Create an adaptable website layout with CSS3 media queries (http://www.catswhocode...og an-adaptable-website-layout-with-css3-media-queries)

Published on May 9th, 2011 by Jean-Baptiste Jung. **5 Comments (http://www.catswhocode.com/blog/create-an-adaptable-website-layout-with-css3-media-queries#comments)** -

With the rise of both very large screens and mobile devices, web developers have to be able to create websites that display correctly and look good whatever the device is. Sure, you can use good old techniques like fluid layouts, but I've got something better to show you today. This tutorial will teach you how you can create an adaptable website layout using CSS3.
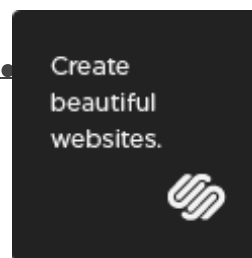
Getting started

- **View demo (http://www.catswhocode.com/demos/css3-media-queries/)** (Horizontally resize your browser to view it in action)
- **Download files (http://www.catswhocode.com/blog/wp-content/uploads/2011/05/css3-media-queries.zip)**
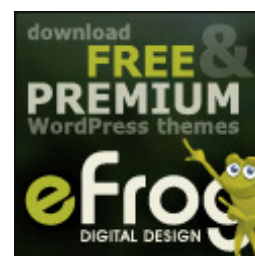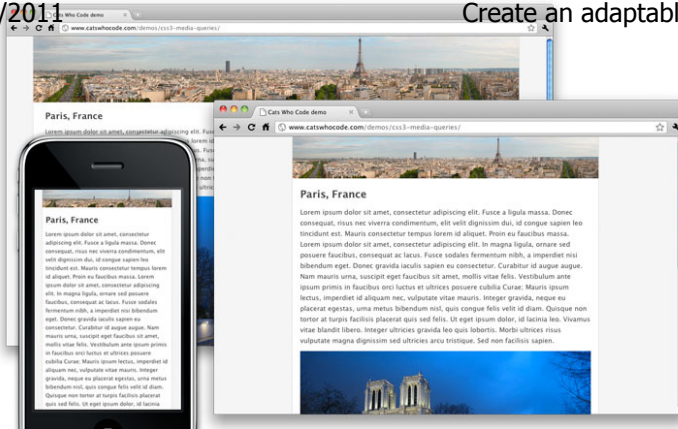
Creating the default layout

The first step of this tutorial is obviously to create a HTML page. I chose to make a simple HTML5 page with only a header image, a title, and some text. Copy the following code and paste it into a file named `index.html`.

```
<!DOCTYPE html>
<html lang="en">

<head>
        <meta charset="utf-8">
        <title>Cats Who Code demo</title>
        <link href="style.css" type="text/css
" rel="stylesheet" media="screen">
        <meta name="viewport" content="width=
device-width; initial-scale=1.0; maximum-scal
e=1.0;">
</head>

<body>
        <div id="container">
                <header class="ma-class-en-cs
s">

                        <h1 id ="logo"><a hre
f="#">Cats Who Code</a></h1>
                </header>

                <div id="content">
                <h2>Paris, France</h2>
                <p>Lorem ipsum dolor sit amet
, consectetur adipiscing elit. Fusce a ligula
 massa. Donec consequat, risus nec viverra co
ndimentum, elit velit dignissim dui, id congu
e sapien leo tincidunt est. Mauris consectetu
r tempus lorem id aliquet. Proin eu faucibus
massa. Lorem ipsum dolor sit amet, consectetu
r adipiscing elit. In magna ligula, ornare se
d posuere faucibus, consequat ac lacus. Fusce
 sodales fermentum nibh, a imperdiet nisi bib
endum eget. Donec gravida iaculis sapien eu c
onsectetur. Curabitur id augue augue. Nam mau
```
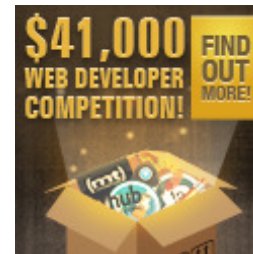
Search

Search

Blogroll

Add To Design (http://www.addtodesign.com)
business cards (http://www.rfkprintsolutions.co.uk)
Camille: Le blog (http://www.camillejung.com/blog/)
Cats Who Blog (http://www.catswhoblog.com)
Coupons for Bloggers (http://couponsforbloggers.com)
diezjietal webdesign (http://www.diezjietal.be)
Eternicom Inc. Jobs (http://www.eternicom-jobs.ch)
Free Website (http://www.wix.com/?
utm_campaign=se_catswhocode.com&experiment_id=WB)
Photoshop tutorials (http://psdvibe.com)
seo (http://www.biteus.net)
Visiter New York (http://www.visiter-newyork.com)

```
is urna, suscipit eget faucibus sit amet, #9
llis vitae felis. Vestibulum ante ipsum primi
s in faucibus orci luctus et ultrices posuere
 cubilia Curae; Mauris ipsum lectus, imperdie
t id aliquam nec, vulputate vitae mauris. Int
eger gravida, neque eu placerat egestas, urna
 metus bibendum nisl, quis congue felis velit
 id diam. Quisque non tortor at turpis facili
sis placerat quis sed felis. Ut eget ipsum do
lor, id lacinia leo. Vivamus vitae blandit li
bero. Integer ultricies gravida leo quis lobo
rtis. Morbi ultrices risus vulputate magna di
gnissim sed ultricies arcu tristique. Sed non
 facilisis sapien.</p>

                        <p>Integer faucibus,
augue vitae vulputate sodales, tellus tellus
vulputate tortor, in iaculis ipsum orci vitae
 libero. Vestibulum laoreet accumsan erat vel
 pretium. Ut turpis elit, ultricies id accums
an non, condimentum feugiat neque. Nam ut era
t urna, a porta augue. Donec vel porttitor ma
gna. Cras eget tortor eget ante malesuada sod
ales sed a leo. Fusce sit amet cursus sem. Nu
lla aliquet accumsan ante sit amet condimentu
m. Morbi varius porta sapien nec iaculis. In
gravida velit at nulla imperdiet varius.</p>
        </div><!-- #content -->

                <footer>A demo by <a href="ht
tp://www.catswhocode.com">CatsWhoCode</a></fo
oter>
        </div><!-- #container -->
</body>
</html>
```
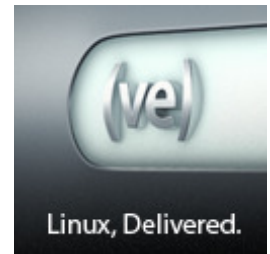
Once done, we have to add a stylesheet to our `index.html`
page. The following code is the basic styling for the page.
Paste it into a file named `style.css`.

```css
*{
        /* On a production site, use a real r
eset instead of this! */
        margin:0;
        padding:0;
}

body{
        background:#f5f5f5;
        font-family:"Lucida Grande", Arial;
        font-size:13px;
        line-height:21px;
        color:#444;
}

p{
        margin:15px 0;
}

h2{
        margin-top:20px;
}

#container{
        background:#fff;
        border-left:1px #ddd solid;
        border-right:1px #ddd solid;
        border-bottom:1px #ddd solid;
        width:600px;
        margin:0 auto;
}

header h1#logo a{
        text-indent:-9999px;
        display:block;
        width:600px;
        height:82px;
        background:url(image-med.jpg) no-repe
at 0 0;
}

#content{
        width:95%;
        margin:0 auto;
}

footer{
        text-align:center;
        width:100%;
        display:block;
        font-size:11px;
}
```

Right now, if you look to your `index.html` page through your web browser, you'll see something like the screenshot below. Nothing spectacular, right? Keep reading, we're going to

Using CSS3 media queries to make our layout fit in all screen resolutions

If you had a look to your `index.html` page with a screen resolution bigger than 800*600, you might find the layout is really small. So, what about allowing large screens to display a bigger version, while still using the small version for people with lower resolutions?

This is what CSS3 media queries can do for you. Open your `style.css` file and paste the code below at the end of the file:

```
@media screen and (min-width:1200px){
        #container{
                width:1100px;
        }

        header h1#logo a{
                width:1100px;
                height:150px;
                background:url(image.jpg) no-
repeat 0 0;
        }

}
```

Now, have a look at `index.html` again: The layout is indeed bigger. Horizontally resize the window size... The site switches back to the small layout. How great is that?

As you can see, there's nothing complicated at all in implementing this technique. `@media screen` tells the browser this applies only for screens, because we don't

to resize anything for print. A `@media screen and (min-width:1200px)` specifies that the screen must have a 1200px minimum width. If these requirements are met, then the code within the parenthesis is taken into consideration by the browser, and redefines previous styles.

Now that we created a bigger version for bigger screens, what about a very small version for mobiles? Paste this code into `style.css` and you're done.

```css
@media screen and (max-width:767px){
        #container{
                width:320px;
        }

        header h1#logo a{
                width:320px;
                height:44px;
                background:url(image-small.jp
g) no-repeat 0 0;
        }

}
```
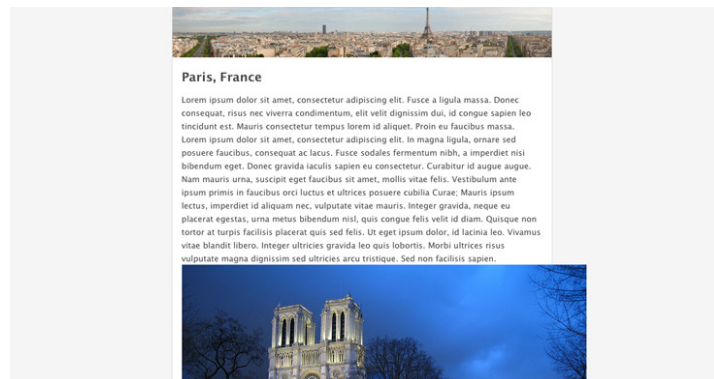
Dealing with images

Images always play an important part of a website. So, let's add an image to our website layout. Re-open `index.html` and insert the following code just before the first closing `</p>`

```html
<img src="notre-dame.jpg" alt="Photo by Wlapp
e">
```

If you have a look to `index.html` with a big screen, no problem. But if you resize the window horizontally…ouch.

solution to that problem is quite simple. As we resize
the website layout, we have to resize images as well. The
`max-width` CSS property is here to help.

Insert the following on your `style.css` file:

```css
img {
        max-width:570px;
        margin:10px 0;
}
```

A default image size is now defined. Now we can setup
sizes for big screens as well as mobile devices:

```css
@media screen and (min-width:1200px){
        img {
                max-width:1000px;
        }
}

@media screen and (max-width:767px){
        img {
        max-width:305px;
        }
}
```

Now, resize your browser: Images are resized with the
layout!

Limitations

Guess what? Internet Explorer (excepted the newly released
IE9) doesn't know anything about the CSS `@media`
property. Which means that even on a big screen, IE users
will see the default layout.

Hope you enjoyed this tutorial. Have a great day!

More posts about CSS

Top 10 CSS 3 forms tutorials (http://www.catswhocode.com/blog/top-10-css-3-
forms-tutorials)
How to create a kick-ass CSS3 progress bar
(http://www.catswhocode.com/blog/how-to-create-a-kick-ass-css3-progress-bar)
Top 10 CSS3 buttons tutorials (http://www.catswhocode.com/blog/top-10-css3-
buttons-tutorials)
8 examples of stunning CSS3 text effects (http://www.catswhocode.com/blog/8-
examples-of-stunning-css3-text-effects)
8 CSS preprocessors to speed up development time
(http://www.catswhocode.com/blog/8-css-preprocessors-to-speed-up-
development-time)
10 examples of futuristic CSS3 techniques

Share this article

59 tweets

retweet

4

Like

4

0

DZone

Comments (5) – Leave yours (#reply-title)

James (http://welcomebrand.co.uk) said:
**May 9, 2011 at 10:16 am
(http://www.catswhocode.com/blog/create-an-adaptable-website-layout-with-css3-media-queries#comment-354845)**
Good primer on responsive layouts, maybe consider using max-width:100% on images though, it should offer a little more flexibility 😃

http://unstoppablerobotninja.com/entry/fluid-images/

J.

Reply (/blog/create-an-adaptable-website-layout-with-css3-media-queries?replytocom=354845#respond)

JP (http://www.barreverte.fr) said: **May 9, 2011 at 11:54 am
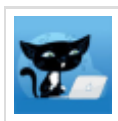(http://www.catswhocode.com/blog/create-**

Hi,

I wondered when I read that :
/* On a production site, use a real reset instead of this! */

how do you do a real reset ?

thanks

Reply (/blog/create-an-adaptable-website-layout-with-css3-media-queries?replytocom=354911#respond)

Jean-Baptiste Jung (http://www.wprecipes.com) said: **May 9, 2011 at 12:02 pm (http://www.catswhocode.com/b an-adaptable-website-layout-with-css3-media-queries#comment-354917)** The "*" reset is not really good, I inclued it only because the file was an example. A great reset is this one: http://html5doctor.com/html-5-reset-stylesheet/

Cheers!

Reply (/blog/create-an-adaptable-website-layout-with-css3-media-queries?replytocom=354917#respond)

JP (http://www.barreverte. said: **May 9, 2011 at 12:08 pm (http://www.catswhocc an-adaptable-website-layout-with-css3-media-queries#comment-354926)** Ah ok ! merci… (I found the original Eric Meyer css reset in my bookmarks, under 30cm of dust)

5/9/2011

Reply (/blog Create an adaptable website layout wit...
adaptable-website-layout-
with-css3-media-queries?
replytocom=354926#respond)

10/11

Jeff Friend
(http://www.forwardmediagroup.com) said:
May 9, 2011 at 11:57 am
(http://www.catswhocode.com/blog/create-
an-adaptable-website-layout-with-css3-
media-queries#comment-354914)
Excellent basic tutorial on adaptable website
layouts! Thanks.

Reply (/blog/create-an-adaptable-
website-layout-with-css3-media-queries?
replytocom=354914#respond)

Leave a Reply

Your email address will not be published. Required fields are
marked *

Name *

Email *

Website

Comment

Please respect the following rules: No advertising, no
spam, no keyword in name field. Thank you!

☐ **Notify me of followup comments via e-mail**