

# HTML5 & CSS3

and beyond

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JavaEE, Ruby on Rails, Webstuff

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# Content

- A short of history Html
  - New Markup
  - Webforms
  - Pseudoclasses
  - Media Queries
  - Fonts
  - Rounded corners
  - Shadows
  - Canvas
  - Video/Audio
  - Beyond HTML5
  - Comming soon
- 

# A short history of html



HTML 4.0  
01.12.1997  
 HTML 4.0 is an SGML application conforming to International Standard ISO 8879

XML 1.0  
01.02.1998  
 XML with all his machine-readable glory was extended from SGML

Workshop - Shaping the future of the web  
05.05.1998

**HTML**  
Q: Has W3C given up on HTML?  
A: Extending HTML 4.0 would be difficult, as convert 4.0 to be an XML application. Start with the next generation of HTML based upon a suite of XML tag-sets.

XHTML 1.1  
31.05.2001  
Module-based XHTML, draconian error handling

Reformulating HTML in XML  
05.12.1998  
W3C Working Draft

Workshop - Web Applications and Compound Documents  
02.06.2004

**Interaction domain**  
Competing visions of the future of the Web: evolution of the existing HTML 4.  
The vote was 11 to 8 against.

WHAT Working Group was born.  
04.06.2004



Web Hypertext Applications Technology working group

Back to W3C  
01.09.2006

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First W3C Working Draft of HTML5 published  
31.01.2008



W3C Publishes HTML 5 Draft, Future of Web Content.

WHAT WG: Web Applications 1.0  
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First draft. Later became HTML5

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

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W3C Publishes HTML5 Draft Status of the Candidate

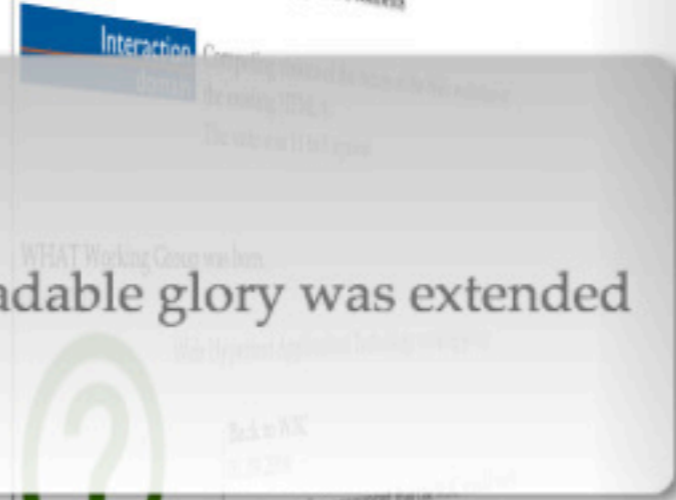


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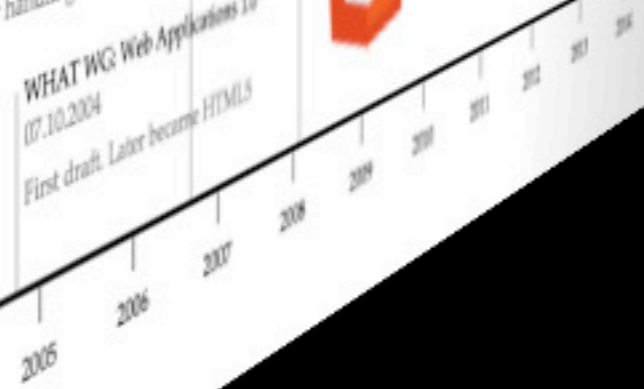
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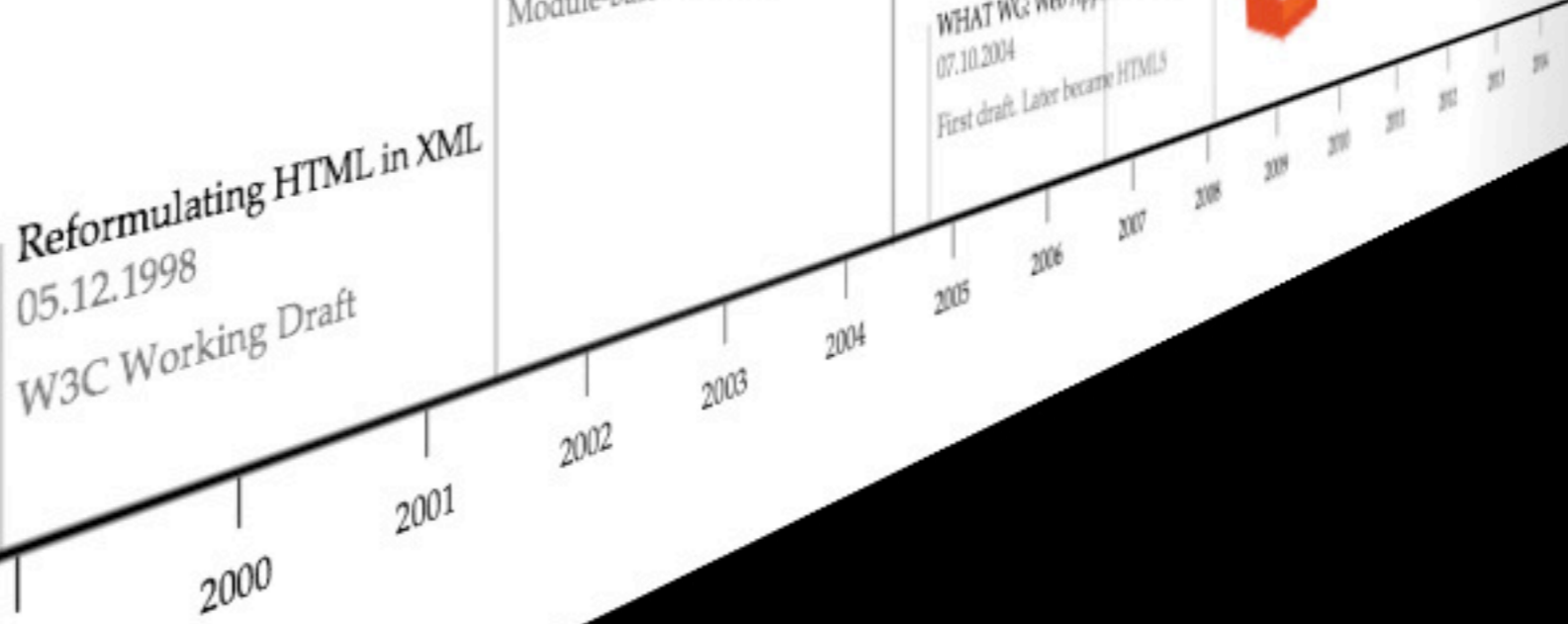


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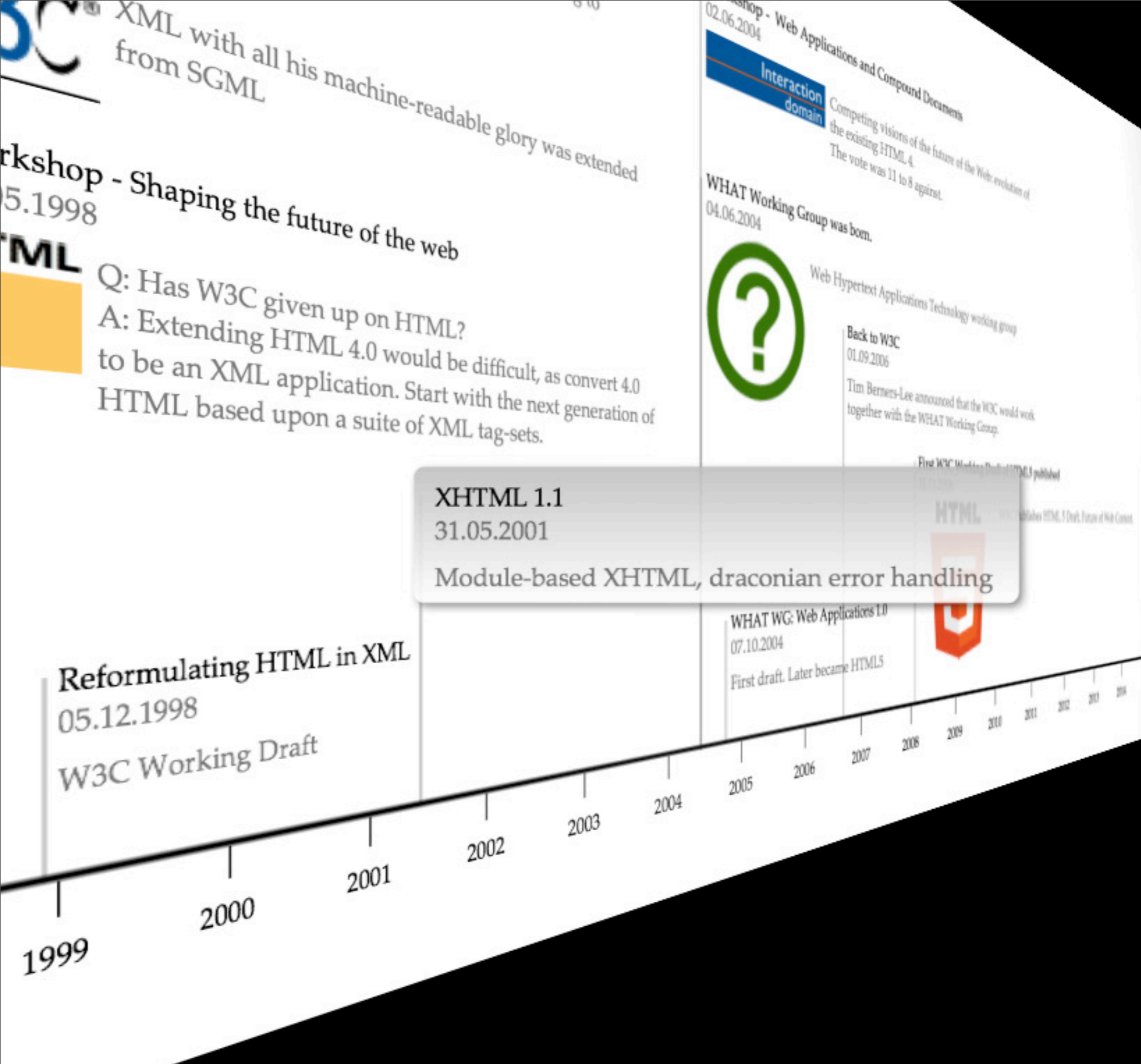
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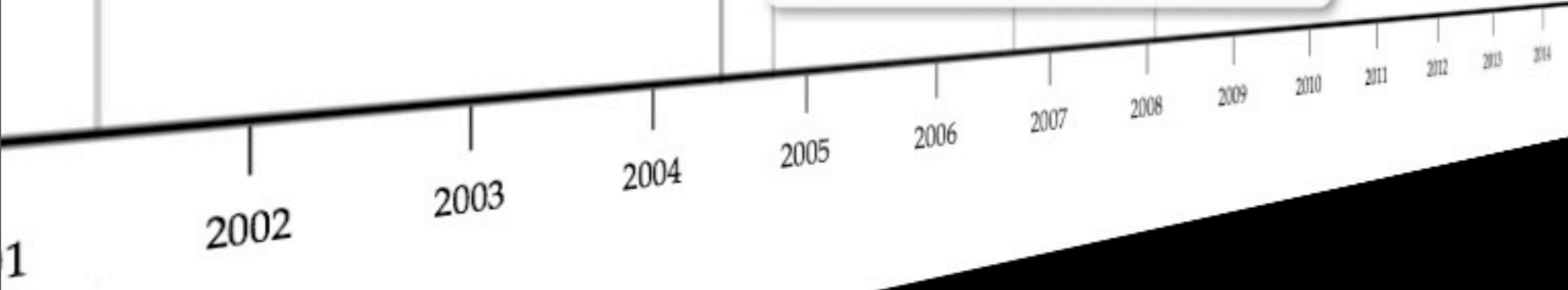
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as 1.0  
ML5

# New markup



# All Starts with the Right Doctype

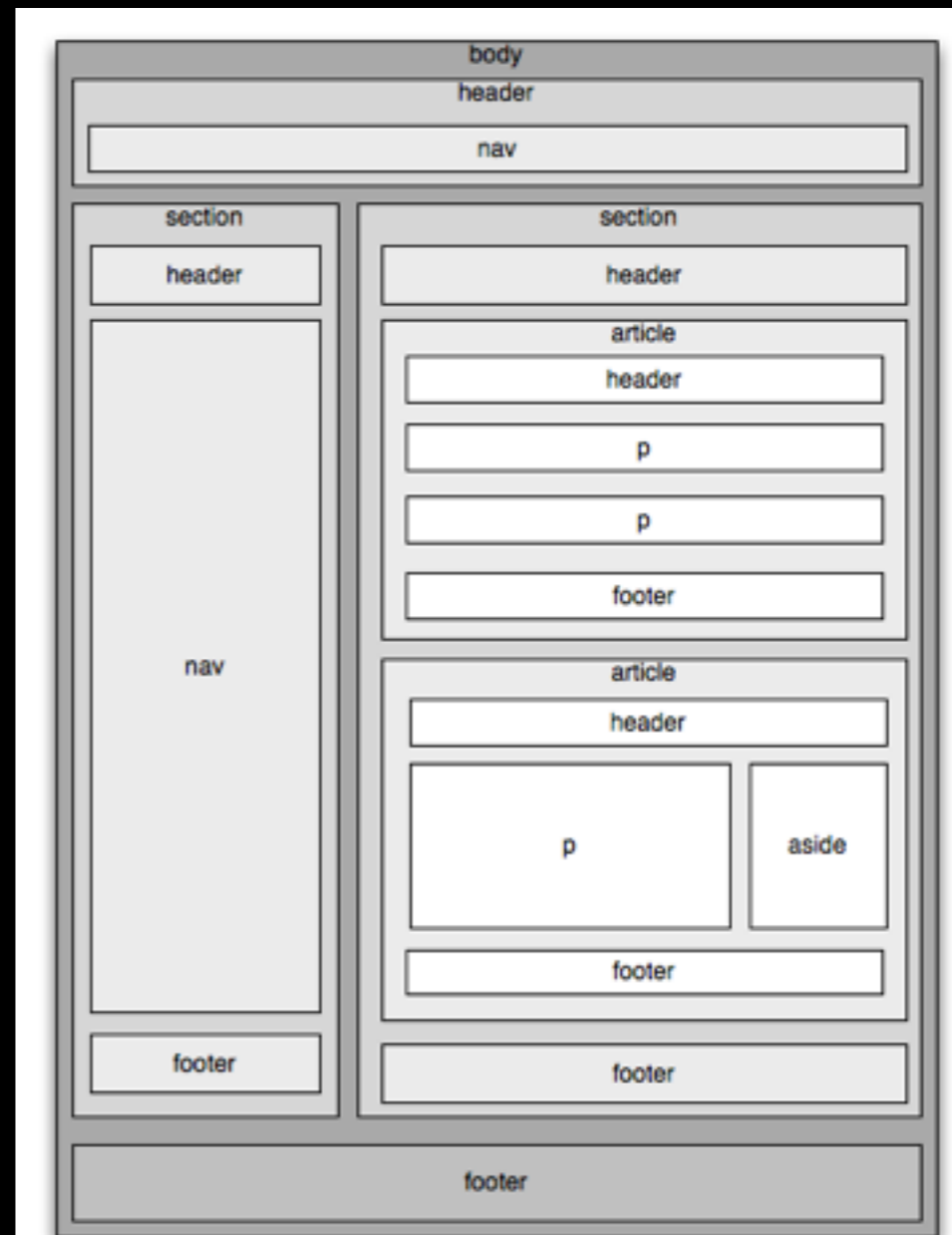
```
<!DOCTYPE html>
```

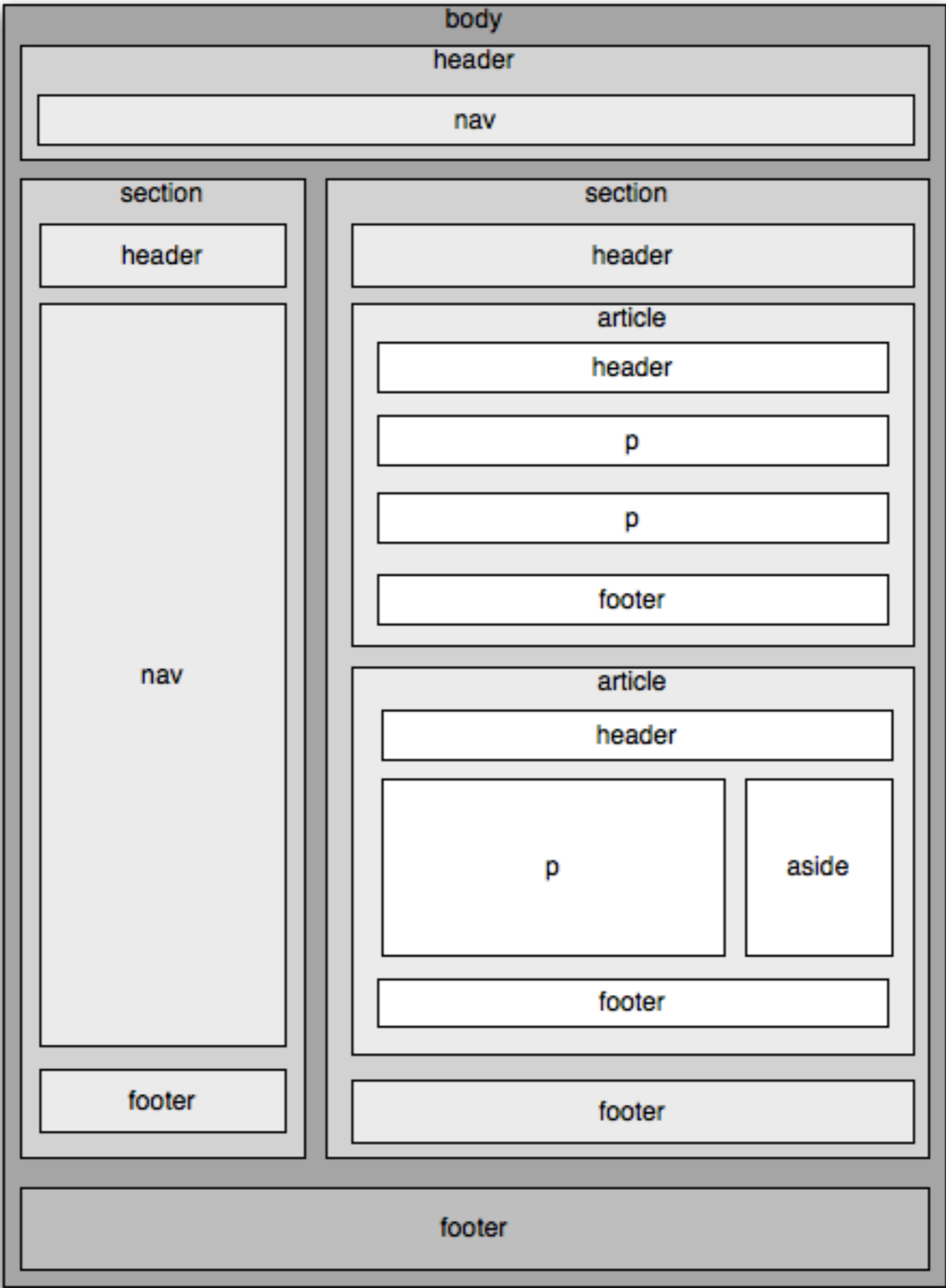




# New markup

- `<header>`
- `<footer>`
- `<nav>`
- `<section>`
- `<article>`
- `<aside>`






# But my customer want ie?

## html5shim HTML5 IE enabling script

```
<!--[if lt IE 9]>  
<script src="http://html5shim.googlecode.com/svn/trunk/html5.js">  
</script>  
<![endif]-->
```

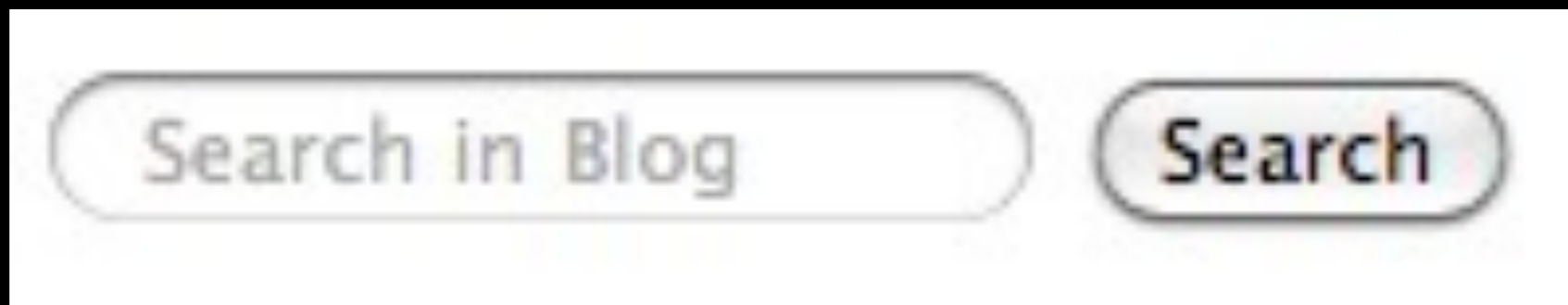




# Webforms

# Placeholder Text

```
<form>  
  <input type="search" name="q" placeholder="Search in Blog">  
  <input type="submit" value="Search">  
</form>
```



# Autofocus

```
<form>  
  <input name="q" autofocus>  
  <input type="submit" value="Search">  
</form>
```

# Email

```
<form>  
  <input type="email">  
  <input type="submit" value="Go">  
</form>
```

# Keyboard optimized for mail





# Numbers

```
<input type="number"  
        min="0"  
        max="10"  
        step="2"  
        value="6">
```



A screenshot of a web browser showing a number input field. The field contains the number '6'. To the right of the field is a small icon with up and down arrows, and further right is a button labeled 'Go'.

# More Form elements

- Webaddresses
- Numbers as Sliders
- Date Pickers
- Search Boxes
- Color Pickers





# CSS3-Pseudoclasses

# Odd/Even

```
<table>
  <tr>
    <th>Item</th>
    <th>Price</th>
    <th>Quantity</th>
    <th>Total</th>
  </tr>
  <tr>
    <td>Coffee mug</td>
    <td>$10.00</td>
    <td>5</td>
    <td>$50.00</td>
  </tr>
  <tr>
    ...
```


```
tr:nth-of-type(even){
  background-color #F3F3F3
}
tr:nth-of-type(odd)
  background-color #ddd
}
```

Item	Price
Coffee mug	\$10.00
Polo shirt	\$20.00
Red stapler	\$9.00

# Last-Child


```
tr:last-child{  
    font-weight bold  
}
```

Item	Price	Quantity	Total
Coffee mug	\$10.00	5	\$50.00
Polo shirt	\$20.00	5	\$100.00
Red stapler	\$9.00	4	\$36.00
		Subtotal	\$186.00
		Shipping	\$12.00
		<b>Total Due</b>	<b>\$198.00</b>



# Media Queries

# Media Queries



- Resolution
- Orientation (portrait or landscape)
- Device width and height
- Width and height of browser window



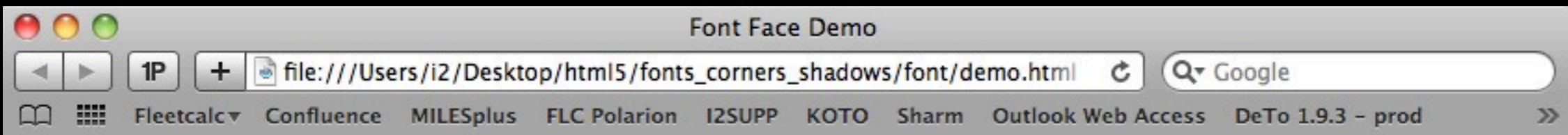
# Webfonts



# Webfonts

```
@font-face {
  font-family: 'Droid Sans Regular';
  src: url('DroidSans.eot');
  src: local('Droid Sans Regular'), local('DroidSans-Regular'), url('DroidSans.ttf')
  format('truetype');
}

@font-face {
  font-family: 'Droid Sans Bold';
  src: url('DroidSans-Bold.eot');
  src: local('Droid Sans Bold'), local('DroidSans-Bold'), url('DroidSans.ttf') format
  ('truetype');
}
```



# Font-face Demo for the Droid Sans Font

Droid Sans Regular - 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.

**Droid Sans Bold - 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.**

# Rounded Corners

**Email**

Enter your Email Address

**Submit**

# Rounded Corners



```
-webkit-border-radius: 15px;  
-moz-border-radius: 15px;  
border-radius: 15px;
```

# Shadows

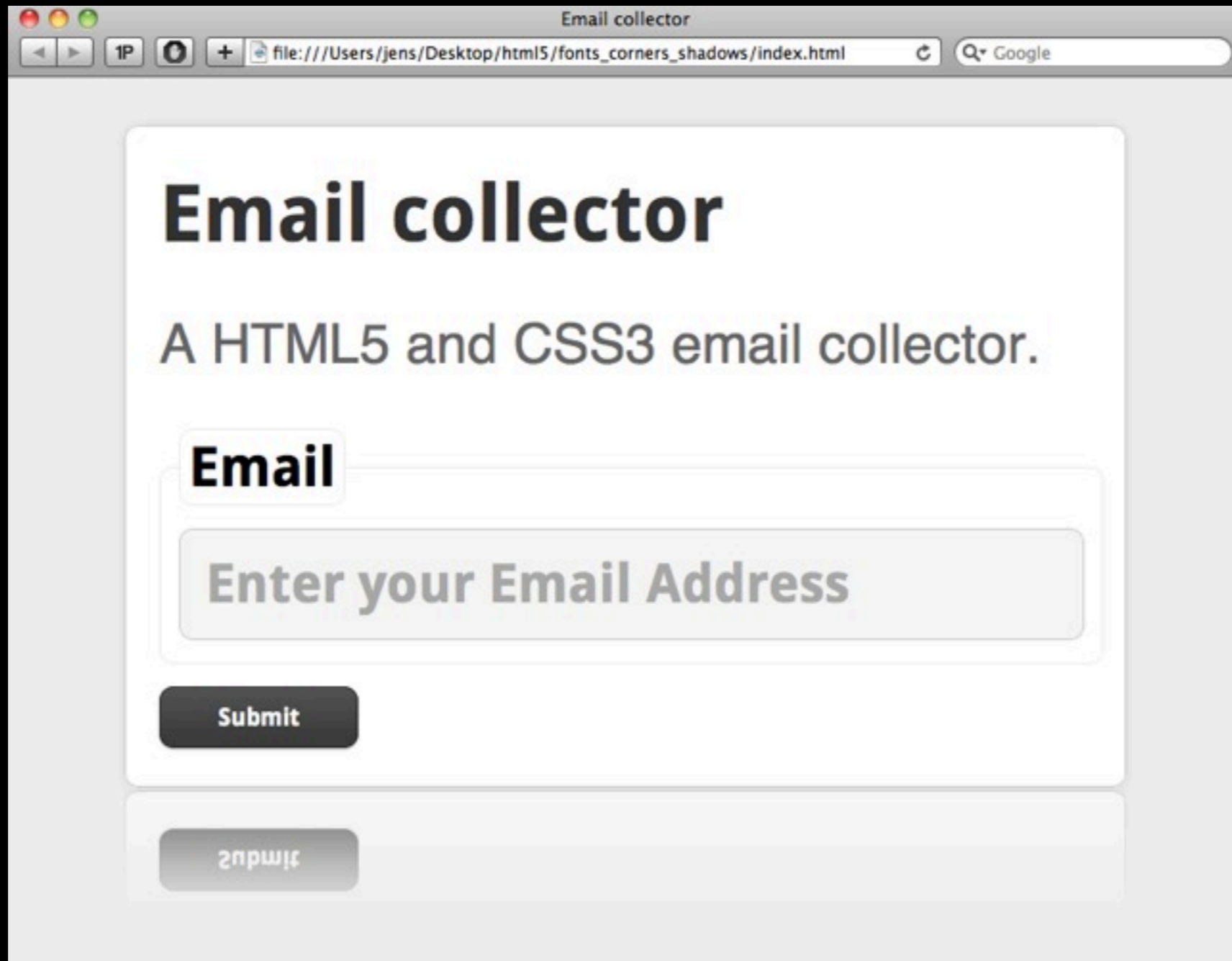


Submit

# Shadows

```
box-shadow: 0 2px 20px rgba(50, 50, 50, 0.1);  
-webkit-box-shadow: 0 2px 20px rgba(50, 50, 50, 0.1);  
-moz-box-shadow: 0 2px 20px rgba(50, 50, 50, 0.1);
```

# Reflection



# Reflection

```
-webkit-box-reflect: below 3px  
-webkit-gradient(linear, left top, left bottom,  
                 from(transparent),  
                 color-stop(.8, transparent),  
                 to(rgba(255,255,255,0.7)));
```

Only Webkit!





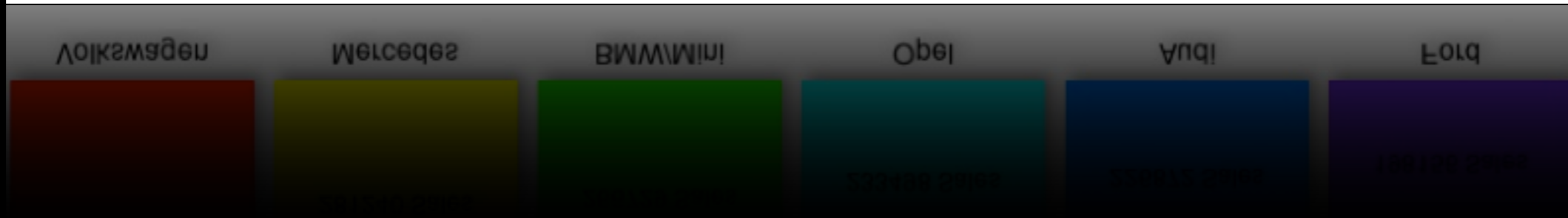
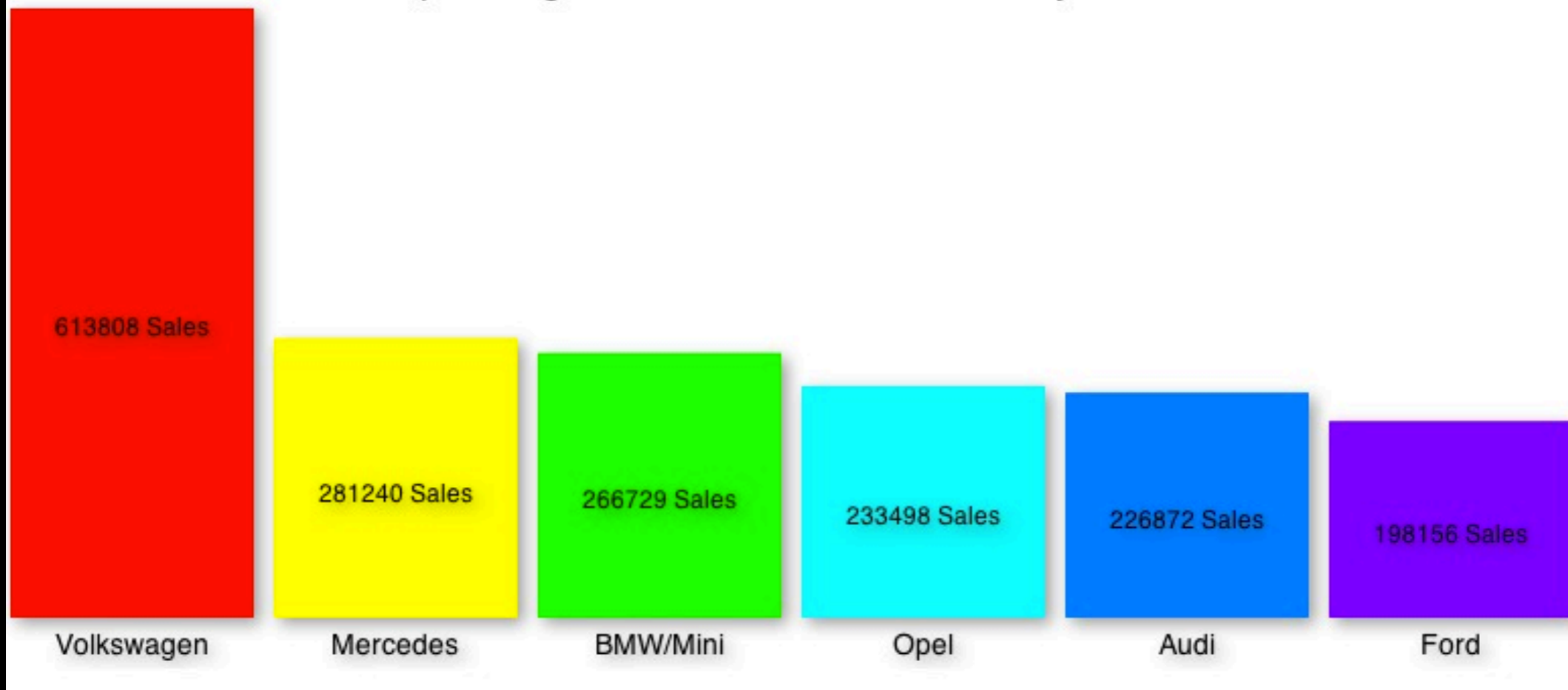
# Canvas

HTML5's canvas element lets developers create images and animations in the browser programmatically using JavaScript

# Canvas



Top-Selling Car Manufacturers in Germany in 2010



# Canvas

draw a rectangle

```
<script type="text/javascript" charset="utf-8">
  var canvas = document.getElementById 'my_canvas'
  if (canvas.getContext){
    var context = canvas.getContext('2d');

    context.fillStyle = "rgb(200,0,0)";
    context.fillRect (10 10 100 100);
  }
</script>
```

# HTML5 Video/Audio

## HTML5 Showcase

[← Back to overview](#)

The demos below show how Apple's Safari web browser supports the capabilities of web standards such as HTML5, CSS3, and JavaScript.

### Video



**Try it out:** Use the control panel to the right to scale up or down or add a mask while the video is playing.

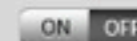
**About this demo:** The HTML5 video tag allows you to integrate video within your website's code. And Safari offers HTTP streaming, so playback quality dynamically adjusts to the available speed of wired or wireless networks — perfect for viewing on mobile devices such as iPad, iPhone, and iPod touch.

*Tron Legacy* © 2010 Disney Enterprises Inc. All rights reserved.

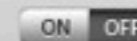
Scale



Mask



Perspective



[Visit the Safari Dev Center to learn more and download sample code ▶](#)




**Do I need flash  
anymore?**



# NO

flash is dead



**But designers love  
flash?**



# Your opportunity to get rich





# HTML5 - Startup Idea

- Start a company with a fancy name
- Build a software with a interface like flash
- Output html5 + javascript
- Sell 100000 copys
- Sell the company to adobe, apple, ms or google
- Enjoy Mojito Island



# Beyond Html5

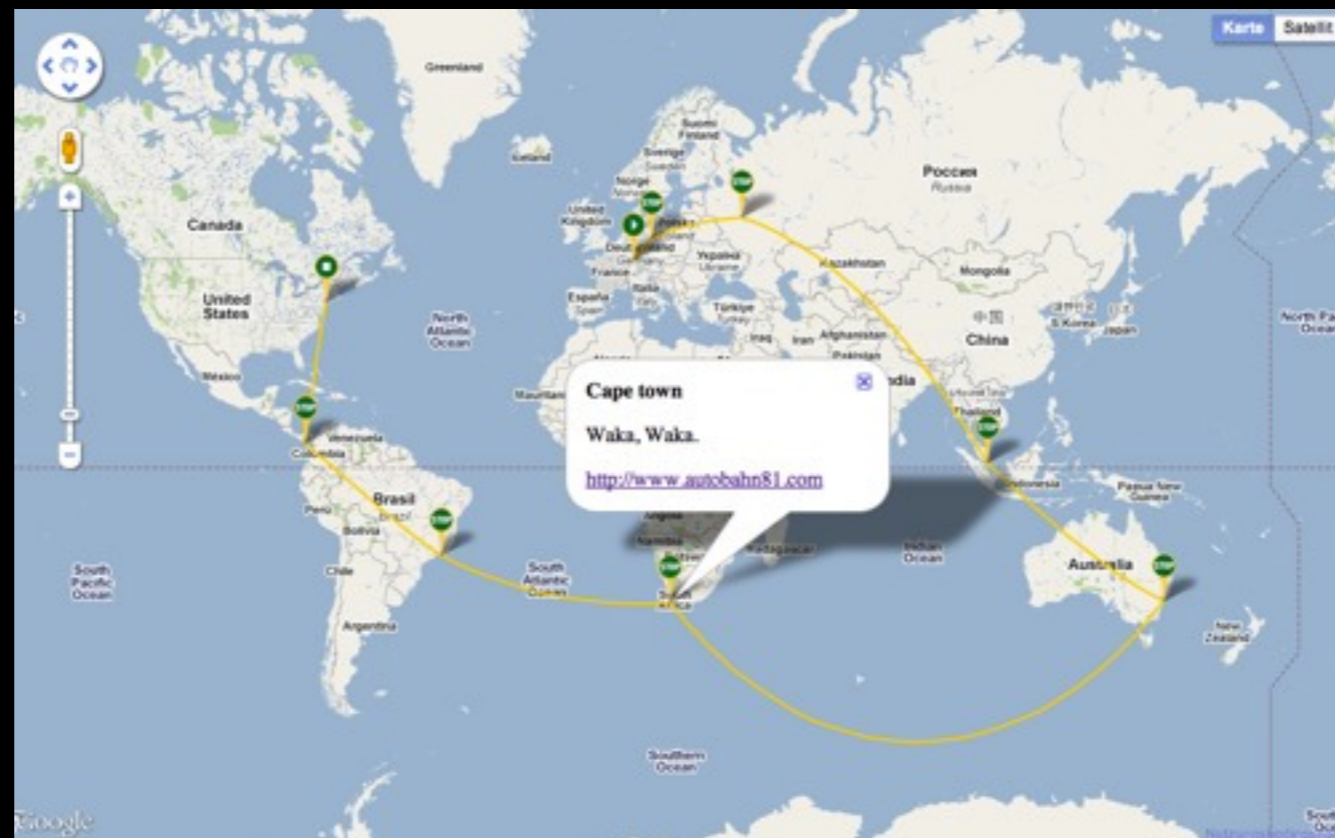
# Geolocation



- Determines a person's location
- IP address
- MAC address
- Wi-Fi hotspot
- GPS

# Geolocation

Not in HTML5 standard but already implemented in Firefox, Safari, and Chrome.



# Web sockets



- HTTP is a stateless protocol
- real-time work over a stateless protocol sucks
- Web sockets let the browser make a statefull connection

# Local storage



- simple method to persist data on the client
- persists between browser sessions
- restricted to a domain
- key/value pairs

# Comming soon



- Web Workers (Concurrency in JavaScript)
- Native Drag-and-Drop Support
- WebGL
- Indexed Database API (key/value store)
- Client-Side Form Validation



Thank you

Questions?



# Resources

- Pictures: W3C, WHATWG, Apple, Jens Jäger
- Video: Pragmatic Programmers
- SourceCode: HTML5 & CSS3 (Pragmatic Programmers), HTML5 Up and Running (O'Reilly), Android Open Source Project, Jens Jäger
- Keynote Template: [autobahn81.com](http://autobahn81.com)