**What is CSS?**

* **CSS** stands for **C**ascading **S**tyle **S**heets
* CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**
* 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 Syntax

A CSS rule-set consists of a selector and a declaration block:



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.

A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces

## CSS Comments

Comments are used to explain the code, and may help when you edit the source code at a later date.

Comments are ignored by browsers.

A CSS comment starts with /\* and ends with \*/. Comments can also span multiple lines

## CSS Selectors

CSS selectors are used to "find" (or select) the HTML elements you want to style.

## The CSS element Selector

The element selector selects HTML elements based on the element name.

<!DOCTYPE html>

<html>

<head>

<style>

p {

text-align: center;

color: red;

}

</style>

</head>

<body>

<p>Every paragraph will be affected by the style.</p>

<p id="para1">Me too!</p>

<p>And me!</p>

</body>

</html>

Output:

Every paragraph will be affected by the style.

Me too!

And me!

## The CSS id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element!

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

<!DOCTYPE html>

<html>

<head>

<style>

#para1 {

text-align: center;

color: red;

}

</style>

</head>

<body>

<p id="para1">Hello World!</p>

<p>This paragraph is not affected by the style.</p>

</body>

</html>

Output:

Hello World!

This paragraph is not affected by the style.

## The CSS class Selector

The class selector selects HTML elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the class name.

<!DOCTYPE html>

<html>

<head>

<style>

.center {

text-align: center;

color: red;

}

</style>

</head>

<body>

<h1 class="center">Red and center-aligned heading</h1>

<p class="center">Red and center-aligned paragraph.</p>

</body>

</html>

Output:

# Red and center-aligned heading

Red and center-aligned paragraph.

<!DOCTYPE html>

<html>

<head>

<style>

p.center {

text-align: center;

color: red;

}

p.large {

font-size: 300%;

}

</style>

</head>

<body>

<h1 class="center">This heading will not be affected</h1>

<p class="center">This paragraph will be red and center-aligned.</p>

<p class="center large">This paragraph will be red, center-aligned, and in a large font-size.</p>

</body>

</html>

Output:

This heading will not be affected

This paragraph will be red and center-aligned.

This paragraph will be red, center-aligned, and in a large font-size.

## The CSS Universal Selector

The universal selector (\*) selects all HTML elements on the page.

<!DOCTYPE html>

<html>

<head>

<style>

\* {

text-align: center;

color: blue;

}

</style>

</head>

<body>

<h1>Hello world!</h1>

<p>Every element on the page will be affected by the style.</p>

<p id="para1">Me too!</p>

<p>And me!</p>

</body>

</html>

Output:

# Hello world!

Every element on the page will be affected by the style.

Me too!

And me!

## The CSS Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions.

Look at the following CSS code (the h1, h2, and p elements have the same style definitions):

<!DOCTYPE html>

<html>

<head>

<style>

h1, h2, p {

text-align: center;

color: red;

}

</style>

</head>

<body>

<h1>Hello World!</h1>

<h2>Smaller heading!</h2>

<p>This is a paragraph.</p>

</body>

</html>

Output:

# Hello World!

## Smaller heading!

This is a paragraph.

**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, inside the head section.

<!DOCTYPE html>

<html>

<head>

<link rel="stylesheet" type="text/css" 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>

OUTPUT:

# This is a heading

This is a paragraph.

## Inline CSS

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

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

<!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>

OUTPUT:

# This is a heading

This is a paragraph.

CSS

The CSS font properties define the font family, boldness, size, and the style of a text.

**CSS Font Families**

In CSS, there are two types of font family names:

* **generic family** - a group of font families with a similar look (like "Serif" or "Monospace")
* **font family** - a specific font family (like "Times New Roman" or "Arial")

|  |  |  |
| --- | --- | --- |
| **Generic family** | **Font family** | **Description** |
| Serif | Times New Roman Georgia | Serif fonts have small lines at the ends on some characters |
| Sans-serif | Arial Verdana | "Sans" means without - these fonts do not have the lines at the ends of characters |
| Monospace | Courier New Lucida Console |  |

EX:

<!DOCTYPE html>

<html>

<head>

<style>

p.serif {

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

}

p.sansserif {

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

}

</style>

</head>

<body>

<h1>CSS font-family</h1>

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

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

</body>

</html>

**Font Style**

The font-style property is mostly used to specify italic text.

This property has three values:

* normal - The text is shown normally
* italic - The text is shown in italics
* oblique - The text is "leaning" (oblique is very similar to italic, but less supported)

<!DOCTYPE html>

<html>

<head>

<style>

p.nor {

font-style: normal;

}

p.italic {

font-style: italic;

}

p.oblique {

font-style: oblique;

}

</style>

</head>

<body>

<p class="nor">This is a paragraph in normal style.</p>

<p class="italic">This is a paragraph in italic style.</p>

<p class="oblique">This is a paragraph in oblique style.</p>

</body>

</html>

Output:

This is a paragraph in normal style.

This is a paragraph in italic style.

This is a paragraph in oblique style.

## Font Size

The font-size property sets the size of the text.

<!DOCTYPE html>

<html>

<head>

<style>

h1 {

font-size: 40px;

}

h2 {

font-size: 30px;

}

p {

font-size: 14px;

}

</style>

</head>

<body>

<h1>This is heading 1</h1>

<h2>This is heading 2</h2>

<p>This is a paragraph.</p>

<p>This is another paragraph.</p>

</body>

</html>

## Font Weight

The font-weight property specifies the weight of a font:

<!DOCTYPE html>

<html>

<head>

<style>

p.normal {

font-weight: normal;

}

p.light {

font-weight: lighter;

}

p.thick {

font-weight: bold;

}

p.thicker {

font-weight: 900;

}

</style>

</head>

<body>

<p class="normal">This is a paragraph.</p>

<p class="light">This is a paragraph.</p>

<p class="thick">This is a paragraph.</p>

<p class="thicker">This is a paragraph.</p>

</body>

</html>

## Font Variant

The font-variant property specifies whether or not a text should be displayed in a small-caps font.

<!DOCTYPE html>

<html>

<head>

<style>

p.normal {

font-variant: normal;

}

p.small {

font-variant: small-caps;

}

</style>

</head>

<body>

<p class="normal">My name is Hege Refsnes.</p>

<p class="small">My name is Hege Refsnes.</p>

</body>

</html>