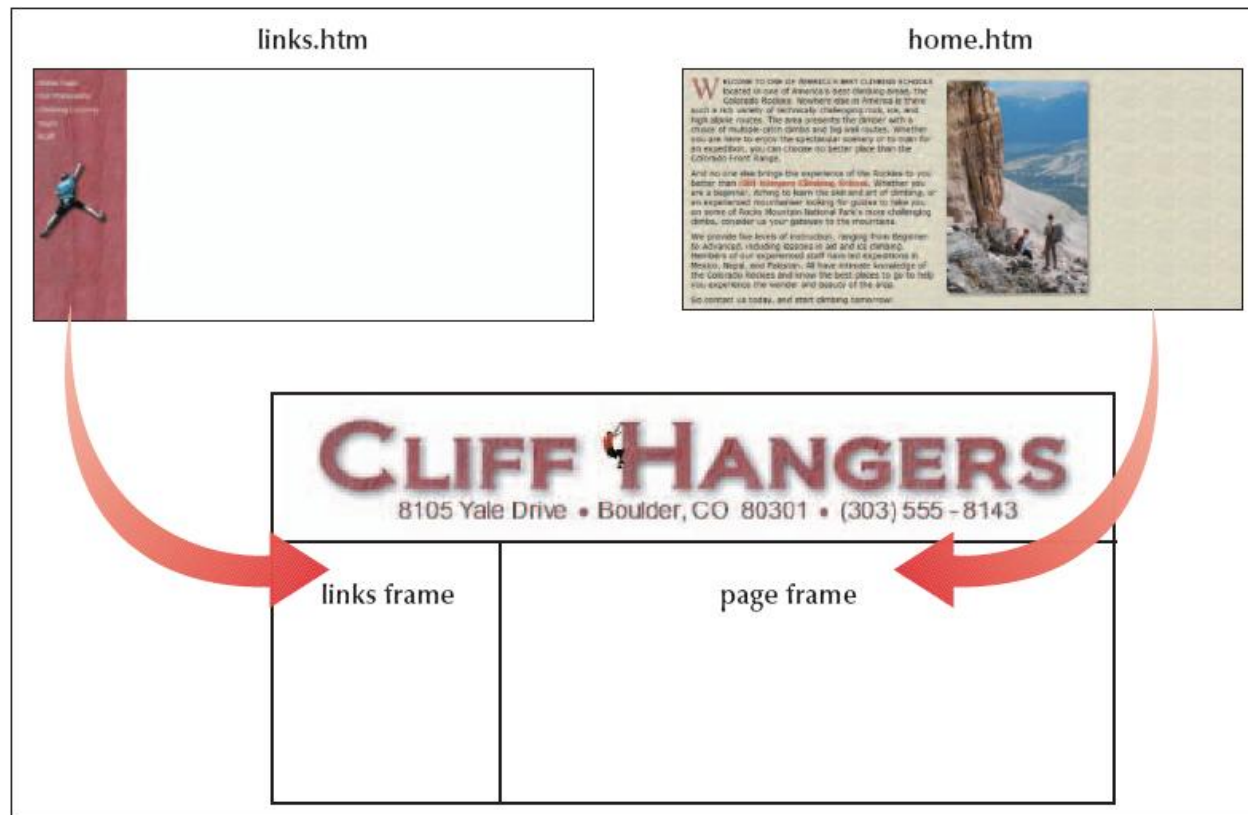
- To create frames using both rows and columns, one frameset must be nested inside another
- The interpretation of the rows and cols attributes changes slightly
 - For example, a row height of 25% does not mean 25% of the display area, but rather 25% of the height of the frame into which that row has been inserted (or nested)



Creating a Nested Set of Frames in the Second Frame Row

```
<frameset rows="85,*">
  <!-- Company Logo -->
  <frame src="head.htm" />

  <!-- Nested Frameset -->
  <frameset cols="140,*">
    </frameset>
  </frameset>
```



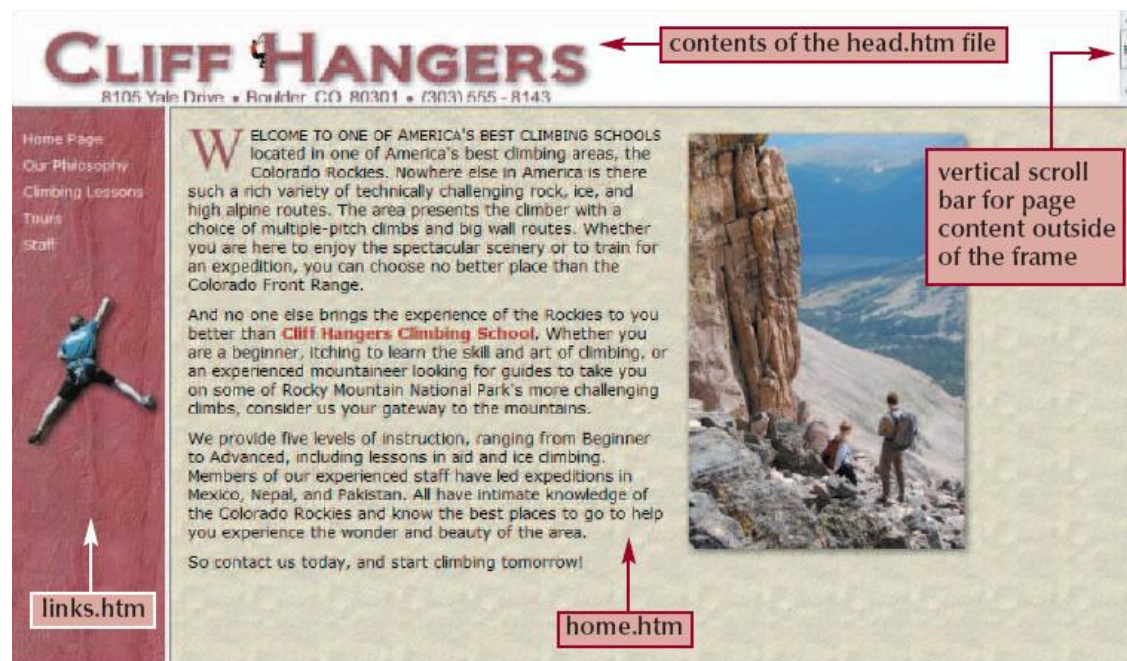


Inserting Frame Columns

```
<frameset rows="85,*">
  <!-- Company Logo -->
  <frame src="head.htm" />

  <!-- Nested Frameset -->
  <frameset cols="140,*">
    <!-- List of Links -->
    <frame src="links.htm" />

    <!-- Cliff Hangers Web Pages -->
    <frame src="home.htm" />
  </frameset>
</frameset>
```





Formatting a Frame

- You can control three attributes of a frame:
 - Scroll bars
 - The size of the margin between the source document and the frame border
 - Whether or not the user is allowed to change the size of the frame



Hiding and Displaying Scroll Bars

- By default, scroll bars are displayed when the content of the source page cannot fit within the frame
- You can override the default setting using the **scrolling** attribute
- The scrolling syntax is: **scrolling="type"**
 - **scrolling** can either be “yes” (to always display scroll bars) or “no” (to never display scroll bars)



Removing the Scroll Bars from the Logo Frame

hide the frame scroll bars

```
<frameset rows="85,*">
  <!-- Company Logo -->
  <frame src="head.htm" scrolling="no" />

  <!-- Nested Frameset -->
  <frameset cols="140,*">
    <!-- List of Links -->
    <frame src="links.htm" />

    <!-- Cliff Hangers Web Pages -->
    <frame src="home.htm" />
  </frameset>
</frameset>
```



Setting Frame Margins

- The following should be consider for frame margins:
 - The browser determines the amount of space between the content of the page and the frame border
 - Occasionally, the browser sets the margin between the border and the content too large
 - The margin should be big enough to keep the source's text or images from running into the frame's borders
 - The margin should not take up too much space, because you typically want to display as much of the source as possible



Specifying Margins Syntax

- The syntax for specifying margins for a frame is:
`marginheight="value" marginwidth="value">`
 - ***marginheight*** is the amount of space, in pixels, above and below the content of the page in the frame
 - ***marginwidth*** is the amount of space to the left and right of the page
- If you specify only one, the browser assumes that you want to use the same value for both
- Setting margin values is a process of trial and error as you determine what combination of margin sizes looks best



Specifying the Margin Sizes for the Frames

```
<frameset rows="85,*">
  <!-- Company Logo -->
  <frame src="head.htm" scrolling="no" marginheight="0" />

  <!-- Nested Frameset -->
  <frameset cols="140,*">
    <!-- List of Links -->
    <frame src="links.htm" />

    <!-- Cliff Hangers Web Pages -->
    <frame src="home.htm" />
  </frameset>
</frameset>
```

the margin above and below the head.htm file will be 0 pixels

CLIFF HANGERS
8105 Yale Drive • Boulder, CO 80301 • (303) 555-8143

the entire Cliff Hangers logo appears within the frame

Home Page
Our Philosophy
Climbing Lessons
Tours
Staff



WELCOME TO ONE OF AMERICA'S BEST CLIMBING SCHOOLS located in one of America's best climbing areas, the Colorado Rockies. Nowhere else in America is there such a rich variety of technically challenging rock, ice, and high alpine routes. The area presents the climber with a choice of multiple-pitch climbs and big wall routes. Whether you are here to enjoy the spectacular scenery or to train for an expedition, you can choose no better place than the Colorado Front Range.

And no one else brings the experience of the Rockies to you better than **Cliff Hangers Climbing School**. Whether you are a beginner, itching to learn the skill and art of climbing, or an experienced mountaineer looking for guides to take you on some of Rocky Mountain National Park's more challenging climbs, consider us your gateway to the mountains.

We provide five levels of instruction, ranging from Beginner to Advanced, including lessons in aid and ice climbing. Members of our experienced staff have led expeditions in Mexico, Nepal, and Pakistan. All have intimate knowledge of the Colorado Rockies and know the best places to go to help you experience the wonder and beauty of the area.

So contact us today, and start climbing tomorrow!





Controlling Frame Resizing

- By default, users can resize frame borders in the browser by simply dragging a frame border
- Some Web designers prefer to freeze, or lock, frames, so that users cannot resize them
 - This ensures that the Web site displays as the designer intended
- The syntax for controlling frame resizing is:
`noresize="noresize"`
- The **`noresize`** attribute is included within the **`<frame>`** element to prevent users from modifying the size of the frame

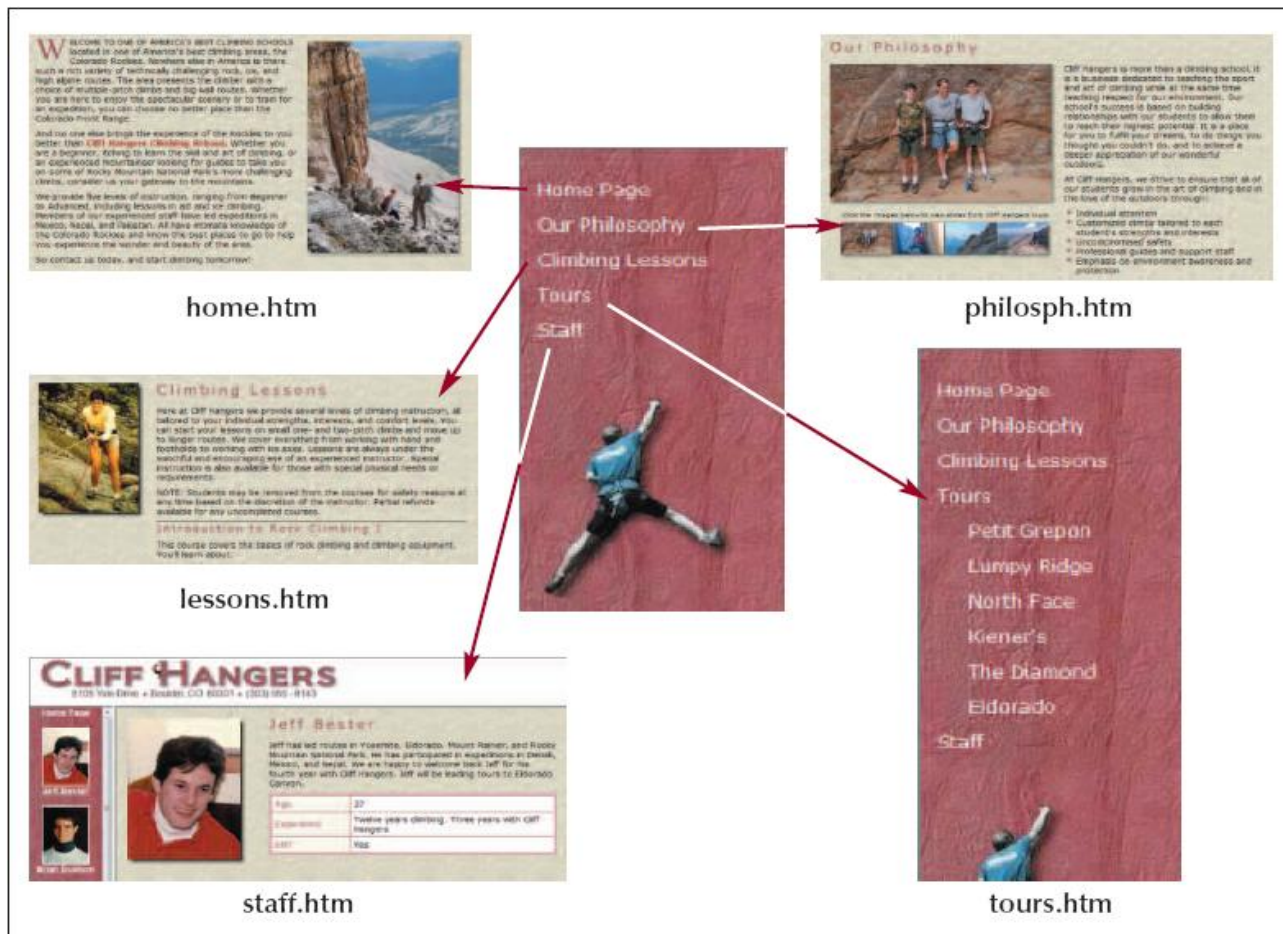


Working with Frames and Links

- By default, clicking a link within a frame opens the linked file inside the same frame
- You can display hyperlinks in many ways:
 - In a different frame
 - In a new window
 - In the entire window
- When you want to control the behavior of links in a framed page, there are two required steps:
 - Give each frame on the page a name
 - Point each hyperlink to one of the named frames



Working with Frames and Links





Assigning a Name to a Frame

- To assign a name to a frame, add the **name** attribute to the frame element
- The syntax for this attribute is:
`<frame src="url" name="name" />`
 - Case is important in assigning names: “**information**” is considered a different name than “**INFORMATION**”



Setting the Frame Names

```
<frameset rows="85,*">
  <!-- company Logo -->
  <frame src="head.htm" scrolling="no" marginheight="0" noresize="noresize" name="logo"

  <!-- Nested Frameset -->
  <frameset cols="140,*">
    <!-- List of Links -->
    <frame src="links.htm" noresize="noresize" name="links" />

    <!-- Cliff Hangers Web Pages -->
    <frame src="home.htm" noresize="noresize" name="pages" />
  </frameset>
</frameset>
```



Specifying a Link Target

- You can use the **target** attribute to open a page in a specific frame
- The syntax for this is: **target= "*name*"**
- When a page contains dozens of links that should all open in the same frame, HTML provides a way to specify a target frame for all the hyperlinks within a single page



Specifying a Link Target

```
<ul>
  <li><a href="home.htm" target="pages">Home Page</a></li>
  <li><a href="philosph.htm" target="pages">our Philosophy</a></li>
  <li><a href="lessons.htm" target="pages">Climbing Lessons</a></li>
  <li><a href="tours.htm">Tours</a></li>
  <li><a href="staff.htm">Staff</a></li>
</ul>
```



Using Reserved Target Names

- **Reserved target names** are special names that can be used in place of a frame name as the target
- They are useful in situations:
 - Where the name of the frame is unavailable
 - When you want the page to appear in a new window
 - When you want the page to replace the current browser window
- All reserved target names begin with the underscore character (`_`) to distinguish them from other target names
- Reserved target names are case-sensitive, they must be entered in lowercase



Using Reserved Target Names

Reserved Target Name	Function in a Frameset
_blank	Loads the target document into a new browser window
_self	Loads the target document into the frame containing the link
_parent	Loads the target document into the parent of the frame containing the link
_top	Loads the document into the full display area, replacing the current frameset



Using the _self Target

```
<ul>
  <li><a href="home.htm" target="pages">Home Page</a></li>
  <li><a href="philosph.htm" target="pages">Our Philosophy</a></li>
  <li><a href="lessons.htm" target="pages">Climbing Lessons</a></li>
  <li><a href="tours.htm" target="_self">Tours</a></li>
  <li><a href="staff.htm">staff</a></li>
</ul>
```




Using the `<noframes>` Element

- Use the `<noframes>` element to allow your Web site to be viewable using browsers that do or do not support frames
- When a browser that supports frames processes this code, it ignores everything within the `<noframes>` elements and concentrates solely on the code within the `<frameset>` elements
- When a browser that doesn't support frames processes this code, it doesn't know what to do with the `<frameset>` and `<noframes>` elements, so it ignores them
- When you use the `<noframes>` element, you must include `<body>` elements, this way, both types of browsers are supported within a single HTML file



The `<noframes>` Syntax

- The syntax for the `<noframes>` element is:

```
<html>
<head>
<title>title</title>
</head>
<frameset>
    frames
    <noframes>
        <body>
            page content
        </body>
    </noframes>
</frameset>
</html>
```



Frameless Version of a Web Site

CLIFF HANGERS

8105 Yale Drive • Boulder, CO 80301 • (303) 555-8143

Home Page
Our Philosophy
Climbing Lessons
Tours
 Petit Grepon
 Lumpy Ridge
 North Face
 Kiener's
 The Diamond
 Eldorado
Staff

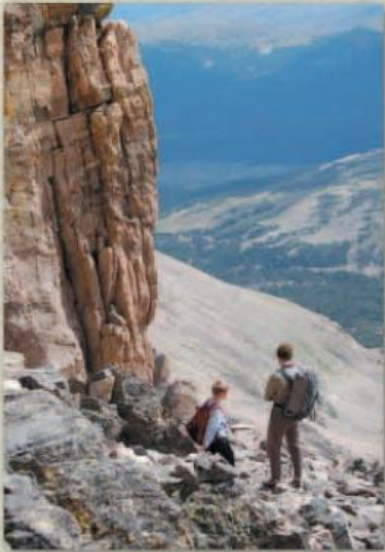


WELCOME TO ONE OF AMERICA'S best climbing schools located in one of America's best climbing areas, the Colorado Rockies. Nowhere else in America is there such a rich variety of technically challenging rock, ice, and high alpine routes. The area presents the climber with a choice of multiple-pitch climbs and big wall routes. Whether you are here to enjoy the spectacular scenery or to train for an expedition, you can choose no better place than the Colorado Front Range.

And no one else brings the experience of the Rockies to you better than **Cliff Hangers Climbing School**. Whether you are a beginner, itching to learn the skill and art of climbing, or an experienced mountaineer looking for guides to take you on some of Rocky Mountain National Park's more challenging climbs, consider us your gateway to the mountains.

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So contact us today, and start climbing tomorrow!





Working with Frame Borders

- There are additional attributes you can apply to the **<frame>** element that allow you to change border size and appearance. For example:
 - You can remove borders from your frames to free more space for text and images
 - You can change the color of the frame border so that it matches or complements the color scheme for your Web site

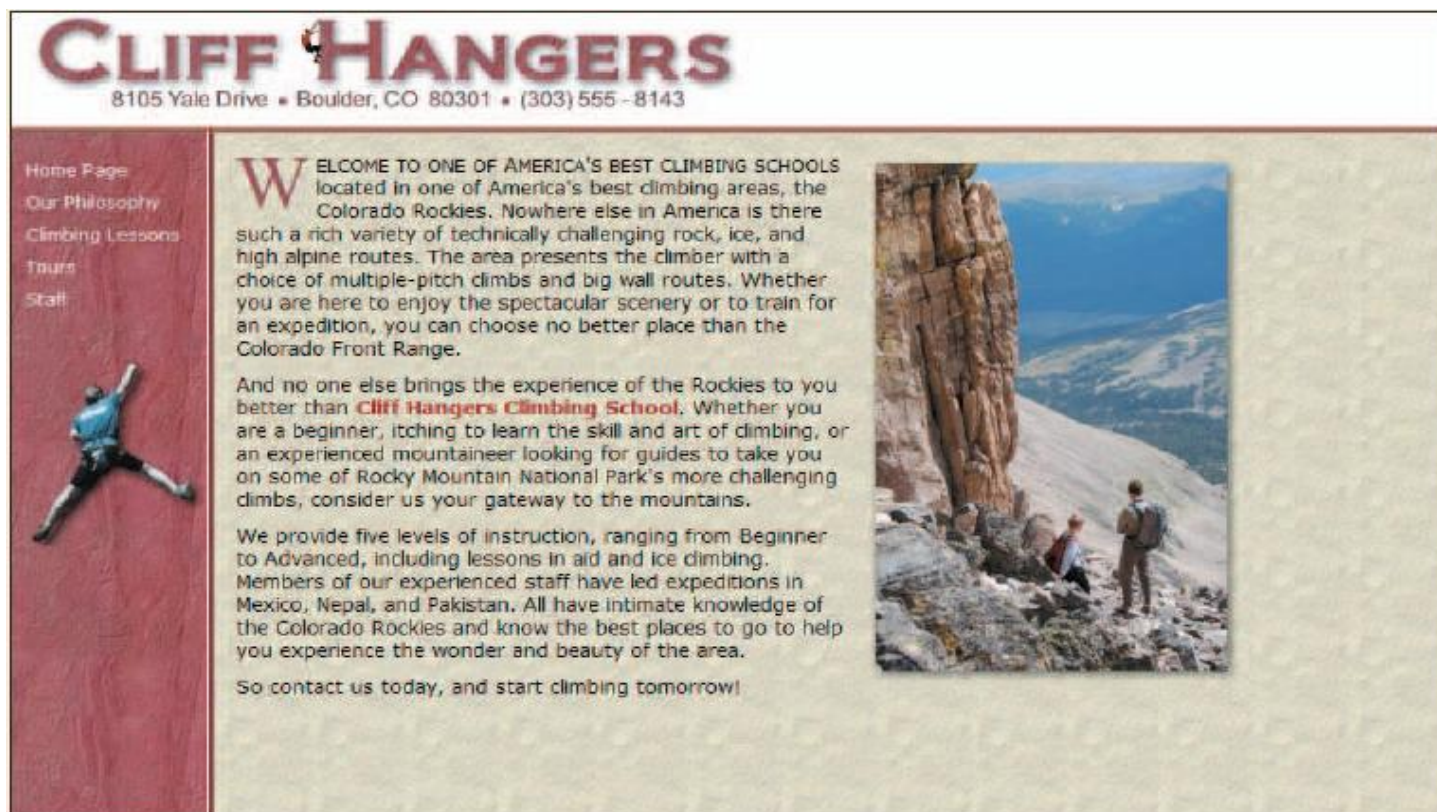


Setting the Frame Border Color

- To change the color of a frame's border, use the **bordercolor** attribute
- The attribute can be applied either to an entire set of frames, using the **<frameset>** element, or to individual frames, using the **<frame>** element
- The syntax for this attribute is:
 - **bordercolor="color">**



Web Site with Brown Frame Border





Setting the Frame Border Width

- Another way of modifying frame borders is to change their widths using the **border** attribute
- The border attribute can be used only in the **<frameset>** element, and not in individual **<frame>** element
- The syntax for the border attribute is: **<frame frameborder="value">**
 - **value** is the width of the frame borders in pixels




Removing the Frame Borders

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- Home Page
- Our Philosophy
- Climbing Lessons
- Tours
- Staff




WELCOME TO ONE OF AMERICA'S BEST CLIMBING SCHOOLS located in one of America's best climbing areas, the Colorado Rockies. Nowhere else in America is there such a rich variety of technically challenging rock, ice, and high alpine routes. The area presents the climber with a choice of multiple-pitch climbs and big wall routes. Whether you are here to enjoy the spectacular scenery or to train for an expedition, you can choose no better place than the Colorado Front Range.

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Creating Inline Frames

- Another way of using frames is to create a floating frame
- An **inline frame** is displayed as a separate box or window within a Web page
- The frame can be placed within a Web page in much the same way as an inline image



The Floating Frames Syntax

- The syntax for a floating frame is:
`<iframe src="url">`
 alternate content
`</iframe>`
 - ***URL*** is the name and location of the file you want to display in the floating frame
 - The ***alternate content*** is the content you want displayed in the browser that don't support inline frames



Attributes of inline Frames

Attribute	Description
<code>align="position"</code>	Aligns the inline frame with the surrounding content (deprecated)
<code>border="value"</code>	Sets the size of the border around the frame in pixels (deprecated)
<code>frameborder="1 0"</code>	Specifies whether to display the inline frame border (1 = display; 0 = no frame border)
<code>height="value"</code>	Sets the height of the frame in pixels
<code>hspace="value"</code>	Sets the horizontal margin around the frame in pixels (deprecated)
<code>marginheight="value"</code>	Sets the vertical margin within the frame in pixels
<code>marginwidth="value"</code>	Sets the horizontal margin within the frame in pixels
<code>name="text"</code>	Specifies the name of the frame
<code>scrolling="yes no"</code>	Specifies whether or not to display scroll bars around the frame
<code>src="url"</code>	Sets the source of the document within the inline frame
<code>style="styles"</code>	Provides inline styles to be applied to the frame
<code>vspace="value"</code>	Sets the vertical margin around the frame in pixels (deprecated)
<code>width="value"</code>	Sets the width of the frame in pixels



Creating an inline frame

frame-blind
browsers will
still display the
inline image

```
<div id="leftcol">
  <iframe src="philosph1.jpg" name="slide" width="380" height="260"
    scrolling="no" marginwidth="0" marginheight="0" frameborder="0">
    
  </iframe>
  <p>Click the images below to view slides from Cliff Hangers tours<br />
  
</p>
```

the size and
the source
of the inline
frame match
the size and
source of the
inline image