Dreamweaver CS5 – CS6

Creating a Website using Div Tags, CSS, and Templates

HTML elements

- A **tag** is enclosed in brackets, e.g. <a>. It has either a closing tag <a> or slash <img />.
- An **attribute** is inside a tag. Important attributes include href, src, class and id.
- The attribute's **value** is enclosed in double quotes, e.g. "http://www.colostate.edu/".
- The element's **content** is between the opening and closing tag, e.g. Colorado State University.
- An HTML **element** is everything from the start tag to the end tag, e.g. a hyperlink element: Colorado State University

HTML document structure

- The **DOCTYPE** tag determines the version of HTML you are using (HTML 4, 5 or XHTML).
- The **html** tag contains the head and body tags.
- The **head** tag contains the document title, scripts, style sheets, and meta tags.
- The **body** tag contains the document content.

Code view and Coding toolbar

Code view lets you view and edit the HTML source code of the page.

| Code | Split | Design |

The coding toolbar appears vertically on the left. (It is rotated here to save space.)
It has buttons to collapse and expand selected code, show line numbers, highlight invalid code, word wrap, apply and remove comments, indent and format source code, and add code snippets.

What is a DIV tag?

First, let's recall that HTML is a "markup language." Markup provides structure and order to a page. For example, the <p> tag breaks text up into paragraph blocks, the <h1> tag indicates a level 1 header, the <a> tag creates an anchor or link, and so on. Another markup tag of great importance is the <div> tag. A "div" divides a document into logical sections.

What is CSS?

A cascading style sheet (CSS) is a set of rules that define the appearance of a single web page or an entire website. When you create a style sheet, you specify rules to control the appearance of elements on your page, such as table width, link colors, page margins, and fonts. Style sheets give you more control over the appearance of your page and allow changes to be applied consistently across your site.

Combining DIVs and CSS

Creating a website using div tags and CSS helps keep a page's structure separate from its appearance. This is an important principle of modern web design because it simplifies the design process and facilitates subsequent formatting modifications. It also allows for maximum flexibility in how your pages can be displayed and on what technologies. **Remember: your page should make sense without CSS!**

Dreamweaver Templates

Templates enable web designers to control which page elements users--such as writers, graphic artists, or other web developers--can edit. One of the most powerful uses of templates is the ability to update multiple pages at once. A document that is created from a template remains connected to that template (unless you detach the document later). You can modify a template and immediately update the design in all documents based on it (adapted from the Dreamweaver documentation).

Build the page structure or framework using div tags

The first thing we need to do is create the div tags that will divide the content on our page. For training purposes, we will be using four main div tags. Keep in mind that websites can contain any number of div tags and/or nested div tags. The div tags we will create are:

- · header (will hold two graphic logos)
- · navigation (will hold page navigation links)
- · content (will hold the main page content)
- · footer (will hold footer information)

Div tags can be inserted in several ways. One method is to insert the div tag using Insert > Layout Objects > Div Tag.

Another way is to click the Insert Div Tag button on the Layout Toolbar.

For this example, let's use the Insert Div Tag button from the Layout Toolbar.

Select the Insert Div Tag button and enter the following information in the dialog box:
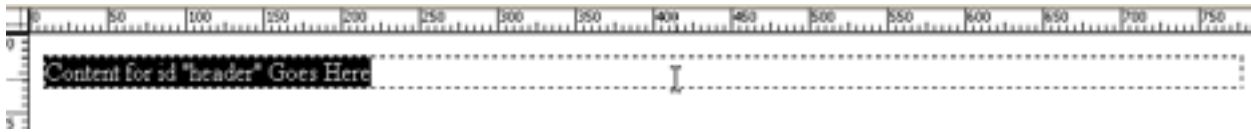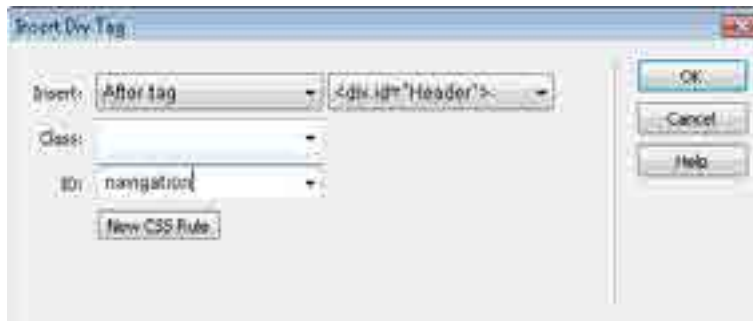
Insert: At insertion point
ID: header

Note: Each div tag on the page must have a unique identifier or "ID." This ID is used to connect page elements with styling rules. IDs can also used by JavaScript to create interactive behaviors.

Click on the OK button.

Your page should look similar to this:

From the Insert drop-down menu, select the "After tag" option and select <div id="header">.
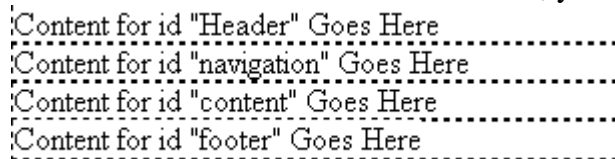Enter "navigation" for the div ID.

Repeat for content and footer

Insert the "content" div tag after the navigation div.
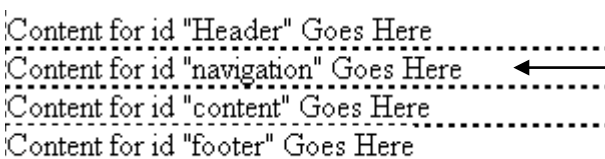Insert the "footer" div tag after the content div

Once all four divisions have been created, your canvas should look like the screen shot below:

Content for id "Header" Goes Here
Content for id "navigation" Goes Here
Content for id "content" Goes Here
Content for id "footer" Goes Here

Adding Content to the Div Tags

Navigation Div:

Position the cursor in the navigation div tag and triple-click to select the contents.

Type the navigation menu as follows:

Services
Staff
Training
FAQ
Email
Home

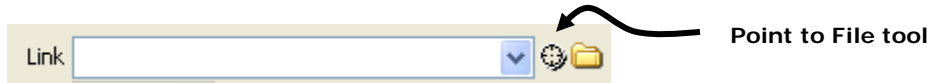Your navigation div should look similar to the following:

Select the navigation items and turn them into an unordered (bulleted) list. Use the Unordered list button in the Properties Inspector.

Your navigation list should now look like the image below:

Create Links for the Unordered List Items:

Tip: if the web pages exist, use the Point to File tool to link the list items to their corresponding pages in the website. Start by selecting the text that will be used as the link, then select the Point to File icon (located to the right of the Link field), and drag the arrow over to the file to which it will link.

Link [_____] ⌄ ⊕ 📁   **Point to File tool**

Tip: You can create a link to a file that doesn't yet exist. Type the name of the file and use the .htm extension. (Example: services.htm.) Remember to use the exact file name when you actually create the file so that the link will work.
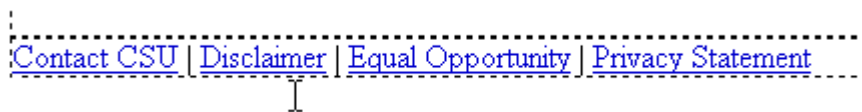
Footer Div:

Position the cursor in the footer div tag and select the contents.

Content for id "footer" Goes Here

(For class, open the MSWord footer file and insert the text)

Return to Dreamweaver and paste the line of text into the footer div. Notice how Dreamweaver preserves the links for you.
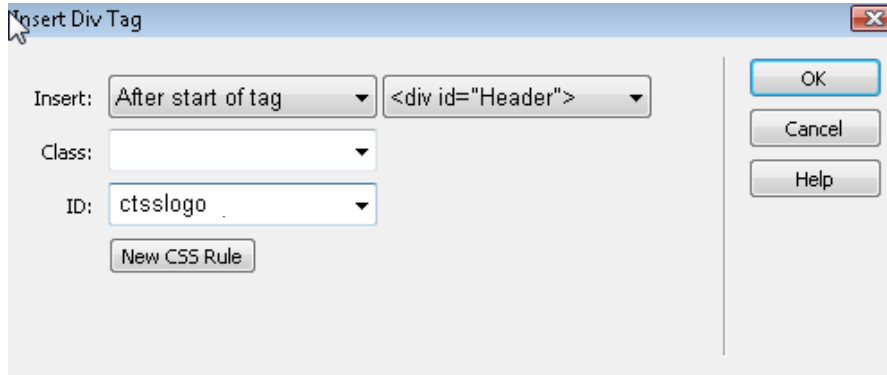
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Header Div:

We need two graphics—the CTSS and CSU logos—to appear within the header div. To give each graphic its own formatting, we will wrap it in its own div tag. In other words, the header div will contain two new div tags, each with its own graphic logo.

Begin by positioning the cursor in the header div and select the contents, then press the Delete key. Careful not to delete the div tag.
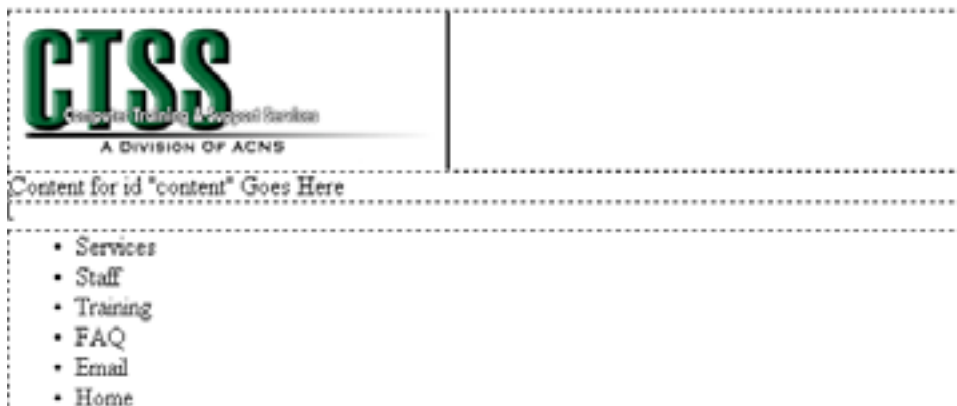
Insert the first nested div tag by clicking the Insert Div Tag button. From the Insert drop-down menu, select the "after start of tag" option. Give the new div an ID of "ctsslogo."

Next, insert the CTSS logo image into the ctsslogo div. The image can be found in your image folder.

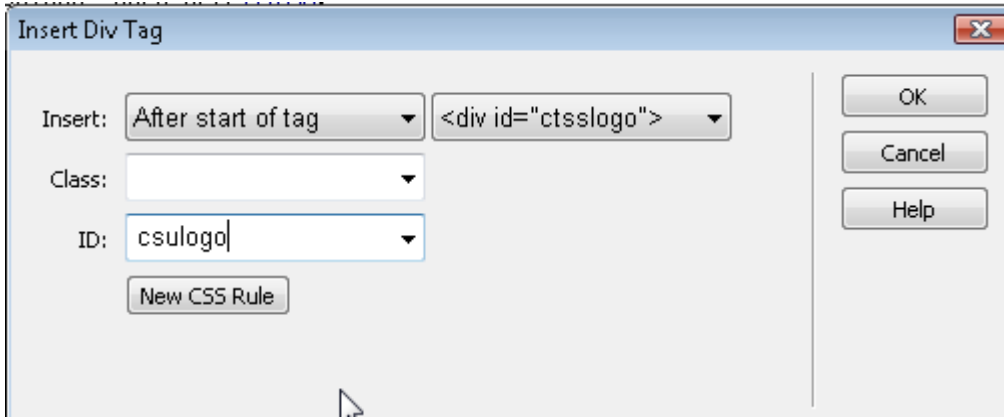Add the following alternative text: "Computer Training and Support Services home page."

Note: This image will ultimately become a link to another page. Therefore, our alternative text refers to the link's destination. If it had been a graphic with no link, we might have entered a description of image, e.g., "Computer Training and Support Services logo."

Your canvas should now look like the image at left.

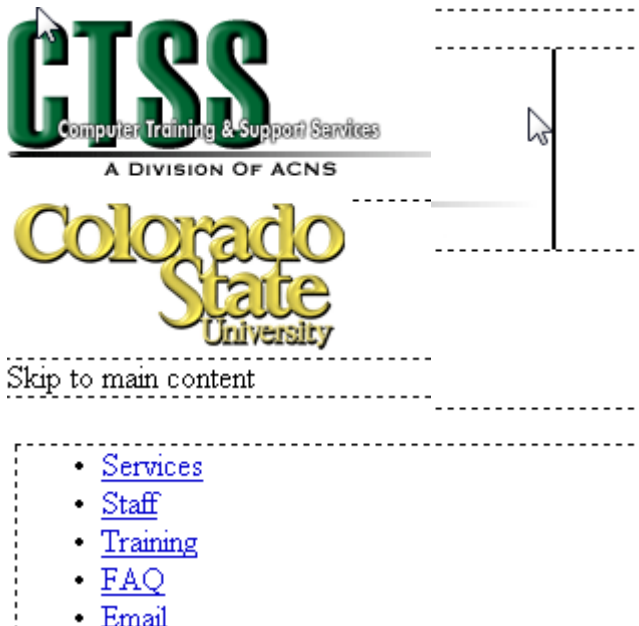Next, insert the second nested div tag. Give it an ID of "csulogo."

From the Insert drop-down menu, select the "After tag" option and select <div id="ctsslogo">.

Insert the CSU logo image into the csulogo div. The image can be found in your Image folder. Filename: gld_fr_med.png

Add Alternative text: Colorado State University home page

Delete the text contained in the div tag.

Your canvas should look similar to the image at left.

Tip: Don't worry about how the images and text look at this point. Later in class we will create a style sheet that will give our page a new and better look.

Tip: Only unused div tags appear in the drop-down. For example, if you return to the Insert div tag drop down again, "footer" is no longer listed. Why? The menu only lists unused div tags.

Adding a Skip to Main Content link

Select the text "Content for id "header" Goes Here" or type the text if it doesn't exist in the div header tag and create a link to #content. The text should read: "Skip to main content." This will allow users of small display devices, or those for whom images either don't display or can't be seen, to jump over the repetitive navigation links that occur on every page. Create a link to the main content div by selecting the new text and entering #content in the Link box in the Property Inspector.

Adding links to the graphics

We need to add links to each graphic. Select the CTSS logo and enter the following URL in the Link field in the Property Inspector: http://lib.colostate.edu/cat

Next, add the link to the CSU home page: http://www.colostate.edu/

Tip: be sure to set the border to 0 (zero) for each graphic when creating the link. Also, select the _blank target for the link so that the link (web page) opens in a different window.

Adding Metadata

Meta tags are the information inserted into the "head" area of a web page. Except for the title tag, information in the head area of a web page is not seen by viewers. Instead, meta information is used by search engines to catalog your page and by the browser to adjust its display settings. For example, meta tags can tell a browser what "character set" to use (e.g., Western European languages, for example) or a search engine how your page should be described in its summary.

To add metadata to your page, choose **Insert > HTML > Head Tags > Meta**. Here's an example of a meta tag:

- · Attribute: Name
- · Value: description
- · Content: Everything you wanted to know about CTSS Training

Templates and Cascading Style Sheets

Templates and Cascading Style Sheets (CSS) are used to give your site a consistent look and simplify the process of design changes. Both templates and CSS allow you to update an entire website by making changes to a single document.

Cascading Style Sheets (CSS)

"Cascading style sheets [are an] elegant and efficient way to add and manage elements of style (fonts, color, layout) within Web documents"
>   —Lie and Bos, *Cascading Style Sheets: Designing for the Web*

A style sheet consists of formatting rules that change the behavior and appearance of web page elements. A *rule* is a statement about one stylistic aspect of one or more elements. A *style sheet* is a set of one or more rules that apply to an HTML document.

Example: The rule below sets the color of all first-level headings (h1)

H1 { color: green }

Anatomy of a rule
A rule consists of two parts:
· Selector - the part to the left curly brackets
· Declaration - the part within the curly brackets

The *selector* is the link between the HTML document and the style. It specifies what elements are affected by the declaration. The *declaration* is that part of the rule that describes what the effect will be.

Anatomy of a declaration
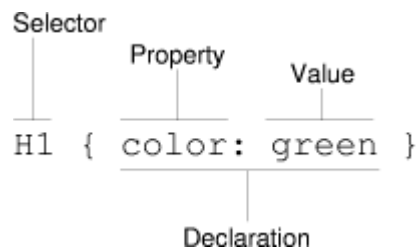A declaration has two parts separated by a colon:
· Property - the part before the colon
· Value - the part after the colon

The *property* is a quality or characteristic that something possesses. In the previous example, it is color. Other examples might include line-height, text-align, padding, and font-family.

The *value* is a precise specification of the property. In the example, it is "green," but it could just as easily be blue, red, yellow, or some other color.

The diagram below shows all ingredients of a rule. The curly braces ({ }) and colon (:) make it possible for the browser to distinguish between the selector, property, and value.

```
Selector
        Property
                    Value
   |        |         |
   |        |         |
H1 { color:  green }
            |
         Declaration
```

Grouping selectors and rules

In designing CSS, it was discovered that style sheets can be reduced in size by grouping selectors and declarations.

For example, consider these three rules:

```
H1 { font-weight: bold }
H2 { font-weight: bold }
H3 { font-weight: bold }
```

All three rules have exactly the same declaration. H1 thru H3 are setting the font to be strong. Since all three declarations are identical, we can group the selectors into a *comma-separated list* and only list the declaration once, like this:

```
H1, H2, H3 { font-style: strong }
```

This rule will produce the same result as the first three.

A selector may have more than one declaration. For example, we could write a style sheet with these two rules:

```
H1 { color: green }
H1 { text-align: center }
```

In this case, we set all h1s to display with a text color of green and to be centered on the canvas. However, we can achieve the same effect more easily by grouping the declarations that relate to the same selector into a *semicolon-separated list*, like this:

```
H1 {
  color: green;
  text-align: center;
}
```

All declarations must be contained within the pair of curly brackets. A semicolon separates the declarations and may also appear at the end of the last declaration (but it doesn't have to).

Tip: CSS rules can be embedded in a single document, or you can link to an external style sheet which controls the appearance of multiple pages.

Tip: Styles embedded within a document can be exported into a separate style sheet for use in other documents. Choose File > Export > CSS Styles and save the CSS file to your computer. With CS6, open the doc with the styles in code view, select the styles coding, right click on the selection and choose Move to CSS file.

Caution: Keep in mind, when you export embedded styles within a document, it doesn't remove the actual embedded styles within the document – in CS5. Version CS6 provides the option to Move.

Dimensions

Width and height can be specified by themselves, or prefixed with min- or max-.
Units include px (pixels, for exact layout) and em or % (for scalable layout, recommended).
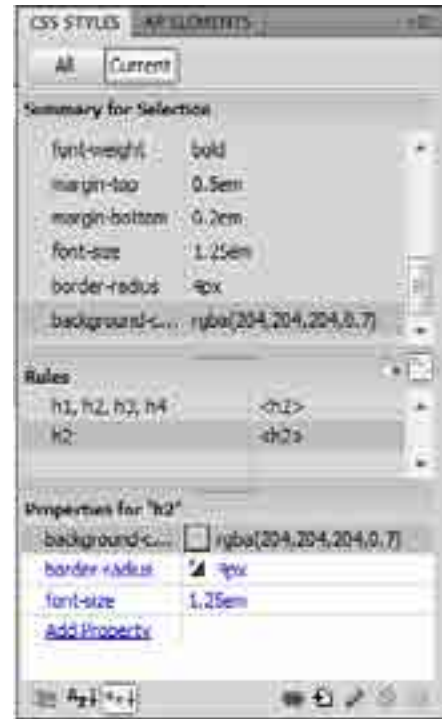
Common Selectors

A **class** starts with a dot (e.g. .alert) and can select one or more elements, which can use different tags (e.g. p.alert, a.alert).

An **id** can select only one element. (e.g. #main-heading)

A **nested selector** selects one element within another, e.g. li a selects a link within a list item.

A **pseudo** class or element can select certain elements by their visited or hover state, by their siblings (first-child), for their content (first-line, first-letter), or to add text before or after.

An **attribute selector** can select only elements with certain attributes, e.g. a[href~=colostate].

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CSS Styles panel

Click **Window** > **CSS Styles**.
View styles for a selected element, or all styles.
View a rule by clicking it, and then add or edit properties for it.

New CSS Rule dialog

A selector can be a tag, class, ID or a combination of these.

A rule definition can be saved in this document (in the head tag), or an existing or new .css file.

Click OK and specify one or more properties, which Dreamweaver organizes into categories:

Type
Define font family, size, weight (bold), style (italic), variant (small caps), text transform (case), text decoration (underline), and color.

Background
Define background color, image, repeat (x/y), attachment (scroll) and position (x/y).

Block
Define block word and letter spacing, vertical and horizontal (text) alignment, text (hanging) indent, white space (nowrap) and display (block, inline, inline-block, none).

Box
Define box width, height, float, clear, padding and margin.
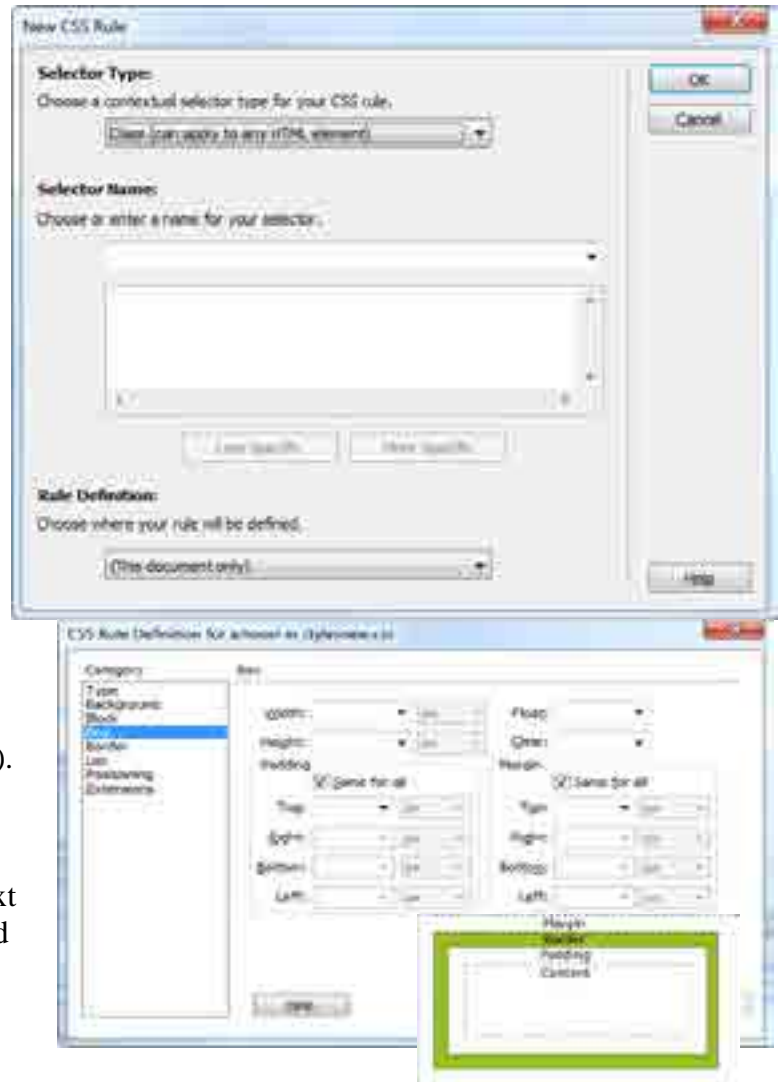(See the CSS box model at http://www.w3schools.com/css/css_boxmodel.asp.)

Border
Define border style, width and color for top, right, bottom and left margins.

List
Define list style, image and position.

Positioning
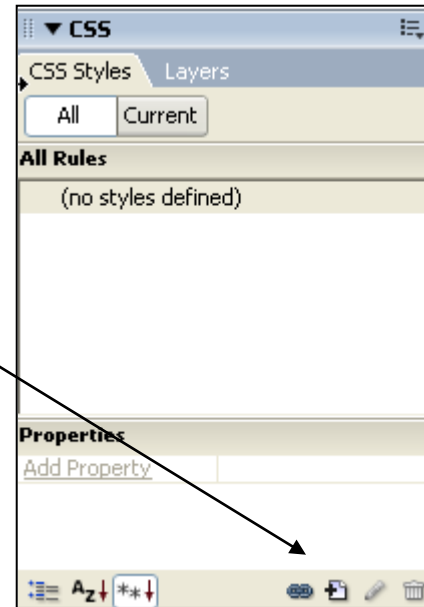Define position (absolute, fixed, relative or static), width, height, visibility, z-index, overflow, placement, and clip.

Extensions (browser-specific)
Define page break, cursors, and filters (Microsoft-only extensions similar to CSS3).

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Using the CSS Panel

The CSS Styles Panel can be used to create or manage style sheets. From the Design Panel Group choose the CSS Panel.

Create a new style by choosing the New CSS Rule icon from the bottom of the CSS Styles Panel.

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Next, choose the Selector Type for the style you want to create from the New CSS Rule dialog box.

You can define the following types of styles in Dreamweaver:

Class: Custom CSS rules, also called *class styles,* let you apply style attributes to any range or block of text. Custom class names always begin with a dot (period). Example: .quote. Classes can be applied to multiple elements on a page, unlike IDs, which must be unique (see Advanced, below).

Tag: HTML tag styles redefine the formatting for a particular tag, such as <h1> or <body>. When you create or change a CSS style for the h1 tag, all text formatted with the h1 tag is immediately updated.

Compound: CSS selector styles (advanced styles) redefine the formatting for a particular combination of elements, or for other selector forms as allowed by CSS (for example, the selector "td h2" applies whenever an h2 header appears inside a table cell.) Advanced styles can also redefine the formatting for tags that contain a specific ID attribute (for example, #footer), and they are used with the so-called pseudo-classes (example, a:hover).

Creating an External Style Sheet
The next in creating our style sheet is deciding where it should live—either embedded in the document or as a separate style sheet document.

When creating a new style sheet, Dreamweaver will prompt you to save the file prior to adding any style attributes. It is best practice to save the style sheet in a separate folder that only contains style sheets. The default file extension is .css.

Locations where styles can be saved:

- **External CSS style sheets** are collections of CSS rules stored in a separate, external CSS (.css) file (not an HTML file). This file is linked to one or more pages in a website using a link in the head section of a document.
- **Internal (or embedded) CSS style sheets** are collections of CSS rules included in the head portion of an HTML document.
- **Inline styles** are defined for individual tags throughout an HTML document.

Tip: When creating styles that apply to multiple pages, it is best to save all style rules in an external style sheet rather than embedding them in the document.

Tip: To display the O'Reilly CSS reference guide included with Dreamweaver, select Help > Reference and select O'Reilly CSS Reference from the pop-up menu in the Reference panel.
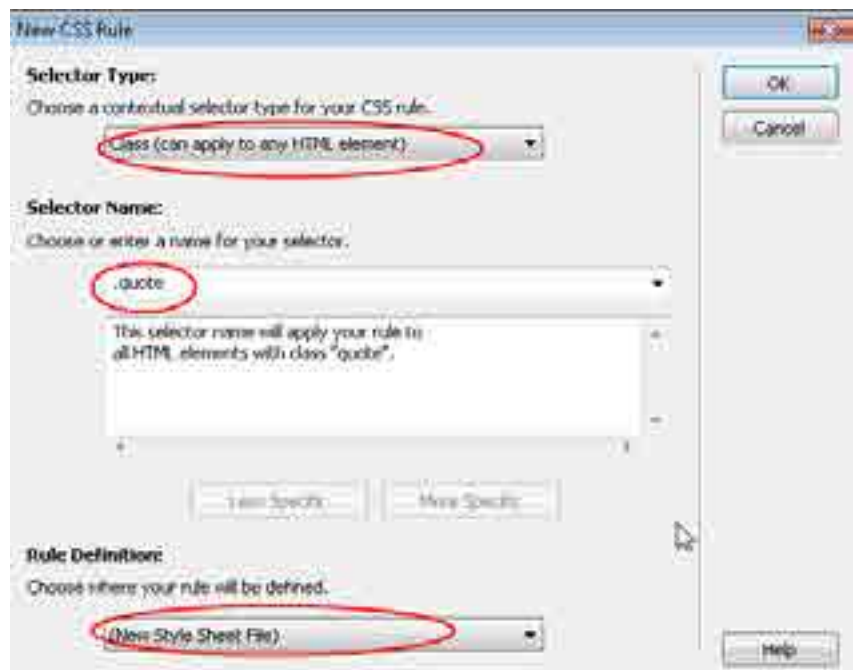
PRACTICE
Create Class (Custom) Style

From the CSS Style Panel select the New CSS Rule icon.

From the New CSS Rule dialog box, select the Class option and enter a name for the style in the Name field.

For this training example, let's create a custom style called *quote*. The goal is to have the quote appear differently than the rest of the text—perhaps a different font, different color, an extra indent, etc.

Note: Custom class style names always begin with a period. Dreamweaver will insert the

period if you forget. Also, when typing the Style name to not use spaces or punctuation.
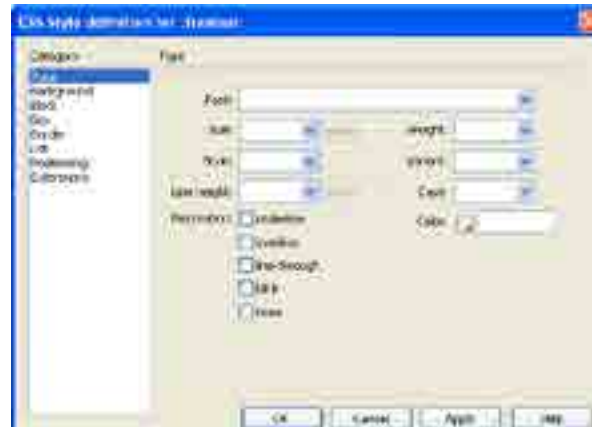
Example: .quote

Select the "Define in: (New Style Sheet File)" option. For classroom purposes, save the file to
c:\userdata\assests\css
AND name the file: **default.css**
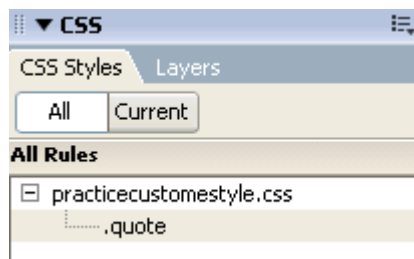
Press OK to open the Style definition dialog
box.

Select the formatting attributes for the style.

Select new values for font, weight, style, and
color. Also, under the "Box" category, enter
padding values of "3 ems" for the left and
right padding.

Click OK when finished.

The new custom Class style appears in the CSS Style Panel.

Apply the Style to text by first highlighting the text and then
selecting the style from the Style field that is located in the
Properties Inspector.

Remove a style by highlighting the text and then selecting the
None style from the Style Field that is located in the Properties
Inspector.

Redefine an Existing HTML Tag

An HTML document consists of many different tags. The tags define the structure of the document (this refers to "markup," explained previously). Using the CSS panel, you have the option of changing the behavior and/or appearance of each HTML tag. For example, a rule can be created for the <body> tag, changing the default text color from black to blue, or the default background color from white to black. The options are endless.
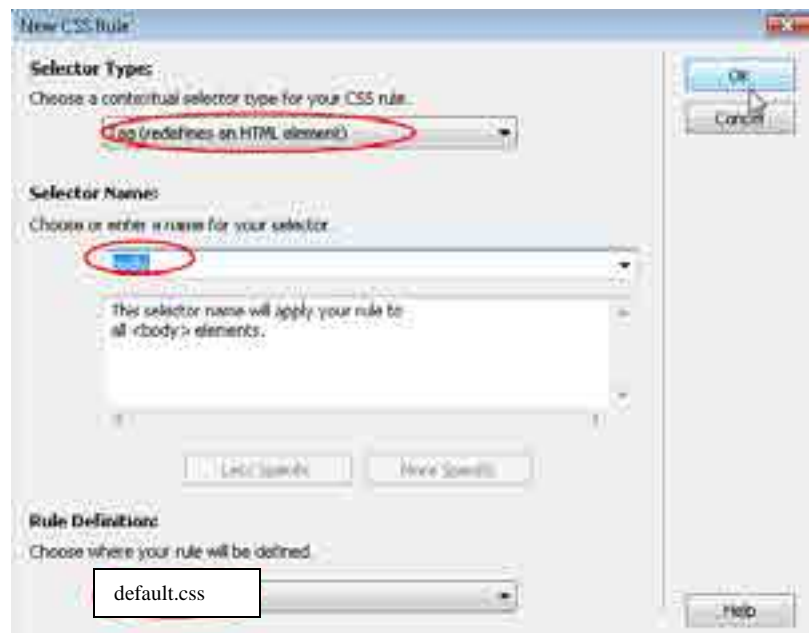
Create a new style by clicking on the New CSS Rule icon from the bottom of the CSS Styles Panel.

Select the Tag option and click on the "Tag" drop down menu to select the tag you wish to redefine. In this case, select the "body" tag.

Be sure to save this new rule (redefining the properties of an HTML tag is the same as creating a new rule) to a style sheet.

For training purposes, save this style to the existing default.css.

Create a new style for the items below:

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For this training example let's redefine the following tags to the following attributes:

Tag: body	Tag: h1
font-family: Georgia, "Times New Roman", Times, serif; font-size: medium; line-height: 120%; margin: 0px; padding: 25px; background-color: #ffffff;	font-family: Verdana, Arial, Helvetica, sans-serif; font-size: large; font-weight: bold; text-transform: capitalize; color: #006633;
Tag: h2 font-family: Georgia, "Times New Roman", Times, serif; font-size: large; font-style: italic; font-weight: bold; text-transform: uppercase; color: #006633;	

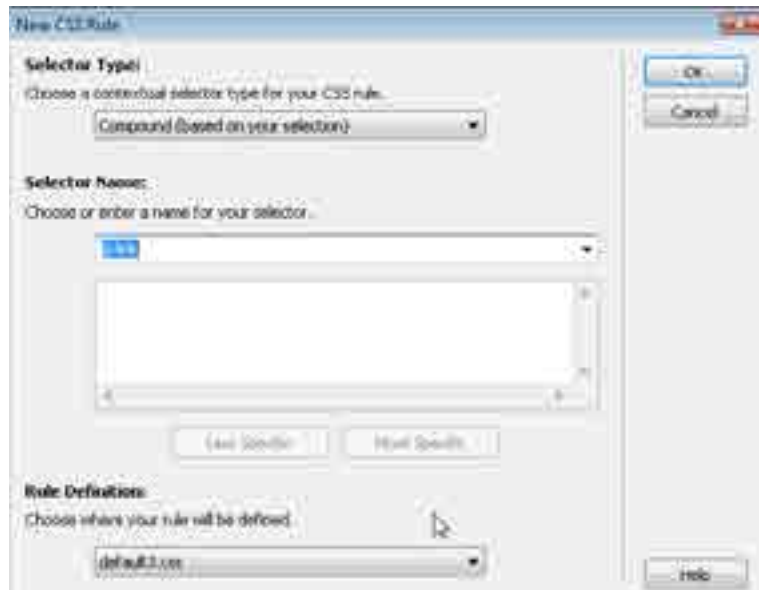**Using the Compound selectors (IDs, pseudo-classes, etc.)**

The Compound Selector type in the styles panel can be used several different ways. One way to use the Compound Selector is to change the default behavior of a link and add features such as a: hover to a link.

 Create a new rule for the behavior of links on your page by clicking on the New CSS Rule icon at the bottom of the CSS Styles Panel.

Select the Compound selector type and choose a:link from the Selector menu. This is called a pseudo-class *in CSS terminology.*

We will create a new rule for each of the following pseudo-classes:

· a:link (the color of the hyperlink)
· a:visited (the color the hyperlink changes to after it has been visited)
· a:hover (the color of the hyperlink when you hover over it)

a:link color: #006633;	a:hover color: #006633; text-decoration: underline; background-color: #99CC99;
a:visited color: #339900;	

Be sure to define the new rules in the "default.css" style sheet.

The Advanced Selector can also be used to control the way a div tag behaves. Each div container will have its own formatting attributes so it knows where and how to appear on a page.

For this training example, we will only create a style for one div tag, "footer." The other tags are already defined in a separate style sheet that you will be working with shortly.

Create a new rule for the footer div by clicking on the New CSS Rule icon at the bottom of the CSS Styles Panel.

Select the Compound selector type and enter #footer in the Selector box. The # symbol indicates the rule will apply to a specific element ID on the page.

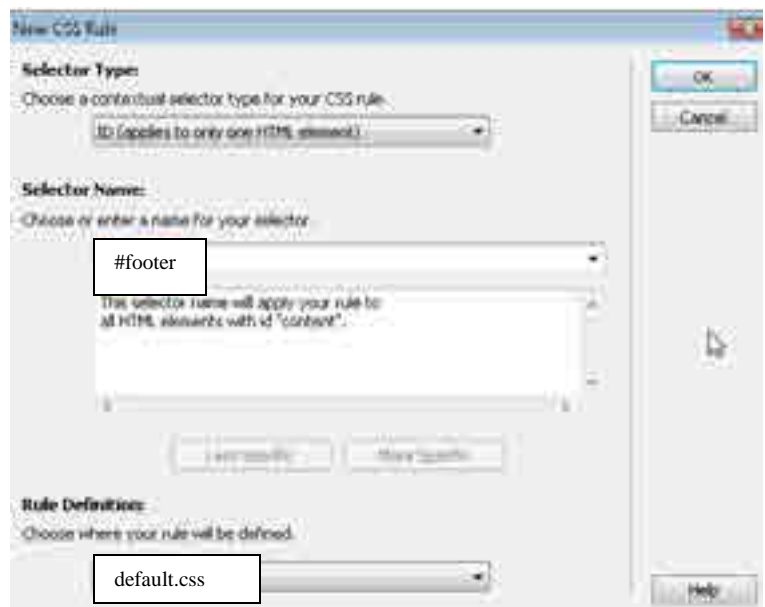*Be sure to save this new rule to a style sheet.*

Be sure to define the rule in the default.css style sheet.

Assign the following attributes to the #footer style:

> **Under category "Type"**
> font-family: Verdana, Arial, Helvetica, sans-serif;
> font-size: x-small;
>
> **Under category "Block"**
> text-align: center;
>
> **Under category "Box"**
> clear: left;

Link to an existing style sheet

An HTML document can be linked to several style sheets. In our class example, you created a style sheet for a custom style, redefined some existing tags, and created some Advanced Selectors. Due to time constraints, we have created a second style sheet that controls the style for the rest of the web page.

Link to an existing style sheet by selecting the Attach Style Sheet icon located at the bottom of the CSS Panel.

Click on the Browse button and navigate to the file storage location for this training example:

D:\userdata\assets\css\
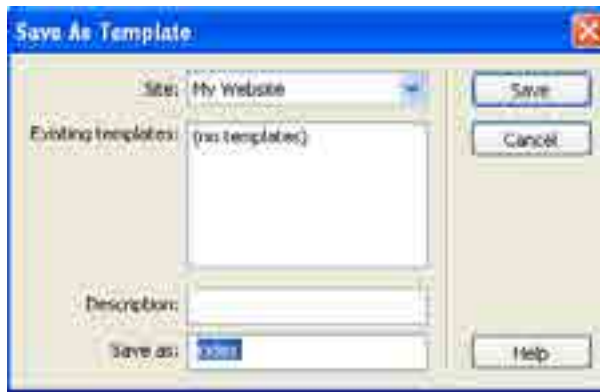Select the file **default.css** and **navigation_vertical.css**

Make sure the Link option is selected in the Attach External Style sheet dialog box. Press the OK button.

You should now see a dramatic change in the appearance of your page!

Using a Template

Creating and using templates can be a big time-saver for web developers. Design one page and save it as a template to add consistency to your web site. A Template ensures that your web site has a consistent look and feel, which in turn means it's easier for users to navigate the site.

The first step in creating a template is to save your file as a template. Choose File > Save As Template. Specify a file name for the template and click on the Save button. Notice the file extension for the template is .dwt and the file is saved in its own folder called Template, which was generated by Dreamweaver.

Tip: Choose File > Save when finished designing the template. Make sure your template is linked to your style sheet.
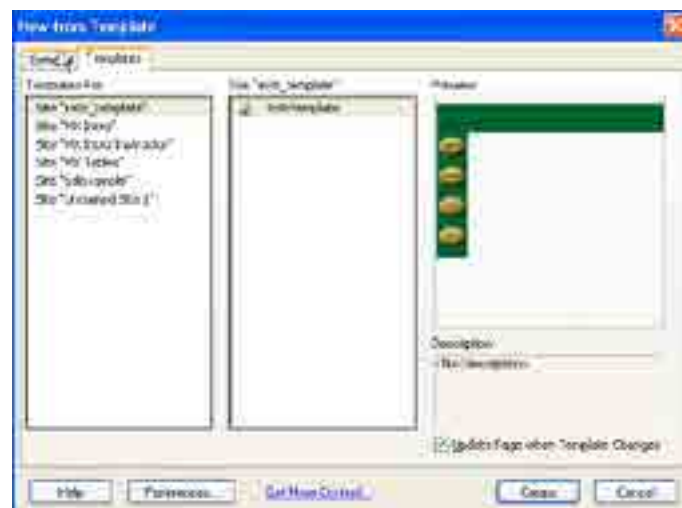
Add editable regions to your template.
What items on the template do you want users to access and change? Click in the area that you want users to be able to change and choose **Insert > Template Object > New Editable Region.** A **Region dialog box** will open asking for a region name. Type a region name and press **OK**.

Any area not marked as an editable region on the template will be locked when creating a new file from the template.

Creating a new file from a Template

Choose File > New and select the Template tab from the New dialog box

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Select the Site holding the template on the left side of the "New from Template" dialog box. Then select the template name displayed on the right side of the dialog box.

Make sure the "Update Page when Template Changes" option is selected. Click the Create button.
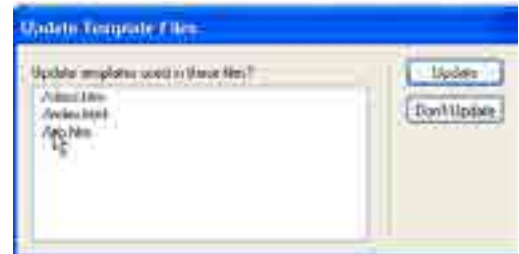
Once a new file is generated from the template, Save it immediately by choosing File > Save as, and specifying a file name.

Add content to the editable region on the template and save the file when finished.

Modifying the Template

Modify a template by opening it in Dreamweaver (the template is the file with the .dwt extension). Remember, templates are located in folder called "Template" within your site. Modify the template and choose File > Save.

The Update Template Files dialog box will appear and display all the files that will be updated from the template.

It is now time to publish your web site to the web server. Please see the handout on using the Dreamweaver FTP to copy files from your local computer to the web server (remote server).