CASCADING STYLE SHEET

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What is CSS?

- **CSS** stands for **C**ascading **S**tyle **S**heets
- Styles define **how to display** HTML elements
- Styles were added to HTML **to solve a problem**
- **External Style Sheets** can save a lot of work
- External Style Sheets are stored in **.CSS files**

CSS – Solved the 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 <font>, and color attributes were added to the HTML 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, all formatting could be removed from the HTML document, and stored in a separate CSS file.

- All browsers support CSS today.

- CSS defines HOW HTML elements are to be displayed.

- Styles are normally saved in external .css files. External style sheets enable you to change the appearance and layout of all the pages in a Web site, just by editing one single file!

CSS Syntax

- A CSS rule set consists of a selector and a declaration block:
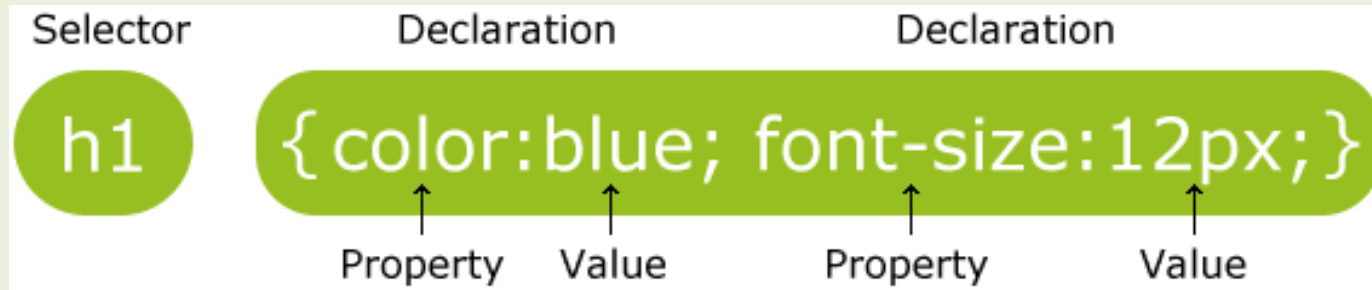
The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a property name and a value, separated by a colon.

A CSS declaration always ends with a semicolon, and declaration groups are surrounded by curly braces:

CSS Comments

Comments are used to explain your code, and may help you when you edit the source code at a later date. Comments are ignored by browsers.

A CSS comment starts with /* and ends with */. Comments can also span multiple lines:

See Example : CSS – Example1.html

CSS Selectors

- CSS selectors allow you to select and manipulate HTML element(s).

- CSS selectors are used to "find" (or select) HTML elements based on their id, classes, types, attributes, values of attributes and much more.

The element Selector

- The element selector selects elements based on the element name.

- You can select all <p> elements on a page like: (all <p> elements will be center-aligned, with a red text color)

p { text-align: center; color: red;}

Refer to Example: CSS – Example1.html

CSS Selectors

The id Selector

- The id selector uses the id attribute of an HTML tag to find the specific element.

- An id should be unique within a page, so you should use the id selector when you want to find a single, unique element.

- To find an element with a specific id, write a hash character, followed by the id of the element.

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

```
#para1 {
    text-align: center;
    color: red;}
```

Refer to Example: CSS – Example1.html

CSS Selectors

The class Selector

- The class selector finds elements with the specific class.

- The class selector uses the HTML class attribute.

- To find elements with a specific class, write a period character, followed by the name of the class:

- In the example below, all HTML elements with class="ccc" will be left - aligned:

```
.ccc {
    text-align: left;
    color: green;}
```

Refer to Example: CSS – Example1.html

Grouping Selectors

In style sheets there are often elements with the same style:

h1 {   text-align: center;   color: red;}

h2 {   text-align: center;   color: red;}

p {   text-align: center;   color: red;}

To minimize the code, you can group selectors.

To group selectors, separate each selector with a comma.

In the example below we have grouped the selectors from the code above:

h1, h2, p {
        text-align: center;
        color: red;
    }

Refer to Example: CSS – Example1.html

CSS How To Implement

Three Ways to Insert CSS

- External style sheet, Internal style sheet, Inline style

External Style Sheet

- 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 just one file.

- Each page must include a link to the style sheet with the <link> tag. The <link> tag goes inside the head section:

<head>

    <link rel="stylesheet" type="text/css" href="mystyle.css">

</head>

- The style sheet file must be saved with a .css extension. An example of a style sheet file is shown below:

Refer to Example: CSS – Example2.html

CSS How To Implement

Three Ways to Insert CSS

- External style sheet, Internal style sheet, Inline style

Internal Style Sheet

- 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, inside the <style> tag, like this:

```
<head>
    <style>
            body { background-color: linen;          }
            h1 { color: maroon; margin-left: 40px;          }
    </style>
</head>
```

Refer to Example: CSS – Example1.html

CSS How To Implement

Three Ways to Insert CSS

- External style sheet, Internal style sheet, Inline style

Inline Style Sheet

- An inline style loses many of the advantages of a style sheet (by mixing content with presentation). Use this method sparingly!

- To use inline styles, add the style attribute to 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 h1 element:

<h1 style="color:blue; margin-left:30px;">

This is a heading.

</h1>

Refer to Example: CSS – Example1.html

Multiple CSS cascades into One

Styles can be specified:

- inside an HTML element

- inside the head section of an HTML page

- in an external CSS file

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, in the following order:

Browser default < External style sheet

< Internal style sheet (in the head section)

< 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).