

Building Web Applications with HTML5, CSS3, and Javascript: An Introduction to HTML5

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pinboard.in #tag

pinboard.in/u:jasonclark/t:cil-html5/

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#cildc #html5

Overview

- New Features and Functions
- Demos
- Getting Started
- Questions



We landed on the moon and we left stuff there. A lot of it.

5 9 2 3 7

things left so far.



1 BIG DOUGHNUT



1 LAWNMOWER



1 ASTRO CAT



1 RECLINER



1 MAGIC GNOME

LATEST THING NEWS

New things discovered this week

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TOP CATEGORIES

Furniture

185 items



Fashion

4,729 items



Pets

4 items



CSS3 example - <http://css3exp.com/moon/>

Evolution into CSS3

Rethinking web displays and styles

Vendor Prefixes

- Add support for emerging parts of CSS spec

Android: -webkit-

Chrome: -webkit-

Firefox: -moz-

Internet Explorer: -ms-

iOS: -webkit-

Opera: -o-

Safari: -webkit-

Minification

- Removing unnecessary characters and spacing from code to reduce size, and optimizing the code to improve load times

CSS compressor

<http://www.minifycss.com/css-compressor/>

Box Sizing

- Set how the browser calculates the width of an element to include (or not include) padding, borders, and margins

```
div.doc {  
    width: 200px;  
    padding: 0 30px;  
    -webkit-box-sizing: border-box;  
    -moz-box-sizing: border-box;  
    box-sizing: border-box;  
}
```

Resize

- Set element to be resized vertically and/or horizontally using a bottom-right UI handle

```
div.doc {  
    overflow: hidden;  
    -moz-resize: both;  
    resize: both;  
}
```

Rounded Elements

- border-radius declaration
- smooth out your interfaces
- button effects

```
-moz-border-radius: 10px 5px;  
-webkit-border-top-left-radius: 10px;  
-webkit-border-top-right-radius: 5px;  
-webkit-border-bottom-right-radius: 10px;  
-webkit-border-bottom-left-radius: 5px;  
border-radius: 10px 5px;
```

Gradients and Opacity

- no more images for showing gradient
- transparency

Selectors

- Target specific elements or markup in a series

`div[attr] and a[href$=pdf]`

Attribute selector (starts with, ends with, contains)

`ul > li`

Immediate descendant (child) selector

`td:last-child {border-right:0 none;}`

`li:nth-child(n+6) {color: grey;}`

Multiple Backgrounds

- Position background images
- Create layered effects

```
body {  
background:  
url(..../images/top-left.png) top left fixed  
no-repeat,  
url(..../images/bot-left.png) bottom left  
fixed no-repeat,  
url(..../images/bot-right.png) bottom right  
fixed no-repeat;  
background-color: #2f2626;  
}
```

Transitions

- Animation behavior
 - Scaling, fading, easing, etc.

```
body {  
  -o-transition:all .2s linear;  
  -moz-transition:all .2s linear;  
  -webkit-transition:all .2s linear;  
  transition:all .2s linear;  
}
```

Transform

- Applies a 2D or 3D transformation to an element
 - Rotate, scale, move, etc.

```
li:hover {  
  -moz-transform:scale(1.15);  
  -ms-transform:scale(1.15);  
  -o-transform:scale(1.15);  
  -webkit-transform:scale(1.15);  
  transform:scale(1.15);  
}
```

Columns and Grids

- Layout and page structure
- Goodbye, float?

```
ul#content {  
    -webkit-column-count: 3;  
    -webkit-column-rule: 1px solid #eee;  
    -webkit-column-gap: 1em;  
    -moz-column-count: 3;  
    -moz-column-rule: 1px solid #eee;  
    -moz-column-gap: 1em;  
    column-count: 3;  
    column-rule: 1px solid #eee;  
    column-gap: 1em;  
    display: block;  
}
```

Flexbox

- A flexible box model?

```
body>div#main {  
    display: -webkit-flexbox;  
    display: -moz-flexbox;  
    display: -ms-flexbox;  
    display: -o-flexbox;  
    height: 500px;  
    padding: 1em;  
    background-color: gray;  
}
```

@supports

- Detect support of CSS features directly in CSS

```
@supports (display: flex) {  
  div {  
    display: flex;  
  }  
}
```

```
@supports (column-count: 1) or (-moz-  
column-count: 1) { ... }
```

Media Queries

- switch stylesheets based on width and height of viewport
- same content, new view depending on device

```
@media screen and (max-device-width: 480px) { ... mobile styles here... }
```

* note “em” measurements based on base sizing of main body font are becoming standard (not pixels)

Media Queries in Action

```
<link rel="stylesheet"  
      type="text/css" media="screen  
      and (max-device-width:480px) and  
      (resolution: 163dpi)"  
      href="shetland.css" />
```

Responsive Web Design, Ethan Marcotte
<http://www.alistapart.com/articles/responsive-web-design>

@Font-Face

- bring in fonts
- use any licensed TrueType (.ttf) or OpenType (.otf) font
- independent of machine it's being rendered on...

Demos & Examples

It's your call....

Demos

- Mozilla Developer Network - CSS3
 - <https://developer.mozilla.org/en-US/demos/tag/tech:css3>
- 24 ways CSS3 demo
 - <http://24ways.org/>
- HTML5 Demos
 - <http://html5demos.com/>

Resources

- CSS3 Previews
 - <http://www.css3.info/preview/>
- HTML5rocks
 - html5rocks.com
- HTML5 Please
 - html5please.com/#use

Assignment 2

- Using HTML5 CSS template
 - <http://www.lib.montana.edu/~jason/files/html5-mobile-feed/template.css>
 - 1. Add columns to HTML5 template
 - 2. Add animation to an element in HTML5 template
 - 3. Add media query for mobile device to HTML5 template

Questions?

twitter.com/jaclark

www.lib.montana.edu/~jason/talks.php

Episode IV

A NEW HOPE

*It is a period of civil war.
Rebel spaceships, striking
from a hidden base, have won
their first victory against
the evil Galactic Empire.*

During the battle, Rebels managed to steal secret plans to the Empire's