

Responsive Web Design

An app is not enough



Joakim Kemeny
@joakimkemeny



Carrier 9:23 PM 100%

www.callistaenterprise.se/ Callista Enterprise - Callista Enterprise

VILKA ÄR VI? VAD GÖR VI? CALLISTA BLOG ARBETA HOS OSS ENGLISH SUMMARY

VÄRDENS IT-ARKITEKTER

Välkommen till Callista Enterprise AB

Callista Enterprise är experter på IT-arkitektur och systemutveckling. Våra konsulter har specialiseringar inom SOA, Java EE, integration och Öppen källkod. Med kunskap och engagemang som bas hjälper vi våra kunder att utveckla sin IT-verksamhet med kraften från nya teknologier och metoder.

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NYHETER

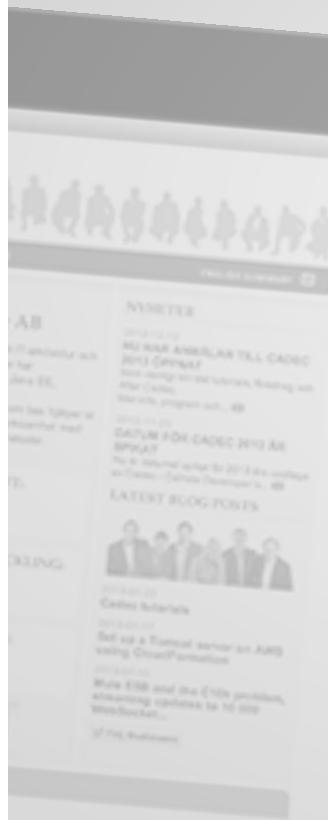
2012-12-12
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Som vanligt blir det tutorials, föredrag och After Cadec.
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VILKA AR VI? VAD GÖR VI? CALLISTA BLOG ARBETA HOS OSS ENGLISH SUMMARY

Välkommen till Callista Enterprise AB

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Med komplexa utvecklingsprojekt som bas hjälper vi våra kunder att utveckla sin IT-verksamhet med kraften från nya teknologier och metoder.

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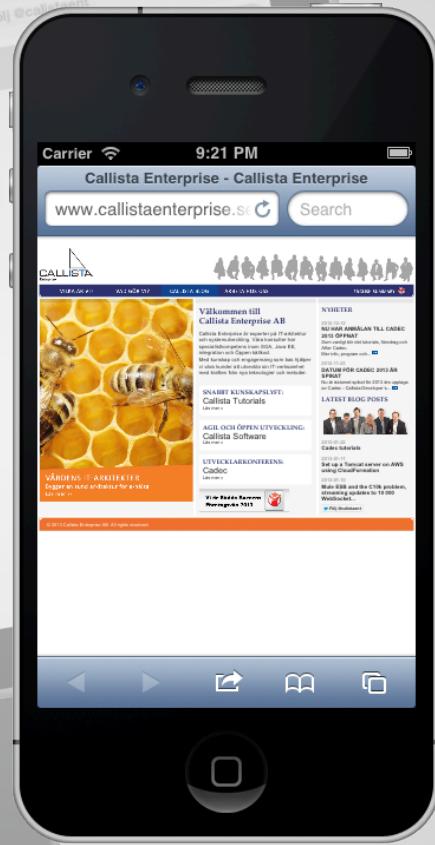
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VI ÅR RÄDDA Barnens Företagsvän 2013

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Företagsvän 2013

using Cloud...

2013-01-10
Mule ESB and the C10k problem,
streaming updates to 10 000
WebSocket...

Följ @collabcent



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using Cloud...
2013-01-10
Mule ESB and the C10k problem,
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...

...

Carrier 9:21 PM

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...

...

...

...

NYHETER

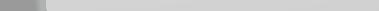
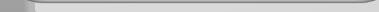
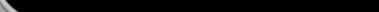
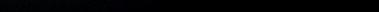
2012-12-12
**NIU HAR ANMÄLT
2013 ÖPPNAT**
Som vanligt blir det
After Cadec.
[Mer info, program](#)

2012-11-23
**DATUM FÖR C
SPIKAT**
Nu är datumen spikat
av Cadec - Callista

LATEST BLOGB GÄRDER

2013-01-22
Cadec tutorials
Set up a Tomcat
using CloudFor...

2013-01-17
**Mule ESB and
streaming upda
WebSocket...**
...





1

Ignore mobile

Visitors will use a computer anyway



Ignore mobile

Visitors will use a computer anyway



Create m.company.com

Mobile visitors are only interested in a subset of the information

-
- 1
 - 2
 - 3

Ignore mobile

Visitors will use a computer anyway

Create m.company.com

Mobile visitors are only interested in a subset of the information

Create an app

Redirect all mobile visitors to the app stores

Ignoring mobile is...

Ignoring mobile is...

Stupid!

Get the facts at www.lukew.com

-
- 1
 - 2
 - 3

Ignore mobile

Visitors will use a computer anyway

Create m.company.com

Mobile visitors are only interested in a subset of the information

Create an app

Redirect all mobile visitors to the app stores

Creating m.company.com is...



TELIA 3G 19:58 60%

P4 Skaraborg | Sveriges Radio

sverigesradio.se/skarabc

Google

Visa sidan anpassad för pekskärmssmobile

sverigesradio

P1 P2 P3 P4 Nyheter Sport Veterankop & miljö Kultur Språk Barne... Mer ▾ Alla kanaler, program och personer

P4 Skaraborg BYT PÅKÄLÄV **[Höj P4 Premium med Annika Jansson]** **2020 Ekomyntet**

Tabell

Startsida Program A-Ö Lokala nyheter Lokal sport Säsongsläge Lätlistor Sändningsarkiv Tabbl Om kanalen Kontakt Mer ▾

SKARABORGSPORTEN
Fotbollsextra med Skövde AIK och IK Gauthiod
På lördag finns vi på plats direkt från de högrytssatta matcherna i östra Skåne. Skövde AIK är till Värmland för en riktig fotbollsresa mot Karlstad BK. Du får hela matchen direkt här på webben.
[Höj 16:00: Lyssna direkt på Karlstad BK - Skövde]
Hemma på Lennévi för IK Gauthiod för bortskick av den gamla storklubben Örgryte IS. Du hör kontinuerliga rapporter i FM-radio från bortre länderna. Fotbollsgruppens sändning direkt i FM-radio med start klockan 16:00.

Karlstad BK - - Örgryte IS

Nyheter, sport och väder

SKÖVDE Budbilsrånare hävdar oskulds
Uppdaterat: kl 15:45
Budbilsräntet i Skövde i hönstas var ett insiderbrott och den budbilschaufför som misstänks ligga bakom brottet domdes idag, tillsammans med en annan man, till flera års fängelse.
• 39-åringens advokat: "Vi tänker överlägla"

VÄDER TRAFIK & SERVICE

TRAFIKLÄGET
14:45 E20 Valley - Lyrestad I riktning mot Mariedal. Trafikolycka. Räddningsfyrkant på väg.

VÄGARBETEN
14:45 Arlandavägen i Höjd med Jung. Omledning på provisorisk väg från vänster om en kilometer läng sträcka.

KOLLEKTIVTrafiken
• Skövde/Toråsen. Försörjningar kan försämras e.g. på enskilsplans drift.

Till Träskan Till Västret

EKONOMIETERN **RADIOPORTSEN**

18:23 Stockholmsförbundet avslade veckan på måndag kvällen med att de inte längre kommer att delta i projektet.

18:29 Nu är det tillstånd att servona sprit på återbördens.

18:30 Den svenska handelsministeriet vill markering

18:34 Janett I (liten inför valet i Greeland)

17:04 Skärpta regler för vapenexport dröjer

TELIA 3G 19:58

Sveriges Radio Mobil - Sidan finns ej

m.sverigesradio.se/sida/ Google

sverigesradio

Sidan kunde inte hittas

Sveriges Radio har en ny mobilsajt.
Det mesta innehållet har därför en ny
adress: <http://m.sverigesradio.se>

Om du har en äldre telefon kan du
använda <http://mini.sverigesradio.se>
för att hålla dig uppdaterad med de
senaste nyheterna.

More examples at wtfmobileweb.com

Creating m.company.com is...

Creating m.company.com is...

Not great!

-
- 1
 - 2
 - 3

Ignore mobile

Visitors will use a computer anyway

Create m.company.com

Mobile visitors are only interested in a subset of the information

Create an app

Redirect all mobile visitors to the app stores

Creating an app is...

Create an App or a Site?

- Will users use it every day?
- Should it talk to the users?
- Does it need device access?

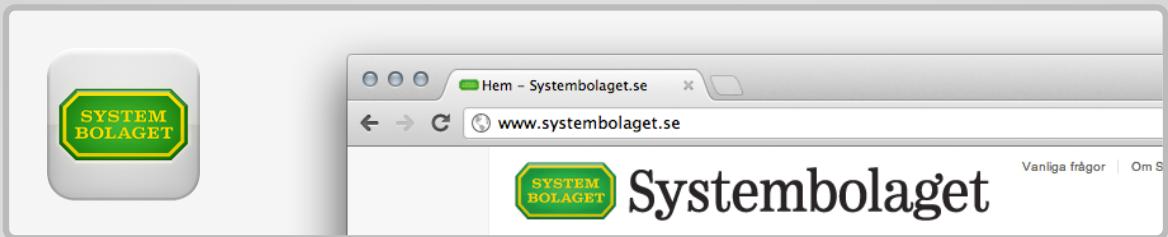
Create an App or a Site?

- Will users use it every day?
- Should it talk to the users?
- Does it need device access?

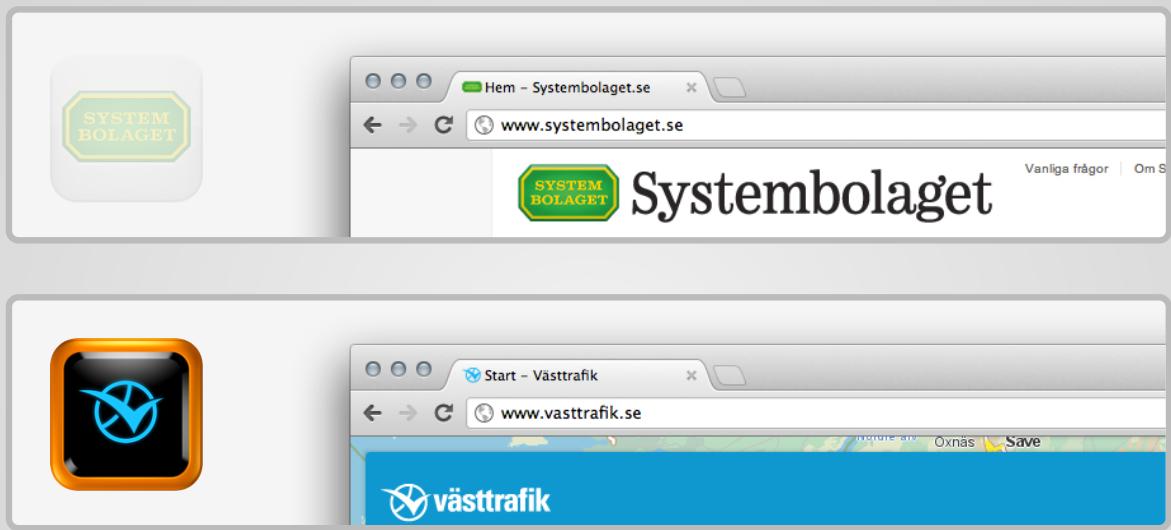
Create an App or a Site?

- Will users use it every day?
- Should it talk to the users?
- Does it need device access?

Create an App or a Site?



Create an App or a Site?



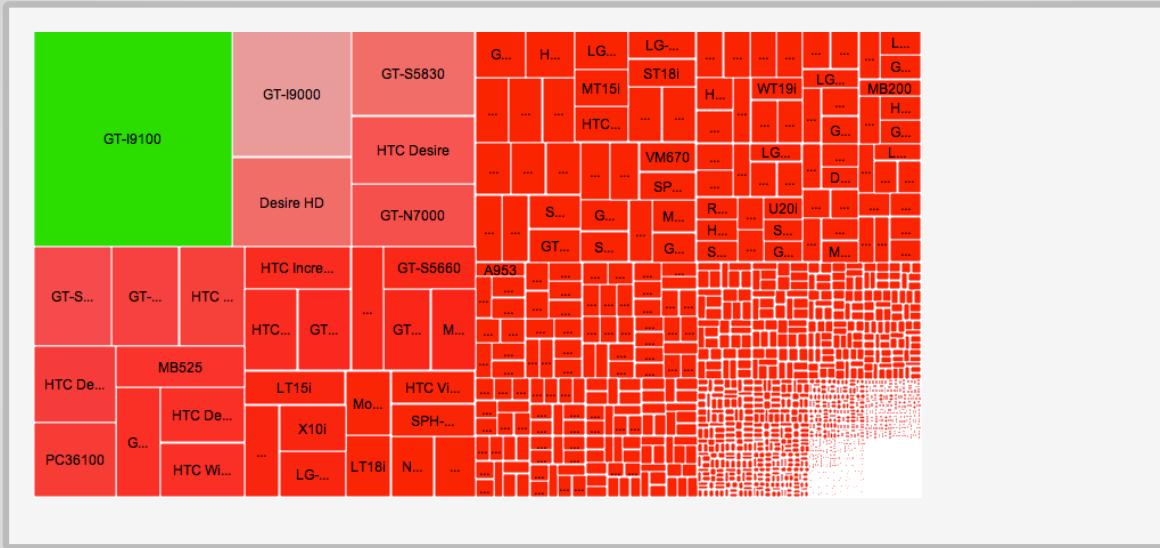
The image is a comparison between a mobile application icon and its corresponding website. On the left, there is a white rounded square containing a green octagonal logo with the text "SYSTEM BOLAGET". To the right is a screenshot of a web browser window titled "Hem - Systembolaget.se". The address bar shows "www.systembolaget.se". The main content area features the same green octagonal logo and the word "Systembolaget" in a large serif font. At the bottom of the page, there is a blue horizontal bar with the "västtrafik" logo and the word "västtrafik".

Create an App or a Site?



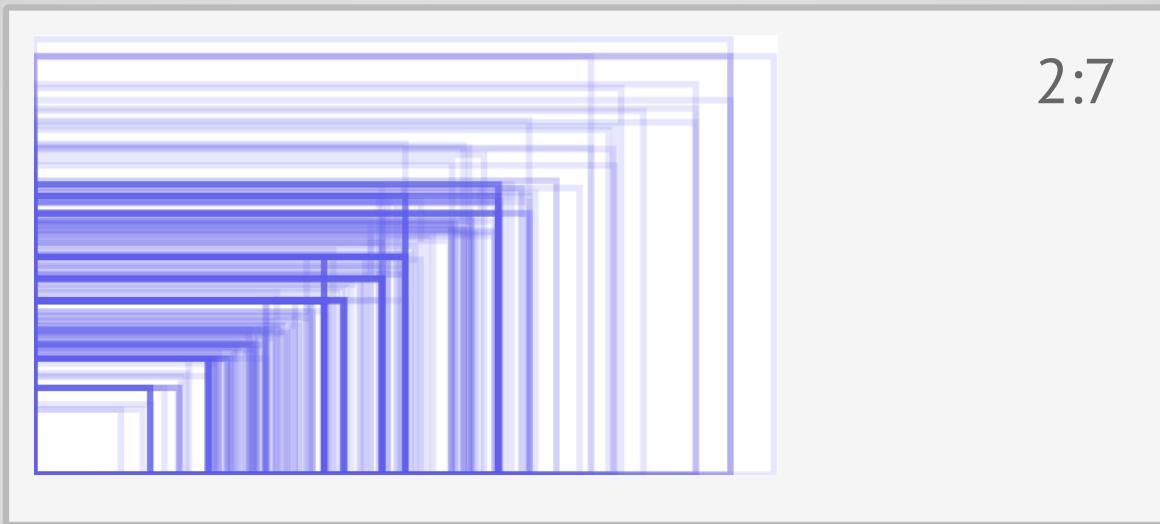
The image displays two side-by-side screenshots illustrating the choice between creating a mobile application versus a website. On the left, a white rounded square contains the official logo for 'SYSTEM BOLAGET', which features a green octagonal badge with the text 'SYSTEM BOLAGET' in white. On the right, a screenshot of a web browser window shows the 'Hem - Systembolaget.se' homepage. The browser interface includes standard controls (minimize, maximize, close) at the top, a URL bar with 'www.systembolaget.se', and a menu bar with 'Vanliga frågor' and 'Om S...'. The main content area features the same green 'SYSTEM BOLAGET' badge and the word 'Systembolaget' in a large serif font.

3997 different Android devices



Source opensignalmaps.com/reports/fragmentation.php

Android screen resolutions



Source opensignalmaps.com/reports/fragmentation.php

Pixel density

img.png

img@2x.png

Pixel density

img.png

img@2x.png

Pixel density

ldpi

mdpi

hdpi

xhdpi

img.png

img@2x.png

Pixel density

ldpi

mdpi

hdpi

xhdpi

tvdpi

Creating an app is...

Creating an app is...
Not enough!

Responsive Web Design

Old concept...

Responsive Web Design

Old concept...

Responsive Web Design

...reinvented by Ethan Marcotte

A List Apart, issue 306, 2010

Step 0.1 I know what I'm doing

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">

    <!-- Don't zoom out, use the actual width -->
    <meta name="viewport" content="width=device-width">

    ...

```



Step 0.2 Travel back in time

```
div {  
  width: 100%;  
}
```



Step 0.2 Travel back in time



```
div {  
    width: 100%;  
  
    border: 4px solid black;  
    padding: 15px;  
}
```



Step 0.2 Travel back in time

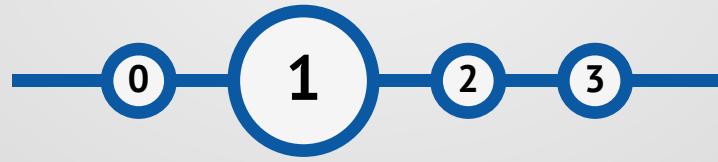


```
div {  
    width: 100%;  
  
    border: 4px solid black;  
    padding: 15px;  
}  
  
* {  
    -webkit-box-sizing: border-box;  
    -moz-box-sizing: border-box;  
    box-sizing: border-box;  
}
```

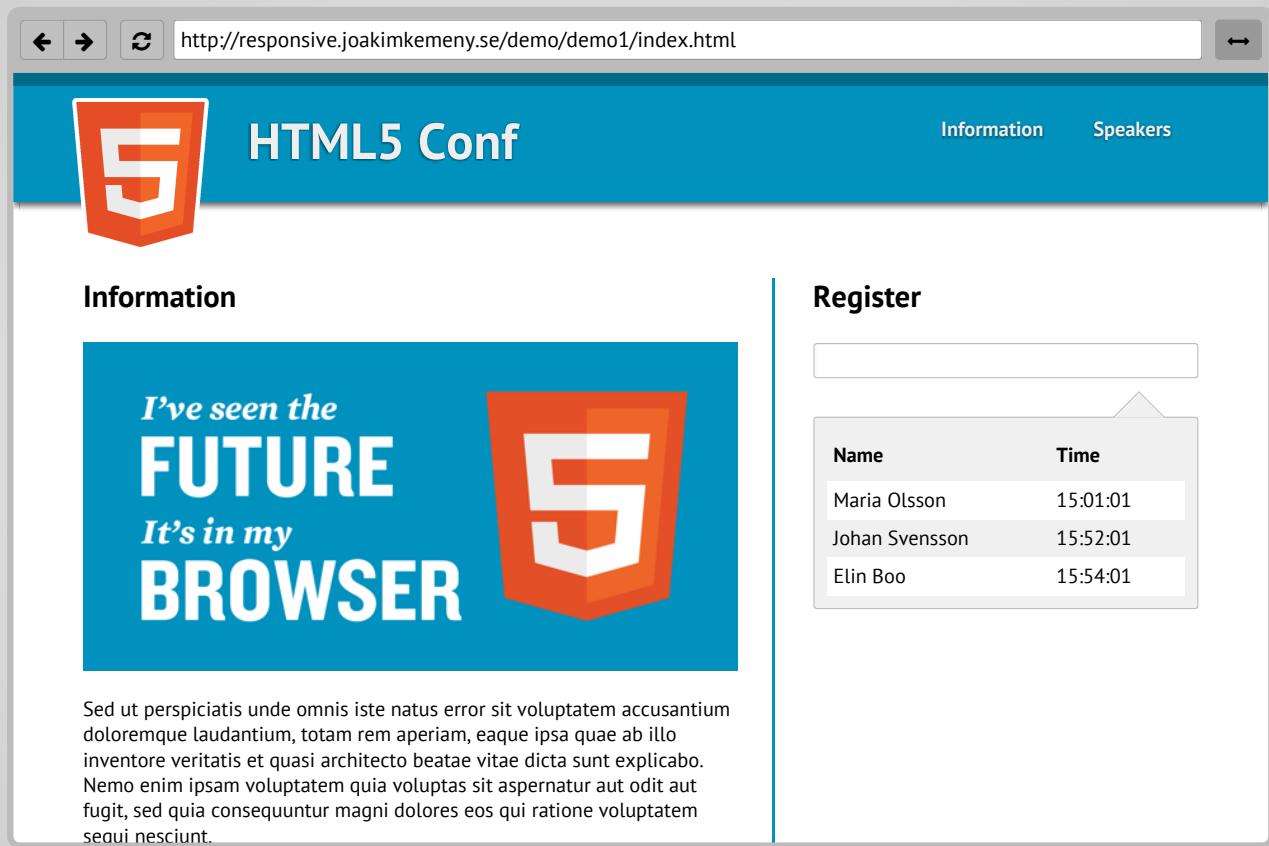
See paulirish.com/2012/box-sizing-border-box-ftw



Flexible Grid



<http://responsive.joakimkemeny.se/demo/demo1/index.html>



The screenshot shows a responsive web page for "HTML5 Conf". The header features a large orange "5" icon and the text "HTML5 Conf". Navigation links for "Information" and "Speakers" are visible. The main content area contains a large blue banner with the text "I've seen the FUTURE It's in my BROWSER" and another orange "5" icon. A sidebar on the right is titled "Register" and lists three entries in a table:

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

Information

I've seen the
FUTURE
It's in my
BROWSER

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequui nesciunt.

Register

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

[http://responsive...](http://responsive.com)

HTML5 Cor...

Information

I've seen the
FUTURE
It's in my
BROWSER

Sed ut perspiciatis unde omnis iste natus error
doloremque laudantium, totam rem aperiam, e
inventore veritatis et quasi architecto beatae vi
Nemo enim ipsam voluptatem quia voluptas sit
fugit, sed quia consequuntur magni dolores eos
seculi nesciunt.

Creating a flexible grid

```
.wrapper {  
  
    width: 880px;  
}  
  
.content {  
    width: 546px;  
}  
  
aside {  
    width: 334px;  
}
```



Creating a flexible grid

```
.wrapper {  
    max-width: 880px;  
    width: 95%; /* 880px */  
}  
  
.content {  
    width: 62.0454545%; /* 546px / 880px */  
}  
  
aside {  
    width: 37.9545455%; /* 334px / 880px */  
}
```



Step 0.3 Use a CSS preprocessor

Variables

Functions

Operations

Nesting

Mixins

```
$blue: #3bbfce;  
$border: 1px solid $blue;  
$margin: 20px;  
  
nav {  
  color: darken($blue,  
10%);  
  
  margin: $margin / 2;  
}
```

```
ul {  
  li {  
    border-left: $border;  
    &:first-child {  
      border-left: 0;  
    }  
  }  
}
```



Sass

sass-lang.com

LESS

lesscss.org

Step 0.3 Use a CSS preprocessor

Variables

Functions

Operations

Nesting

Mixins

```
$blue: #3bbfce;  
$border: 1px solid $blue;  
$margin: 20px;  
  
nav {
```

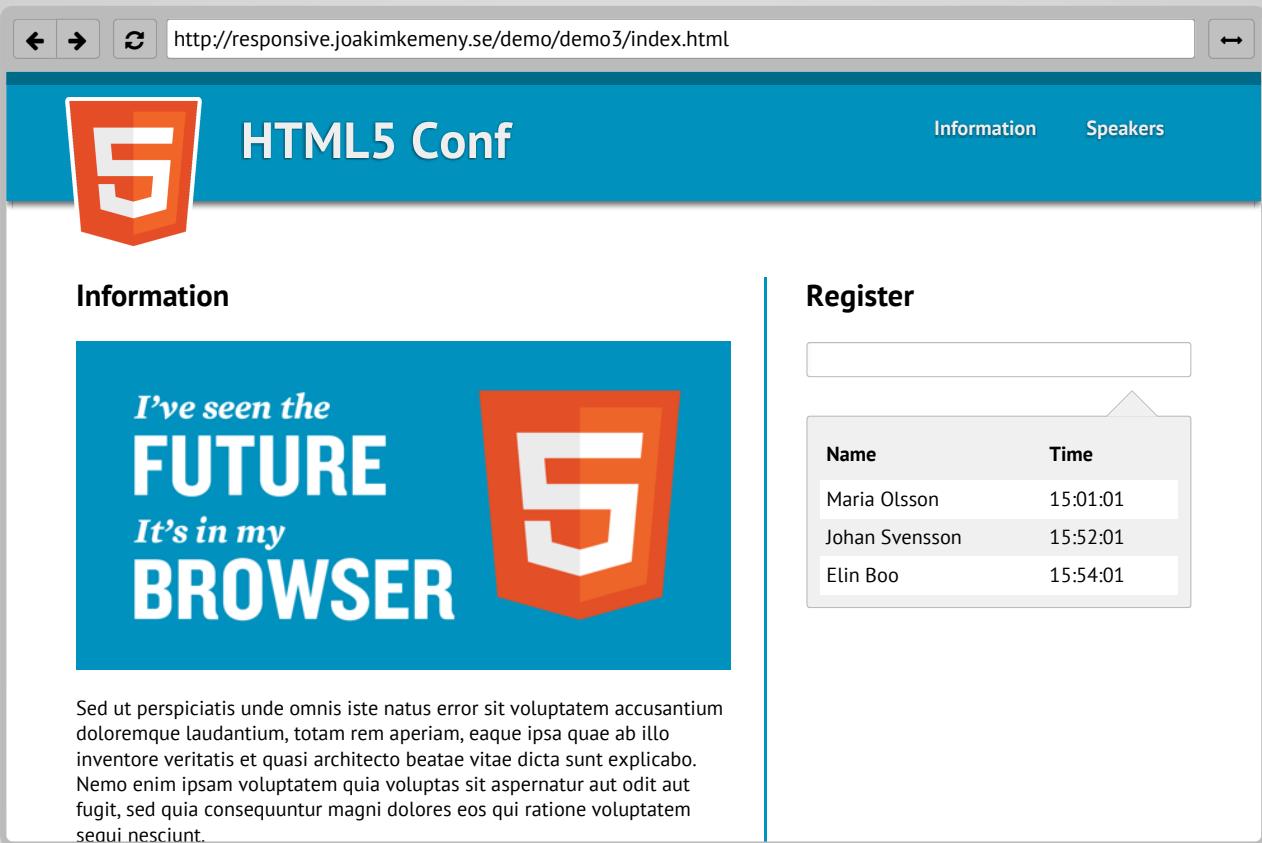
```
ul {  
    li {  
        border-left: $border;  
        &:first-child {  
            border-left: 0;
```

Creating a flexible grid

```
.wrapper {  
    max-width: 880px;  
    width: 95%; /* 880px */  
  
.content {  
    width: percentage(546px / 880px);  
}  
  
aside {  
    width: percentage(334px / 880px);  
}  
}
```



<http://responsive.joakimkemeny.se/demo/demo3/index.html>



The screenshot shows a responsive web page for "HTML5 Conf". At the top, there's a header with a blue bar containing a large orange "5" icon and the text "HTML5 Conf". To the right of the icon are links for "Information" and "Speakers". Below the header, on the left, is a section titled "Information" featuring a blue banner with white text: "I've seen the FUTURE It's in my BROWSER" and a large orange "5" icon. On the right, there's a "Register" section with a table showing three entries: Maria Olsson at 15:01:01, Johan Svensson at 15:52:01, and Elin Boo at 15:54:01. The main content area contains a paragraph of Latin text.

HTML5 Conf

Information

I've seen the
FUTURE
It's in my
BROWSER

Register

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

← → ⌂ http://responsiv...

The screenshot shows a mobile browser interface with a header bar at the top containing navigation icons and a URL. Below the header is a large blue header section for "HTML5 Conf". The header includes a stylized orange "5" logo, the text "HTML5 Conf", and two menu links: "Information" and "Speakers". The main content area is titled "Information" and features a large blue banner with white text that reads "I've seen the FUTURE It's in my BROWSER". To the right of the banner is a vertical sidebar with a title "Name" and a list of names: Maria Olsson, Johan Svensson, and Elin Boo. At the bottom of the content area is a footer with the Latin phrase "Sed ut perspiciatis unde omnis iste natus".

Information Register

I've seen the
FUTURE
It's in my
BROWSER

Name

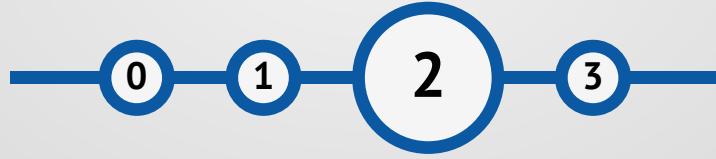
Maria
Olsson

Johan
Svensson

Elin Boo

Sed ut perspiciatis
unde omnis iste natus

Flexible images



Creating flexible images

```
img, embed, object, video {  
    max-width: 100%;  
}  
  
.ie6 {  
    img, object {  
        width: 100%;  
    }  
}
```

Great tool modernizr.com



http://responsive.joakimkemeny.se/demo/demo4/index.html



HTML5 Conf

Information Speakers

Information

I've seen the
FUTURE
It's in my
BROWSER

Register

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

← → ⌂ http://responsive... ↵



HTML5 Conf

Information Speakers

Information

*I've seen the
FUTURE
It's in my
BROWSER*

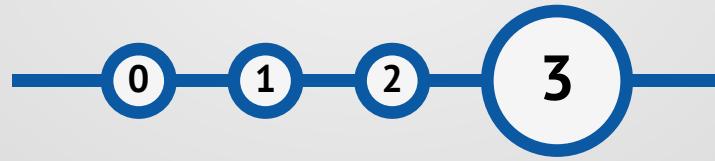


Sed ut perspiciatis
unde omnis iste natus
error sit voluptatem
accusantium
doloremque
laudantium, totam
rem aperiam, eaque
ipsa quae ab illo
inventore veritatis et
quasi architecto
beatae vitae dicta sunt

Register

Name
Maria Olsson
Johan Svensson
Elin Boo

Media Queries



Using Media Queries

```
@media screen and (max-width: 480px) {  
    body {  
        background-color: red;  
    }  
}  
  
@media screen and (orientation: landscape) ...  
@media screen and (-webkit-min-device-pixel-ratio: 2) ...
```



Where are the breakpoints?

320px	Phones in portrait mode
480px	Phones in landscape mode
600px	Smaller tablets in portrait mode
768px	Larger tablets in portrait mode
1024px	Larger tablets in landscape mode & smaller laptops
1200px	Widescreen displays



Where are the breakpoints?

200 – 4096



Using Media Queries

```
#content {  
    .content {  
        float: left;  
        padding-right: 30px;  
        width: percentage(546px / 880px);  
    }  
    aside {  
        float: right;  
        padding-left: 30px;  
        width: percentage(334px / 880px);  
    }  
  
    @media screen and (max-width: 599px) {  
        .content {  
            float: none;  
            padding: 0 0 20px 0;  
            width: 100%;  
        }  
        aside {  
            float: none;  
        }  
    }  
}
```

```
width: percentage(334px / 880px);  
}  
  
@media screen and (max-width: 599px) {  
    .content {  
        float: none;  
        padding: 0 0 20px 0;  
        width: 100%;  
    }  
    aside {  
        float: none;  
        padding: 20px 0 0 0;  
        width: 100%;  
    }  
}
```



http://responsive.joakimkemeny.se/demo/demo5/index.html



HTML5 Conf

Information Speakers

Information

I've seen the
FUTURE
It's in my
BROWSER

Register

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

← → ⌂ http://responsiv...



The screenshot shows a mobile browser displaying the "HTML5 Conf" website. The header features a large orange "5" icon and the text "HTML5 Conf". Below the header are two buttons: "Information" and "Speakers". The main content area is titled "Information" and contains a quote: "I've seen the FUTURE It's in my BROWSER" followed by another orange "5" icon. A large amount of placeholder Latin text (Lorem ipsum) is at the bottom.

Information

I've seen the
FUTURE
It's in my
BROWSER

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi.

Using Media Queries

```
#header {  
    h1 {  
        float: left;  
        margin-left: 130px;  
  
        @media screen and (max-width: 767px) {  
            margin-left: 160px;  
        }  
  
        @media screen and (max-width: 479px) {  
            float: none;  
            margin-left: 0;  
        }  
    }  
  
    nav {  
        float: right;  
  
        @media screen and (max-width: 767px) {  
            clear: left;  
        }  
    }  
}
```

```
margin-left: 0;  
}  
}  
  
nav {  
    float: right;  
  
    @media screen and (max-width: 767px) {  
        clear: left;  
        float: left;  
        margin-left: 160px;  
        a {  
            background: rgba(255, 255, 255, 0.40);  
        }  
    }  
  
    @media screen and (max-width: 479px) {  
        float: none;  
        margin-left: 0;  
    }  
}
```

http://responsive.joakimkemeny.se/demo/demo6/index.html



HTML5 Conf

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Register

Name	Time
Maria Olsson	15:01:01
Johan Svensson	15:52:01
Elin Boo	15:54:01

<http://responsive.com/html5-conf>

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http://responsive.joakimkemeny.se/demo/demo7/index.html



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dolores eos qui ratione voluptatem sequi
nesciunt.

Challenges

Images

Challenges

Great guide css-tricks.com/which-responsive-images-solution-should-you-use

Images

Ads

Challenges

Performance

Get the data lukew.com/ff/entry.asp?1681

Conclusions

THE way to create sites 2013...

Conclusions

THE way to create sites 2013...

Conclusions

...but it doesn't always replace apps

We are back in 1997

Conclusions

We are back in 1997

Conclusions

Framework

Twitter

You should checkout twitter.github.com/bootstrap and follow @brad_frost

Responsive Web Design

Thank you for coming!



Joakim Kemeny
@joakimkemeny
github.com/joakimkemeny

