

Cascading Style Sheet 3.0

Lesson 01: Introduction to CSS 3.0



Lesson Objectives

In this lesson, we will learn:

- Introduction to CSS
 - What is CSS
 - CSS History
 - CSS 3.0 features
 - What CSS can do
- CSS Syntax
- Types of CSS

What is CSS ?



Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation (that is, the look and formatting) of a document written in a markup language.

CSS was created by Hakon Wium Lie and Bert Bos and was adopted as a W3C Recommendation in late 1996

CSS History



Version	Description	Features
CSS 1	The first CSS specification , an official W3C Recommendation, published in December 1996	typeface, emphasis,backgrounds,spacing between words, letters, and lines of text. Alignment of text, images, tables and other elements Margin, border, padding etc
CSS 2	CSS level 2 specification was developed by the W3C and published as a recommendation in May 1998.	includes a number of new capabilities like absolute, relative, and fixed positioning of elements and z-index, the concept of media types, support for aural style sheets and bidirectional text, and new font properties such as shadows
CSS2.1	CSS 2.1 was published as a W3C Recommendation on 7 June 2011	CSS level 2 revision 1, often referred to as "CSS 2.1", fixes errors in CSS 2, removes poorly supported or not fully interoperable features and adds already-implemented browser extensions to the specification
CSS 3	Current version	CSS 3 is divided into several separate documents called "modules". Each module adds new capabilities or extends features defined in CSS 2. As of June 2012, there are over fifty CSS modules published from the CSS Working Group

1.1 Introduction to CSS

Why CSS?



Solves common problem:

- Separate document presentation from the web page content.

Save lots of work:

- Allows developers to control the style and layout of multiple Web pages all at once.

CSS 3.0 Features



Many exciting new functions and features have been introduced in CSS3. Following table list some of the new features

Property	New Attributes			
Borders	border-color	border-image	border-radius	box-shadow
Backgrounds	background-origin	background-size	multiple-backgrounds	
Color	HSL Colors	HSLA Colors	RGBA Colors	opacity
Text Effects	text-shadow	text-overflow	word-wrap	
Selectors	Attribute-selector	:nth-child()	:nth-of-type()	

Many more features like...

- CSS3 Transitions
- Animations
- media queries
- multi-column layout
- Web fonts

What Can CSS Do?



Text formatting

Element sizing

Element positioning

Change link attributes

Cursor manipulation

Animation

Many More....

CSS Syntax



A CSS rule has two main parts:

- A selector
- One or more declarations

The selector is normally the HTML element you want to style.

Each declaration consists of a property and a value.

The property is the style attribute you want to change. Each property has a value.

Types of CSS



Three CSS implementations

- Inline
 - Affects only the element applied to
- Embedded
 - Affects only the elements in a single file
- External
 - Linked to an unlimited number of files

HTML Page Structure

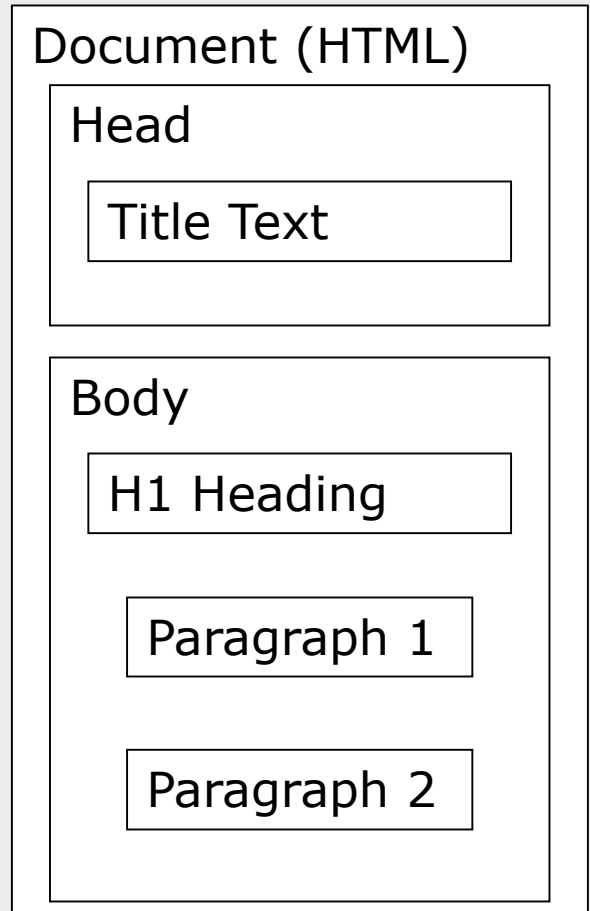


```
<!DOCTYPE HTML>
<HTML>

  <HEAD>
    <TITLE>Title Text</TITLE>
  </HEAD>

  <BODY>
    <H1>H1 Heading</H1>
    <P>Paragraph 1</P>
    <P>Paragraph 2</P>
  </BODY>

</HTML>
```





HTML Page Structure with CSS

```
<!DOCTYPE HTML>
<HTML>

  <HEAD>
    <TITLE>Title Text</TITLE>
  </HEAD>

  <BODY>
    <H1>H1 Heading</H1>
    <P>Paragraph 1</P>
    <P>Paragraph 2</P>
  </BODY>

</HTML>
```

Document (HTML)

Head

Title Text

Body

H1 Heading

Paragraph 1

Paragraph 2

Inline CSS



Inline Style Sheets:

- All style attribute are specified in the tag it self.
- It gives desired effect on that tag only. It does not affect any other HTML tag.

Syntax:

An example of STYLE attribute usage:

```
<element style="propertyname : value; propertyname : value">
```

is equivalent to

```
<p style="font-weight: bold">This is bold text</p>
```

```
<p><b>This is bold text</b></p>
```

Embedded CSS



Embedded Style Sheet:

- Set of style definitions placed within <STYLE> tags.
- Added to the <HEAD> area of file

Syntax:

```
<HEAD>
```

An example of <STYLE> tag usage:

```
<STYLE TYPE="text/css">..</STYLE>
```

```
</HEAD>
```

```
<HEAD>
```

```
<TITLE>New Topic1</TITLE>
```

```
<STYLE>P {font-weight : bold}</STYLE>
```

```
</HEAD>
```



The `<LINK>` element is used to attach an external CSS document to an HTML document

- All style definition are store in one file (.css file)
- This file gets called by the HTML file during page loading
- **Syntax:** `<link rel="stylesheet" href="filename.css" type="text/css">`

Example

- Content in first.css:

```
P {font-weight : bold}
```

- Content in first.html file:

```
<HEAD>  
  <TITLE>Demo CSS</TITLE>  
  < LINK HREF="FIRST.CSS" REL="STYLESHEET" TYPE="TEXT/CSS">  
</HEAD>
```

CSS Precedence



Browser determines default format.

Order of precedence when three CSS types combine at run time in the HTML page are:

- Inline styles
- Embedded style sheets
- Linked (external) style sheets

Demo : CSS Syntax and CSS Types



Lesson01

- demo1.html
- Embeddedstylesheet.htm
- Linkedstylesheet.htm
- Inlinstylesheet.htm

Lesson Summary



In this lesson, you have learnt about:

- What is CSS
- CSS history
- What CSS can do
- CSS Syntax
- Types of CSS



Review Questions



Question 1: Which of the following are CSS Types.

- Inline
- Embedded
- External
- All the above

Question 2: CSS rule has _____ and

-
- Selector
 - Declaration
 - Element
 - All the Above

