Web Technology
(KCS-602)
Unit 2

Prepared By

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CSS

- **C**ascading **S**tyle **S**heets, 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 etc.

Advantages of CSS

- **CSS saves time -**
- **Pages load faster -**
- **Easy maintenance-**
- **Superior styles to HTML-**
- **Multiple Device Compatibility-**
- **Global web standards-**

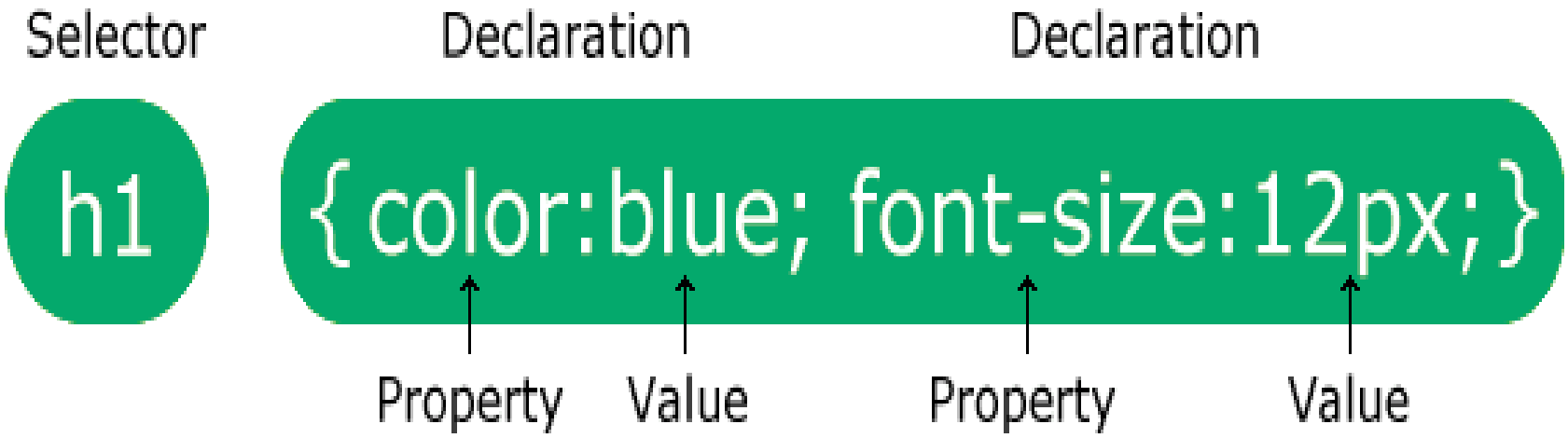
CSS Versions

- Cascading Style Sheets, level 1 (CSS1) was came out of W3C as a recommendation in December 1996.
- CSS2 was became a W3C recommendation in May 1998 and builds on CSS1.
- The earliest CSS 3 drafts were published in June 1999.

CSS Syntax – Selectors

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 style will be applied. This could be any tag like <h1> or <table> 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* or *border* etc.
- **Value:** Values are assigned to properties. For example *color* property can have value either *red* or *#F1F1F1* etc.


Selector
Declaration
Declaration
h1
{color:blue; font-size:12px;}
Property
Value
Property
Value

CSS Inclusion - Associating Styles

There are four ways to associate styles with your HTML document. Most commonly used methods are inline CSS and External CSS.

Embedded CSS

Inline CSS

External CSS

Imported CSS

Embedded CSS

- You can put your CSS rules into an HTML document using the <style> element. This tag is placed inside <head>...</head> tags.

Syntax:

```
<head>
<style type="text/css”>
 Style Rules.....
</style>
</head>
```

Inline CSS

- You can use *style* attribute of any HTML element to define style rules. These rules will be applied to that element only.
- <element style="...style rules....">

<h1 style ="color:#36C;"> This is inline CSS</h1>

External CSS

- The <link> element can be used to include an external stylesheet file in your HTML document.
- An external style sheet is a separate text file with **.css** extension.

```
<head><link rel=”stylesheet” type="text/css" href="...“ ></head>
```

Imported CSS

- @import is used to import an external stylesheet in a manner similar to the <link> element.

```
<head>
<style>
@import url("a.css");
</style>
</head>
```

The Type Selectors

In this type simply apply selector name and set the attribute value you have to change.

```
h1 {    color: #36CFFF; }
```

The Descendant Selectors

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

```
ul em {  color: #000000; }
```

The Class Selectors

- You can define style rules based on the class attribute of the elements.

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

```
<h1 class="black">Hello Welcome </h1>
```

The ID Selectors

- All the elements having that id will be formatted according to the defined rule.

```
#black {  color: #000000; }
<h1 id=“black">Hello Welcome </h1>
```

The Child Selectors

```
body > p {  color: #000000; }
```

- This rule will render all the paragraphs in black if they are direct child of <body> element.

Multiple Style Rules

- You may need to define multiple style rules for a single element.

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

Grouping Selectors

- You can apply a style to many selectors if you like.

```
h1, h2, h3 {color: #36C;font-weight:
  normal;letter-spacing: .4em;margin-bottom:
  1em;text-transform: lowercase;}
```

CSS Rules Overriding

- Any inline style sheet takes highest priority. So it will override any rule defined in <style>...</style> tags or rules defined in any external style sheet file.
- Any rule defined in <style>...</style> tags will override rules defined in any external style sheet file.
- Any rule defined in external style sheet file takes lowest priority.

CSS - Measurement Units

Unit	Description	Example
%	Defines a measurement as a percentage relative to another value, typically an enclosing element.	p {font-size: 16pt; line-height: 125%;}
cm	Defines a measurement in centimeters.	div {margin-bottom: 2cm;}
em	A relative measurement for the height of a font in em spaces. Because an em unit is equivalent to the size of a given font, if you assign a font to 12pt, each "em" unit would be 12pt; thus, 2em would be 24pt.	p {letter-spacing: 7em;}
ex	This value defines a measurement relative to a font's x-height. The x-height is determined by the height of the font's lowercase letter x.	p {font-size: 24pt; line-height: 3ex;}
in	Defines a measurement in inches.	p {word-spacing: .15in;}
mm	Defines a measurement in millimeters.	p {word-spacing: 15mm;}
pc	Defines a measurement in picas. A pica is equivalent to 12 points; thus, there are 6 picas per inch.	p {font-size: 20pc;}
pt	Defines a measurement in points. A point is defined as 1/72nd of an inch.	body {font-size: 18pt;}
px	Defines a measurement in screen pixels.	p {padding: 25px;}

CSS - Colors

Format	Syntax	Example
Hex Code	#RRGGBB	p{color:#FF0000;}
Short Hex Code	#RGB	p{color:#6A7;}
RGB %	rgb(rrr%,ggg%,bbb%)	p{color:rgb(50%,50%,50%);}
RGB Absolute	rgb(rrr,ggg,bbb)	p{color:rgb(0,0,255);}
keyword	aqua, black, etc.	p{color:teal;}