Cascading Style Sheet

* Language used to specify the presentation aspects (i.e. layout and formatting of structurally marked up (e.g. HTML, XML, XHTML, SVG, etc.) document).
* Developed by Hakon Wium Lie (HTML Cascading Style Sheets / CHSS) and Bert Bos (Stream-based Style Sheet Proposal / SSP).

Versions:

* CSS 1
* CSS 2
* CSS 2.1
* CSS 3

CSS Preprocessors – extends the CSS Language. It is a way to add functionality to css mainly in the form of abstraction like variables, functions and mixins.

* Sass
* Less
* 960 Grid System
* Bootstrap
* Foundation
* Materialize

CSS Rules Set

* Consists of a selector, followed by a braced enclosed declaration block, which contain zero or more semicolon (;) separated by a property declaration, which in turn consists of a property name, followed by a colon (:), followed by a property value.

Selector

* + Points to the HTML element on which the style will be applied.
  + Used to find HTML elements based on their element name, id, class ,attribute and more.

Selector Syntax – chain of one or more sequences of simple selector separated by combinators with one pseudo element possible appended to the last sequence.

* Sequence of Simple Selectors – chain of simple selectors not separates by combinators.
* Group of Slectors – comma separated list selector

Type of Selectors:

Universal selector \*{ }

Type p{ }

Grouping h1,h2,h3{ }

ID #nav{ }

Class .hide{ }

Descendant div.content em{ }

Child div.content > em{ }

Adjacent sibling h1 + p{ }

Attribute acronym

[attr]

[attr = value]

[attr ~= value]

[attr |= value]

[attr ^=value]

[attr $= value]

Pseudo classes

First child pseudo class (:first-child) li:first-child{ }

Link pseudo class (:link, :visited) a:link, a:visited{ }

Dynamic pseudo class (:hover, :active, :focus) ul.menu li{ } ul.menu > li:hover{ }

Declarations

* Contains one or more declarations separated by semicolons.
* Always ends with a semicolon and declaration blocks are surrounded by a curly braces.

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

* Properties
  + Visual, aural, paged, interactive
  + Margins, borders, and padding
  + Colors and background
  + Fonts
  + Text formatting
  + Lists and tables
  + Positioning and dimensions
  + Miscellaneous
* Values
  + Keywords (.i.e. inherit, bold, lighter, normal, bolder)
  + Numbers (i.e. integers & reals in decimal)
  + Dimensions
    - Length, angle, duration, frequency, resolution
    - Length Units
      * Font relative : em, ex, ch, rem
      * Viewport and Percentage : vw, vh, vmin, vmax
      * Absolute lengths : cm, mm, q, in, pt, pc, px
* Angle units : deg, grad, rad, turn
* Duration units : s, ms
* Frequency units : hz, khz
* Resolution units : dpi, dpcm, appx
  + Percentages (%)
  + Colors (hxl, rgb, alpha channel)
  + Strings (“”)
  + URLs and URIs
  + Counters
  + Initial values, inherited values, !important rules
  + Specified, computed, used, and actual values
  + Functions : calc(), attr(), counter(), counters(), linear-gradient(), radial-gradient(), translate(), scale(), rotate(), etc.

CSS RULE PRECEDENCE

* + - By origin and importance
      * User important declarations
      * Author important declarations
      * Author normal / declarations
    - By specificity
      * Inline styles
      * Number of ID attributes in selector
      * Number of other attributes and pseudo-classes in selector
      * Number of element names and pseudo-elements in selector
    - By Order

CSS Comments /\* \*/