

# Basic CSS concepts

## What does the acronym **CSS** mean?

Cascading Style Sheet

## Know the basics of **CSS history**

Like HTML, CSS is standardized by the W3 consortium. CSS is an open, independent and freely usable standard. As with HTML, a working group exists for CSS who concerns itself with development of the standard. This is being done in accordance with W3C rules.

CSS comes in different versions. CSS level 1 was released in 1996, and republished with corrections in 1999. CSS level 2 appeared in 1998 and built on CSS level 1. CSS level 2 adds support for different output media. CSS 3 is currently in development and will be split up in modules.

The idea behind it was to separate presentation and content of a web site. The advantage of this approach is that updates and changes to the presentation need only be applied once (to the stylesheet) to affect all pages. Especially large sites can achieve significant time savings. In order to enforce this separation of concerns, the W3C has deprecated the <font> tag in HTML 4. Newer (X)HTML versions will deprecate other tags in a similar vein.

CSS stylesheets are an immediate addition to HTML. CSS is a language to define format properties of HTML or XML tags. HTML has reached the end of its shelf life and is not being developed further. XHTML is the new standard instead. XHTML reformulates HTML with XML syntax while at the same time getting rid of presentational markup. XHTML only contains content, presentation is the domain of a CSS stylesheet. This allows for different stylesheets for different output formats such as print, aural or small devices. Search machines on the other hand have an easier job if they are only presented with content markup.

## What function does **CSS** have and what is it used for?

CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language. The separation of HTML from CSS makes it easier to maintain sites, share style sheets across pages, and tailor pages to different environments. This is referred to as the separation of structure (or: content) from presentation.

## What **minimum characteristics** must a **CSS file** contain to comply with the standard

It have to contain at least one rule

## What are the **main versions** of **CSS** ?

Cascading Style Sheets, level 1 (CSS1) was came out of W3C as a recommendation in December 1996. This version describes the CSS language as well as a simple visual formatting model for all the HTML tags.

CSS2 became a W3C recommendation in May 1998 and builds on CSS1. This version adds support for media-specific style sheets e.g. printers and aural devices, downloadable fonts, element positioning, and tables.

CSS3 became a W3C recommendation in June 1999 and builds on older versions CSS. it has divided into documentation is called as Modules and here each module having new extension features defined in CSS2.

CSS3 is the latest standard of CSS earlier versions (CSS2). The main difference between CSS2 and CSS3 is as follows:

- Media Queries
- Namespaces
- Selectors Level 3
- Color

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, how columns are sized and laid out, what background images or colors are used, layout designs, and variations in the display for different devices and screen sizes as well as a variety of other effects.

## Know how **CSS styles** can be applied to an **HTML document** and what is the most recommended way to implement it

- **Inline** - by using the style attribute inside HTML elements. Is used to apply a unique style to a single HTML element
- **Internal** - by using a <style> element in the <head> section. Used to define a style for a single HTML page
- **External** - by using a <link> element to link to an external CSS file. Used to define the style for many HTML pages. It's the most recommended way to implement it.

## Know what a **rule** is

Is a grouping of one or more **CSS** properties which are to be applied to one or more target HTML elements. A **CSS rule** consists of a **CSS** selector and a set of **CSS** properties.

## Know what a **selector** is

The CSS selector determines what HTML elements to target with the CSS rule  
We can divide CSS selectors into five categories:

- Simple selectors (select elements based on name, id, class).
- Combinator selectors (select elements based on a specific relationship between them).
- Pseudo-class selectors (select elements based on a certain state).
- Pseudo-elements selectors (select and style a part of an element).
- Attribute selectors (select elements based on an attribute or attribute value).

## Know what a **statement** is

Is a building block that begins with any non-space characters and ends at the first closing brace or semi-colon (outside a string, non-escaped and not included into another {}, () or [] pair).

There are two kinds of statements:

- Rulesets (or rules) that, as seen, associate a collection of CSS declarations to a condition described by a selector.
- At-rules that start with an at sign, '@' , followed by an identifier and then continuing up to the end of the statement, that is up to the next semi-colon (;) outside of a block, or the end of the next block. Each type of at-rules, defined by the identifier, may have its own internal syntax, and semantics of course. They are used to convey meta-data information (like @charset or @import), conditional information (like @media or @document), or descriptive information (like @font-face).
- Any statement which isn't a ruleset or an at-rule is invalid and ignored.

## Know what a **property** is

Is a type of attribute of HTML tag. Put simply, all the HTML attributes are converted into CSS properties. They could be *color*, *border* etc.

## Know what a **value** is

Are assigned to properties. For example, *color* property can have value either *red* or *#F1F1F1* etc.

## Know what a **media query** is

Is a CSS technique introduced in CSS3.

It uses the @media rule to include a block of CSS properties only if a certain condition is true.

## Know how you can define a **media query**

**@media screen and (max-width: 768px)**

```
{  
    
}
```

The media query above activates if a user's browser window is 768 pixels wide or less. Inside you can set rules for this width display.

## Know what **rgb, rgba, and hexadecimal** are

- **Rgb:** (red, green, and blue) refers to a system for representing the colors to be used on a computer display. Red, green, and blue can be combined in various proportions to obtain any color in the visible spectrum.
- **Rgba:** stands for red green blue alpha. While it is sometimes described as a color space, it is actually the three-channel RGB color model supplemented with a fourth alpha channel. Alpha indicates how opaque each pixel is and allows an image to be combined over others using alpha compositing, with transparent areas and anti-aliasing of the edges of opaque regions.
- **Hexadecimal:** is expressed as a six-digit combination of numbers and letters defined by its mix of red, green and blue (RGB). Basically, a HEX color code is shorthand for its RGB values with a little conversion gymnastics in between.