

Chapter 6

In this chapter, you'll learn how to construct style sheets and how to attach them to a document, either by placing them within the document itself or by linking to them as a separate file. You'll learn how to define a style and how to apply it. The next several chapters will include further opportunities to practice with various style types.



Intro to CSS & Formatting Text with CSS

Learning Objectives

After completing this lesson, you should be able to:

- understand and construct style rules;
- identify what is an internal and external style sheet;
- apply a style within a HTML file;
- create a style using an ID and a Class ; and
- setup styles on nested tags.

HTML defines your content's meaning and gives your Web pages their basic structure, while CSS (Cascading Style Sheets) defines the appearance. A style sheet is simply a text file that contains one or more rules that determine through properties and values—how certain elements in your Web page should be displayed.

In simplest terms, a style is a formatting rule. That rule can be applied to an individual tag, to all instances of a certain tag within a document, or to all instances of a certain tag across a group of documents.

In Chapter 4, you saw how to use the `style=` attribute for unordered lists. For example, to use a letters character in an unordered list, you would use the `style=` attribute with the `` tag like this:

```
<ul style="a">
```

But suppose you have several unordered lists in your document and you want all to use the same lower-alpha character. You could type the `style` attribute into the opening `` tag for each one, but that's a lot of work. Instead, you can create a `<style>` section within the `<head>` section that creates a global style rule for all `` tags in the document. The `<style>` section might look like this:

```
<style type="text/css">
ul {
list-style-type: a
}
</style>
```

Don't worry about the line breaks; they are simply a means of making your code more readable. Many third-party CSS editing programs format style rules with the extra line breaks for that reason. However, the preceding code could also be written like this:

```
<style type="text/css">ul {list-style-type: a}</style>
```

Notice that the `` tag does not have angle brackets. Also, note that the rules for the tag display in curly braces. Other than those two minor differences, the syntax is exactly the same as when applied directly to a specific `` tag. You don't need to include the `style=` attribute because the entire definition is enclosed in a `<style>` tag.

You can define multiple rules within one `<style>` section. For example, if you want to expand this example to also specify that ordered lists are labeled with numbers rather than letters:

```
<style type="text/css">
ul {
list-style-type: a
}
ol {
list-style-type: 1
}
</style>
```

Constructing Style Rules

Lesson 2

An embedded style sheet consists of a two-sided `<style>` tag placed in the `<head>` section of a document. Between the `<style>` and `</style>` tags, you define the rules for the various styles.

A style rule begins with the name of the tag or other element to which the style applies. For example, if you are creating a rule that will apply to all instances of the `<h1>` tag, start the rule with **h1** (no brackets):

```
<style>
h1 {
color: blue
}
</style>
```

No brackets are necessary around `h1` because it's already enclosed in the `<style>` tag. Next, type a set of curly braces. (You can place them on separate lines for improved readability if you want.) Then place the rule inside the braces. For example, to create a rule that uses the color blue for the text of a first-level heading, use the following code on your left.

If you have more than one rule to apply, such as a color plus a typeface, separate the rules with semicolons within the curly braces. It is customary but not required to write each rule on its own line. For example, to specify that the heading text must be both red and 12 pixels in height, include the following in your rule:

```
<style>
h1, h2, h3, h4, h5, h6 {
color: blue
}
</style>
```

If multiple tags should have the same rule applied to them, you can list them together and separate them by commas. For example, if all heading styles `<h1>` through `<h6>` should be red, you could write:

Create Style Rule

Our task is to create an internal style sheet that formats the paragraphs with the desired font style and size.

- ① Open the HTML file **Background Color**.
- ② Within the `<head>` and `</head>` tags, add a new line and type
`<style type="text/css">`.
- ③ Add a new line and type the element tag for which you want to create a style rule. Type {
- ④ Type `</style>`

HTML Code

The screenshot shows the Notepad++ editor with the file "Constructing Style Rules.html" open. The code is as follows:

```
<!DOCTYPE html>
<html>
<head>
<title> Purpose Driven Life</title>
<body bcolor="navyblue">
<style type="text/css">
    h1 { font-family: Franklin Gothic Heavy;
          font-size: 30px;
          font-style: italic;
          color:blue; }
    h5 { font-family: arial;
          font-size: 12px;
          font-style: bold;
          color:black; }
    h4 { font-family: arial black;
          font-size: 12px;
          font-style: bold;
          color:black; }
</style>
<body>
<h1>Planned for God's Pleasure</h1>
<hr>

<p><h5> You were planned for God's pleasure.
The moment you were born into the world, God was there
as an unsees witness, smiling at your birth. </h5>
</p>
<p><h4> He wanted you alive, and your arrival gave Him
great pleasure, God did not need to create you, but
he chose to create you for his enjoyment. you exist
for His benefit,His glory, His purpose, and His
delight.</h4>
</p>
</body>
</html>
```

Annotations with numbered circles:

- ② Points to the opening `<style type="text/css">` tag.
- ③ Points to the opening brace of the `h1` rule.
- ④ Points to the closing `</style>` tag.

Output



Creating an Internal Style Sheet

Lesson 3

You can create an internal style sheet that resides within the `<head>` tag of your HTML5 document. The styles of an internal style sheet are delineated by `<style>` and `</style>` tags and apply only to the HTML in that document. Internal style sheets are handy if your website consists of a single page because you can change both style rules and HTML in the same file.

Create Internal Style Sheet

- 1 Within the `<head>` and `</head>` tags, add a new line and type

`<style type="text/css">.`

- 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.

If you intend to add more than one property-value pair to a declaration, be sure to separate the pairs with semicolons.

- 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>.`

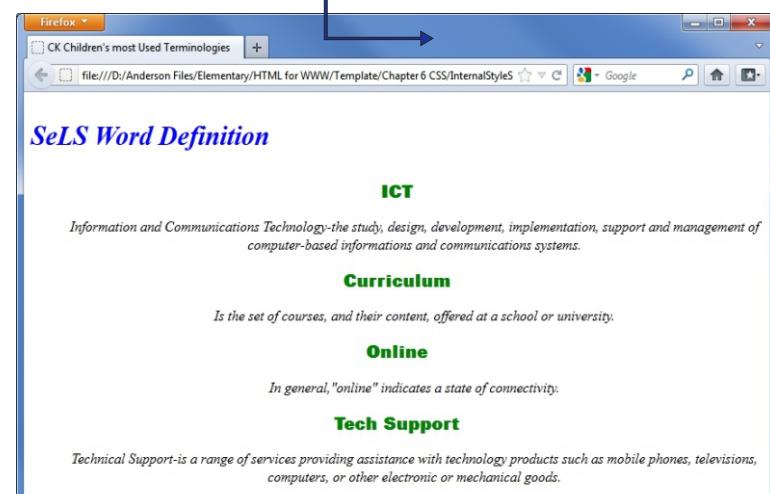
You can save your page and test it in a browser to see the style sheet results.

HTML Code

The screenshot shows an HTML file named "InternalStyleSheet.html". The code includes an internal style sheet within the head section, defining styles for H3, H2, and DD elements. The body section contains a DL list with terms like ICT, Curriculum, Online, and Tech Support, each with a corresponding definition in the dd tag. The code editor interface is visible, with the file tab labeled "InternalStyleSheet.html" and the code area showing numbered steps 1 through 7 indicating the sequence of writing the CSS rules.

```
<!DOCTYPE HTML>
<html>
<head>
<title> CK Children's most Used Terminologies </title>
<style type='text/css'>
H3 { font-family: Franklin Gothic Heavy;
font-size: 30px;
font-style: italic;
color: Blue; }
H2 { font-family: Zurich XBk BT;
font-size: 20px;
color: Green;
text-align:center; }
DD { text-align:center;
font-style: italic; }
</style>
</head>
<body>
<h3> SeLS Word Definition </h3>
<dl>
<dt> <h2> ICT </h2> </dt>
<dd> Information and Communications Technology-the study, design, development, implementation, support and management of computer-based informations and communications systems. </dd>
<dt> <h2> Curriculum </h2> </dt>
<dd> Is the set of courses, and their content, offered at a school or university. </dd>
<dt> <h2> Online </h2> </dt>
<dd> In general, "online" indicates a state of connectivity. </dd>
<dt> <h2> Tech Support </h2> </dt>
<dd> Technical Support-is a range of services providing assistance with technology products such as mobile phones, televisions, computers, or other electronic or mechanical goods. </dd>
</dl>
</body>
</html>
```

Output



Creating an External Style Sheet & Link

Lesson 4

You can use an external style sheet to define formatting and layout instructions and then apply those instructions to your HTML5 documents. Style sheets can include rules for customizing text, tables, form elements, and more. You can save the style sheet as a text file and assign the .css file extension to identify the file as a Cascading Style Sheet. For easy access, you can save the file in the same folder as your HTML5 files. If you have multiple style sheets and want to keep them separate, you can save them in a subdirectory.

Create External Style Sheet

- 1 Create or Open a new document in your N++ text editor.

- 2 Type the element tag for which you want to define formatting properties, and Type a space.

- 3 Type { and Input one or more property-value pairs.

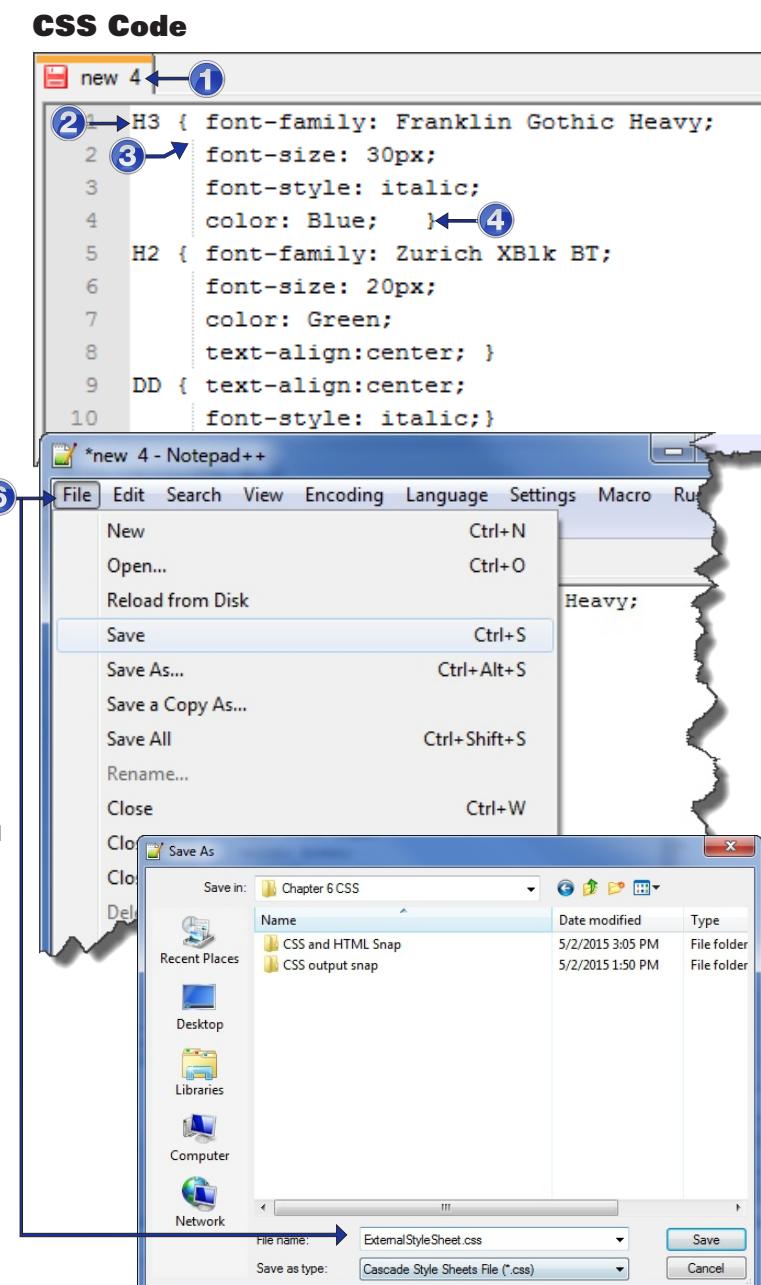
Separate each property and value with a colon. Separate multiple pairs with semicolons. You can add extra spaces for legibility.

- 4 Type } to end the rule.

- 5 Repeat steps 2 to 6 to continue adding rules to your style sheet.

- 6 Click File then select Save and type a unique file name for your style sheet and a .css extension.

Your text editor saves the new style sheet.



Linking to a Style Sheet

Lesson 5

You can link to an external style sheet to assign a set of formatting rules to your HTML5 document. You use the `<link>` tag to specify the filename and location of the style sheet. You can link multiple documents to the same style sheet to give all the pages in your site a consistent look and feel. You can also assign multiple style sheets to a single document by adding more than one `<link>` tag.

Link to a Style Sheet

- ① Open the HTML5 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">`.

This specifies that the linked content is a style sheet defined with CSS.

- ④ Type a blank space and `href="?">`, replacing ? with the name of the style sheet file.
- ⑤ If the style sheet is located in a subdirectory, precede the filename with the subdirectory name and a slash, for example `css/styles.css`.
- ⑥ The style sheet is now linked with the page.

You can test your page in a browser to see the style sheet results.

Output

The screenshot illustrates the steps to link an external CSS file to an HTML document:

- HTML Code:** Shows the `LinkStyleSheet.html` file. Step 1 highlights the file tab. Step 2 points to the `<head>` tag. Step 3 points to the newly added `<link>` tag with attributes `rel="stylesheet"`, `type="text/css"`, and `href="ExternalStyleSheet.css"`. Step 4 points to the `ExternalStyleSheet.css` file tab.
- CSS Code:** Shows the `ExternalStyleSheet.css` file containing CSS rules for `H3`, `H2`, and `DD` elements.
- Output:** Shows the Firefox browser displaying the HTML content. The `SeLS Word Definition` section includes terms like **ICT**, **Curriculum**, **Online**, and **Tech Support**, each with its definition and description.

Applying Styles Locally

Lesson 6

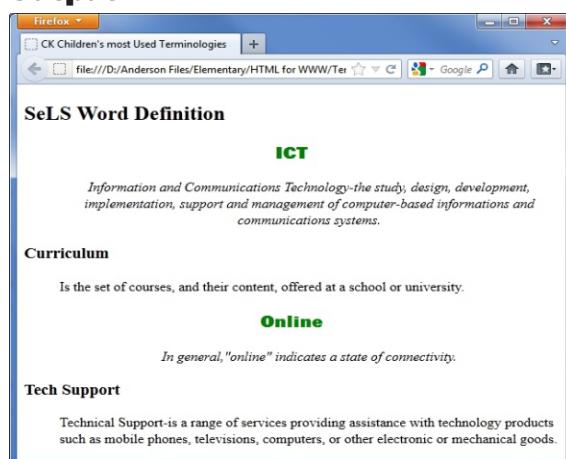
You can apply a style to a single instance of a tag in your document using an HTML attribute. The style attribute enables you to apply a style rule to a tag without having to define the rule separately in an internal or external style sheet. A style applied locally overrides any styles found on external or internal style sheets for the same tag. Applying styles locally works best for onetime changes or for quickly testing a style on content. You should use internal or external style sheets for styles you plan to apply more than once.

Apply Styles Locally

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

Separate multiple property-value pairs with semicolons.

Output



HTML Code

```
<!DOCTYPE HTML>
<HTML>
  <HEAD>
    <TITLE> CK Children's most Used Terminologies </TITLE>
  </HEAD>
  <BODY>
    <H2> SeLS Word Definition </H2>
    <DL>
      <DT> <H3 style="font-family: Zurich XBk BT; font-size: 20px; color: Green; text-align:center;"> ICT </H3> </DT>
      <DD style="text-align:center; font-style: italic;"> Information and Communications Technology-the study, design, development, implementation, support and management of computer-based informations and communications systems. </DD>
      <DT> <H3> Curriculum </H3> </DT>
      <DD> Is the set of courses, and their content, offered at a school or university.</DD>
      <DT> <H3 style="font-family: Zurich XBk BT; font-size: 20px; color: Green; text-align:center;"> Online </H3> </DT>
      <DD style="text-align:center;font-style: italic;"> In general,"online" indicates a state of connectivity. </DD>
      <DT> <H3> Tech Support </H3> </DT>
      <DD> Technical Support-is a range of services providing assistance with technology products such as mobile phones, televisions, computers, or other electronic or mechanical goods. </DD>
    </DL>
  </BODY>
</HTML>
```

Apply a Style to a Tag

You can create a CSS rule that applies styles to an HTML tag. For example, if you want all the paragraphs on your page to have text in the Arial font face with a size of 14 points, you can create a CSS declaration with those style properties and use p as the selector. Any text surrounded by <p> tags will have that formatting. Similarly, you can apply styles to customize the color and boldness of your <h2> tags or the alignment of your images with the tag.

- In your external or internal style sheet, type the tag for which you want to create a class.

- Type { and Input one or more property-value pairs.

Separate multiple pairs with semicolons.

- Type } to end the rule.

Output



```
<!DOCTYPE HTML>
<HTML>
  <HEAD>
    <TITLE> CK Children's most Used Terminologies </TITLE>
    <style type="text/CSS">
      H3 {font-family: Franklin Gothic Heavy; font-size: 30px; font-style: italic; color: Blue}
      H2 {font-family: Zurich XBk BT; font-size: 20px; color: Green}
      P {text-align:center; font-style: italic;}
    </style>
  </HEAD>
  <BODY>
    <H2> SeLS Word Definition </H2>
    <DL>
      <DT> ICT </DT>
      <DD> Information and Communications Technology-the study, design, development, implementation, support and management of computer-based informations and communications systems. </DD>
      <DT> Curriculum </DT>
      <DD> Is the set of courses, and their content, offered at a school or university.</DD>
      <DT> Online </DT>
      <DD> In general,"online" indicates a state of connectivity. </DD>
      <DT> Tech Support </DT>
      <DD> Technical Support-is a range of services providing assistance with technology products such as mobile phones, televisions, computers, or other electronic or mechanical goods. </DD>
    </DL>
  </BODY>
</HTML>
```

Apply a Style Using a Class

Lesson 7

You can create a CSS class to apply a style rule to specific instances of HTML tags in a page. For example, if you want the introductory paragraphs formatted differently from all the other paragraphs, you can create a class specifically for the introductory paragraphs. After you create the class and assign it using the class attribute, the browser applies the formatting to all the affected paragraphs.

For HTML:

- ① Open your HTML5 document and click in the tag to which you want to assign a class.
- ② Type **class="?"**, replacing ? with the **class name**.
- ③ Save the HTML5 document.

Now your class is in HTML5 document and your CSS class is now sync and defined.

For your CSS:

- 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, and open with {.
- ④ Type one or more property-value pairs for the class.
Separate multiple pairs with semicolons.
- ⑤ Type } to end the style rule.

Your class is now defined.

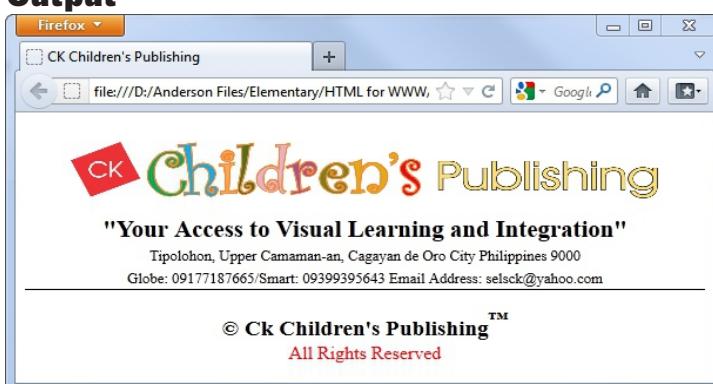
HTML Code

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
<TITLE>CK Children's Publishing</TITLE>
<LINK REL="stylesheet" Type="text/CSS" HREF="StyleCSS.css">
</HEAD>
<BODY>
<P><IMG SRC="ck.png" WIDTH="500" HEIGHT="50" /><BR>
<FONT CLASS="middle">Your Access to Visual Learning and Integration</FONT><BR>
<FONT CLASS="end">
Tipolohon, Upper Camaman-an, Cagayan de Oro City Philippines 9000<BR>
Globe: 09177187665/Smart: 09399395643 Email Address: selsck@yahoo.com<FONT><BR><P>
<SMALL>&copy; Ck Children's Publishing<SUP>&trade;</SUP></SMALL><BR>
<FONT CLASS="bottom"> All Rights Reserved</FONT>
```

CSS Code

```
/* Body */
body{
    text-align: center;
}
/* image */
img{
    padding: 10px;
}
/* all content */
p{
    padding: 0px;
    border-bottom: 1px solid black;
}
/* middle 'Your Access' */
font.middle{
    font-size: 1.3em;
    font-weight:bold;
}
/* end Address */
font.end{
    padding: 0px;
    font-size: 0.8em;
}
/* Footer or Bottom */
small{
    padding:20px;
    font-size: 1.2em;
    text-align: center;
    font-weight:bold;
}
font.bottom{
    color: RED;
}
```

Output



Apply a Style Using an ID

Lesson 8

You can apply an id attribute to an HTML tag on your page to give it a unique identifier. You can then apply styles to that HTML tag using a special CSS selector for that tag. Using the id attribute to apply styles is an alternative to using the class attribute. You can set your ID rules in an internal or external style sheet.

HTML Code

For HTML:

- Inside the HTML tag to which you want to set an ID, type **id="?"**, replacing ? with a unique identifier.

The identifier must begin with a letter and may be followed with **letters, numbers, hyphens (-), underscores (_)**, and **colons (:)**.

For your CSS:

- In your style sheet, type the name of the HTML tag.
- Type **#?**, replacing ? with the identifier you assigned to the tag.
- Type **{**.
- Type the property-value pairs for the ID style, separating multiple pairs with semicolons.

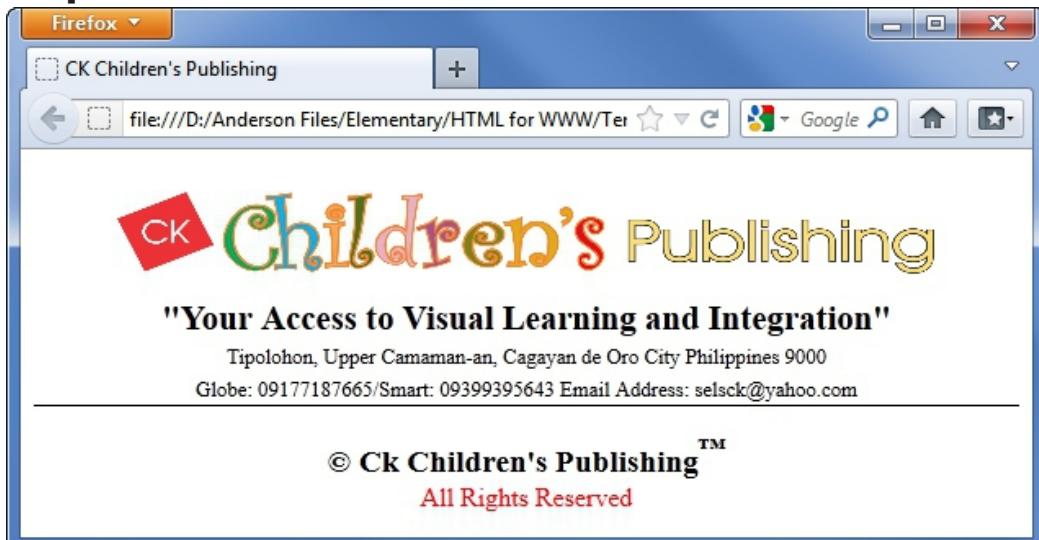
Your ID style is now defined.

The screenshot shows a Notepad window with the title 'StyleUsingID.html'. The code is as follows:

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
<TITLE>CK Children's Publishing</TITLE>
<style type='text/css'>
body{
    text-align: center;
}
Img{
    padding: 10px;
}
P{
    padding: 0px; border-bottom: 1px solid black;
}
font#middle {
    font-size: 1.3em;
    font-weight:bold;
}
font#end {
    padding: 0px; font-size: 0.8em;
}
small{
    padding:20px; font-size: 1.2em; text-align: center;
    font-weight:bold;
}
font#bottom{
    color: RED;
}
</style>
</HEAD>
<BODY>
<P><IMG SRC="ok.png" WIDTH="500" HEIGHT="50" /><BR>
<FONT ID="middle">"Your Access to Visual
Learning and Integration"<FONT><BR>
<FONT ID="end">
Tipolohon, Upper Camaman-an, Cagayan de Oro
City Philippines 9000<BR>
Globe: 09177187665/Smart: 09399395643 Email
Address: selsck@yahoo.com<FONT><BR></P>
<SMALL>&copy; Ck Children's Publishing<SUP>®</SUP>
</SMALL><BR>
<FONT ID="bottom"> All Rights Reserved</FONT>
</BODY>
</HTML>
```

The code uses the 'style' tag within the head section to define four CSS rules: 'body' (text-align: center), 'Img' (padding: 10px), 'P' (padding: 0px; border-bottom: 1px solid black), and 'font#middle' (font-size: 1.3em; font-weight:bold). It also defines a 'small' rule with padding: 20px, font-size: 1.2em, and text-align: center, and a 'font#end' rule with padding: 0px and font-size: 0.8em. The 'font#bottom' rule changes the color of the text to red. The body contains a paragraph with an image, a large font containing text, and a small font containing contact information and a copyright notice.

Output



Define Styles for Nested Tags

Lesson 9

You can set up style rules for your page based on how tags are nested inside other tags. For example, you can specify that a style rule be applied to a heading tag, but only when that heading is nested inside a certain type of section tag. You create such a style rule by specifying a sequence of tags or tag classes in the selector. The nested order of tags on your page must match the sequence of the tags in the selector for the style to be applied. Defining style rules this way enables you to efficiently apply styles to precise sections of your page.

- Type the name of the outer tag or tag class.
- Type a space and Type the name of the inner tag or tag class.
- Type {.
- Type the property-value pairs for the ID style, separating multiple pairs with semicolons.
- Type }.
- Type the outer tag. Add a class attribute if one was defined in the style.
- Within the outer tag, type your inner tag. Add a class attribute if one was defined.
- Type the content.
- Type a closing inner tag.
- Type a closing outer tag.
- You can add other page content.

HTML Code

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
<TITLE>CK Children's Publishing</TITLE>
<STYLE TYPE="TEXT/CSS">
    Img{ padding: 10px; }
    p{ text-align: center; padding: 0px; border-bottom: 1px solid black; }
    font#middle { font-size: 1.2em; font-weight:bold; }
    font#end { padding: 0px; font-size: 0.8em; }
    H3 { font-family: Franklin Gothic Heavy; font-size: 30px; font-style: italic; color: Blue; text-align: center; }
    small{ float: right; font-size: 0.8em; font-weight:bold; }
    font#bottom{ font-size: 0.7em; text-align: center; color: RED; }
</STYLE>
</HEAD>
<BODY>
<P><IMG SRC="ck.png" WIDTH="500" HEIGHT="50" /><BR>
<FONT CLASS="middle">Your Access to Visual Learning and Integration</FONT><BR>
<FONT ID="end">
    Tipolohon, Upper Camaman-an, Cagayan de Oro City Philippines 9000<br>
    Globe: 09177187665/Smart: 09399395643 Email Address: selsck@yahoo.com</FONT><P>
<H3> SeLS Word Definition </H3>
<DL>
    <DT CLASS="title"> <H2> ICT </H2> </DT>
        8
        <DD>Information and Communications Technology-the study, design, development, implementation, support and management of computer-based informations and communications systems. </DD>
    <DT CLASS="title2"> <H2> Curriculum </H2> </DT>
        9
        <DD>Is the set of courses, and their content, offered at a school or university.</DD>
    <DT CLASS="title"> <H2> Online </H2> </DT>
        10
        <DD>In general, "online" indicates a state of connectivity. </DD>
    <DT CLASS="title2"> <H2> Tech Support </H2> </DT>
        11
        <DD>Technical Support-is a range of services providing assistance with technology products such as mobile phones, televisions, computers, or other electronic or mechanical goods. </DD>
    <SMALL >&copy; Ck Children's Publishing<SUP>®</SUP>
    <FONT ID="bottom" align='center'> All Rights Reserved</FONT> </SMALL>
</DL>
</BODY>
</HTML>
```

Output



LABORATORY MANUAL

Chapter 6: Intro to CSS & Formatting Text with CSS

Part 2 HTML

In this chapter, you'll learn how to construct style sheets and how to attach them to a document, either by placing them within the document itself or by linking to them as a separate file. You'll learn how to define a style and how to apply it. The next several chapters will include further opportunities to practice with various style types.

Objectives

After completing all the laboratory activities in this chapter, the student will be able to learn how to create the different types CSS codes and apply it to the main document or web page.

Lab 6.1 CCP using CSS

Estimated Completion time: 1 Hour



Directions:

1. Open **CPPusingCSS.html** then use your browser to preview, examine the web page and find the missing items based on the picture below. Complete the web page similar to the picture below.
2. Apply styles to the missing items by creating external style sheets using CSS Class or CSS ID then apply it to the main document (**CPPusingCSS.html**).
3. Save the HTML document as **CPP&CSS.html** and CSS document as **Styles4CCP.css**

Preview:

A screenshot of a Firefox browser window. The title bar says "Firefox" and "Mozilla Firefox Start Page". The address bar shows "Firefox Search or enter address". The main content area displays the website for the Cultural Center of the Philippines. The header features a red background with the CCP logo and the text "Cultural Center of the Philippines" and "the premiere showcase of the arts in the Philippines". Below the header, there are four main sections: "Arts Education", "for Arts Learning Audiences", "Audience Development Programs", "for Artists & Teaching Artists (intermediate to advanced levels)", "Artist Training Programs", "for Arts & Culture Professionals & Institutions", and "Cultural Management Programs". Each section has a brief description and a dark red horizontal bar underneath.

Lab 6.2 CSS Time For KIDS

Estimated Completion time: 45-50 Minutes



Directions:

1. Open **CSSTime4Kids.html** then use your browser to preview, examine the web page and find the missing items based on the picture(preview) below. Complete the web page similar to the picture below.
2. Apply styles to the missing items by creating external style sheets using CSS Class or CSS ID then apply it to the main document (**CSSTime4Kids.html**).
3. Save the HTML document as**CSSTime4Kids.html** and CSS document as **Styles4Time.css**

Preview:

The screenshot shows a Firefox browser window with a red title bar. The main content area displays the 'TIME FOR KIDS' website. At the top, there is a red banner with the 'TIME FOR KIDS' logo. Below the banner, the heading 'HOMEWORK HELPER' is displayed in bold black text. Underneath, a sub-section titled 'HOMEWORK HELPER' is shown with the subtext: 'Don't do your homework alone! TFK's Homework Helper is packed with tips and tools to help you succeed.' Below this, there are five sections, each with an icon and a title: 'A+ Papers' (icon: A+ with a star), 'Flash-card Maker' (icon: Q/A with a graph), 'Grammar Wizard' (icon: Grammar symbols), 'Writing Tips' (icon: Pencils and a question mark), and 'Writer's Toolbox' (icon: ABC in a briefcase). Each section has a brief description and a 'Get Started!' link.