**CSS**

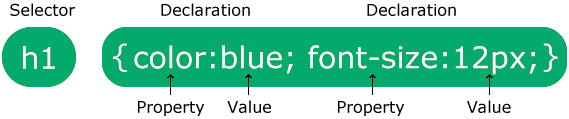
CSS, stands for Cascading Style Sheet is a computer language to describe presentation (for example width, height, color, background color, alignment etc.) of HTML and XML (and XML based languages like XHTML, SVG) web documents.

CSS saves a lot of work. It can control the layout of multiple web pages all at once

External stylesheets are stored in CSS files

CSS is a standard specified and maintained by World Wide Web Consortium.  
From it's invention, CSS has evolved through different versions. Present version of CSS is CSS 2.1. Next version of CSS is CSS3, which is under development but developers have already started using some of it's features.

## **CSS Syntax**



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 CSS property name and a value, separated by a colon.

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

Example:

p

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

#### Example Explained

* p is a selector in CSS (it points to the HTML element you want to style: <p>).
* color is a property, and red is the property value
* text-align is a property, and center is the property value

#### ****CSS - Advantages :-****

1. **Separation of content form presentation** : Writing CSS code in another CSS file and attaching it to an HTML page, you can separate content from presentation. So, as an author, you need not to be concerned about presentation and concentrate on content only.  
2. **Consistency** : CSS can provide a consistent presentation for all of the pages of a web site.  
**3.Increment in accessibility** : If a particular page (or a number of pages ) needs a different look and formatting, with a change of a single line, that can be achieved by calling more than one CSS for the same page.  
**4. Save of bandwidth** : Since CSS separates content form style, it makes a web document lightweight, causing saving of bandwidth and in turn faster loading of page.  
**5. Ease of contribution :** Content Management Systems (for example WordPress) uses CSS, so that people without bothering how their content will look, can submit their content.This has caused exponential increase in User Generated Content.

**Selector**

CSS (Cascading Style Sheets) selectors are patterns used to select and style HTML elements on a web page. Selectors target specific elements or groups of elements, allowing you to apply styles such as color, size, font, and layout to enhance the appearance of your webpage. Here are some common CSS selectors and their explanations:

1. **Class Selector (**.**):**
   * Selects elements with a specific class attribute.
   * Example: .highlight { background-color: yellow; }
2. **ID Selector (`#):**
   * Selects a single element with a specific id attribute.
   * Example: #header { font-size: 24px; }

# How to use comments in CSS

1. CSS comments stop the CSS style rules written within a CSS stylesheet, from being processed while displaying an HTML document in browser.  
  
2. CSS comments start with "/\*" and end with "\*/". You can use this both  
  
3. CSS comments can be placed anywhere in a CSS stylesheet.  
  
4. CSS comment can not be nested, i.e. a comment can not hold another comment within it.  
  
5. You can use HTML style comment ( "<!-- ............... -->" ) in a CSS stylesheet also. But it does not have anything to do with CSS comments.

## **Three Ways to Insert CSS**

There are three ways of inserting a style sheet:

* External CSS
* Internal CSS
* Inline CSS

## **External CSS**

With an external style sheet, you can change the look of an entire website by changing just one file!

Each HTML page must include a reference to the external style sheet file inside the <link> element,

An external style sheet can be written in any text editor, and must be saved with a .css extension.

The external .css file should not contain any HTML tags.

**Example:**

<!DOCTYPE html>  
<html>  
<head>  
<link rel="stylesheet" href="mystyle.css">  
</head>  
<body>  
  
<h1>This is a heading</h1>  
<p>This is a paragraph.</p>  
  
</body>  
</html>

### **"mystyle.css"**

body {  
  background-color: lightblue;  
}h1 {  
  color: navy;  
  margin-left: 20px;  
}

## **Internal CSS**

An internal style sheet may be used if one single HTML page has a unique style.

The internal style is defined inside the <style> element, inside the head section.

<!DOCTYPE html><html><head><style>  
body {  
  background-color: linen;  
}  
  
h1 {  
  color: maroon;  
  margin-left: 40px;  
}  
</style></head><body><h1>This is a heading</h1><p>This is a paragraph.</p></body></html>

## **Inline CSS**

An inline style may be used to apply a unique style for a single element.

<!DOCTYPE html><html><body><h1 style="color:blue;text-align:center;">This is a heading</h1><p style="color:red;">This is a paragraph.</p></body></html>

## **CSS Background Color:**

<h1 style="background-color:DodgerBlue;">Hello World</h1><p style="background-color:Tomato;">Lorem ipsum...</p>

## **CSS Text Color**

<h1 style="color:Tomato;">Hello World</h1><p style="color:DodgerBlue;">Lorem ipsum...</p><p style="color:MediumSeaGreen;">Ut wisi enim...</p>

# **CSS Background Image**

Examples

<!DOCTYPE html>

<html>

<head>

<style>

body {

background-image: url("bgdesert.jpg");

}

</style>

</head>

<body>

<h1>Hello World!</h1>

<p>This text is not easy to read on this background image.</p>

</body>

</html>

## **CSS background-attachment**

The background-attachment property specifies whether the background image should scroll or be fixed (will not scroll with the rest of the page):

<!DOCTYPE html>

<html>

<head>

<style>

body {

background-image: url("img\_tree.png");

background-repeat: no-repeat;

background-position: right top;

margin-right: 200px;

background-attachment: fixed;

}

</style>

</head>

<body>

<h1>The background-attachment Property</h1>

<p>The background-attachment property specifies whether the background image should scroll or be fixed (will not scroll with the rest of the page).</p>

<p><strong>Tip:</strong> If you do not see any scrollbars, try to resize the browser window.</p>

</body>

</html>

# **CSS Margins**

the margin property is used to set the space outside an element's border. It defines the external spacing around an element

CSS has properties for specifying the margin for each side of an element:

* margin-top
* margin-right
* margin-bottom
* margin-left

<!DOCTYPE html>

<html>

<head>

<style>

div {

border: 1px solid black;

margin-top: 100px;

margin-bottom: 100px;

margin-right: 150px;

margin-left: 80px;

background-color: lightblue;

}

</style>

</head>

<body>

<h2>Using individual margin properties</h2>

<div>This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px, and a left margin of 80px.</div>

</body>

</html>

# **CSS Padding**

the padding property is used to set the space between the content of an element and its border. It defines the inner spacing within an element.

CSS has properties for specifying the padding for each side of an element:

* padding-top
* padding-right
* padding-bottom
* padding-left

<!DOCTYPE html>

<html>

<head>

<style>

div {

border: 1px solid black;

background-color: lightblue;

padding-top: 50px;

padding-right: 30px;

padding-bottom: 50px;

padding-left: 80px;

}

</style>

</head>

<body>

<h2>Using individual padding properties</h2>

<div>This div element has a top padding of 50px, a right padding of 30px, a bottom padding of 50px, and a left padding of 80px.</div>

</body>

</html>

# **CSS Fonts**

In CSS, we use the font-familyproperty to specify the font of a text.

**Examples<!DOCTYPE html>**

<html>

<head>

<style>

.p1 {

font-family: "Times New Roman", Times, serif;

}

.p2 {

font-family: Arial, Helvetica, sans-serif;

}

.p3 {

font-family: "Lucida Console", "Courier New", monospace;

}

</style>

</head>

<body>

<h1>CSS font-family</h1>

<p class="p1">This is a paragraph, shown in the Times New Roman font.</p>

<p class="p2">This is a paragraph, shown in the Arial font.</p>

<p class="p3">This is a paragraph, shown in the Lucida Console font.</p>

</body>

</html>

**CSS Text**

text property is not a standalone property, but there are several properties related to text styling and formatting. Here are some commonly used text-related properties:

color**:** Sets the color of the text.

Eg:color: #333; /\* Hex color code or color name \*/

eg:font-family**:** Defines the font of the text. You can specify a specific font or a generic font family.

Eg:font-family: "Helvetica Neue", Arial, sans-serif;

font-size**:** Sets the size of the font.

Eg:font-size: 16px; /\* You can use other units like em, rem, %, etc. \*/

font-weight**:** Defines the thickness of the font characters.

Eg:font-weight: bold; /\* or numeric values like 400, 700, etc. font-style**:** Specifies the style of the font (normal, italic, or oblique).

Eg:font-style: italic;

text-align**:** Sets the horizontal alignment of text content.

Eg:text-align: center; /\* Other values: left, right, justify

line-height**:** Defines the amount of space above and below lines of text.

Eg:line-height: 1.5; /\* You can use unitless values or specify a unit like em \*/

text-decoration**:** Adds visual styling to text (underline, overline, line-through, etc.).

eg:text-decoration: underline;

letter-spacing**:** Adjusts the spacing between characters.

Eg:letter-spacing: 2px; /\* You can use negative values as well text-transform**:** Controls the capitalization of text.

Eg:text-transform: uppercase; /\* Other values: lowercase, capitalize \*

# **CSS Lists**

There are various CSS properties that can be used to control lists. Lists can be classified as ordered lists and unordered lists. In ordered lists, marking of the list items is with alphabet and numbers, whereas in unordered lists, the list items are marked using bullets.

The CSS properties to style the lists are given as follows:

****list-style-type:**** This property is responsible for controlling the appearance and shape of the marker.

****list-style-image:**** It sets an image for the marker instead of the number or a bullet point.

****list-style-position:**** It specifies the position of the marker.

****marker-offset:**** It is used to specify the distance between the text and the marker. It is unsupported in IE6 or Netscape 7.

**The list-style-type property**

It allows us to change the default list type of marker to any other type such as square, circle, roman numerals, Latin letters, and many more. By default, the ordered list items are numbered with Arabic numerals (1, 2, 3, etc.), and the items in an unordered list are marked with round bullets (•).

****inside:**** It means that the bullet points will be in the list item. In this, if the text goes on the second line, then the text will be wrap under the marker.

****outside:**** It represents that the bullet points will be outside the list item. It is the default value.

<!DOCTYPE html>

<html>

<head>

<title>CSS Lists</title>

<style>

.num {

list-style-type: decimal;

}

.alpha {

list-style-type: lower-alpha;

}

.roman {

list-style-type: lower-roman;

}

.circle {

list-style-type: circle;

}

.square {

list-style-type: square;

}

.disc {

list-style-type: disc;

}

</style>

</head>

<body>

<h1>Welcome to the javaTpoint.com</h1>

<h2>Ordered Lists</h2>

<ol class="num">

<li>one</li>

<li>two</li>

<li>three</li>

</ol>

<ol class="alpha">

<li>one</li>

<li>two</li>

<li>three</li>

</ol>

<ol class="roman">

<li>one</li>

<li>two</li>

<li>three</li>

</ol>

<h2>Unordered Lists</h2>

<ul class="disc">

<li>one</li>

<li>two</li>

<li>three</li>

</ul>

<ul class="circle">

<li>one</li>

<li>two</li>

<li>three</li>

</ul>

<ul class="square">

<li>one</li>

<li>two</li>

<li>three</li>

</ul>

</body>

</html>

## The list-style-image property

It specifies an image as the marker. Using this property, we can set the image bullets. Its syntax is similar to the background-image property. If it does not find the corresponding image, the default bullets will be used.

<!DOCTYPE html>

<html>

<head>

<title>CSS Lists</title>

<style>

.order {

list-style-image: url(img.png);

}

.unorder {

list-style-image: url(img.png);

}

</style>

</head>

<body>

<h1>Welcome to the javaTpoint.com</h1>

<h2>Ordered Lists</h2>

<ol class="order">

<li>one</li>

<li>two</li>

<li>three</li>

</ol>

<h2>Unordered Lists</h2>

<ul class="unorder">

<li>one</li>

<li>two</li>

<li>three</li>

</ul>

</body>

</html>

## Styling Lists with colors

To make the lists more attractive and interesting, we can style lists with colors. The addition of anything to the <ul> or <ol> tag will affect the entire list, whereas the addition to the individual <li> tag will affect the items of the corresponding list.

<!DOCTYPE html>

<html>

<head>

<title>CSS Lists</title>

<style>

.order {

list-style: upper-alpha;

background: pink;

padding: 20px;

}

.order li {

background: lightblue;

padding: 10px;

font-size: 20px;

margin: 10px;

}

.unorder {

list-style: square inside;

background: cyan;

padding: 20px;

}

.unorder li {

background: green;

color: white;

padding: 10px;

font-size: 20px;

margin: 10px;

}

</style>

</head>

<body>

<h1>Welcome to the javaTpoint.com</h1>

<h2>Ordered Lists</h2>

<ol class="order">

<li>ONE</li>

<li>TWO</li>

<li>THREE</li>

</ol>

<h2>Unordered Lists</h2>

<ul class="unorder">

<li>ONE</li>

<li>TWO</li>

<li>THREE</li>

</ul>

</body>

</html>

**CSS Table**

We can apply style on HTML tables for better look and feel. There are some CSS properties that are widely used in designing table using CSS:

1.border

2.border-collapse

3.padding

4.width

5.height

6.text-align

7.color

8,background-color

**Attributes In HTML Table:**rowspanand colspan are attributes in HTML that define how many rows or columns a cell should span in a table. These attributes are used within the <td>(table data) or **<th>** (table header) elements to control the layout and structure of the table.

**1.rowspan:** Specifies the number of rows a cell should span. It allows a cell to occupy multiple rows in a table.

**Sample Eg:**

<tr>

<td rowspan="2">This cell spans two rows</td>

<td>Row 1, Cell 2</td>

</tr>

<tr>

<td>Row 2, Cell 2</td>

</tr>

**2**.colspan**:** Specifies the number of columns a cell should span. It allows a cell to occupy multiple columns in a table.

**Sample Eg:2**

<tr>

<td>This cell spans one column</td>

<td colspan="2">This cell spans two columns</td>

</tr>

**Example:**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<style>

table {

border-collapse: collapse;

width: 100%;

}

th, td {

border: 1px solid black;

padding: 10px;

text-align: center;

}

</style>

<title>Rowspan and Colspan Example</title>

</head>

<body>

<h2>Rowspan and Colspan Example</h2>

<table>

<tr>

<th rowspan="2">ID</th>

<th colspan="2">Details</th>

<th rowspan="2">Country</th>

</tr>

<tr>

<th>Name</th>

<th>Age</th>

</tr>

<tr>

<td>1</td>

<td>John Doe</td>

<td>25</td>

<td>USA</td>

</tr>

<tr>

<td>2</td>

<td colspan="2">Jane Smith</td>

<td>Canada</td>

</tr>

</table>

</body>

</html>

## **CSS Table Border**

We can set border for the table, th and td tags using the CSS border property.

<!DOCTYPE html>

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

}

</style>

</head>

<body>

<table>

<tr>

<th>First\_Name</th>

<th>Last\_Name</th>

<th>Marks</th>

</tr>

<tr>

<td>Sonoo</td>

<td>Jaiswal</td>

<td>60</td>

</tr>

<tr>

<td>James</td>

<td>William</td>

<td>80</td>

</tr>

<tr>

<td>Swati</td>

<td>Sironi</td>

<td>82</td>

</tr>

<tr>

<td>Chetna</td>

<td>Singh</td>

<td>72</td>

</tr>

</table>

</body>

</html>

## **CSS Table Border Collapse**

By the help of border-collapse property, we can collapse all borders in one border only.

<!DOCTYPE html>

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

border-collapse: collapse;

}

</style>

</head>

<body>

<table>

<tr>

<th>First\_Name</th>

<th>Last\_Name</th>

<th>Marks</th>

</tr>

<tr>

<td>Sonoo</td>

<td>Jaiswal</td>

<td>60</td>

</tr>

<tr>

<td>James</td>

<td>William</td>

<td>80</td>

</tr>

<tr>

<td>Swati</td>

<td>Sironi</td>

<td>82</td>

</tr>

<tr>

<td>Chetna</td>

<td>Singh</td>

<td>72</td>

</tr>

</table>

</body>

</html>

## **CSS Table Padding**

We can specify padding for table header and table data using the CSS padding property.

<!DOCTYPE html>

<html>

<head>

<style>

table, th, td {

border: 1px solid black;

border-collapse: collapse;

}

th, td {

padding: 10px;

}

</style>

</head>

<body>

<table>

<tr>

<th>First\_Name</th>

<th>Last\_Name</th>

<th>Marks</th>

</tr>

<tr>

<td>Sonoo</td>

<td>Jaiswal</td>

<td>60</td>

</tr>

<tr>

<td>James</td>

<td>William</td>

<td>80</td>

</tr>

<tr>

<td>Swati</td>

<td>Sironi</td>

<td>82</td>

</tr>

<tr>

<td>Chetna</td>

<td>Singh</td>

<td>72</td>

</tr>

</table>

</body>

</html>

**CSS Links**

links can be styled differently depending on what ****state**** they are in.

The four links states are:

* a:link - a normal, unvisited link
* a:visited - a link the user has visited
* a:hover - a link when the user mouses over it
* a:active - a link the moment it is clicked

**Eg:**

<!DOCTYPE html>

<html>

<head>

<style>

/\* unvisited link \*/

a:link {

color: red;

}

/\* visited link \*/

a:visited {

color: green;

}

/\* mouse over link \*/

a:hover {

color: hotpink;

}

/\* selected link \*/

a:active {

color: blue;

}

</style>

</head>

<body>

<h2>Styling a link depending on state</h2>

<p><b><a href="default.asp" target="\_blank">This is a link</a></b></p>

<p><b>Note:</b> a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.</p>

<p><b>Note:</b> a:active MUST come after a:hover in the CSS definition in order to be effective.</p>

</body>

</html>