

Separating Form from Content

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CASCADING STYLE SHEETS

What is CSS?

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- **CSS** stands for **Cascading Style Sheets**
- Styles define **how to display** HTML elements
- Styles are normally stored in **Style Sheets**
- Styles were added to HTML 4.0 **to solve a problem**
- **External Style Sheets** can save you a lot of work
- External Style Sheets are stored in **CSS files**
- Multiple style definitions will **cascade** into one

Styles Solve a Common Problem

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- HTML tags were originally designed to define the content of a document.
- The layout of the document was supposed to be taken care of by the browser, without using any formatting tags.
- As the two major browsers - Netscape and Internet Explorer - continued to add new HTML tags and attributes to the original HTML specification, the content of HTML documents was no longer separated from the document's presentation layout.

CSS Syntax

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- The CSS syntax is made up of three parts: a selector, a property and a value:
`selector{property:value; property:value;}`
- Examples:
 - `body {color: #000000}`
 - `p {font-family: "sans serif"}`
 - `p {text-align:center; color:#FF0000;}`
 - `p{text-align: center; color: #000000; font-family: arial;}`

CSS Comments

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- You can insert comments in CSS to explain your code, which can help you when you edit the source code at a later date. A comment will be ignored by the browser. A CSS comment begins with `/*`, and ends with `*/`, like this:

```
/* This is a comment */
```

Internal Style Sheet

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

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

An example of CSS

Formatting a paragraph with an internal style sheet

```
<html>
  <head>
    <style>
      p{text-align:right; color:green;}
    </style>
  </head>
  <body>
    <p>This is an example of using CSS</p>
  </body>
</html>
```

Grouping

You can group selectors. Separate each selector with a comma.

In the example we have grouped all the header elements. Each header element will be red:

```
<!DOCTYPE html>
<html>
<head>
  <style>
    h1, h2, h3, h4, h5, p {
      text-align: center;
      color: red;
    }
  </style>
</head>
<body>

  <h1>Hello World!</h1>
  <h2>Smaller heading!</h2>
  <p>This is a paragraph.</p>

</body>
</html>
```


Selecting by id

When we want to apply a style to a unique case (like one paragraph from all other paragraphs, we can use an id:

```
<!DOCTYPE html>
<html>
<head>
  <style>
    #unique_name{
      color: red;
    }
  </style>
</head>
<body>

  <p>Hello World!</p>
  <p>Smaller heading!</p>
  <p id="unique_name">This is a
    paragraph.</p>

</body>
</html>
```

The class Selector

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- With the class selector you can define different styles for the same type of HTML element.

```
p.right {text-align: right}
```

```
p.center {text-align: center}
```

- In the body we would differentiate:

```
<p class="right">This paragraph will be  
right-aligned.</p>
```

```
<p class="center">This paragraph will be  
center-aligned.</p>
```

The class Selector generalised

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- You can also omit the tag name in the selector to define a style that will be used by all HTML elements that have a certain class.

```
.center {text-align: center}
```

- In the body:

```
<h1 class="center">This heading will be  
center-aligned</h1>
```

```
<p class="center">This paragraph will also  
be center-aligned.</p>
```

Background colour

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- The Background properties allow you to control the background effects of an element:

```
body {background-color:#b0c4de;}
```

- With CSS, a colour is most often specified by:
- a HEX value - like "#ff0000"
- an RGB value - like "rgb(255,0,0)"
- a color name - like "red"

Style Sheets Can Save a Lot of Work

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- Styles in HTML 5 define how HTML elements are displayed, just like the font tag and the colour attribute.
- Styles are normally saved in files external to your HTML documents.
- External style sheets enable you to change the appearance and layout of all the pages in your Web, just by editing a single CSS document.
- CSS is a breakthrough in Web design because it allows developers to control the style and layout of multiple Web pages all at once.