CSS

What is CSS? Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, as well as a variety of other effects. CSS is easy to learn and understand but it provides a powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML. Advantages of CSS

• CSS saves time - You can write CSS once and then reuse the same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many web pages as you want.

• Pages load faster - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So, less code means faster download times.

• Easy maintenance - To make a global change, simply change the style, and all the elements in all the web pages will be updated automatically.

• Superior styles to HTML - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.

• Multiple Device Compatibility - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cellphones or for printing.

• Global web standards – Now HTML attributes are being deprecated and it is being recommended to use CSS. So it's a good idea to start using CSS in all the HTML pages to make them compatible with future browsers. 1. CSS – OVERVIEW 11 Who Creates and Maintains CSS? CSS is created and maintained through a group of people within the W3C called the CSS Working Group. The CSS Working Group creates documents called specifications. When a specification has been discussed and officially ratified by the W3C members, it becomes a recommendation. These ratified specifications are called recommendations because the W3C has no control over the actual implementation of the language. Independent companies and organizations create that software. NOTE: The World Wide Web Consortium or W3C is a group that makes recommendations about how the Internet works and how it should evolve. CSS Versions Cascading Style Sheets level 1 (CSS1) came out of W3C as a recommendation in December 1996. This version describes the CSS language as well as a simple visual formatting model for all the HTML tags. CSS2 became a W3C recommendation in May 1998 and builds on CSS1. This version adds support for media-specific style sheets e.g. printers and aural devices, downloadable fonts, element positioning and tables. 12 A CSS comprises of style rules that are interpreted by the browser and then applied to the corresponding elements in your document. A style rule is made of three parts:

• Selector: A selector is an HTML tag at which a style will be applied. This could be any tag like

or

etc. ● Property: A property is a type of attribute of HTML tag. Put simply, all the HTML attributes are converted into CSS properties. They could be color, border, etc. ● Value: Values are assigned to properties. For example, color property can have the value either red or #F1F1F1 etc. You can put CSS Style Rule Syntax as follows: selector { property: value } Example: You can define a table border as follows: table{ border :1px solid #C00; } Here table is a selector and border is a property and the given value 1px solid #C00 is the value of that property. You can define selecto

The Type Selectors

This is the same selector we have seen above. Again, one more example to give a color to all

level 1 headings:

h1 {

 color: #36CFFF;

}

The Universal Selectors

Rather than selecting elements of a specific type, the universal selector quite simply matches

the name of any element type:

2. CSS – SYNTAX

13

* {

 color: #000000;

}

This rule renders the content of every element in our document in black.

The Descendant Selectors

Suppose you want to apply a style rule to a particular element only when it lies inside a

particular element. As given in the following example, the style rule will apply to <em>

element only when it lies inside the <ul> tag.

ul em {

 color: #000000;

}

The Class Selectors

You can define style rules based on the class attribute of the elements. All the elements having that class will be formatted according to the defined rule.

```
.black {
 color: #000000;
}
```

This rule renders the content in black for every element with class attribute set to black in our document. You can make it a bit more particular. For example:

```
h1.black {
 color: #000000;
}
```

This rule renders the content in black for only <h1> elements with class attribute set to black.

You can apply more than one class selectors to a given element. Consider the following example:

```
<p class="center bold">
```

This para will be styled by the classes center and bold.

14

```
</p>
```

The ID Selectors

You can define style rules based on the id attribute of the elements. All the elements having that id will be formatted according to the defined rule.

```
#black {
 color: #000000;
}
```

This rule renders the content in black for every element with id attribute set to black in our document. You can make it a bit more particular. For example:

```
h1#black {
 color: #000000;
```

}

This rule renders the content in black for only <h1> elements with id attribute set to black.

The true power of id selectors is when they are used as the foundation for descendant selectors. For example:

#black h2 {

 color: #000000;

}

In this example, all level 2 headings will be displayed in black color when those headings will lie within tags having id attribute set to black.

The Child Selectors

You have seen the descendant selectors. There is one more type of selector, which is very similar to descendants but have different functionality. Consider the following example:

body > p {

 color: #000000;

}

15

This rule will render all the paragraphs in black if they are a direct child of the <body> element. Other paragraphs put inside other elements like <div> or <td> would not have any effect of this rule.

The Attribute Selectors

You can also apply styles to HTML elements with particular attributes. The style rule below will match all the input elements having a type attribute with a value of text:

input[type="text"]{

 color: #000000;

}

The advantage to this method is that the <input type="submit" /> element is unaffected, and the color applied only to the desired text fields.

There are following rules applied to attribute selector.

 p[lang] - Selects all paragraph elements with a lang attribute.

p[lang="fr"] - Selects all paragraph elements whose lang attribute has a value of exactly "fr".

 p[lang~="fr"] - Selects all paragraph elements whose lang attribute contains the word "fr".

 p[lang|="en"] - Selects all paragraph elements whose lang attribute contains values that are exactly "en", or begin with "en-".

Multiple Style Rules

You may need to define multiple style rules for a single element. You can define these rules to combine multiple properties and corresponding values into a single block as defined in the following example:

```
h1 {
color: #36C;
font-weight: normal;
letter-spacing: .4em;
margin-bottom: 1em;
text-transform: lowercase;
}
```

16

Here all the property and value pairs are separated by a semicolon (;). You can keep them in a single line or multiple lines. For better readability, we keep them in separate lines.

For a while, don't bother about the properties mentioned in the above block. These properties will be explained in the coming chapters and you can find the complete detail about properties in CSS References.

Grouping Selectors

You can apply a style to many selectors if you like. Just separate the selectors with a comma, as given in the following example:

```
h1, h2, h3 {
color: #36C;
font-weight: normal;
```

letter-spacing: .4em;

margin-bottom: 1em;

text-transform: lowercase;

}

This define style rule will be applicable to h1, h2 and h3 element as well. The order of the list

is irrelevant. All the elements in the selector will have the corresponding declarations applied

to them.

You can combine the various class selectors together as shown below:

#content, #footer, #supplement {

position: absolute;

left: 510px;

width: 200px;

}

17

There are four ways to associate styles with your HTML document. Most commonly used

methods are inline CSS and External CSS.

Embedded CSS -The <style> Element

You can put your CSS rules into an HTML document using the <style> element. This tag is

placed inside the <head>...</head> tags. Rules defined using this syntax will be applied to

all the elements available in the document. Here is the generic syntax:

<head>

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

Style Rules

....

</style>

</head>

Attributes

Attributes associated with <style> elements are:

Attribute Value Description

type text/css Specifies the style sheet language as a content-type

(MIME type). This is a required attribute.

media screen

tty

tv

projection

handheld

print

braille

Specifies the device, the document will be displayed

on. Default value is all. This is an optional attribute.

3. CSS – INCLUSION

18

aural

all

Example

Following is an example of embed CSS based on t