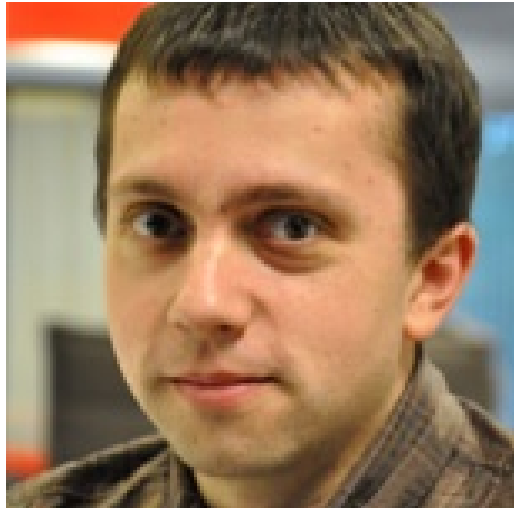


Adding Style and Layout with CSS3



Gill Cleeren

@gillcleeren

Outline

New features in CSS3

Page layout options in CSS3

Target of This Module

Our pages will look much better!

Better content layout



New Features in CSS3

Hello CSS3!



Part of HTML5
web standard



Split into modules



Independent
evolution



Selectors

Box Model

Background and border changes

Text effects

2D and 3D transformations

Animations

Column-based layout

User interface changes



css3-background

css-fonts-3

css3-box

css3-color

css3-content

css3-layout

css3-mediaqueries

css3-page

css3-selectors

css3-ui

*Up-to-date list on statuses:
<http://www.css3.info/modules/>*

Selectors

CSS3 Selectors

- CSS3 **extends** the **selector options** of CSS2.1
 - Selectors are now a CSS3 Module and an independent specification
- **New options**

Attribute
selectors

Pseudo
classes

Pseudo
elements

New Attribute Selectors: Starts With

```
<head>
<style>
a[href^="https"] {
    background: #ffff00;
}
</style>
</head>
<body>
<a href="http://www.joescoffeestore.com/Home">Home</a><br>
<a href="http://www.joescoffeestore.com/blog">Blog</a><br>
<a href="https://www.joescoffeestore.com/store">Store</a>
</body>
```

[Home](#)
[Blog](#)
[Store](#)

New Attribute Selectors: Ends With

```
<head>
<style>
a[href$="store"] {
    background: #ffff00;
}
</style>
</head>
<body>
<a href="http://www.joescoffeestore.com/Home">Home</a><br>
<a href="http://www.joescoffeestore.com/blog">Blog</a><br>
<a href="https://www.www.joescoffeestore.com/store">Store</a>
</body>
```

[Home](#)
[Blog](#)
[Store](#)

New Attribute Selectors: Contains

```
<head>
<style>
a[href*="blog"] {
    background: #ffff00;
}
</style>
</head>
<body>
<a href="http://www.joescoffeestore.com/Home">Home</a><br>
<a href="http://www.joescoffeestore.com/blog">Blog</a><br>
<a href="https://www.joescoffeestore.com/store">Store</a>
</body>
```

[Home](#)
[Blog](#)
[Store](#)

New Attribute Selectors: Contains

```
<head>
<style>
a[href*="blog"] {
    background: #ffff00;
}
</style>
</head>
<body>
<a href="http://www.joescoffeestore.com/Home">Home</a><br>
<a href="http://www.joescoffeestore.com/blog">Blog</a><br>
<a href="https://www.joescoffeestore.com/store">Store</a>
</body>
```

[Home](#)
[Blog](#)
[Store](#)

:nth-child Selector

```
<style>
p:nth-child(2n) {
  background:brown;
}
</style>

<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 6

:nth-child Selector

```
<style>
p:nth-child(even) {
  background:brown;
}
</style>

<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 6

:nth-last-child Selector

```
<style>
p:nth-last-child(2) {
  background:brown;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 6

:nth-of-type Selectors

```
<style>
p:nth-of-type(2n) {
  background:brown;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<a href="promotions.html">Promotions</a>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

[Promotions](#)

Coffee 6

:nth-last-of-type Selector

```
<style>
p:nth-last-of-type(2) {
  background:brown;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<a href="promotions.html">Promotions</a>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

[Promotions](#)

Coffee 6

:first-of-type Selector

```
<style>
p:first-of-type {
  background: brown;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 6

:last-child selector

```
<style>
p:last-child {
  background:brown;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 6

:only-child selector

```
<style>
p:only-child {
  background:brown;
}
</style>

<div>
<p>Coffee 1</p>
</div>

<div>
<p>Coffee 2</p>
<a href="store.html">Go to our store</a>
</div>
```

Coffee 1

Coffee 2

[Go to our store](#)

:not selector

```
<style>
p {
  color:black;
}
:not(p) {
color:blue;
}
</style>
<h1>Coffee store</h1>
<p>Coffee 1</p>
<p>Coffee 2</p>
<p>Coffee 3</p>
<p>Coffee 4</p>
<p>Coffee 5</p>
<span>Coffee 888</span>
<p>Coffee 6</p>
```

Coffee store

Coffee 1

Coffee 2

Coffee 3

Coffee 4

Coffee 5

Coffee 888

Coffee 6

:out-of-range selector

```
<style>
input:out-of-range
{
border:3px solid red;
}
</style>

<h1>Enter amount of coffee you want</h1>
<input type="number" min="5" max="10"
value="17" />
```

Enter amount of coffee you want

12

Other New Pseudo Selectors

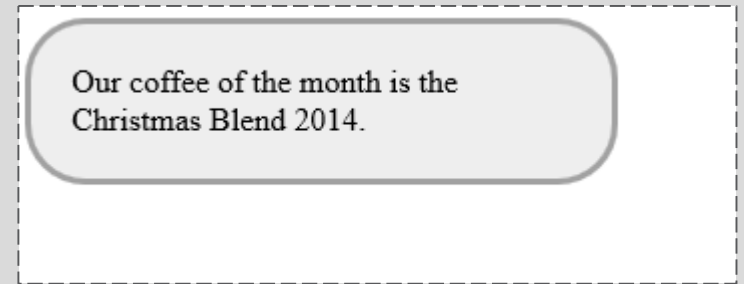


Borders and Backgrounds



border-*-radius

```
<head>
<style>
div {
  border-radius: 30px;
}
</style>
</head>
<body>
  <div>Our coffee of the month is the Christmas Blend 2014.</div>
</body>
```



background-size

```
<style>
body {
    background: url(Coffee_Beans.jpg);
    background-size: 300px 100px;
    background-repeat: no-repeat;
}
</style>

<p>
    Lorem ipsum dolor sit amet, ...
</p>
```

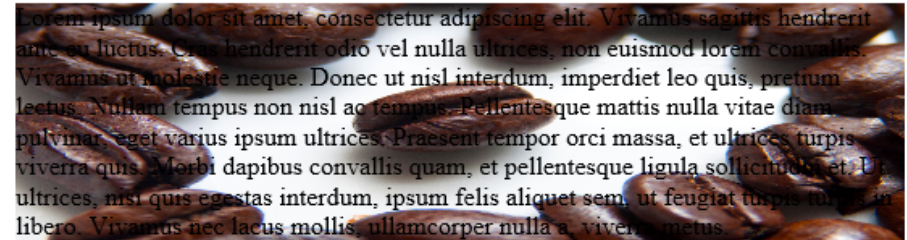


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background-size

```
<style>
div {
  background: url(coffeebeans.jpg);
  background-size: 100% 100%;
  background-repeat: no-repeat;
}
</style>

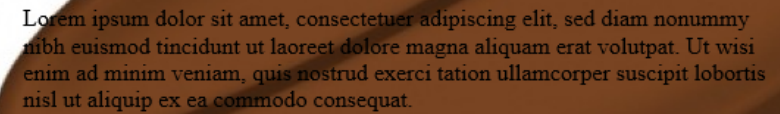
<div>
  Lorem ipsum dolor sit amet,
</div>
```



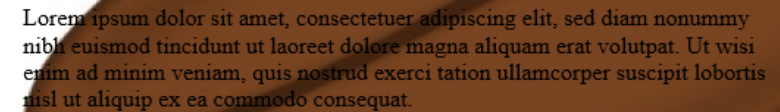
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus sagittis hendrerit ante eu luctus. Cras hendrerit odio vel nulla ultrices, non euismod lorem convallis. Vivamus ut molestie neque. Donec ut nisl interdum, imperdiet leo quis, pretium lectus. Nullam tempus non nisl ac tempus. Pellentesque mattis nulla vitae diam pulvinar, eget varius ipsum ultrices. Praesent tempor orci massa, et ultrices turpis viverra quis. Morbi dapibus convallis quam, et pellentesque ligula sollicitudin et. Ut ultrices, nisl quis egestas interdum, ipsum felis aliquet sem, ut feugiat turpis tunc in libero. Vivamus nec lacus mollis, ullamcorper nulla a, viverra metus.

background-origin

```
<style>
div {
  border: 1px solid black;
  padding: 20px;
  background-image: url(coffeebean.jpg);
  background-repeat: no-repeat;
  background-position: left;
}
#div1 {
  background-origin: border-box;
}
#div2 {
  background-origin: content-box;
}
</style>
```



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Multiple Background Images

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background: url(img1.jpg), url(img2.jpg);
}
</style>
</head>
```

Gradients

Linear Gradients

```
<style>
#myGradientDiv {
  height: 250px;
  background: linear-gradient(orange, green);
}
</style>

<h1>Linear Gradient </h1>
<div id="myGradientDiv"></div>
```

Linear Gradient



Linear Gradients

```
<style>
#myGradientDiv {
  height: 250px;
  background: linear-gradient(to right, orange, green);}
</style>

<h1>Linear Gradient </h1>
<div id="myGradientDiv"></div>
```

Linear Gradient



Linear Gradients

```
<style>
#myGradientDiv {
  height: 250px;
  background: linear-gradient(to bottom right, orange, green);}
</style>

<h1>Linear Gradient </h1>
<div id="myGradientDiv"></div>
</body>
```

Linear Gradient



Radial Gradients

```
<style>
#radialgradient{
  height: 200px;
  width: 300px;
  background: radial-gradient(yellow, orange, red); }
</style>

<h1>Radial Gradient </h1>
<div id="radialgradient"></div>
```

Radial Gradient

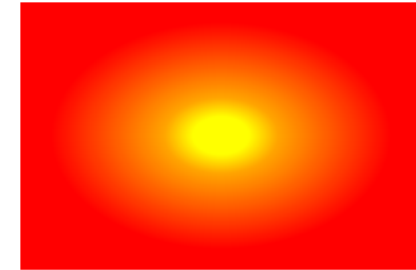


Radial Gradients

```
<style>
#radialgradient{
  height: 200px;
  width: 300px;
  background: radial-gradient(yellow 10%, orange 20%, red 60%); }
</style>

<h1>Radial Gradient </h1>
<div id="radialgradient"></div>
```

Radial Gradient



Transforms

CSS Transformations

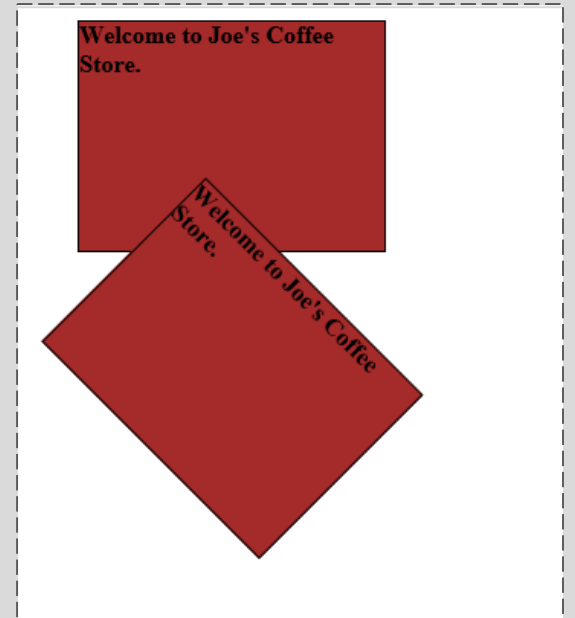
- CSS3 adds support for 2D and 3D transformations
 - Control over size, shape and position
 - Previously only possible with plug-ins
- Supported transformations
 - translate
 - rotate
 - scale
 - skew
 - matrix

The rotate() Transform

```
<style>
div {
    ...
}
div#rotate{
    transform: rotate(45deg); }
</style>
```

```
<div><b>Welcome to Joe's Coffee Store.</b></div>
```

```
<div id="rotate"><b>Welcome to Joe's Coffee Store.</b></div>
```



The skew() Transform

```
<style>
div {
    ...
}
div#skew{
    transform: skew(30deg,20deg);}
</style>
```

```
<div><b>Welcome to Joe's Coffee Store.</b></div>
```

```
<div id="skew"><b>Welcome to Joe's Coffee Store.</b></div>
```



CSS Animations

- Simple animations supported without JavaScript or plug-in
- Based on @keyframes rule which defines the animation
 - Define identifier for the animation, starting point and end point

```
@keyframes homeAnimation{  
    0%    {background:green; left:0px; top:0px;}  
    25%   {background:brown; left:200px; top:0px;}  
    50%   {background:blue; left:200px; top:200px;}  
    75%   {background:yellow; left:0px; top:200px;}  
    100%  {background:red; left:0px; top:0px;}  
}
```

Simple CSS3 Animation

```
<style>
div {
    animation: homeAnimation 10s;
}
@keyframes homeAnimation{
    0%    {background:green; left:0px; top:0px;}
    25%   {background:brown; left:200px; top:0px;}
    50%   {background:blue; left:200px; top:200px;}
    75%   {background:yellow; left:0px; top:200px;}
    100%  {background:red; left:0px; top:0px;}
}
</style>
<div>Welcome to Joe's Coffee Store!</div>
```

Animation Properties

@keyframes	animation	animation-delay
animation-duration	animation-fill-mode	animation-iteration-count
animation-name	animation-play-state	animation-timing-function

Text Effects

Text Shadows

```
<style>
h1 {
  text-shadow: 5px 5px 5px #5f2c17;
}
</style>

<h1>Welcome to Joe's Coffee Store!</h1>
```

Welcome to Joe's Coffee Store!

CSS3 Fonts

- @font-face allows using embedded fonts in the page
- Support for TTF, OTF, WOFF and SVG (browser-dependant!)

```
<style>
@font-face {
  font-family: headerFont;
  src: url(sansation_light.woff);
}
div {
  font-family: headerFont;
}
</style>
<div>Welcome to Joe's Coffee Store!</div>
```

Welcome to Joe's Coffee Store!



Demo: Using CSS3 to Make Our Site Look Better!

Page Layout: Multi-column Support

CSS3 Multi-column

```
<style>
  .multicol {
    column-count: 3;
  }
</style>

<div class="multicol">Lorem ipsum dolor sit amet...</div>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud	exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.	Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum
---	--	---

CSS3 Multi-column

```
<style>
  .multicol {
    column-width: 20em;
  }
</style>

<div class="multicol">Lorem ipsum dolor sit amet...</div>
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in

reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum

CSS3 Multi-column

```
<style>
  .multicol {
    column-count: 3;
    column-gap: 40px;
  }
</style>
```

```
<div class="multicol">Lorem ipsum dolor sit amet...</div>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem

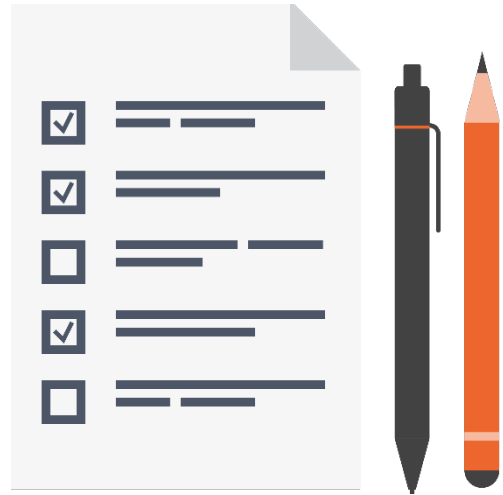
vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta

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Demo: Adding Multi-column to the Detail Page

Summary



CSS3 builds on the power of CSS2.1

Many new features make life easier

Or enable things which weren't possible before without plug-ins