CSS BASICS

Yevhen Isakov

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CSS SYNTAX

```
h1 {
  color: blue;
  background-color: yellow;
  border: 1px solid black;
}

p {
  color: red;
}

p, li {
  text-decoration: underline;
}
```

```
p {
    border: 1px solid black;
    color: red;
}
```

CSS Syntax Module Level 3

```
Selector
p {
    border: 1px solid black;
    color: red;
}
```

```
Brackets

border: 1px solid black;

color: red;
```

```
p {
    border: 1px solid black;
    color: red;
}
```

```
p {
    border: 1px solid black;
    color: red;
}
```

```
Declaration
border: 1px solid black;
color: red;
```

```
Block
```

```
p {
    border: 1px solid black;
    color: red;
}
```

CSS PROPERTIES

- color
- font-weight
- width
- height
- border
- padding-top
- background-color
- display
- transform
- ...etc

```
h1 {
     display: inline-block;
     width: 80%;
     border-bottom: 1px solid gray;
     background-color: yellow;
     color: #333;
     font-weight: bold;
```

```
div {
     padding-top: 20px;
     padding-right: 0;
     padding-bottom: 10%;
     padding-left: 12px;
div {
     padding: 20px 0 10% 12px;
```

T R B

VENDOR PREFIXES

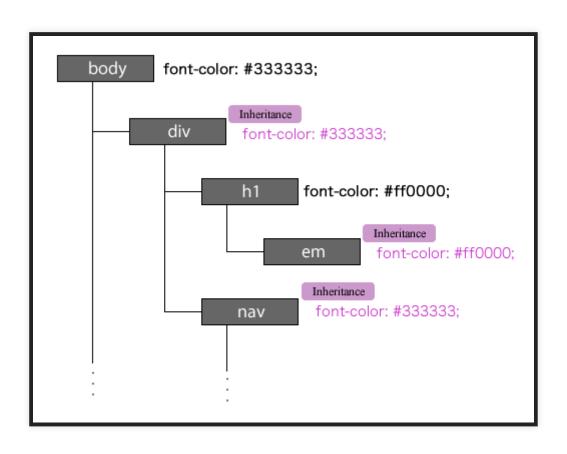
```
div {
    -webkit-border-radius: 10px;
    -moz-border-radius: 10px;
    border-radius: 10px;
}
```

VENDOR PREFIXES

- -webkit- Chrome, Safari (WebKit/Blink)
- -moz Firefox (Gecko)
- Internet Explorer / Edge (Trident/Edge)
- Opera (Presto)

Can I Use?

CSS INHERITANCE



Inherited

font-family font-size font-style font-weight color text-align line-height direction etc

Not inherited

display margin background-color position etc

CSS INHERITANCE

```
em {
    background: inherit;
}
```

CSS CASCADING

The cascade takes a unordered list of declared values for a given property on a given element, sorts them by their declaration's precedence, and outputs a single cascaded value.

CSS CASCADING - ORIGINS

- user-agent stylesheet
- author styles
- reader styles

CSS CASCADING - SPECIFICITY

- 1. Tag selector (h1), pseudo element (::before)
- 2. Class selector (.example), attribute selector
 ([type="radio"]), pseudo class (:hover)
- 3. ID selector (#example)
- 4. Element styles (style="font-weight:bold")

CSS CASCADING - SPECIFICITY

- Universal selector (*) and combinators (+, ~, >) and :not()
 do not affect the specificity
- !important overrides all other entries. DO NOT USE !IMPORTANT
- CSS Cascading and Inheritance Level 3

CSS SPECIFICITY

Selector	Specificity	Specificity in base 10
style=""	1, 0, 0, 0	1000
#wrapper #content	0, 2, 0, 0	200
<pre>#content .list</pre>	0, 1, 1, 0	110
div#content	0, 1, 0, 1	101
p.comment .date	0, 0, 2, 1	21
p.comment	0, 0, 1, 1	11
ul li	0, 0, 0, 2	2
div	0, 0, 0, 1	1





1 x element selector

Sith: 0, 0, 1



p a 2 x element selectors

51th: 0, 0, 2



1 x class selector

Sittle 0, 1, 0



a.whatever

1 x element selector 1 x class selector

Sirth: 0, 1, 1



p a.whatever

2 x element selectors 1 x class selector

Sith 0, 1, 2



whatever whatever

2 x class selectors

Sith: 0, 2, 0



p.whatever a whatever

2 x element selectors 2 x class selectors

Sith: 0, 2, 2

whatever whatever #whatever



Swhatever

1 x id selector

Sittle: 1, 0, 0



afwhatever

1 x element selector 1 x id selector

SHN: 1, 0, 1



whatever a fwhatever

1 x element selectors 1 x class selector 1 x id selector

2 x class selectors 1 x id selector Sith: 1, 2, 0



Swhatever Swhatever

2 x id selectors

58h: 2, 0, 0



SELECTORS

Tag selector — E

div

h1

img

Class selector — .class

.header

.item

.is-active

ID selector — #id

#header

#search-button

#dropdown

Attribute selector — [attr]

[disabled]

[role="dialog"]

[data-component*="popup"]

Universal selector — *

Cascade selector — E F

ul li

div a

header h1 .link

Child selector — E > F

ul > li

.menu > .item

footer > img

General sibling selector — E ∼ F

input ~ label

span ∼ em

.image ~ .link

Adjacent sibling selector — E + F

input + label

span + em

.image + .link

PSEUDO CLASSES

Starts with single colon

Links

:link

:active

:visited

:any-link

Events

:hover

:focus

:focus-within

:target

:active

:checked

Forms

:enabled

:disabled

:valid

:invalid

:indeterminate

:required

Elements

:first-child

:last-child

:first-of-type

:last-of-type

:nth-child(n)

:nth-last-child(n)

Negation

:not()

General

:root

PSEUDO ELEMENTS

Starts with double colon

Generated content

```
::before & ::after
div::before {
      content: "before << ";</pre>
div::after {
      content: " >> after";
           before << This is text paragraph >> after
```

Input placeholder

::placeholder

Enter some text

AT-RULE SELECTORS

@charset

@media

@page

@keyframes

@supports

CSS Selectors Level 4 @ W3C

CSS Selectors @ KharkivCSS #2

HTML5 Elements and their styling @ KharkivCSS #3

CSS UNITS

px em % s ms fr vw vh ...etc

RELATIVE UNITS

- em font-size of the parent element
 - rem font-size of root element
- ex height of the "x" letter in lowercase
 - ch width of the "0" symbol
- % relative to the same property of the parent element

VIEWPORT-RELATIVE UNITS

- vw 1% of the width of the viewport
- vh 1% of the width of the viewport
- vmin 1% of viewport's* smaller dimension
 - vmax 1% of viewport's* larger dimension

ABSOLUTE UNITS

mm millimeters

in inches
$$(1in = 96px = 2.54cm)$$

px pixels
$$(1px = 1/96th of 1in)$$

pt points
$$(1pt = 1/72 \text{ of } 1in)$$

NOTES

em and px are most usable units for fonts, rem becoming popular

<mark>%</mark> is the most popular unit for layout due to responsive

vw/vh usually used for dimensions which relate to viewport

Most of absolute units are used preferably for print page rules

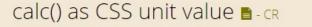
CSS Values and Units Module Level 4

MATH

Native CSS way to do simple math right in CSS. The most useful ability of calc() is its ability to mix units.

```
ul {
    width: calc(100% - 20px);
    font-size: calc(0.5em + 6px);
}
```

CSS Values and Units Module Level 3



Method of allowing calculated values for length units, i.e. width:

calc(100% - 3em)



Usage

Global

unprefixed:

% of all users

89.12% + 3.01% = 92.12%

88.97% + 3.01% = 91.98%

CSS VARIABLES

```
:root {
     --font-stack: Helvetica, sans-serif;
     --primary-color: #333;
body {
     font: 100% var(--font-stack);
     color: var(--primary-color);
```

CSS Custom Properties for Cascading Variables Module Level 1

CSS Variables (Custom Properties) ■ - CR

Usage % of all users \$
Global 86.81% + 0.05% = 86.85%

Permits the declaration and usage of cascading variables in stylesheets.

Current aligned Usage relative Date relative				Apply filters	Show all	?									
IE	Edge *	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android * Browser	Blackberry Browser	Opera Mobile	Chrome for Android	Firefox for Android	IE Mobile	UC Browser for Android	Sams Interr
	12-14		4-47		10-34										
	15	2-30	¹ 48	3.1-9	35	3.2-9.2									4
6-10	16-17	31-64	49-71	9.1 - 11.1	36-56	9.3-11.4		2.1 - 4.4.4	7	12-12.1			10		5-7
11	18	65	72	12	57	12.1	all	67	10	46	71	64	11	11.8	8.2
		66-67	73-75	TP											

THANKS!

Questions?