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**Course Name:** O Level (1<sup>ST</sup> Sem)  
**Topic:** Cascading Style Sheets (Part 1)

**Subject:** Web Designing and Publishing  
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## Cascading Style Sheets

### INTRODUCTION

A style is the default look of your document. It contains the settings for the color, size, type, weight (boldness), decoration (underline, line thought, blink), and style (italic, normal) of the text on your document. You can set your own default style so that all of your pages create text in the style that you wish. If you decide to change your style you need only change information on one file and it will update every page that is connected to that file.

Cascading Style Sheet (CSS) is a text file with “.css” extension and is commonly used to define style and layouts of Web pages written in HTML and Extensible Hypertext Markup Language (XHTML). CSS simplifies the task of maintaining a Web document by separating its style information, such as font size, font color, line width, and background color. This separation allows you to apply the same style rules to multiple Web pages. CSS also allows you to apply a style multiple times in a single Web page. Suppose, you have a Web page that contains multiple tables and you want to apply some style on the table caption, table header, and table cells. To do this, you just need to write the code once in a CSS style sheet and apply this style sheet to all the tables of your Web page. This reduces the complexity and redundancy of code in the Web page and saves your time, as you do not need to write the same code again and again. The styles in a CSS file are defined according to the rules of the CSS recommendation that suggests how a Web page should be presented. The CSS file contains the style code for the structure, such as headings, paragraphs, and links. The styles patterns and layouts defined in a CSS file can be modified by making the required changes in the code of the CSS file. CSS also provides a pattern that; helps in applying the style rules on specific elements. This pattern is known as a **selector**. Some of the most-commonly used CSS selectors are universal, type, and class.

### The Evolution of CSS

CSS was introduced in late 1996 on the recommendation of World Wide Web Consortium (W3C). Nine different style sheet languages were proposed to the W3C to control the style of a Web page. Out of the nine proposals, two languages- Cascading HTML Style Sheets (CHSS) and Stream- based Style Sheet Proposal (SSP)-were selected to be implemented. Unlike, CHSS, which could be applied only on HTML, CSS can also be applied to other markup languages, such as Extensible Markup Language (XML) and XHTML. The CSS level 1 (CSS 1) Recommendation was published in December, 1996. The W3C group worked on the issues that were not addressed in CSS 1. It gave rise to the creation of higher version of CSS 1 namely CSS level 2 (CSS 2) on November 4, 1997. CSS 2 was published as a W3C Recommendation on May 12, 1998. Some CSS 2 properties that could not be successfully implemented by the Web browsers were discarded from CSS 2. Later, CSS 2.1 became a Candidate Recommendation (Candidate Recommendation means that the users or developers of the CSS 2.1 recommended it) on February 25, 2004, but was pulled back to Working Draft status (which means that the technical content is under process) on June 13, 2005, and again returned to Candidate Recommendation status on July 19, 2007.

### The following are the features of each version of CSS:

- The CSS 1 version includes the following features:
  - Provides margin, border, padding, and positioning of elements
  - Provides different text attributes, such as spacing between words, letters, and lines of text
  - Provides font properties, such as emphasis

- Provides alignment of text, image, and other elements
- Provides color to text
- Provides background to elements
- The CSS 2 version includes the following features:
  - Provides absolute, relative, and fixed positioning of elements and the Z-index
  - Provides styles for different media types, such as screen, TV, and print
  - Supports aural style sheets that are used by visually impaired persons to access the Web
  - Provides font properties, such as shadows
  - Supports the bidirectional text, which represents a text that can be displayed in both right- to-left (RTL) and left-to-right (LTR) directions
- The CSS 3 Version: Includes the following features:
  - Supports more colors and a wider range of color definition, such as Red, Green, Blue, Alpha (RGBA), and Hue Saturation Lightness (HSL)
  - Supports the border image through border-image and border-corner-image properties
  - Provides rounded corners for any box using border-radius and background position
  - Provides the box-shadow property to add shadow effect to the elements
  - Allows multiple backgrounds on a Web page
  - Allows multi-column text without using a table
  - Displays shadow with the text
  - Provides opacity to set the transparency of box, images, or text
  - Provides CSS selectors

## Understanding the Syntax of CSS

Syntax can be defined as a rule that defines the structure or the order of the statements used in programming language. It also specifies how words and symbols are put together to form statements and expressions. CSS also uses syntax to apply CSS rules in an HTML document. The CSS syntax is divided into two different parts—**selector** and **declaration**. Selector defines an HTML element to which the CSS style is applied and the declaration contains the CSS properties as well as the value of these properties.

CSS is added to HTML pages to format the document according to information in the style sheet. There are three ways to insert CSS in HTML documents.

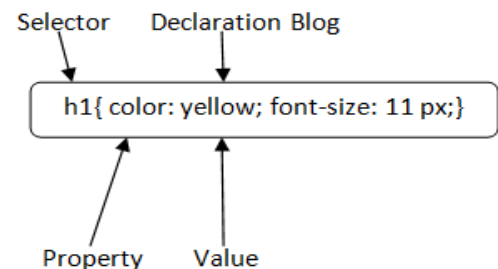
1. Inline CSS
2. Internal CSS
3. External CSS

### 1. **Inline CSS is used to apply CSS on a single line or element.**

`<p style="color:white; background-color:blue;">Hello CSS</p>`

### 2. **Internal CSS** is used to apply CSS on a single document or page. It is written inside the style tag within head section of html.

### 3. **External CSS** is used to apply CSS on multiple pages or all pages. Here, we write all the CSS code in a css file. Its extension must be .css for example style.css.



## • Internal CSS

```
<!DOCTYPE html>
<html>
<head>
<style>
p
{
background-color:blue;
color:white;
}
h1{
background-color:lightgreen;
color:white;
text-align:center;
}
</style>
</head>
<body>
<h1> CSS </h1>
<p>CSS is a language that describes the style of an HTML
document.</p>

<p>CSS describes how HTML elements should be displayed.</p>

<p>This tutorial will teach you CSS from basic to advanced.</p>

</body>
</html>
```

## • External CSS

style.css file

```
p
{
background-color:blue;
color:white;
}
h1{
background-color:lightgreen;
color:white;
text-align:center;
}
```

HTML file

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<h1> CSS </h1>
<p>CSS is a language that describes the style of an HTML
document.</p>
<p>CSS describes how HTML elements should be displayed.</p>
<p>This tutorial will teach you CSS from basic to advanced.</p>
</body>
</html>
```

### Exercise:

- 1: What is CSS?
- 2: Write new feature of CSS 3.
- 3: Write the syntax of Internal CSS.