

ADV3550

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What is CSS?

- **CSS** stands for **Cascading Style Sheets**
- Styles define **how to display** HTML elements
- Styles were added to HTML 4.0 **to solve a problem**
- **External Style Sheets** can save a lot of work
- External Style Sheets are stored in **CSS files**

Styles Solved a Big Problem

HTML was never intended to contain tags for formatting a document. HTML was intended to define the content of a document, like:

```
<h1>This is a heading</h1>  
<p>This is a paragraph.</p>
```

When tags like ``, and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Development of large web sites, where fonts and color information were added to every single page, became a long and expensive process.

To solve this problem, the World Wide Web Consortium (W3C) created CSS. In HTML 4.0, all formatting could be removed from the HTML document, and stored in a separate CSS file. All browsers support CSS today.

Cascading Style Sheets

CSS is an extension to basic HTML that allows you to "style" how the content within your web pages will look. Each browser has a set of parameters for how it reads paragraphs, headings, tables, etc., and then renders it on your screen. Each of the tags can be defined so that you can tell the browser how to display it. With this in mind, you can think of your CSS file as a sort of dictionary with a clear definition of how each item is displayed on the screen.

With CSS you can set up rules (or definitions) to tell specific HTML tags how to display content, or you can create generic rules and apply them to tags when you need them.

CSS Syntax

A CSS rule has two main parts: a selector, and one or more declarations:

```
selector {property:value;}  
p {color:red;text-align:center;}
```

There are the three types of rules:

1. HTML Selector

All HTML tags have default properties. With CSS you can define any HTML tag to change the defaults.

```
-> p {line-height: 14px;}
```

You can define a style for multiple tags at one time by separating each html tag name with a comma.

```
-> h1, h2, h3 {color: #c00000;}
```

2. Class Selector

A class is a rule that can be applied to an HTML tag. You can give a class any name you want with the exception of a few reserved words.

-> `.myclass {font: bold 14px Verdana;}`

Classes have an advantage in that you can create a number of different classes and apply them to different paragraphs, headings, divs, etc.

3. ID Selector

ID rules are similar to a class, but they can only be applied once on a page to a particular HTML tag. IDs are commonly used in CSS positioned layouts since items like a header or footer are only going to appear once on a page.

The id selector is used to specify a style for a single, unique element. The id selector uses the id attribute of the HTML element, and is defined with a "#".

The style rule below will be applied to the element with id="para1":

An ID rule looks like the following:

```
#para1{
background-color: #ffffff;
height: 40px;
padding: 10px 20px;}
}
```

There are Three Ways to Insert CSS

There are three ways of inserting a style sheet:

- External style sheet
- Internal style sheet
- Inline style

1. External

An external style sheet is ideal when the style is applied to many pages. With an external style sheet, you can change the look of an entire Web site by changing one file. Each page must link to the style sheet using the <link> tag. The <link> tag goes inside the head section:

ex:

```
<head>
<title>My first web page</title>
<link rel="stylesheet" type="text/css" href="web.css" />
</head>
```

2. Internal

An internal style sheet should be used when a single document has a unique style. You define internal styles in the head section of an HTML page, by using the <style> tag, like this:

ex:

```
<head>
<style type="text/css">
hr {color:sienna;}
</style>
```

```
p {margin-left:20px;}
body {background-image:url("images/back40.gif");}
</style>
</head>
```

3. Inline style

An inline style loses many of the advantages of style sheets by mixing content with presentation. Use this method sparingly! To use inline styles you use the style attribute in the relevant tag. The style attribute can contain any CSS property. The example shows how to change the color and the left margin of a paragraph:

```
<p style="color:sienna;margin-left:20px">This is a paragraph.</p>
```

Cascading order

What style will be used when there is more than one style specified for an HTML element?

Generally speaking we can say that all the styles will "cascade" into a new "virtual" style sheet by the following rules, where number four has the highest priority:

1. Browser default
2. External style sheet
3. Internal style sheet (in the head section)
4. Inline style (inside an HTML element)

So, an inline style (inside an HTML element) has the highest priority, which means that it will override a style defined inside the <head> tag, or in an external style sheet, or in a browser (a default value).