What is CSS?

Cascading Style Sheet is a language used to specify the presentation aspects of structurally marked up documents. It is also used to format the colors,fonts, and backgrounds of html files. It is developed by Hakon Wium Lie and Bert Bos.

CSS Versions

CSS 1

 December 17, 1996 revised April 11, 2008

CSS 2

 A superset of CSS 1, CSS 2 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.

CSS 2.1

 June 07, 2011

 CSS 2.1 is a style sheet language that allows authors and users to attach style (e.g., fonts and spacing) to structured documents

CSS 3

 Media Queries - Responsive Design

I. CSS Statements

a statement in CSS is either an at-rule or rule set.

At-Rules

|  |  |
| --- | --- |
| @-Rules | Description |
| The @charset | rule can be used to specify the character encoding of an external style sheet. It must appear before anything else in the file. |
| The @import | rule allows us to import one style sheet into another. All @import at-rules must appear before any rules. |
| The @media | rule lets us target rules to the media types we specify. |
| The @page | rule can be used to specify margins for paged media. You can set different margins for left- and right-hand pages when you’re printing double-sided pages, as well as for the first page. |
| The @fontface | rule allows us to specify custom fonts. |
| The @namespace | rule in CSS3 lets us declare an XML namespace, as well as an optional prefix with which that namespace can be specified. |
| The @document | rule restricts the style rules contained within it based on the URL of the document. |
| The @keyframes | rule controls the intermediate steps in a CSS animation sequence by defining styles for keyframes (or waypoints) along the animation sequence. |

Rule Sets (aka CSS Rules, Style Rules)

selectors followed by a brased enclosed declaration block.

II. CSS Selectors

selects the content that you want to put a stye in.

SIMPLE SELECTORS

 Type selectors

 Universal selectors(\*)

 Class selectors

 ID selectors(#)

 Attribute selectors

[attr]

[attr=value]

Specific Value

[attr~=value]

one value out of set of several values

[attr|=value]

Language attribute; value = something

[attr^=value]

and

[attr$=value]

dollar

[attr\*=value]

anywhere

COMBINATORS

Descendant Combinator

Syntax: selector1 selector2 { /\* property declarations \*/ } or selector1 >> selector2 { /\* property declarations \*/ }

whitespace

Child Combinator

Syntax: selector1 > selector2 { style properties }

Sibling Combinator

Adjacent Sibling Combinator(+)

Syntax: former\_element + target\_element { style properties }

General Sibling Combinator(~)

Syntax: element ~ element { style properties }

Pseudo-Elements

::after (:after) - Insert something after the content of each

element (e.g., p::after)

::backdrop - used to create a backdrop that hides the underlying document for an element in the top layer's stack

::before (:before) - (e.g, p::before) Insert something before the content of each

element

::first-letter (::first-letter)- (e.g., p::first-letter) Selects the first letter of every

element

::first-line (::first-line) - (e.g., p::first-line) Selects the first line of every

element

::selection - (e.g., ::selection) Selects the portion of an element that is selected by a user

PSEUDO-CLASSES

Dynamic Pseudo-Class

Link Pseudo-Class

:link - (e.g., a:link) Selects all unvisited links

:visited - (e.g., a:visited) Selects all visited links

User Action Pseudo-Class

:hover - (e.g., a:hover) Selects links on mouse over

:active - (e.g, a:active) Selects the active link

:focus - (e.g., input:focus) Selects the input element which has focus

Target Pseudo-Class

:target - (e.g., #news:target) Selects the current active #news element (clicked on a URL containing that anchor name)

Language Pseudo-Class

:lang() - (e.g., p:lang(it)) Selects the current active #news element (clicked on a URL containing that anchor name)

UI Element States Pseudo-Class

:enabled - (e.g., input:enabled) Selects every enabled  element

:disabled - (e.g., input:disabled) Selects every disabled  element

:checked - (e.g., input:checked) Selects every checked  element

:indeterminate

Structural Pseudo-Class

:root - Selects the document's root element

:first-child - (e.g., p:first-child) Selects every

element that is the first child of its parent

:last-child - (e.g., p:last-child) Selects every

element that is the last child of its parent

:only-child - (e.g./ p:only-child) Selects every

element that is the only child of its parent

:nth-child() - (e.g., p:nth-child(2)) Selects every

element that is the second child of its parent

:nth-last-child() - (e.g., p:nth-child(2)) Selects every

element that is the second child of its parent

:nth-last-of-type() - (e.g., p:nth-last-of-type(2)) Selects every

element that is the second

element of its parent, counting from the last child

:nth-of-type()- (e.g., p:nth-of-type(2)) Selects every

element that is the second

element of its parent

:first-of-type- (e.g., p:first-of-type) Selects every

element that is the first

element of its parent

:last-of-type - (e.g., p:last-of-type) Selects every

element that is the last

element of its parent

:only-of-type - (e.g., p:only-of-type) Selects every

element that is the only

element of its parent

:empty - (e.g., p:empty) Selects every

element that has no children (including text nodes)

Negation Pseudo-Class

:not() - (e.g., :not(p)) Selects every element that is not a

element

III. CSS Rule Precedence

BY ORIGIN and IMPORTANCE

user agent important declarations

user important declaration

author important declaration

author normal declaration

user normal declaration

user agent normal declaration

transition declaration

important override declaration

animation declaration

BY SPECIFICITY

inline style

number of ID selectors

number of class selectors,attribute selectors and pseudo-classes

number of type selectors and pseudo-elements

BY ORDER

the later the code it would e the priority

IV. CSS Declarations

Properties

shorthand properties

vendor

specific extensions(aka. vendor prefixes)

Values

keywords,numbers,dimensions

numbers(integers and reals in decimal notation)

dimensions

length,angle,duration,frequency,resolution

length units:

font-relative: em,ex,ch,rem

view-port 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,dppx

percentages

URL's and URI's

colors

strings

functions

background-color

calc() - Allows you to perform calculations to determine CSS property values

attr() - Returns the value of an attribute of the selected element

counters() - insert a string between different levels of nested counters

linear-gradient() - Creates an "image" which represents a linear gradient of colors

radial-gradient() - Creates an "image" which represents a gradient of colors radiating from the center of the gradient

translate() - moves an element from its current position (according to the parameters given for the X-axis and the Y-axis).

scale() - increases or decreases the size of an element (according to the parameters given for the width and height).

rotate() - rotates an element clockwise or counter-clockwise according to a given degree.

V. CSS Preprocessors and CSS Frameworks

CSS Pre-processors

extend CSS with variables, operators, interpolations, functions, mixins and many more other usable assets

Examples:

SASS

LESS

Stylus

CSS-Crush

Myth

Rework

CSS Frameworks extends the capability of CSS.

Examples:

Bootstrap

W3.CSS

960 CSS Framework

Blueprint CSS Framework

The jQuery UI CSS Framework

YAML

Yahoo YUI Grids CSS