

COMSC-030

Web Site Development- Part 1



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NOTE: This lecture has audio. At the end of the chapter, you will need to answer the multiple choice questions and submit a screen shot of your review completion on the Canvas discussion board

Lecture 4



4

Adding CSS Styles

Looking for an easier way to format your Web page? This chapter shows how you to use style sheets to assign formatting properties and values to your HTML document.

Lecture 4 Topics: Adding CSS Styles

- Understand Style Sheets
- Create an External Style Sheet
- Link to a Style Sheet
- Add Comments to a Style Sheet
- Create an Internal Style Sheet
- Create a Class
- Apply a Style with the DIV Tag
- Apply a Style Locally
- Apply a Style Using the ID Attribute



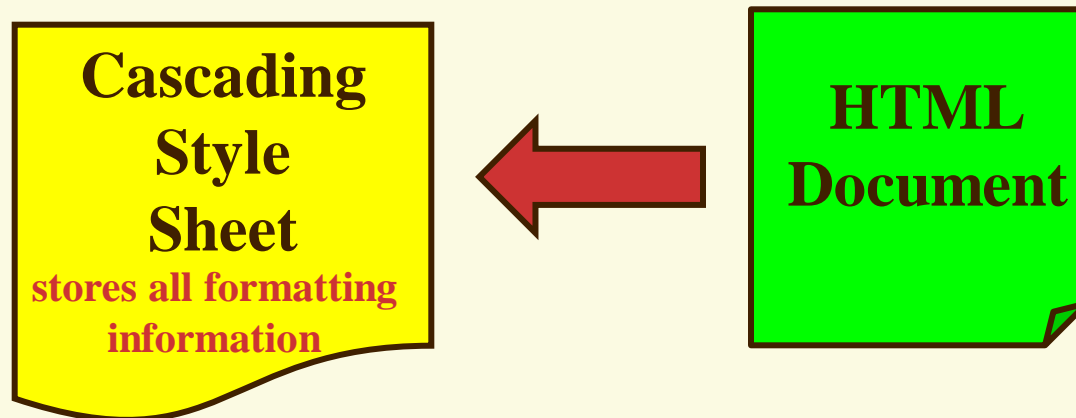
Understanding Style Sheets

- You can use **cascading style sheets**, or **CSS**, to exercise precise control over the appearance of your HTML documents.
- Style sheets can help you maintain a **consistent** look and feel throughout your Web site.

**Cascading
Style
Sheet**
stores all formatting
information

Understanding Style Sheets

- By regulating **formatting** controls to another sheet, you **can free** up your HTML document of repetitive coding to concentrate on the main elements and content that make you your page.



Understanding Style Sheets

**Defining
Style
Sheets**

**Style Sheets
Can Control
Multiple
Pages**

**Style
Sheet
Syntax**

**Writing
Style
Syntax**

**Style
Classes**

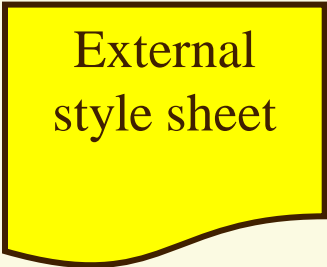
Inheritance

**External &
Internal
Style Sheets**

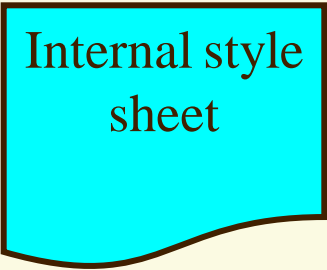
Understanding Style Sheets

Defining Style Sheets

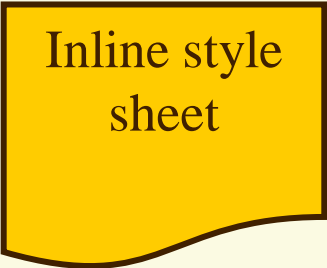
- A style sheet is simply a separate text file with the **.css** file extension.
- Style sheets can also be internal, residing with an HTML document.
- A style sheet holds **formatting codes**, that control your Web page's appearance.



External
style sheet



Internal style
sheet

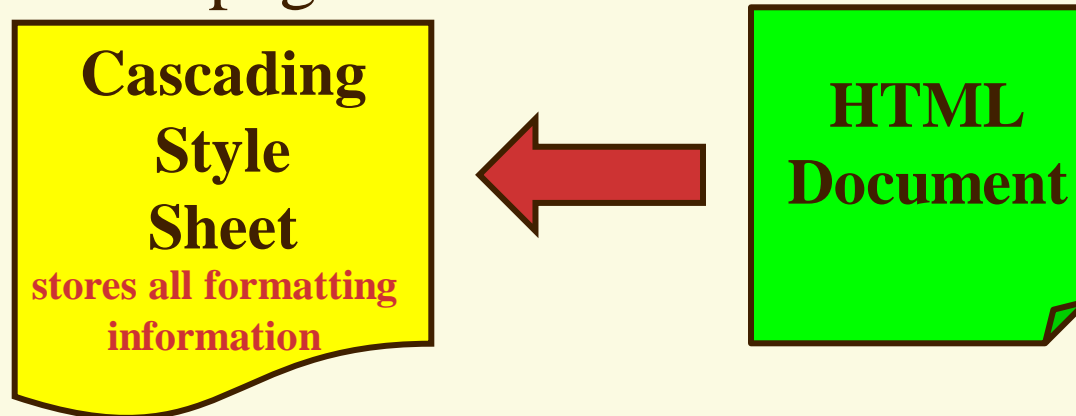


Inline style
sheet

Understanding Style Sheets

Defining Style Sheets *(continuation)*

- You can use style sheets to change the look of any Web page element, such as paragraphs, lists, background and more.
- Any time you want to apply formatting to an HTML document, you **attach- or link** – the style sheet to the page.

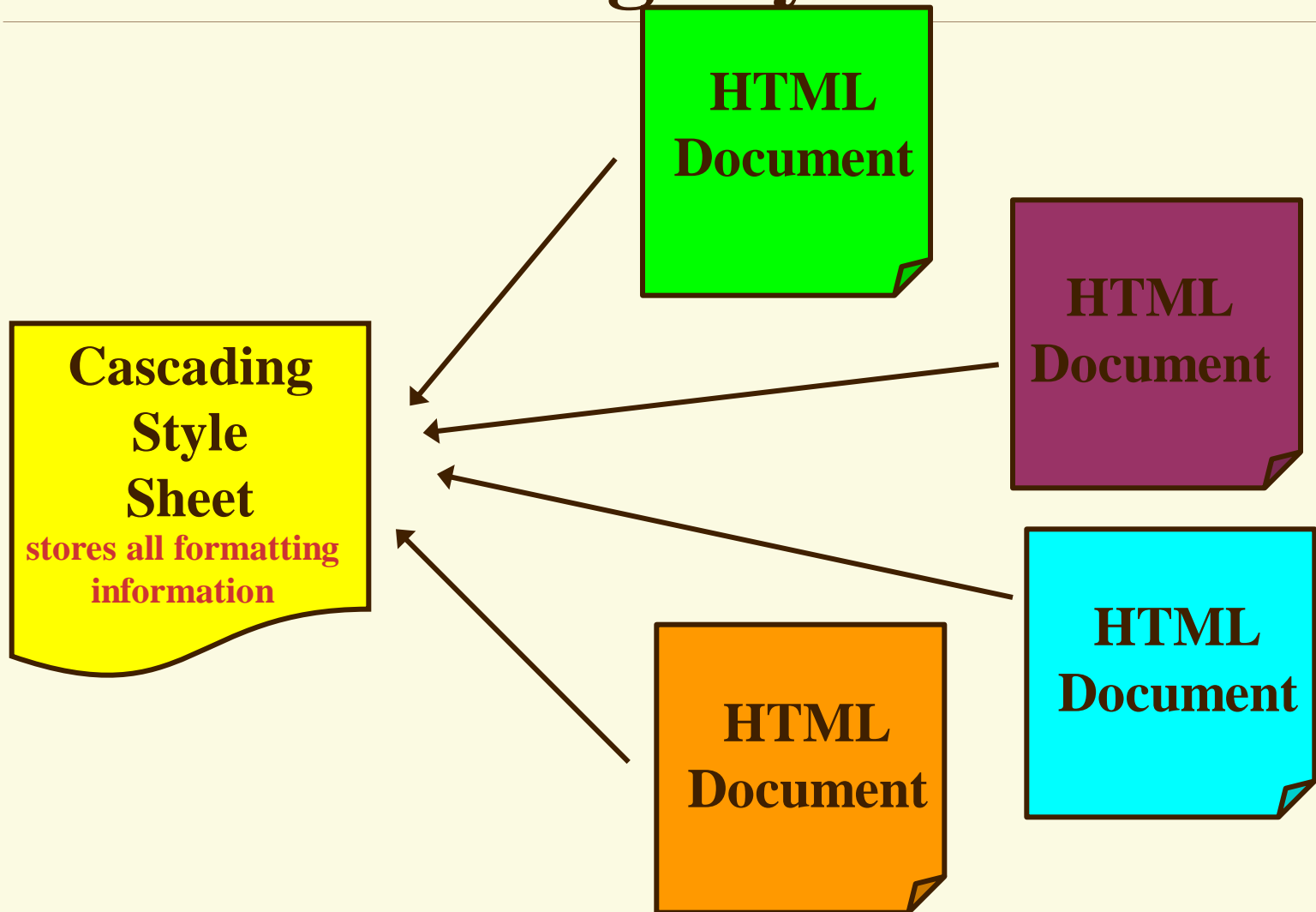


Understanding Style Sheets

Style Sheets Can Control Multiple Pages

- You can **link** every page in your Web site to a single sheet.
- Any changes you make to the style sheet formatting are reflected in **every** HTML document linking to the sheet.

Understanding Style Sheets



Understanding Style Sheets

Style Sheets Can Control Multiple Pages *(continuation)*

- By storing all the formatting information in one convenient spot, you can **easily update** appearance your site's page in one whole swoop.
- This can be a **real time-saver** if your site consists of lots of pages.

Understanding Style Sheets

Style Sheet Syntax

- Style Sheets are made up of rules, and each rule has two distinct parts:

Selectors

Specifies the element to which you want to apply a style rule.

Declarations

Specifies the formatting for the selector.

Example: H2{color: navy}

Understanding Style Sheets

Style Sheet Syntax *(continuation)*

Example: `H2{color: navy}`

- H2 is the **selector**
- The **declaration** sets the color property to silver.
- NOTE: Declarations can include a **property** and a **value**. If you attach a page to this style rule, all level 2 headings on the page will appear in navy blue.

Understanding Style Sheets

Writing Style Syntax

- When writing style sheet syntax, always start with the **selector** - the element to which you want to apply the rule, followed by the declaration in curly brackets { }.
- The **declaration** consists of a property and a value, and if you use more than one declaration, you must separate each with a **semicolon**.
- NOTE: If you forget to include a semicolon, the browser ignores the rule.

Understanding Style Sheets

Style Classes

- For times in which you want to apply formatting only to a particular instance of an element, you can use a **class attribute**.
- You can assign a distinct name to a class, and add a style rule that applies only to that class.
- For example, perhaps you want to add select formatting to a paragraph.
- You define the **style rule** on your style sheet, and then refer to the class name in your HTML document.

Understanding Style Sheets

Inheritance

- Elements you add within other elements inherit the first element's formatting, unless otherwise specified.
- For example, if you define a style for the <BODY> element, any elements you **nest** within the <BODY> element **inherit** the same formatting.
- HTML inheritance makes it easy to keep the formatting intact as you add new items within an element.

Understanding Style Sheets

External and Internal Style Sheets

- You can connect an HTML document to an **external style sheet** or an internal style sheet.
- **Internal style sheets** exist within an existing HTML page, while external style sheets are separate files.
- **External style sheets** are used more often because you can link them to more than one HTML document.
- You might use an internal style sheet if your site consists of a single page.

Create an External Style Sheet

- You can use an **external style sheet** to define formatting and layout instructions as well as to link the page to your HTML document.
- You can save the style sheet as a text file and assign **.css file** extension to identify the file as a cascading style sheet.

Create an External Style Sheet



Create an External Style Sheet

1. Create a new document in your text editor.
2. To create a style rule, type the **element tag** for which you want to define formatting properties.
3. Type a **space**
4. Type **{**
5. Type the properties and values for the rule
Note: Be sure to separate declarations with a semicolon.
6. Type **}** to end the rule

Create an External Style Sheet



Create an External Style Sheet

```
/* CSS Document */  
  
/* style rules for headings */  
H1{color: maroon}  
H2{color: navy}  
H5{color: navy}
```

2

6

4

property

value

5

Create an External Style Sheet



Create an External Style Sheet

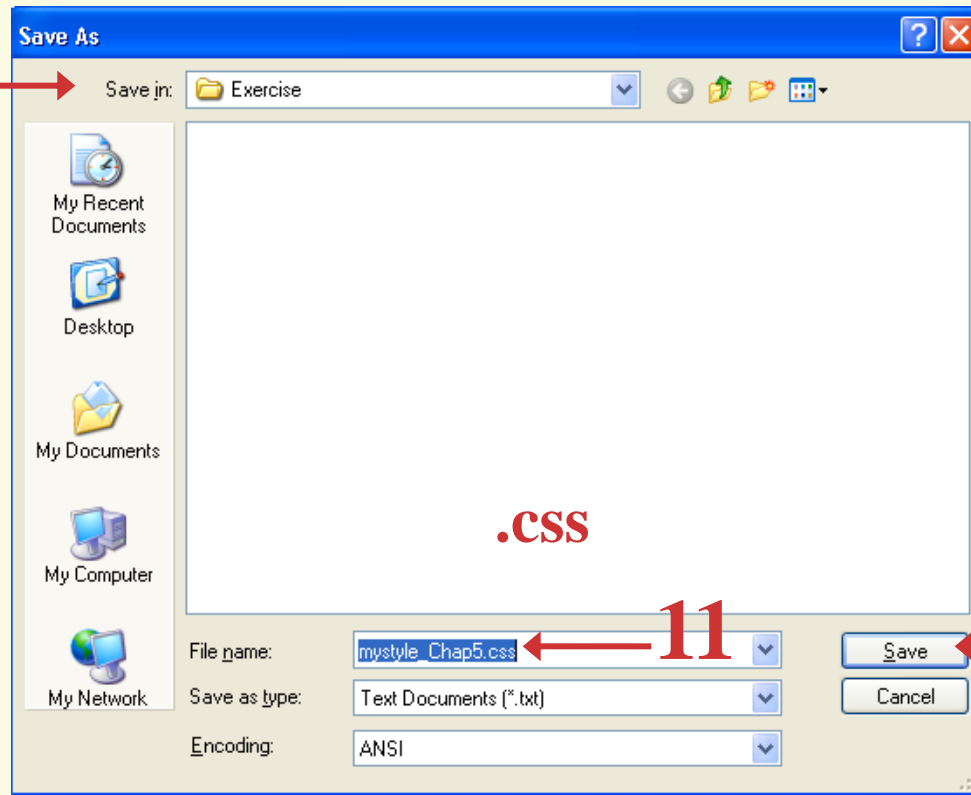
7. Repeat steps 2 through 6 to continue adding style rules to your style sheet.
8. Click **File**.
9. Click **Save**
10. Navigate to the folder storing your HTML pages
11. Type a unique filename for your style sheet and the **.css** extension.
12. Click **Save**

Create an External Style Sheet



Create an External Style Sheet

10



.CSS

11

12

Create an External Style Sheet



Can I use more than one style sheet with my HTML page?

- Yes. You can import a style sheet and use the `<STYLE>` tags within the `<HEAD>` tags to reference the sheet.
- You can import more than one sheet. For example, you can use the code to import two sheets.

```
<STYLE>
```

```
@IMPORT URL("?");
```

```
@IMPORT URL("?");
```

```
</STYLE>
```

Create an External Style Sheet

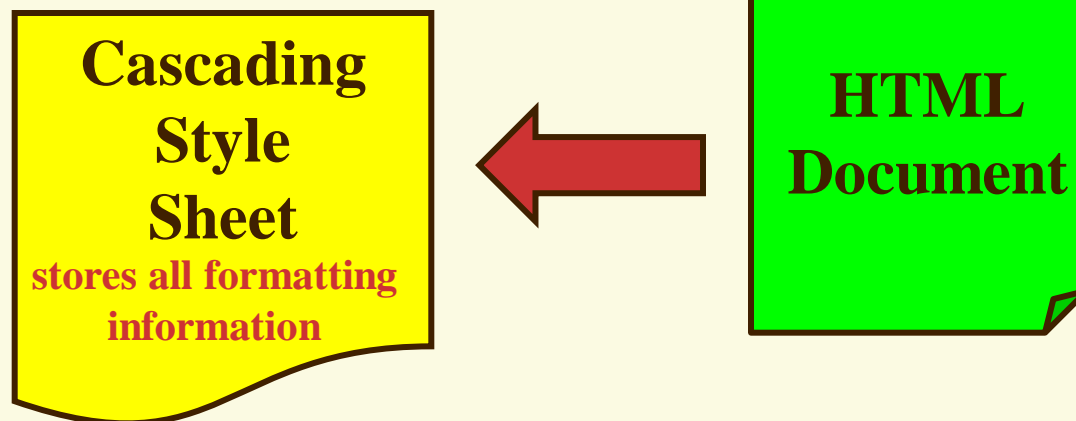


What is XSL?

- XSL, short for extensible style language, is a newer style sheet language used with XHTML documents.
- Because XHTML is a newer markup language version than HTML, XSL is not as widely supported yet as CSS.
- If you are building your Web pages in XHTML and prefer to use XSL as your style sheet language, be sure to save the text file in the .XSL extension.

Link to a Style Sheet

- You can link to a style sheet to assign the preset formatting to your HTML document.
- You can **link** multiple documents to the same style sheet to give all the pages in your site a **consistent** look and feel



Link to a Style Sheet

(pg 66)



Link to a Style Sheet

1. Open the HTML document you want to link to a style sheet.
2. Click within the **<HEAD>** and **</HEAD>** tags and add a new line.
3. Type **<LINK REL= “stylesheet” TYPE = “text/css”**.
4. Type a blank space and **HREF=“?”**, replacing ? with the name of the style sheet.

<LINK REL=“stylesheet” TYPE= “text/css” HREF=“?”>

Note: The style sheet is now linked with the page.

Link to a Style Sheet



Link to a Style Sheet

1

A screenshot of a WordPad window titled "chapter5.HTML - WordPad". The window shows a menu bar (File, Edit, View, Insert, Format, Help), a toolbar with icons for file operations, and a text area containing HTML code. The code is:

```
<HTML>
<HEAD>
<TITLE>Parts of a Web Page</TITLE>
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">
```

 A red arrow labeled "1" points to the title bar. Two red arrows labeled "3" and "4" point to the words "stylesheet" and "mystyle.css" respectively in the code.

3

4

Add Comments to a Style Sheet

- You can add **comments** or notes to your style sheet to help you identify your style rules.
- For example, you might add a comment describing the results of the rule when applied to text.
- Your Web browser does **not** read comments.

```
mystyle.css - WordPad
File Edit View Insert Format Help
[Toolbar]
Courier New 10 Western B / U [Icons]
/* CSS Document */
/* style rules for headings */
H1{color: maroon}
H2{color: navy}
H5{color: navy}
/* style rules for paragraphs */
P{color: navy}
P.intro{color: maroon}
/* style rules for body and DIV tag */
BODY{font-family: arial, verdana, background: silver}
DIV.content{color: navy; font-style: italic}
```

Add Comments to a Style Sheet



Add Comments to a Style Sheet

1. In your style sheet document, type `/*` to begin your comment.
2. Type your comment text.
3. Type `*/` to end the comment

Note: When you display your style sheet in a Web browser, the comments do not appear.

Add Comments to a Style Sheet



Add Comments to a Style Sheet

```
/* CSS Document */

/* style rules for headings */
H1{color: maroon}
H2{color: navy}
H5{color: navy}
```

1 2 3

Create an Internal Style Sheet

- You can create an **internal** style sheet that resides within your HTML document.
- Internal style sheets are handy if your Web site consists of a **single page** because this allows you to change both style rules and page markup from the same page.

Create an Internal Style Sheet



Create and Internal Style Sheet

1. Within the **<HEAD>** and **</HEAD>** tags, add a new line and type **<STYLE>**
2. Add a new line and type the **element tag** for which you want to create a style rule.
3. Type **{**
4. Type the **properties** and **values** for the rule

Note: If you intend to add more than one declaration to the rule, be sure to separate declarations with a semicolon.

Create an Internal Style Sheet



Create and Internal Style Sheet

5. Type } to end the rule.
6. Repeat steps 2 to 5 to continue adding style rules to your internal style sheet.
7. Add a new line and type **</STYLE>**

Note: The closing tag completes the style sheet.

Create an Internal Style Sheet



Create and Internal Style Sheet

```
Parts of a Web Page_Chap5.html - WordPad
File Edit View Insert Format Help
[Icons: New, Open, Save, Print, Find, Stop, Cut, Copy, Paste, Undo, Redo]

<HTML>
<HEAD>
1<TITLE>Parts of a Web Page</TITLE>
4<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle_Chap5.css">5
<STYLE>
2H3{font-family: arial, verdana; color: navy;}
3OL#list{font-family: arial, verdana; color: navy;}6
7</STYLE>
</HEAD>
```

Create an Internal Style Sheet



Do older browsers recognize internal style sheets?

- Older browsers **do not** support styles, so they ignore the `<STYLE>` tags.
- However, the content of the `<STYLE>` tag is displayed in older browsers, so any coding you type in between the `<STYLE>` tags appears on the page.
- You can prevent an older browser from displaying style tag coding by typing `<!--` and `-->` before and after the style tag details.

Create an Internal Style Sheet



Can I link another Web page to my internal style sheet?

- No. In order for multiple Web pages to take advantage of a style sheet, you must use an **external style sheet** and link the pages to the sheet.
- An internal style sheet is useful only for a **one-page** HTML document.

Create a Class

- You can create a **class** to apply a style rule to **certain tags** throughout your Web page.
- You can set up a class in your external or internal style sheet, and then use the **CLASS** attribute in your document to assign the properties and values.

Create a Class *(continuation)*

Example:

- If you want all the introductory paragraphs formatted differently than all the regular paragraphs, you can create a class specifically for the introductory paragraphs.
- Once you create the class, the browser applies it to all the paragraphs to which the class is assigned.

Create a Class



Define a Class

1. In your external or internal style sheet, type the **tag** for which you want to create a class.
2. Type a **period**.
3. Type a **name** for the class
4. Type {

Create a Class



Define a Class

5. Type the **properties and values** for the class

Note: If you intent to add more than one declaration to the rule, be sure to separate declarations with a semicolon.

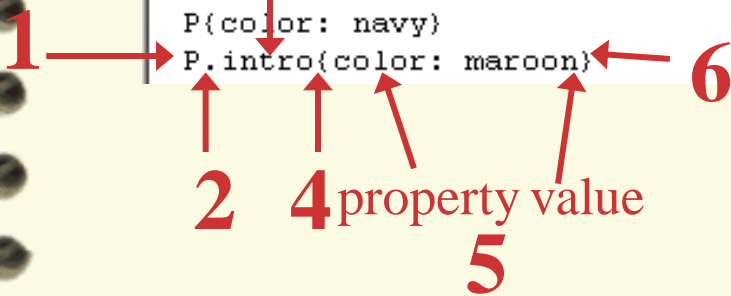
6. Type **}** to end the style rule

Create a Class



Define a Class

```
mystyle.css - WordPad
File Edit View Insert Format Help
[Icons]
Courier New 10 Western [B] [I] [U] [A]
/* CSS Document */
/* style rules for headings */
H1{color: maroon}
H2{color: navy}
H5{color: navy}
/* style rules for paragraphs */
P{color: navy}
P.intro{color: maroon}
```



Create a Class




Assign a Class

1. Open the HTML document and click in the tag to which you want to assign a class.
2. Type **CLASS**="?", replacing the ? with the class name.

2



1



```
<P CLASS="intro">A Web site is a collection of linked Web pages stored on a Web Server. Most Web sites have a home page that describes the information located on the Web site and provides a page where people can start their exploration of the Web site. The pages of a good Web site are intuitively organized and have a common theme.</P>
```



Create a Class

What is a generic class?

- You can use a generic class to format two or more different elements.

- Example:

You might use a generic class to format both paragraphs and headings in a document, even though both elements use different tags.



Create a Class

What is a generic class? (*continuation*)

- When defining a generic class, simply type a period followed by the class name, such as `.mytext`.
- When applying the class name, use the class name, such as `<P CLASS="mytext">` or `<H2 CLASS="mytext">`

Create a Class



How does inheritance work with classes?

- When you apply a class, it **inherits** all the formatting that the class does not specifically override.
- For example, perhaps your HTML document contains three types of paragraphs.
- An introduction, content and a summary paragraph.
- You want each to exhibit a slightly different appearance, yet all use the same font and size.



Create a Class

How does inheritance work with classes? (*continuation*)?

- You can use style rules to differentiate the changes in each, yet leave the font and size the same as defined in the **<P>** tag.
- Each class inherits the formatting of **<P>** tag, but includes any overriding formatting, such as a change in bold or italics, or color.

Apply a Style with DIV Tag

- You can use the `<DIV>` tag to group block-level elements, such as paragraphs and headings.
- When you apply the `<DIV>` tag, the Web browser inserts a blank line between the sections.
- You can apply styles to different areas, or sections, of your Web page using the `<DIV>` tag.

Apply a Style with DIV Tag

- You can set up the `<DIV>` tag, in your external or internal style sheet, and then apply it in your HTML document.
- When you apply styles with the `<DIV>` tag, the browser overrides the existing section and replaces it with the style you specify.

Apply a Style with DIV Tag



Set up the DIV Style

1. In your external or internal style sheet, type **DIV.?** , replacing the ? with the name you want to assign the DIV style.
2. Type {
3. Type the **properties** and **values** for the DIV style.

Note: If you intend to type more than one property, use a semicolon to separate properties.

4. Type }

Note: The style rule is complete

Apply a Style with DIV Tag



Set up the DIV Style

```
mystyle.css - WordPad
File Edit View Insert Format Help
[Icons]
Courier New 10 Western [B] [I] [U] [A]
/* CSS Document */
/* style rules for headings */
H1{color: maroon}
H2{color: navy}
H5{color: navy}
/* style rules for paragraphs */
P{color: navy}
P.intro{color: maroon}
/* style rules for body and DIV tag */
BODY{font-family: arial, verdana; background: silver}
DIV.content{color: navy; font-style: italic}
```

1

2

property

3

value

4

Apply a Style with DIV Tag



Apply the DIV Tag

1. In the HTML document, click in front of the section to which you want to assign a DIV tag and add a line.
2. Type **<DIV CLASS= “?”>**.
3. Type **</DIV>** at the end of the section

Apply a Style with DIV Tag



Apply the DIV Tag

1 → `<DIV CLASS="content">` ← 2

`<H3>Text</H3>`

`<P>Text is the simplest type of content that you can publish on the Web. HTML Editor such as Dreamweaver enables you to change the size, color and font of the text on your Web page and to organize it into paragraphs, headings and lists. Perhaps the best thing about text is the practically everyone can view it, no matter what type of Web browser or Internet connection a person may have, and it downloads very quickly.</P>`

`<H3>Images</H3>`

`<P>For your Web site, you can take photos with a digital camera, and you can scan drawings, logos, or other images for the Web by using a scanner. You can also create and edit images in a graphics program, such as Adobe Photoshop or Macromedia Fireworks, and then place them on Web pages. </P>`

`<H3>Hyperlinks</H3>`

`<P>Usually called a link, a hyperlink is text or an image that has been associated with another file. You can open the other file in a Web browser by clicking the hyperlink. Although hyperlinks usually link to other Web pages or other Web sites, they can also link to other locations on the same page or to other types of files. </P>`

`<H3>Tables</H3>`

`<P>Although tables organize information in columns and rows on your Web page, you can use them for much more than just organizing data. Tables provide one of the best ways to create complex Web designs. By turning off the borders of a table and setting it to span an entire page, you can use the table to organize the entire layout of the page. </P>`

`<H3>Forms</H3>`

`<P>Forms reverse the information flow on Web sites, thus enabling visitors to your Web site to send information back to you. With an HTML Editor such as Dreamweaver, you can create forms that include text fields, drop-down menus, radio buttons, and other elements. </P>`

`<H3>Frames</H3>`

`<P>In a framed Web site, the Web browser window is divided into several rectangular frames, and a different Web page loads into each frame. Users can scroll through content each frame independently of the content in the other frames. </P>`

3 → `</DIV>`

Apply a Style with DIV Tag



How do I format part of a paragraph or other element?

- You can use the `` tag to apply formatting to a portion of text in your HTML document.
- Unlike the `<DIV>` tag, the `` tag is an inline tag, which means it does not add blank lines in between elements



Apply a Style with DIV Tag

How do I format part of a paragraph or other element? (*continuation*)

- To apply a style using the `` tag, first define the class you want to assign:

```
<STYLE>
```

```
SPAN.companyname {FONT: bold "Helvetica"}
```

```
</STYLE>
```

- When you want to apply the style rule, your coding might look like this:

```
<P><SPAN CLASS="companyname">
```

Apply a Style with DIV Tag

- When you apply a **style locally**, it overrides any styles found on external or internal style sheets for the same tag.
- Applying styles locally works best for **one-time changes**.
- You should use regular style sheets to control formatting and layouts on your pages.

Apply a Style Locally

- You can apply a style to a single instance of a tag in your document.
- Example: Perhaps you want to make one of your level 2 headings stand out differently on the page than the rest of the level 2 headings.
- The **STYLE** attribute allows you to apply formatting like a style sheet without having to create an actual style sheet yourself.

Apply a Style Locally



Apply a Style Locally

1. Click in the tag for the element you want to change and type **STYLE="?"** , replacing the ? with the properties and values you want to assign.

Note: If you intend to assign more than one property, separate the properties with a semicolon.

Apply a Style Locally



Apply a Style Locally

```
<HTML>
<HEAD>
<TITLE>Parts of a Web Page</TITLE>
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">

<STYLE>
H3{font-family: arial, verdana; color: maroon; text-align:center}
OL#list{font-family: arial, verdana; color: navy}
</STYLE>

</HEAD>

<BODY>
<H1 STYLE="text-align: center">Parts of a Web Page</H1>
```

Apply a Style Using the ID Attribute

- You can use the **ID attribute** to assign a style rule to an individual Web page element.
- Instead of creating a style sheet first, then applying the styles to your document, you can use the **ID attribute** to assign a style name to a tag first and then define the rule in the style sheet.

Apply a Style Using the ID Attribute

- **IDs** are like classes except they are not associated with specific elements.
- If you want to assign a style rule to more than one element of the same tag, create a class instead..

Apply a Style Using the ID Attribute



Apply a Style Using the ID Attribute

1. In the tag element for which you want to create a style rule, type **ID= “?”**, replacing the ? with a unique name for the element.
2. Open your external style sheet, or scroll to your internal style sheet.
3. Type the **tag** to which you assigned an ID

Apply a Style Using the ID Attribute



Apply a Style Using the ID Attribute

4. Type **#?**, replacing the ? with the ID name
5. Type a **blank space** and define the style rule.

Apply a Style Using the ID Attribute



Apply a Style Using the ID Attribute

```
<P>You can communicate your message on the Web in a variety of ways.  
The following are some of the common elements that appear on Web page  
</P>  
<OL ID="list"> ← 1  
<LI>Text</LI>  
<LI>Images</LI>  
<LI>Hyperlinks </LI>  
<LI>Tables</LI>  
<LI>Forms</LI>  
<LI>Frames</LI>  
</OL>
```

```
<HTML>  
<HEAD>  
<TITLE>Parts of a Web Page</TITLE>  
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">  
  
<STYLE>  
H3{font-family: arial, verdana; color: maroon; text-align:center}  
OL#list{font-family: arial, verdana; color: navy} ← 5  
</STYLE>  
  
</HEAD>
```

3

4