

What Beginners Need to Know Before Using Bootstrap 4



Presented by:
Jacob Lett



Agenda

Introduction

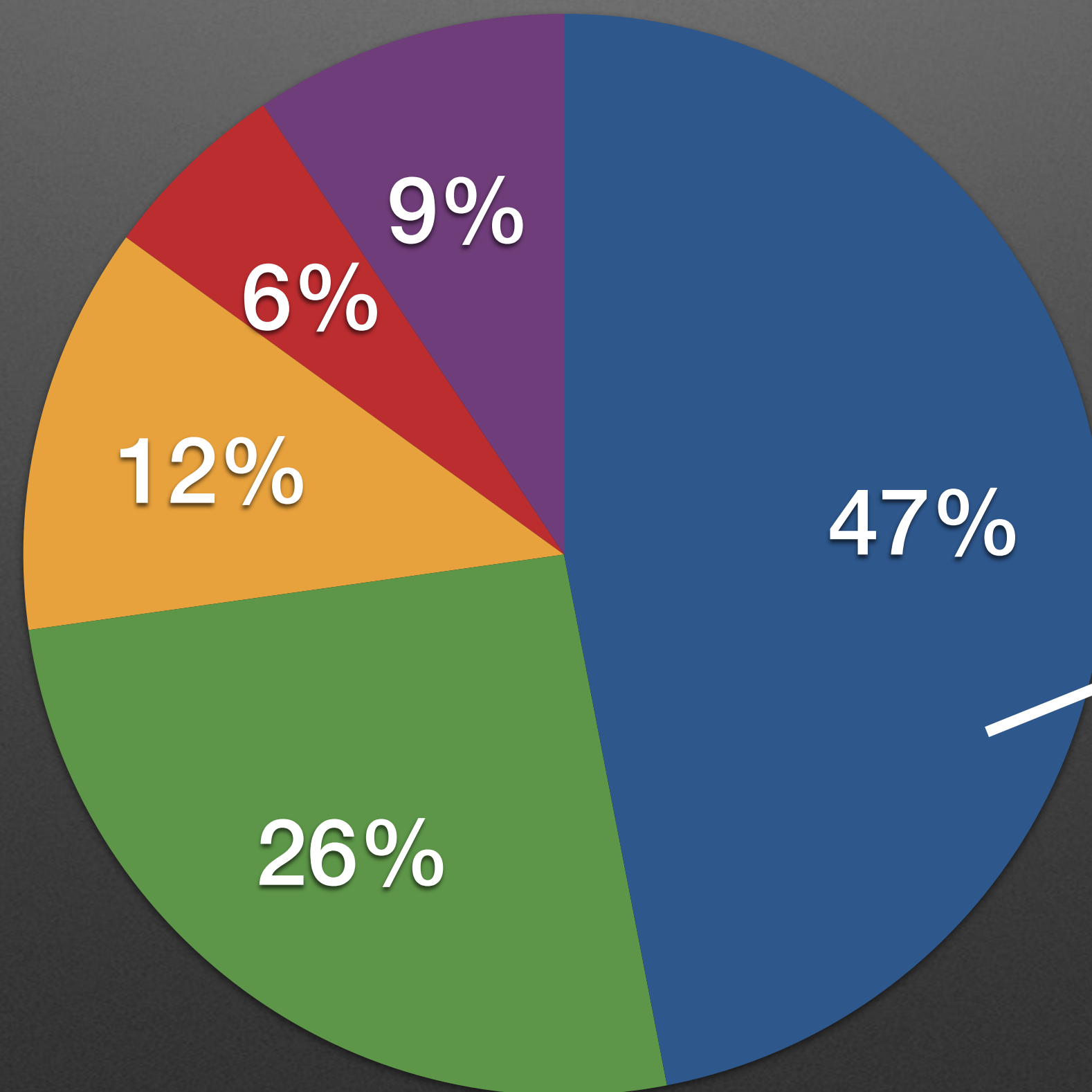
1. What is Responsive Web Design?

2. What's New in Bootstrap 4

3. The Mobile First Workflow

Questions

- A ● Never Built a Site Before and New to Bootstrap
- B ● Experienced Developer and New to Bootstrap
- C ● Used Bootstrap 2 or 3 Before
- D ● Already Know Bootstrap 4
- E ● Other



**How You
Compare to
BootstrapCreative
Survey Results**

Responsive design
adds a new layer
of complexity for
beginners

Giveaway

Bootstrap 4 Quick Start - Design Package

Stay to the end of this
workshop to find out if
you're the winner.



Free Gift for
Attending
Workshop

Introduction

Jacob Lett: Web designer/developer

- Marketing web developer at Altair, an engineering software company. I work on **BootstrapCreative** as a side project.
- Started career as a print designer and transitioned to web design/development
- Married with two energetic boys, ages 4 & 2

How I became a web developer

Never built a site before



1st dev job

After college I was a print graphic designer

Learned HTML & CSS after work and began freelancing to build a digital portfolio

Got my first development job as a front-end developer

Now I continue learning/teaching

Why I Created BootstrapCreative

Never built a
site before



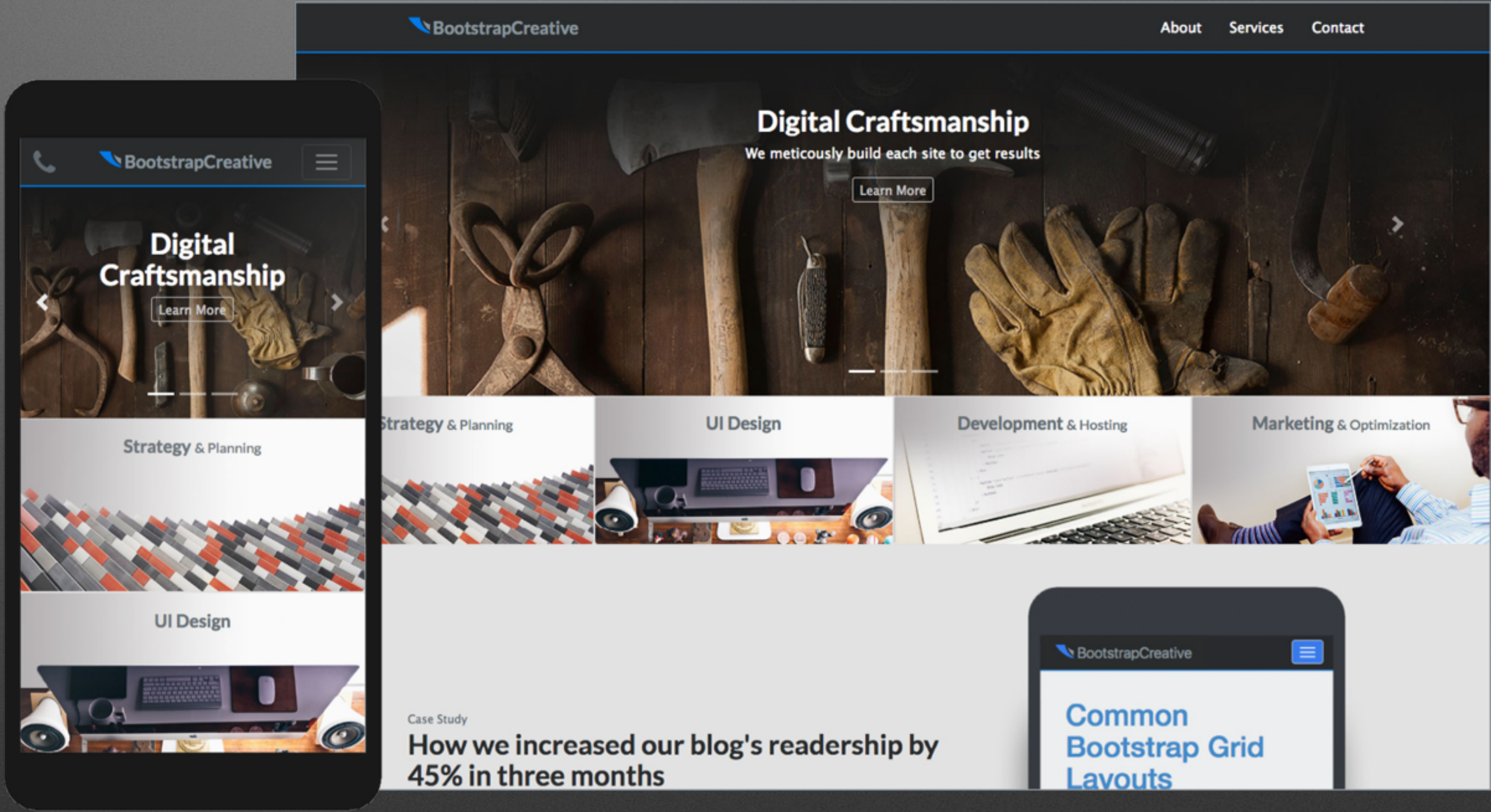
1st dev
job

- **To help you eliminate knowledge gaps** to build your new knowledge on a firm foundation
- **Decrease your levels of stress and self-doubt** while under intense learning stages

My FIRST website



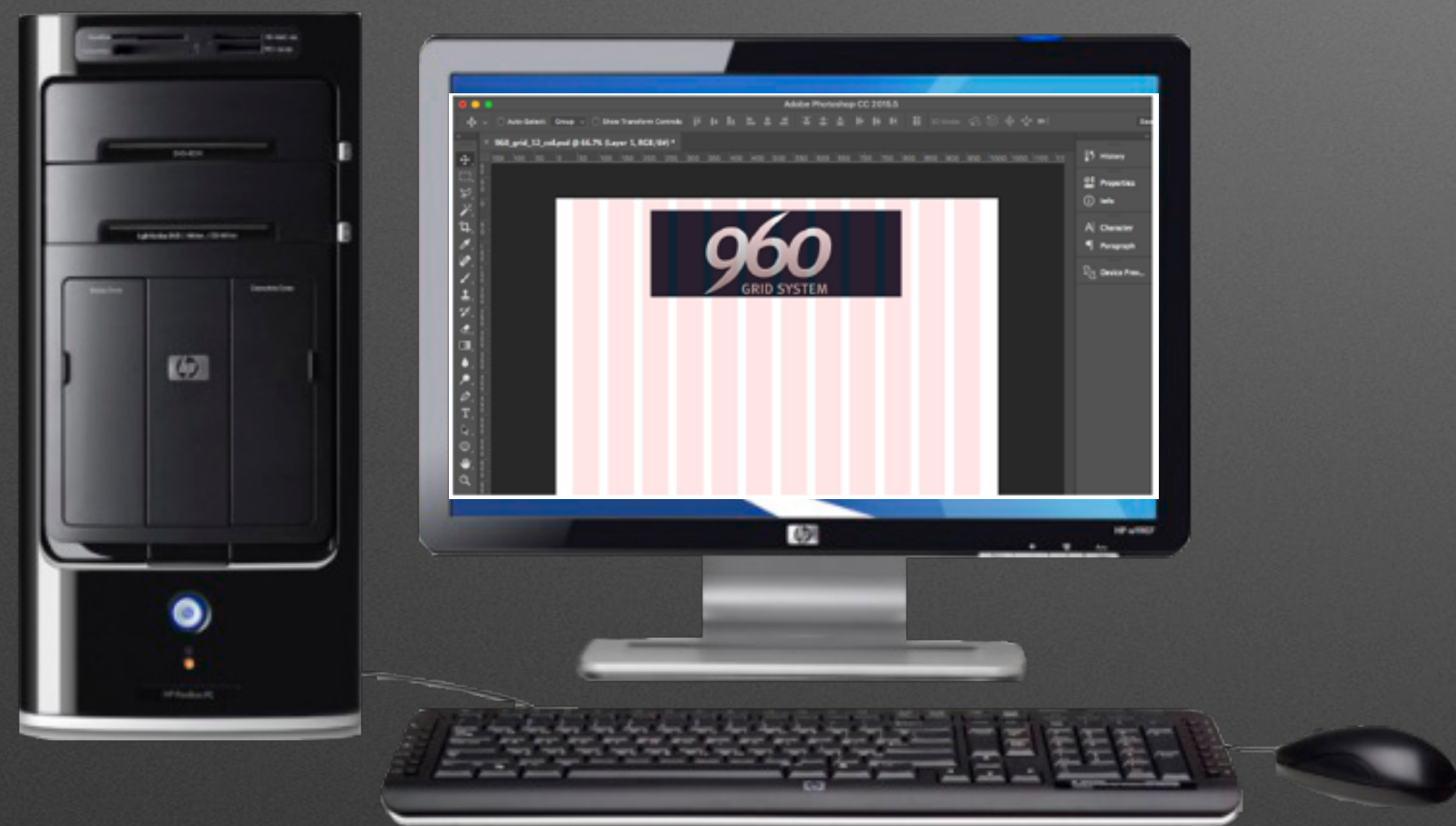
Today



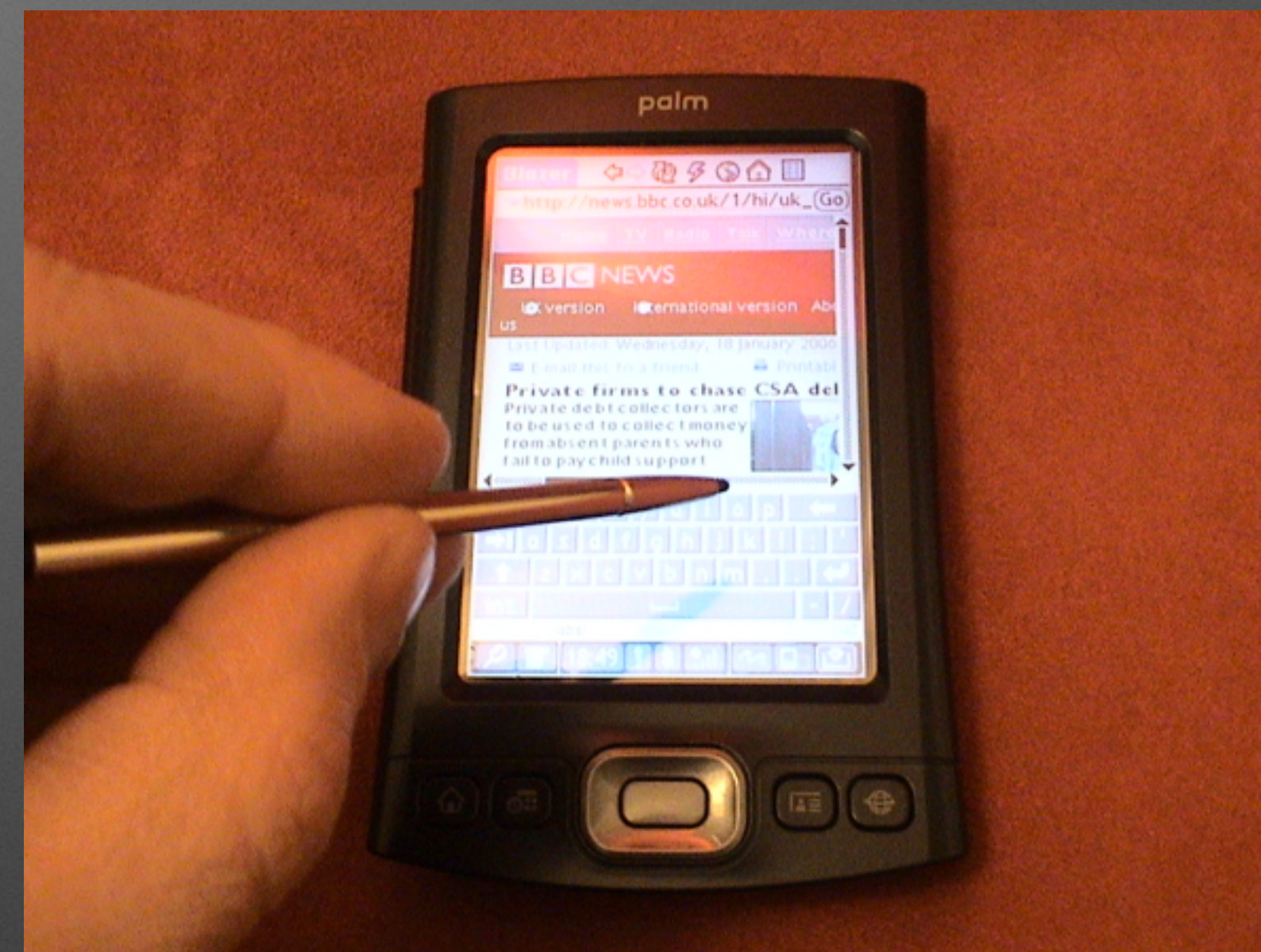
1.

What is Responsive Web Design?

Before the iPhone



960 Grid - 1024px x 768px



m.domain.com

After iPhone

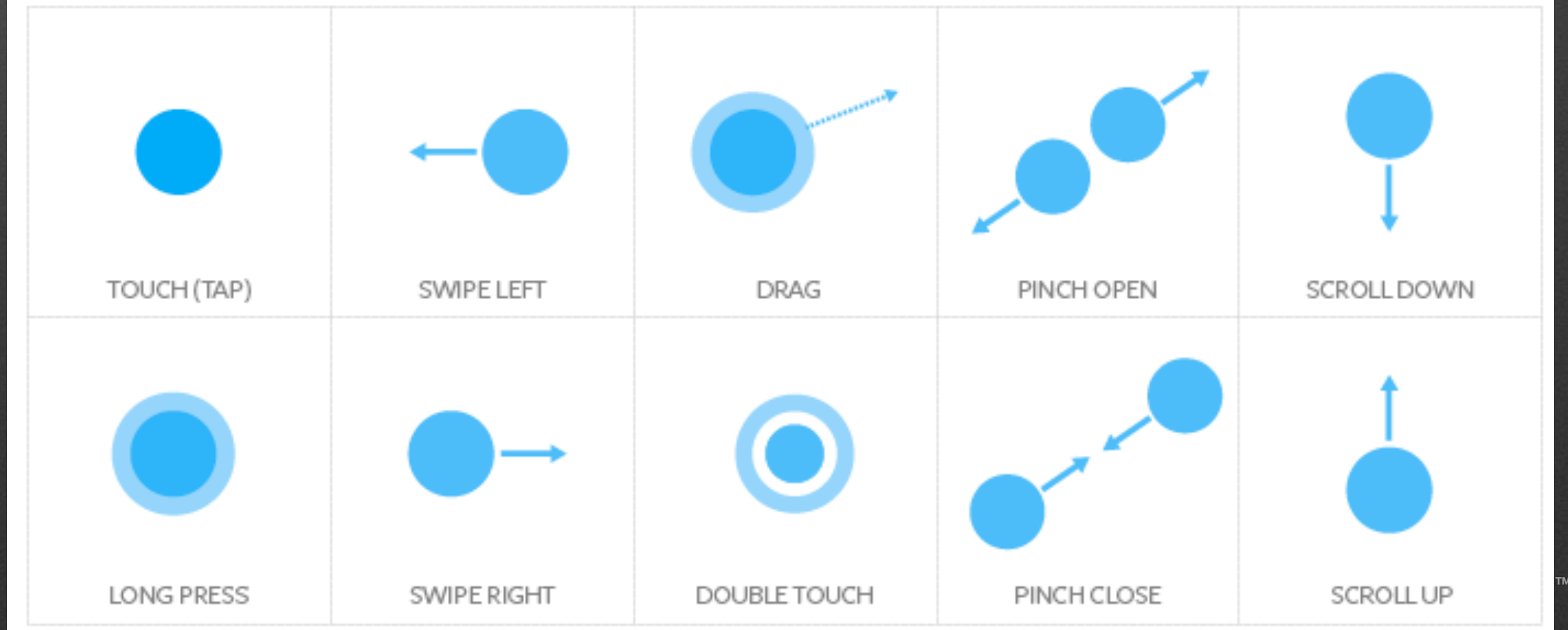
June 2007

Introduced:

- Mobile browser (WebKit) with a full web experience
- Touch gestures

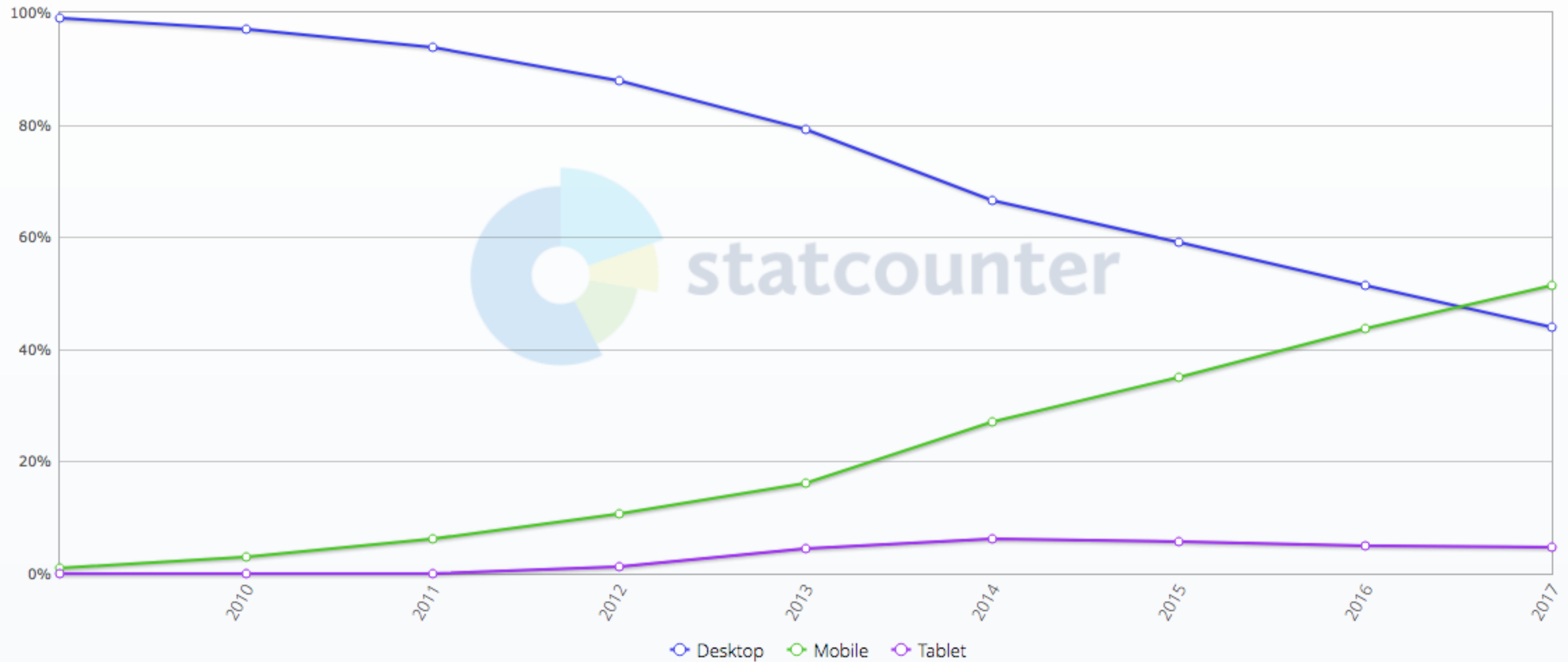


Gestures



Desktop vs Mobile vs Tablet Market Share Worldwide

2009 - 2017



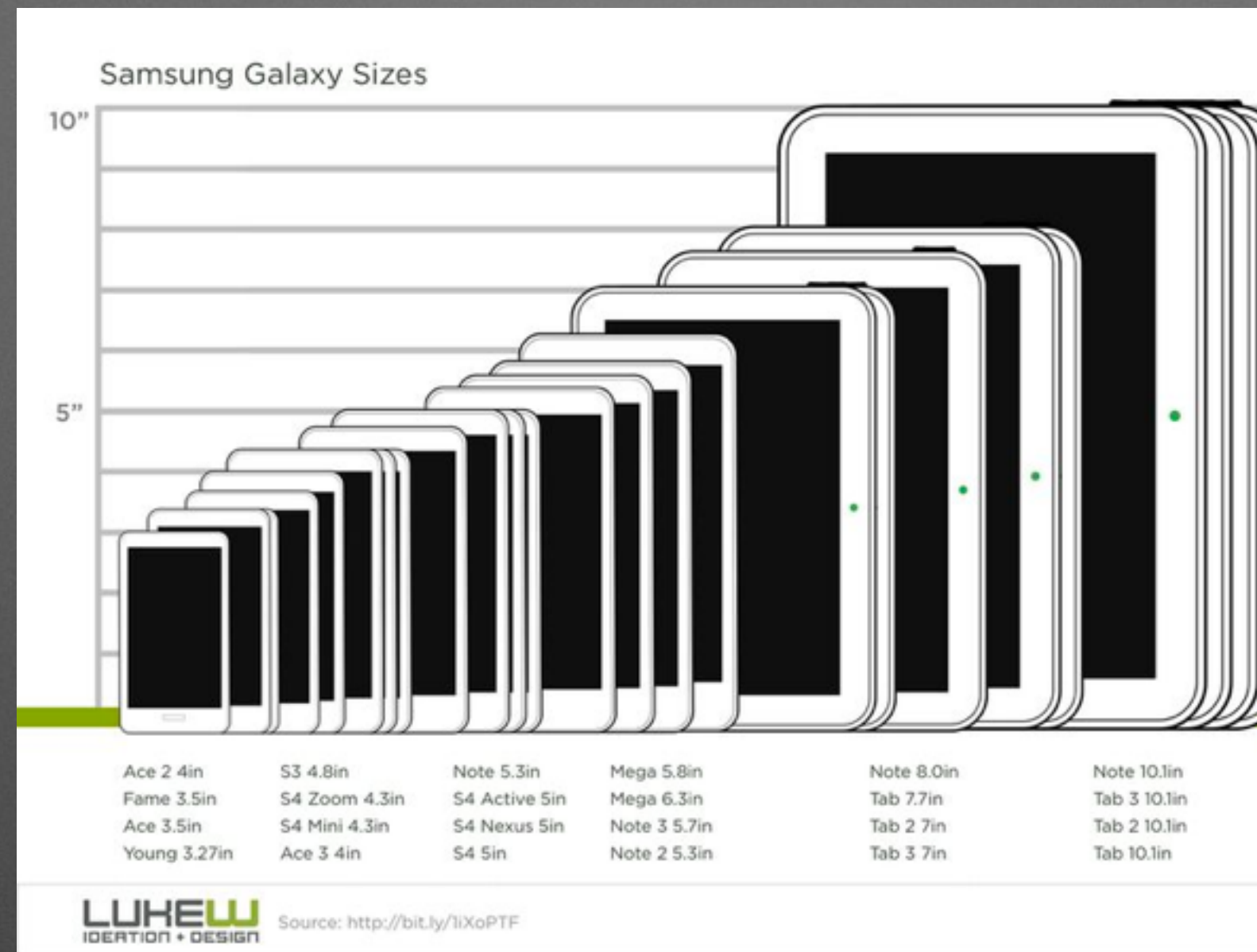
Devices

Device Versions

Browsers



X



X



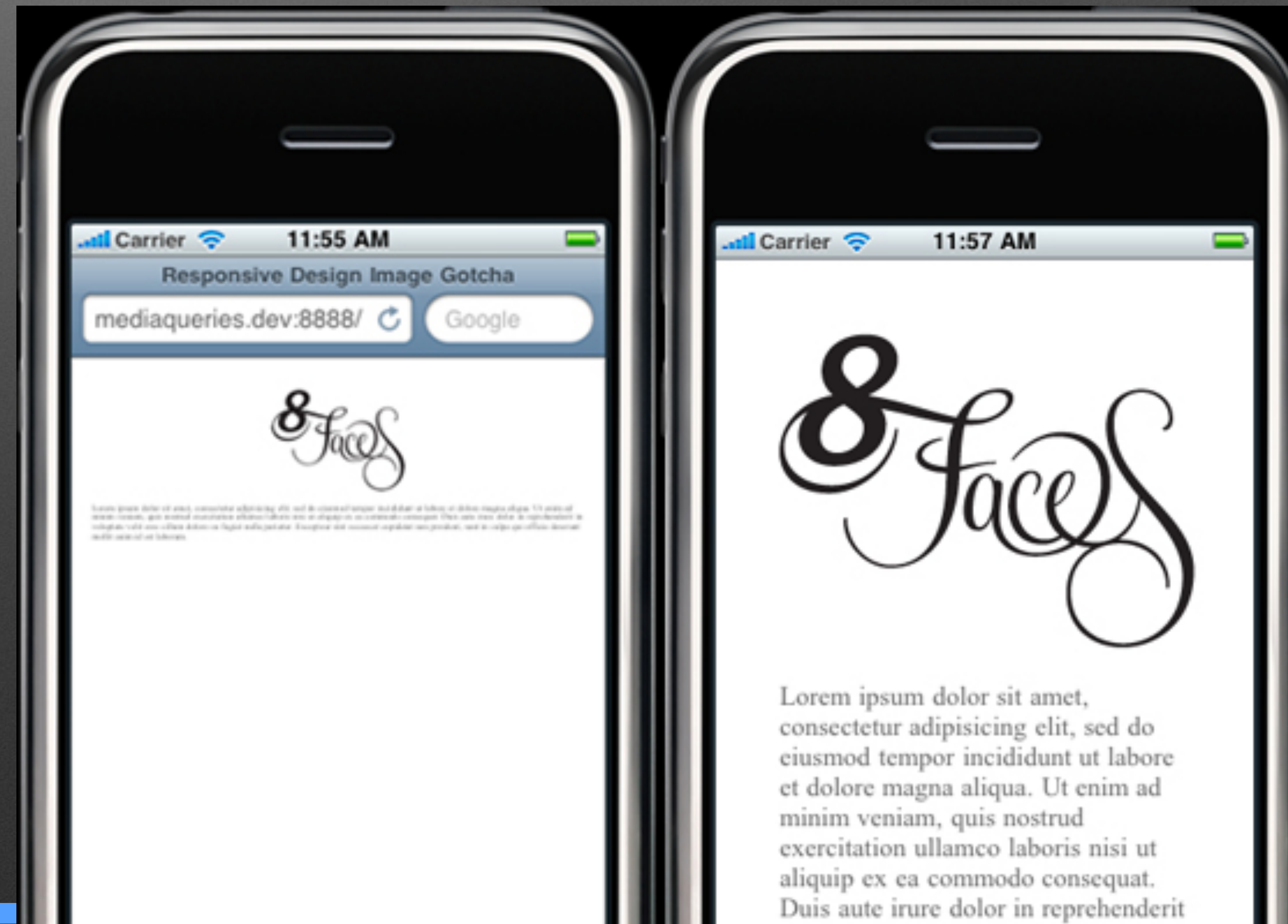
CSS3 support
is different
for each
browser/
version



New Problem: Most sites now require zooming in to read

Websites without a dedicated mobile site are squeezed into the small iPhone screen.

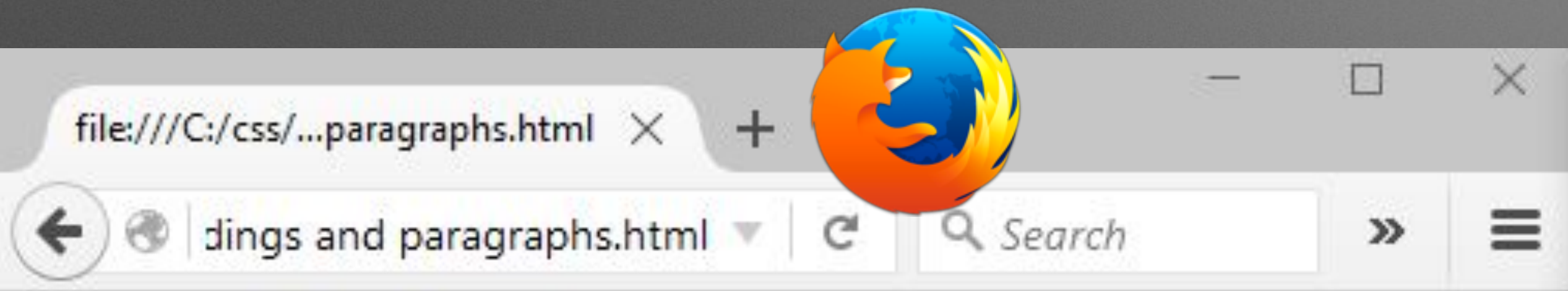
You have to pinch and zoom to read the text.



Solution: Responsive Web Design

1. `<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">`
2. `@media screen and (min-width:500px) { ... }`
3. Fluid widths instead of fixed widths (% , rems, ems, auto instead of px, pt)
4. CSS reset

Why CSS Reset?



Heading 1

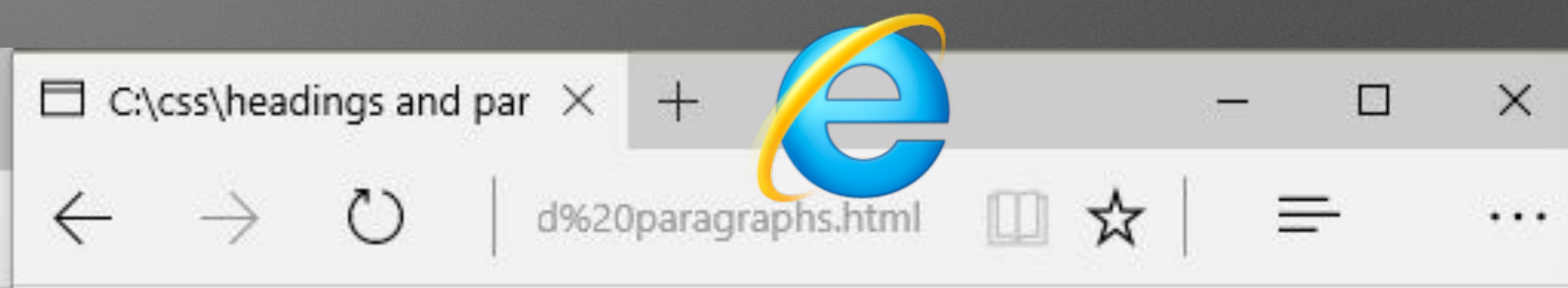
A short paragraph of text. Just four sentences. Most of the sentences are quite short. Especially this one.

Heading 2

- Just a short list
- Three items on this list
- We'll make it an unordered list

Heading 3

One final short paragraph of text. Just four sentences. Most of the sentences are quite short. Especially this one.



Heading 1

A short paragraph of text. Just four sentences. Most of the sentences are quite short. Especially this one.

Heading 2

- Just a short list
- Three items on this list
- We'll make it an unordered list

Heading 3

One final short paragraph of text. Just four sentences. Most of the sentences are quite short. Especially this one.

**“Why do websites sometimes
look different across
browsers/devices?”**

CSS Flexible Box Layout Module - CR

Method of positioning elements in horizontal or vertical stacks.
Support includes all properties prefixed with `flex`, as well as `display: flex`, `display: inline-flex`, `align-content`, `align-items`, `align-self`, `justify-content` and `order`.

Global


85.02% + 12.7% = 97.72%

unprefixed:

84.62% + 3.34% = 87.97%

I need to support IE10+	Use Bootstrap 4
I need to support IE9+	Use Bootstrap 3
I need to support IE8+	

Current aligned	Usage relative	Date relative	Show all							
IE	Edge*	Firefox	Chrome	Safari	iOS Safari*	Opera Mini*	Chrome for Android	UC Browser for Android	Samsung Internet	
			49							
			55							
			56							
			57							
			58							
		48	59	1 5.1 <small>webkit</small>	1 4.3 <small>webkit</small>					
8		52	60	9.1	8.4					
9	14	55	61	10	9.3				4	
2 4 10 <small>ms</small>	15	56	62	10.1	10.3				5	
4 11	16	57	63	11	11.2	all	62	1 11.4 <small>webkit</small>	6.2	
	17	58	64	TP						
		59	65							
		60	66							



Browsers use vendor prefixes to add support for new CSS features

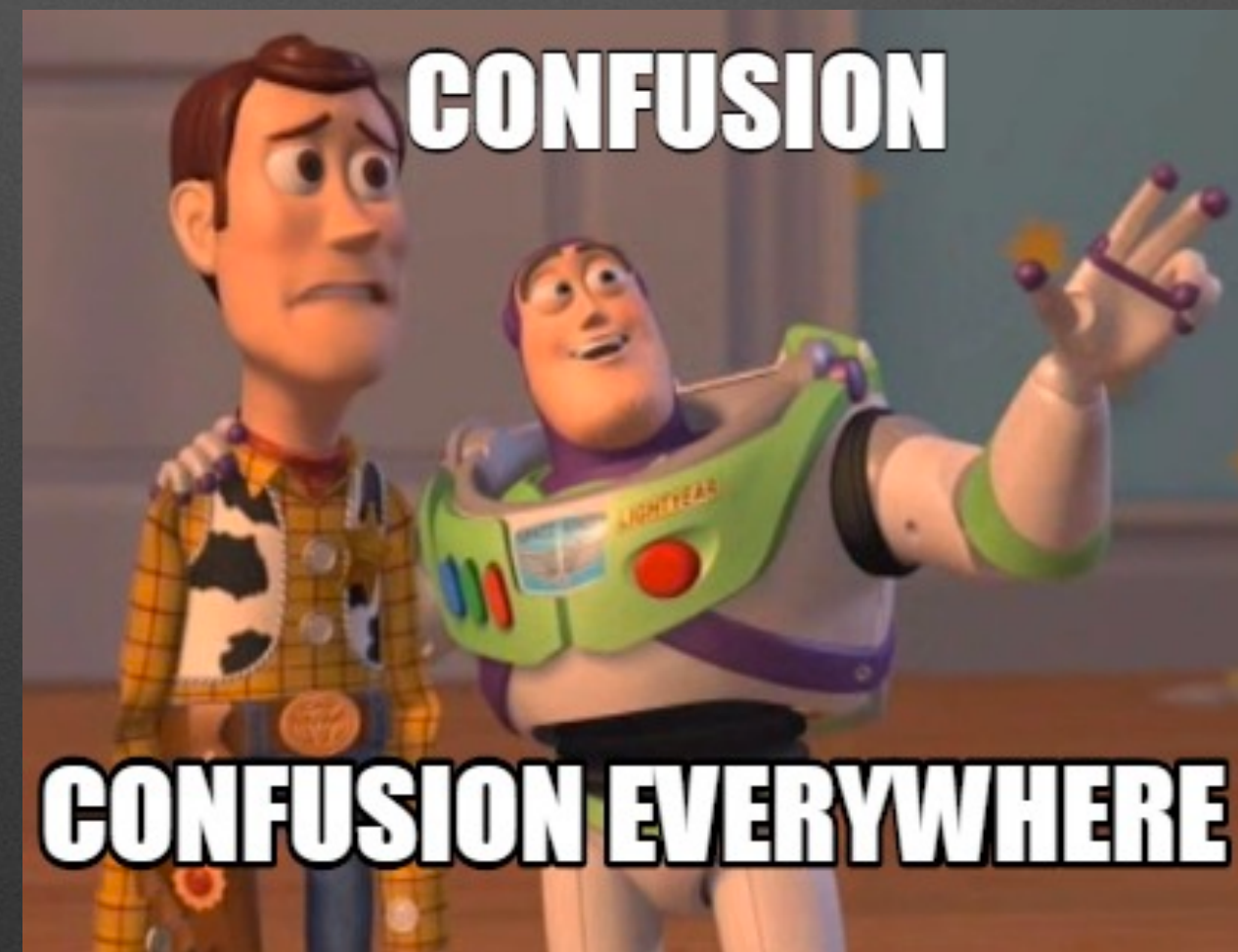
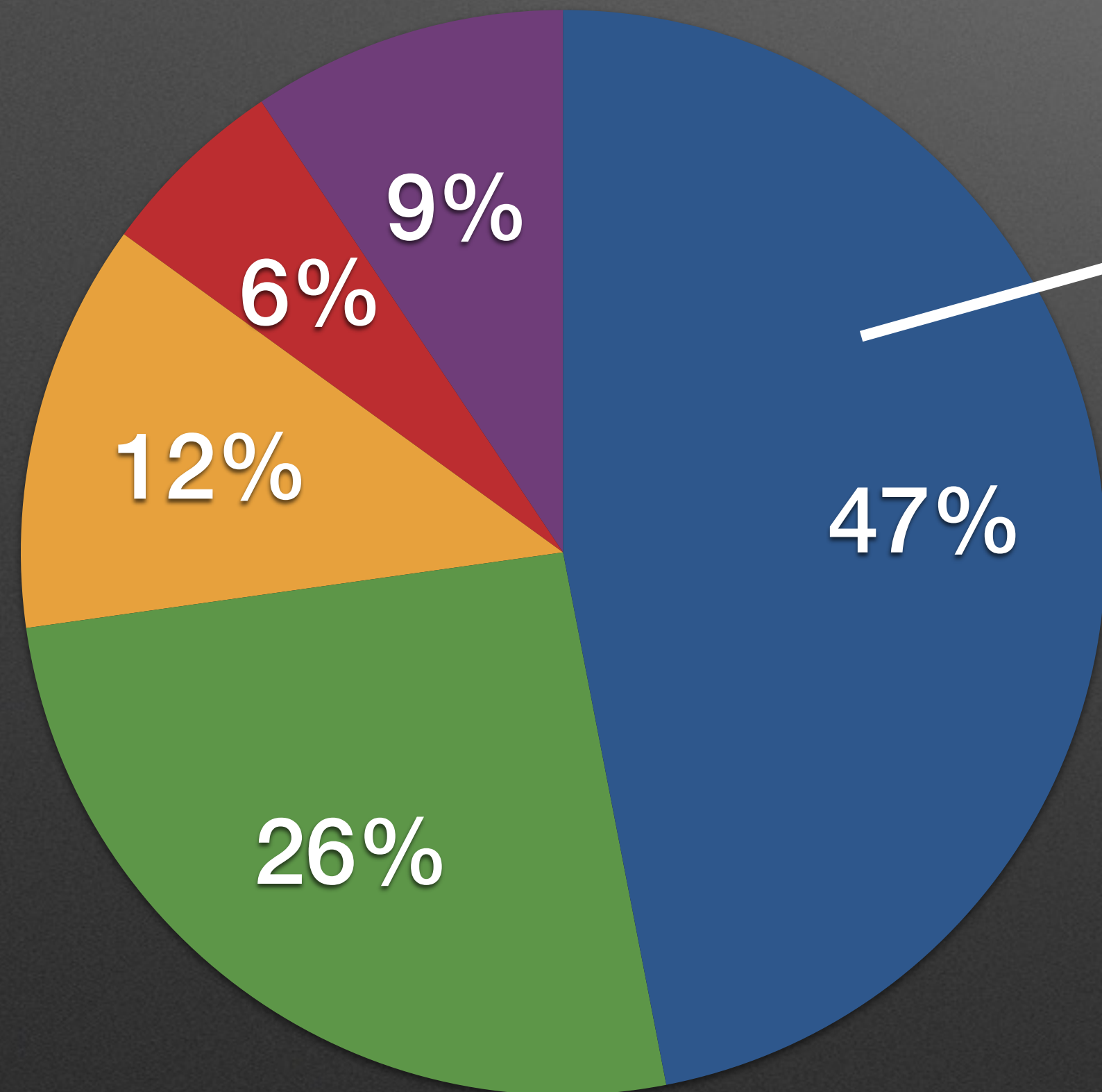
- WebKit: -webkit
- Firefox: -moz
- Opera: -o
- Internet Explorer: -ms

But how are you supposed to remember what browser supports what CSS property?
And what vendor prefix to use?

Effects of responsive design

- **More expensive:** Time to design and develop websites increased substantially and requires more testing, maintenance, and patience.
- **More complex:** Everything needs to be responsive: grids, typography, spacing, display properties, images, etc.
- **Requires education:** Non-developers are so used to writing content for desktop. Mobile first applies to content on the page as well.

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**What about
the beginners?**
Responsive design
adds a new layer of
complexity



Bootstrap is an open source toolkit for developing responsive, mobile-first projects on the web.

It is a style guide with various components.

What is a component?





**Quick
Affordable
Consistent**

Grid & Typography Styles

+ Components

- Alerts
- Badge
- Breadcrumb
- Buttons
- Card
- Carousel
- Collapse
- Dropdown
- Forms
- Jumbotron
- List
- Modal
- Pagination
- Popover
- Progress
- Tooltips
- Navs
- Navbar

Benefits of Bootstrap

- Saves you time and increases productivity - you don't have to reinvent the wheel
- Consistent CSS in a team: Awesome documentation accessible by anyone anywhere. No code bloat.
- Vendor prefixed CSS3 to avoid browser bugs

Benefits of Bootstrap

- Stable grid breakpoints for common device widths
- **Helps to prevent wasted time searching/testing for jQuery plugins** by providing built-in and compatible JavaScript behavior
- Open source and actively maintained

The jQuery Plugin Registry

Q Search



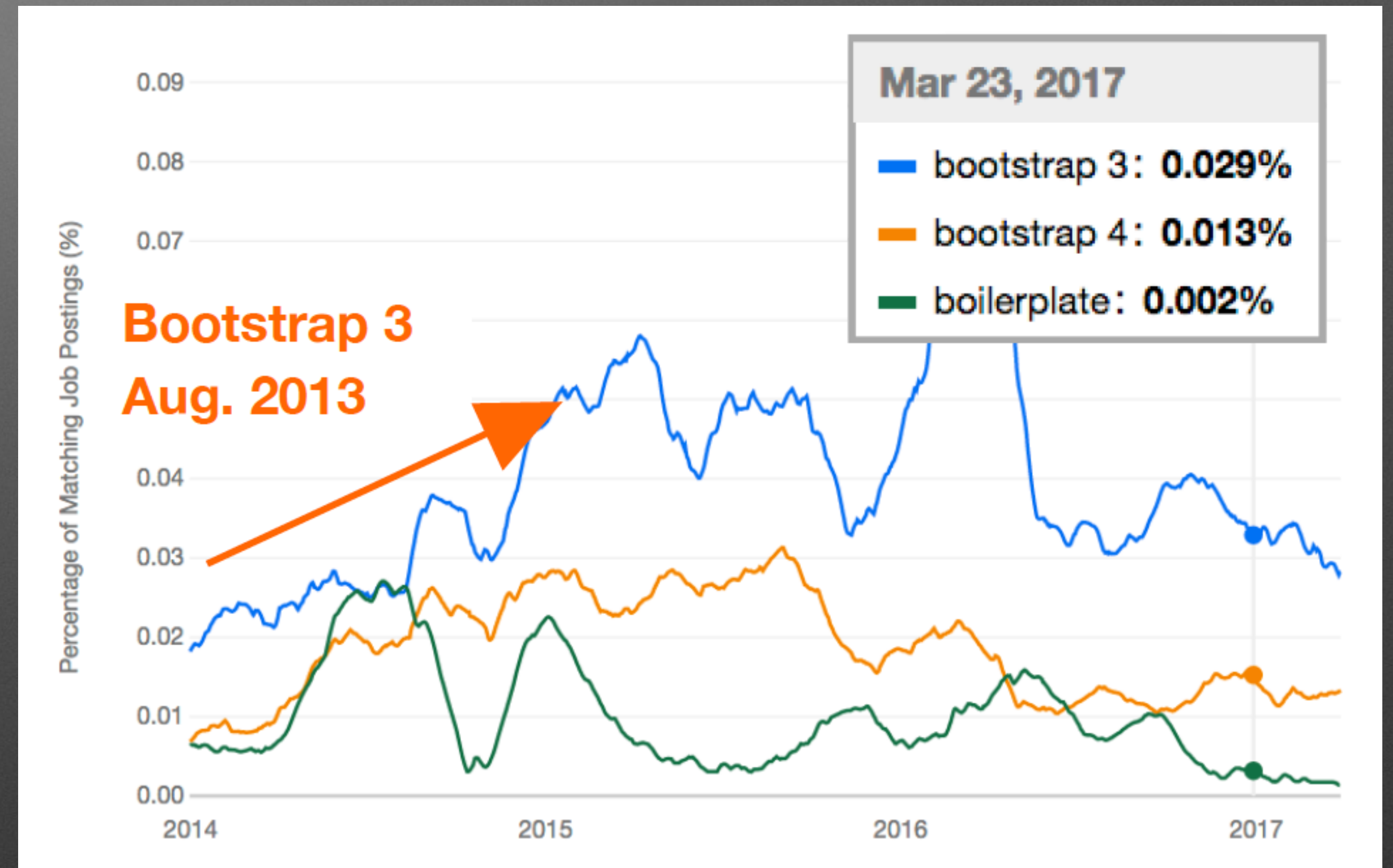
A lot of websites use it

Framework Name	# Sites that Use
Bootstrap CSS (<i>update to v4?</i>)	12,559,226
HTML5 Boilerplate	4,219,959
960 Grid System	437,120
Semantic UI	10,803
Unsemantic	74,386

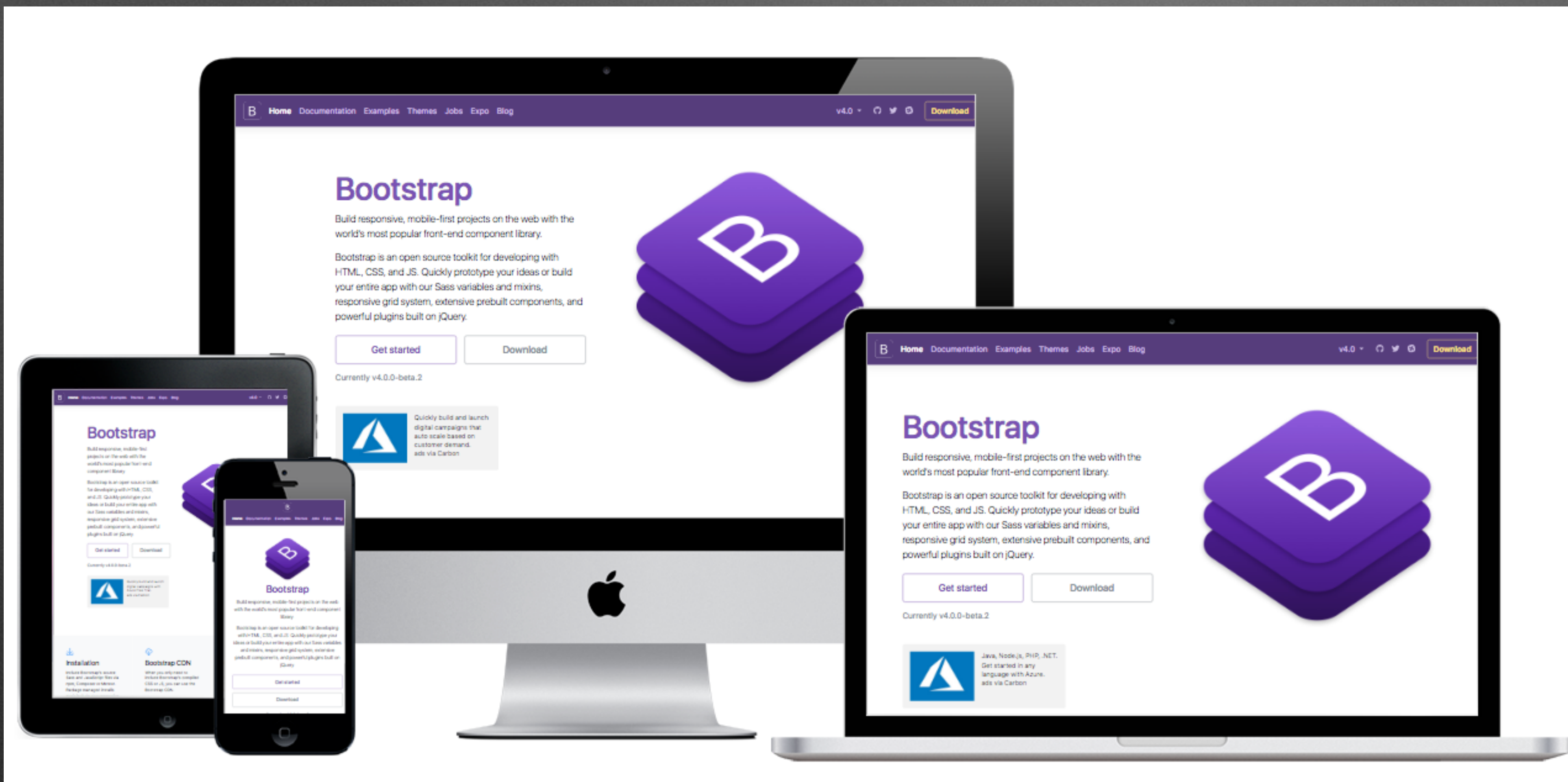
Source: [BuiltWith](#) as of May, 2017

For comparison:
WordPress is used on 19,545,516

Expected job demand
for Bootstrap 4 in 2018








2. What's New *in Bootstrap 4*



4

- No longer support IE9/ lower and IOS 6
- **Flexbox is used instead of floats**
- Added a new xs grid tier for smaller devices at 576px and below.

xs New!	Extra small <576px	 portrait mobile
sm	Small ≥576px	 landscape mobile
md	Medium ≥768px	 portrait tablets <i>navbar collapse</i>
lg	Large ≥992px	 landscape tablets
xl	Extra large ≥1200px	 laptops, desktops, TVs

- Switched from px to rem as it's primary CSS unit
- Global font-size increased from 14px to 16px.
- Glyphicons dropped - Use alternative like FontAwesome

14px Bootstrap 3 - Lorem ipsum dolor sit amet consectetur adipisicing elit. Laudantium maxime architecto alias vel cupiditate eum! Eligendi autem deserunt quaerat at, unde accusamus porro culpa ipsa quo sit animi nobis facere!

16px Bootstrap 4 - Lorem ipsum dolor sit amet consectetur adipisicing elit. Laudantium maxime architecto alias vel cupiditate eum! Eligendi autem deserunt quaerat at, unde accusamus porro culpa ipsa quo sit animi nobis facere!

Glyphicons

Available glyphs

Includes over 250 glyphs in font format from the Glyphicon Halflings set. [Glyphicons](#) Halflings are normally not available for free, but their creator has made them available for Bootstrap free of cost. As a thank you, we only ask that you include a link back to [Glyphicons](#) whenever possible.



glyphicon
glyphicon-
asterisk



glyphicon
glyphicon-plus



glyphicon
glyphicon-euro



glyphicon
glyphicon-eur



glyphicon
glyphicon-
minus



glyphicon
glyphicon-
cloud



glyphicon
glyphicon-
envelope

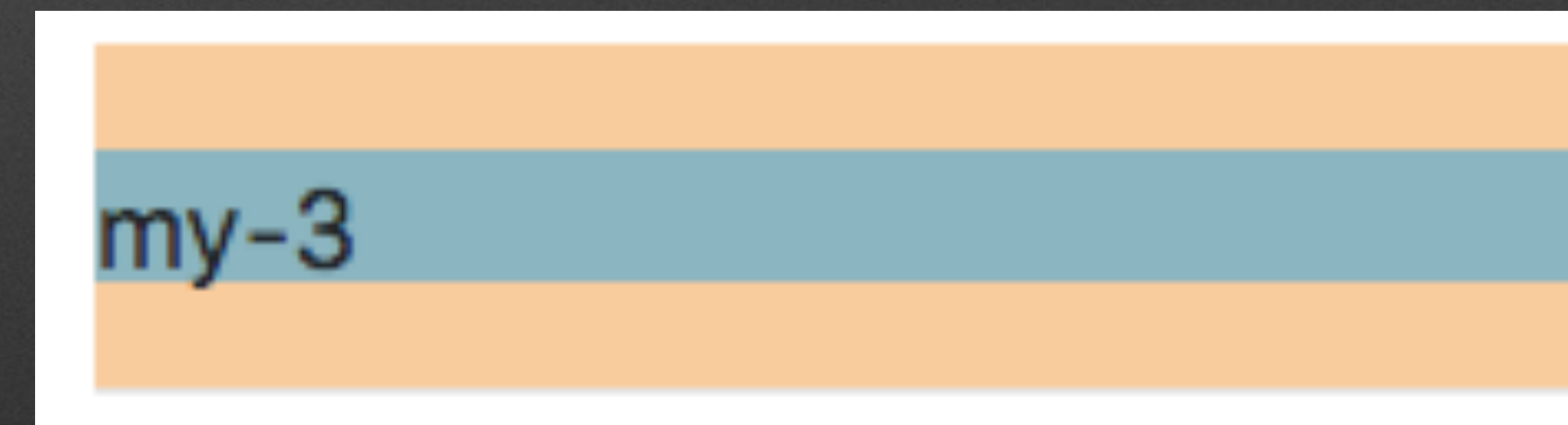
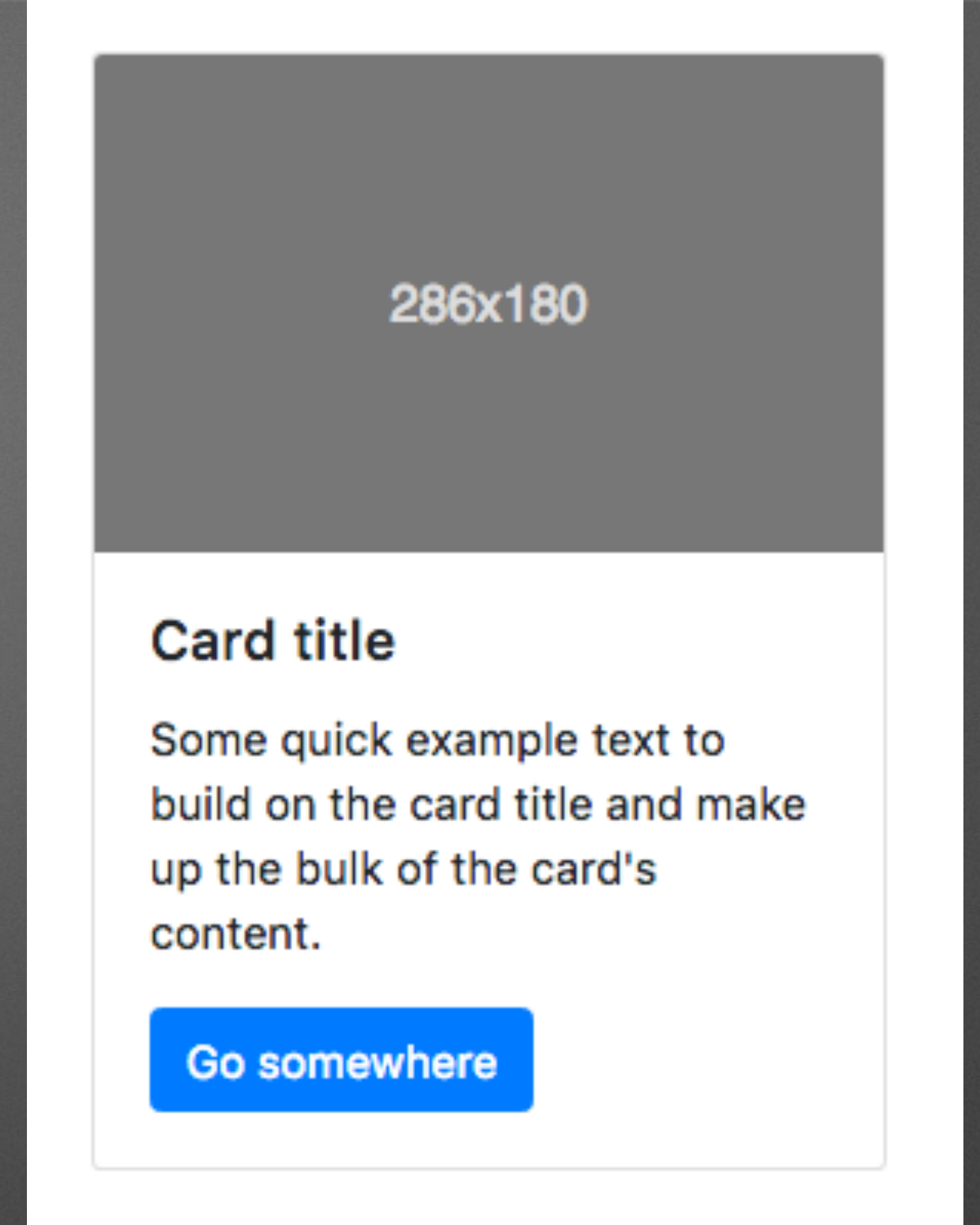


glyphicon
glyphicon-
pencil

- Navbar: You can now specify when the navbar should collapse using `.navbar-toggleable-{breakpoint}` and change color schemes with `.navbar-dark .bg-dark`
- `.img-responsive` renamed to `.img-fluid`

- Cards replace Bootstrap 3 panels and wells
- New Responsive Utilities: spacing, display, flex, and colors.

Example **.my-md-3** = margin of 16px on y axis on md breakpoint and up





3.

Mobile First Workflow

Webpage examples & workspace

“Screens are small, connections are slow, and people often only give you their partial attention or short bursts of their time. Designing for **mobile first** forces you to embrace these constraints”

— *Luke Wroblewski, Mobile First*

The Design Process

1.

Strategy

Interviews and research to define a clear brand strategy and design strategy to achieve business objectives.

Approvals needed

- 📄 Brand strategy
- 📄 Design strategy

2.

Prototype

You will define the site architecture, page naming, and site content to be presented.

Approvals needed

- 📄 Wireframe & architecture
- 📄 Site copy
- 📄 Clickable prototype

3.

Design

Work through branding and visual style. The client should approve code and not flat Photoshop files.

Approvals needed

- 📄 Clickable design of homepage
- 📄 Development site

4.

Delivery

Publish final site and collect analytics for three months. Report back and review performance.

Approvals needed

- 📄 Final signoff
- 📄 Analytics report

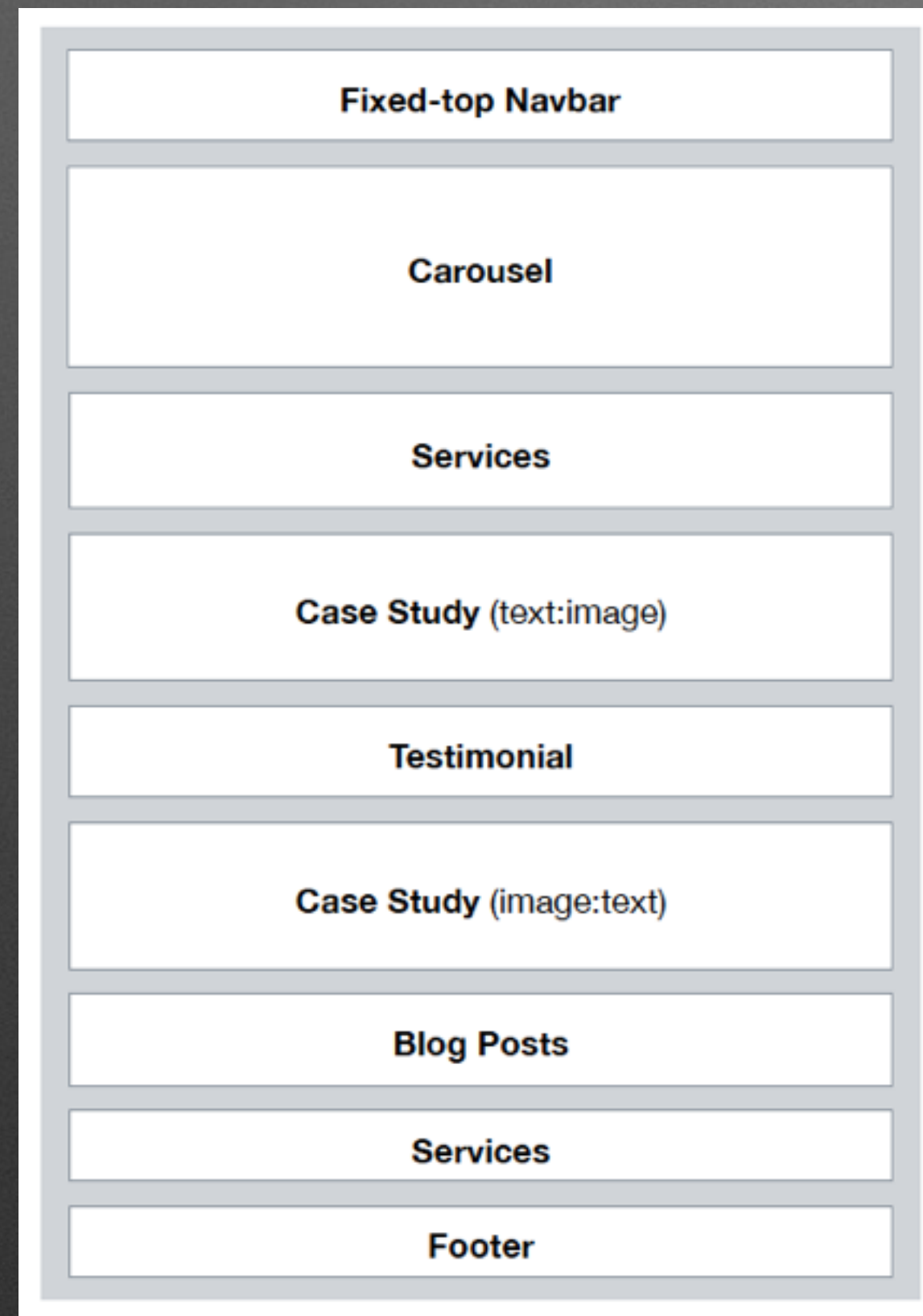
The Design Process - Milestones

Pencil Sketch

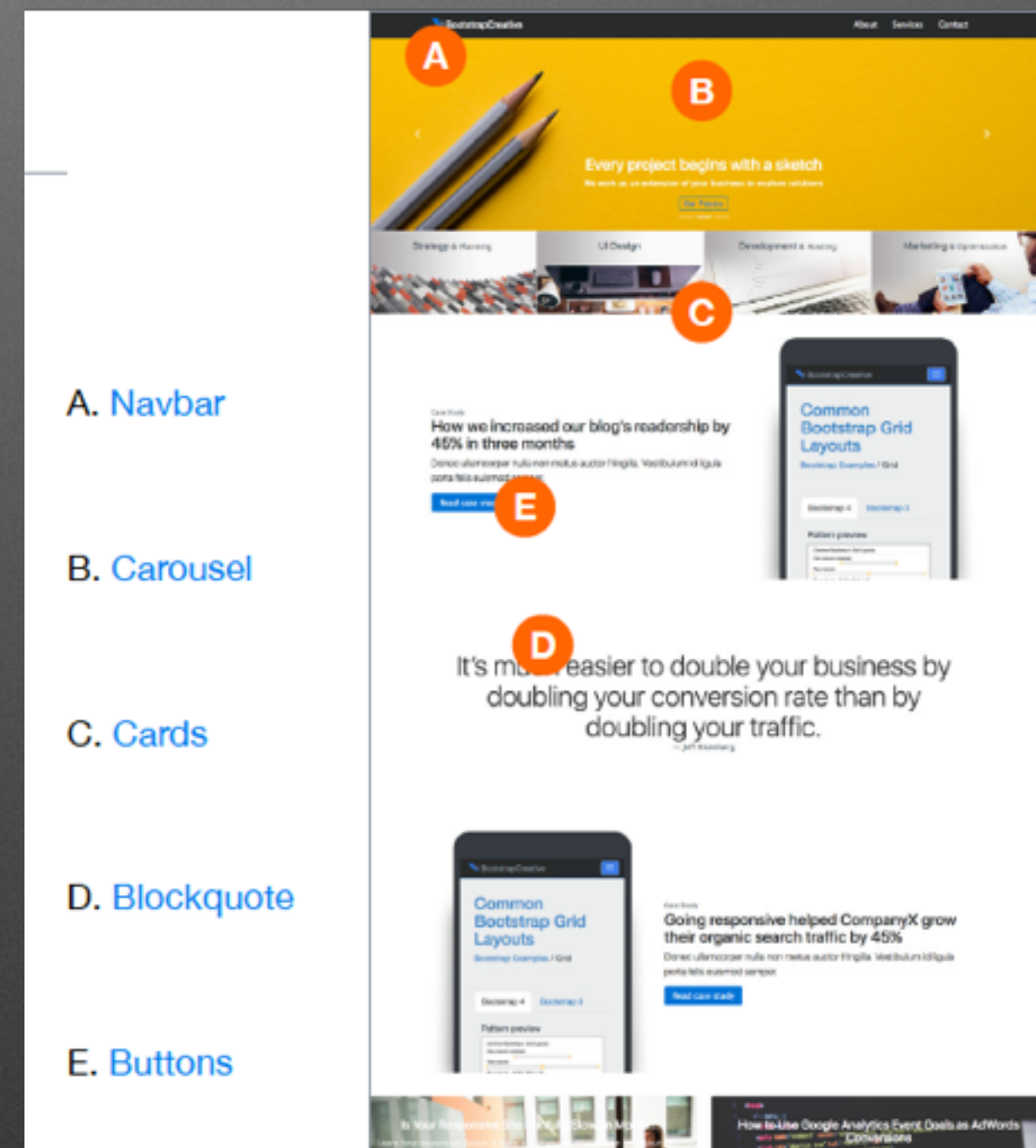


Think through content and layout in the pencil sketch stage.

Wireframe



Prototype



Design Iteration



Does the design achieve the desired results and not just look cool?

Development tools - All Free



- GitHub account - version control hosting
- GitHub Desktop



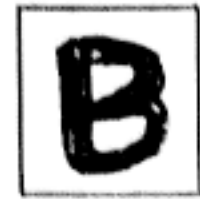
- GitHub Atom text editor



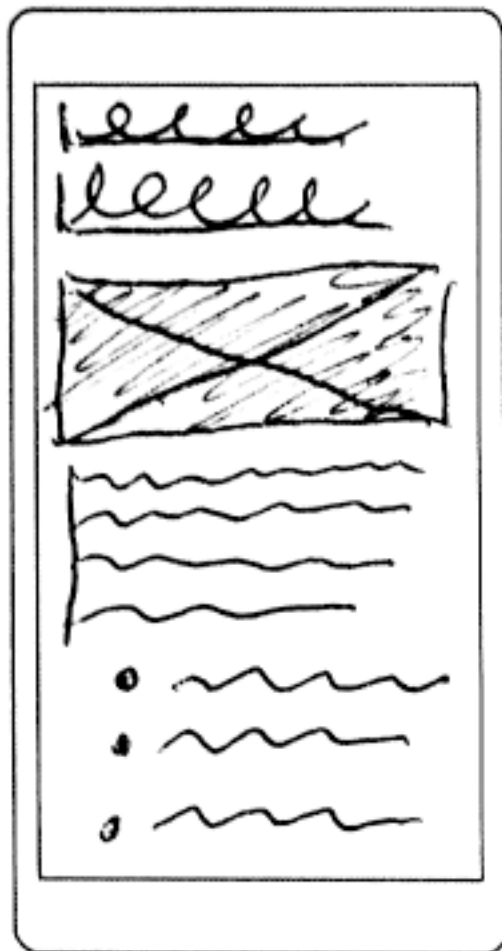
- XAMPP - local development web server



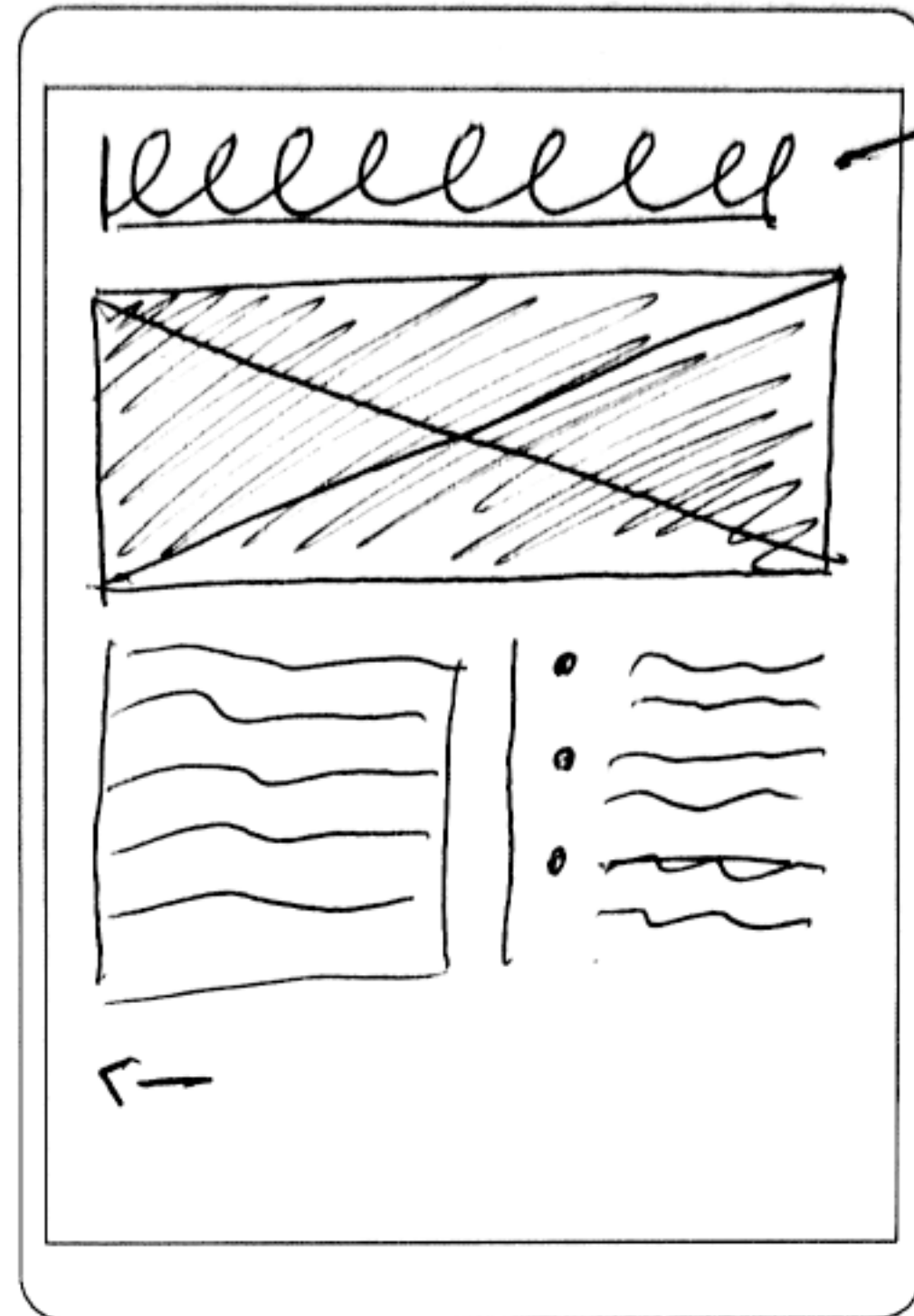
- Google Chrome and live.js



favicon



360 x 640 px

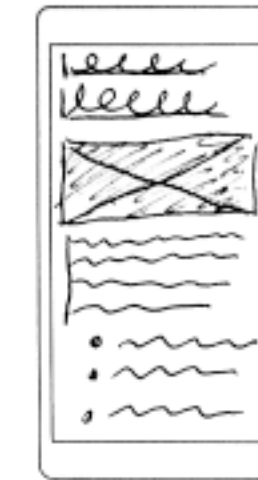


768 x 1024 px

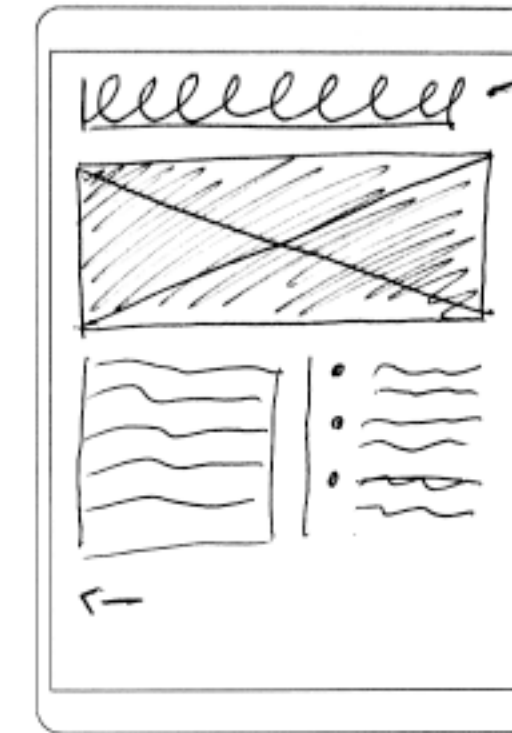
Google
font:
Alfa
Slab



favicon

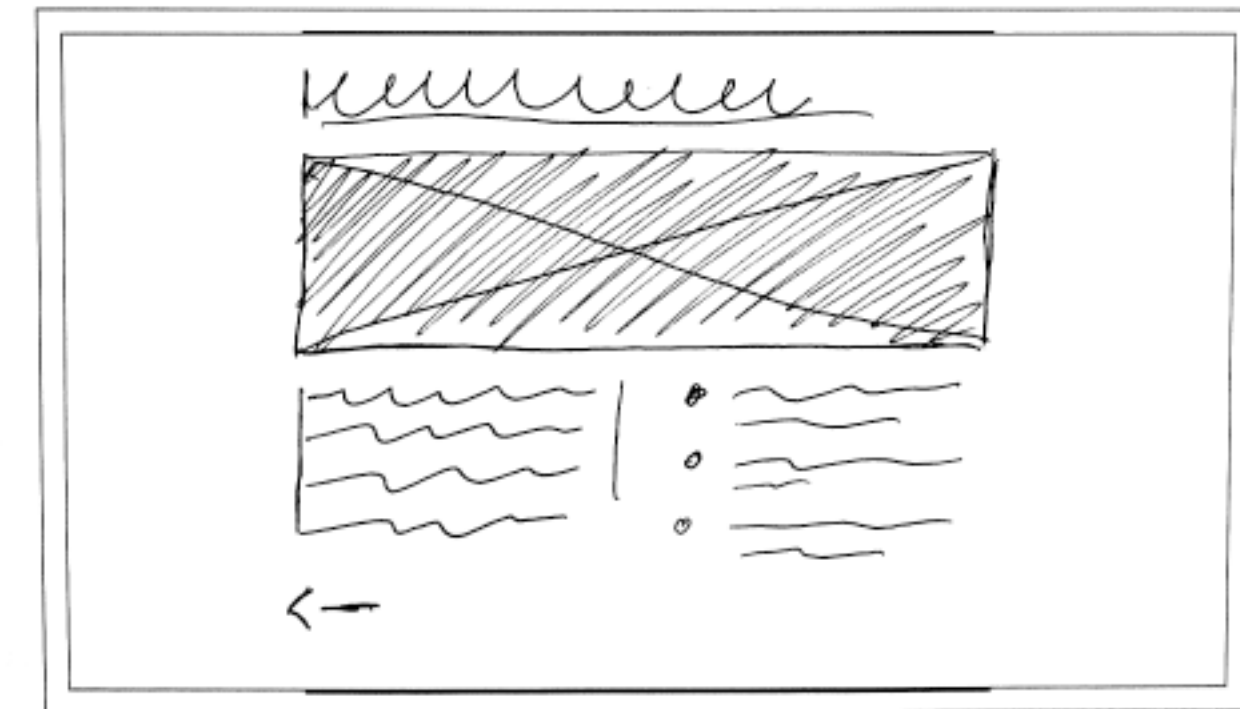


360 x 640 px



768 x 1024 px

Google
font:
Alfa
Slab



1920 x 1080 px

Responsive Page Example
Heading font: Alfa Slab One
Color: #007aeb



**The ways we could
build this:
Page examples**

“Learning is an active process.

We learn by doing.

**Only knowledge that is used
sticks in your mind.**

– Dale Carnegie

How Can I Help You?

Absolute Beginner

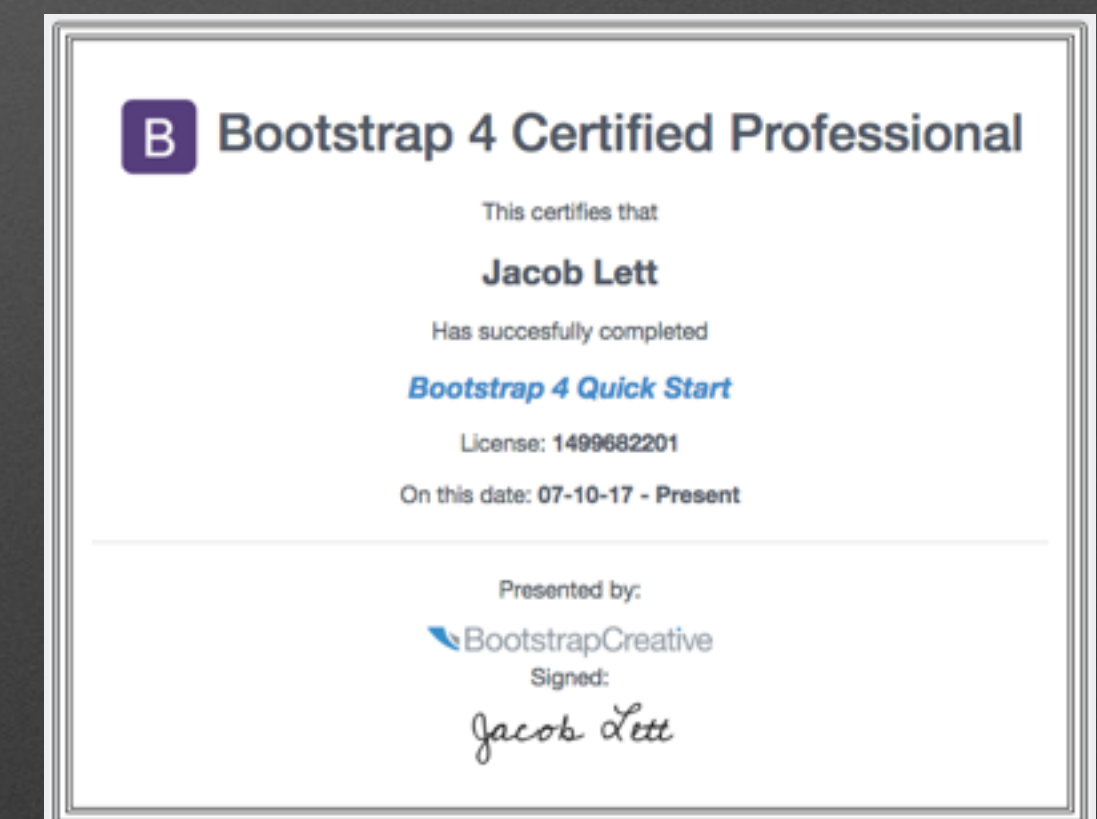


Starter | Pro | Design

Migrate Bootstrap v3 to v4



Get Bootstrap 4 Certification

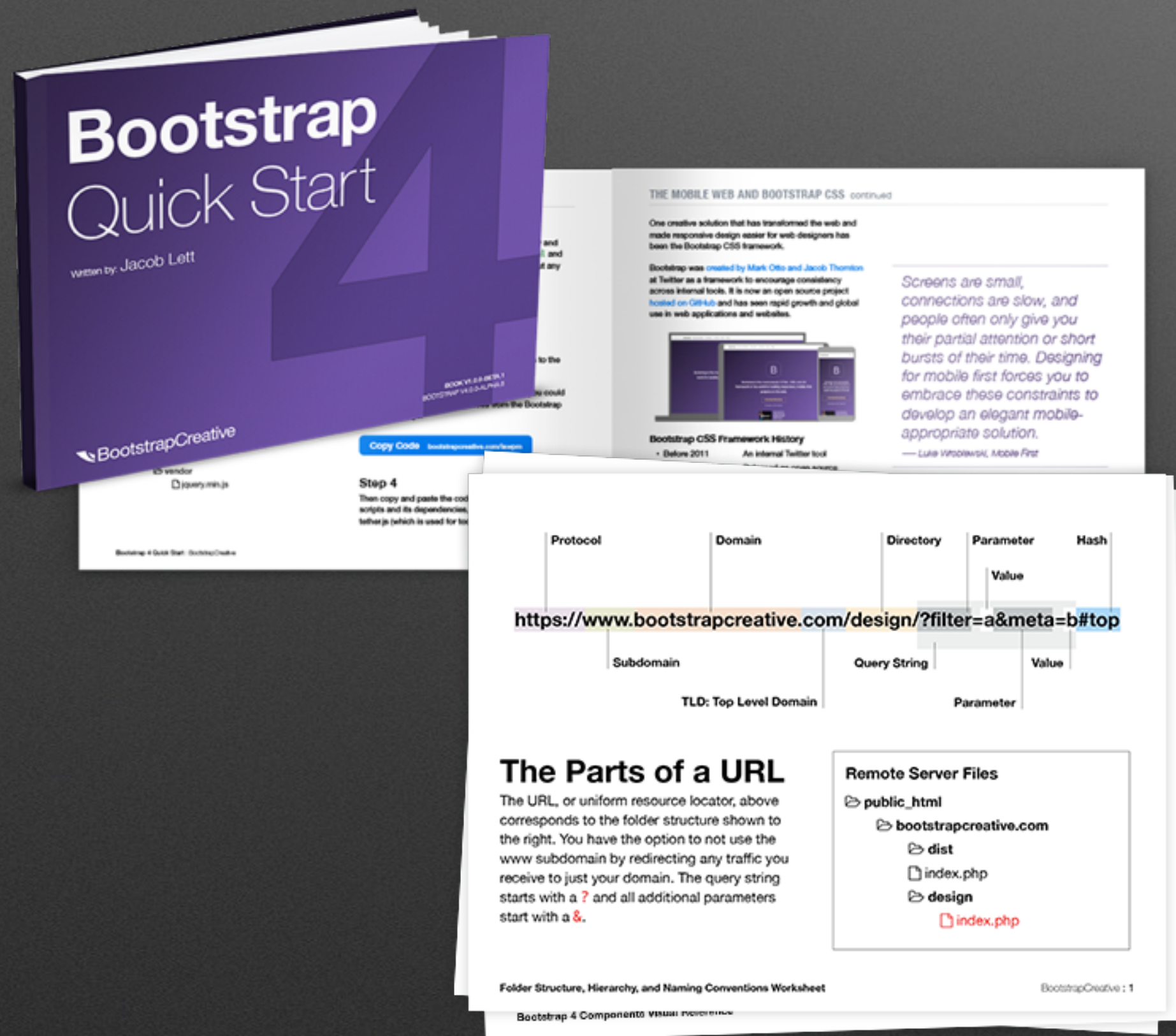


Bootstrap 4 Quick Start

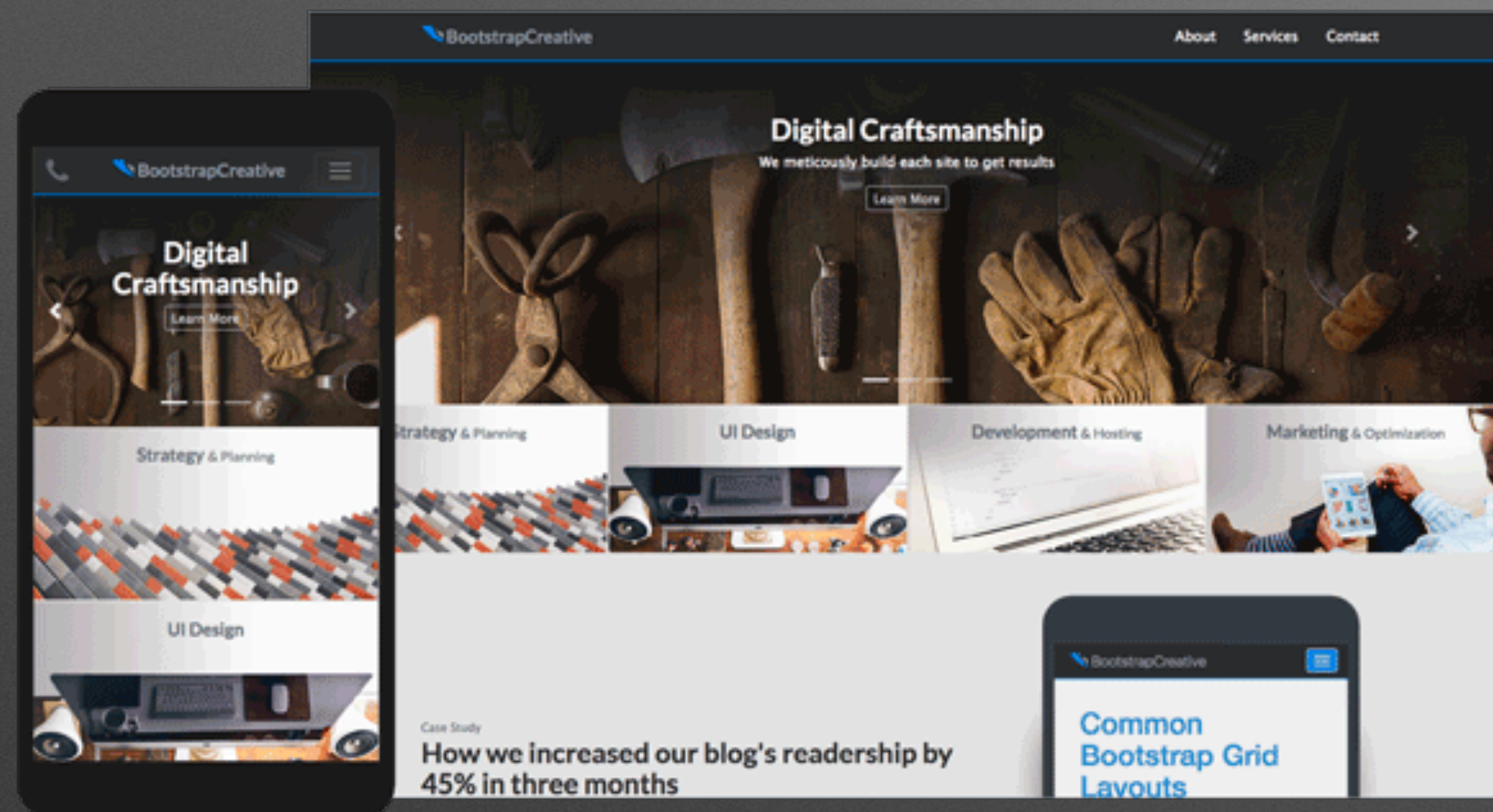
- How do I master Bootstrap and responsive design?
- How do I remember all of the class names?
- How do I make my sites look less like Bootstrap?



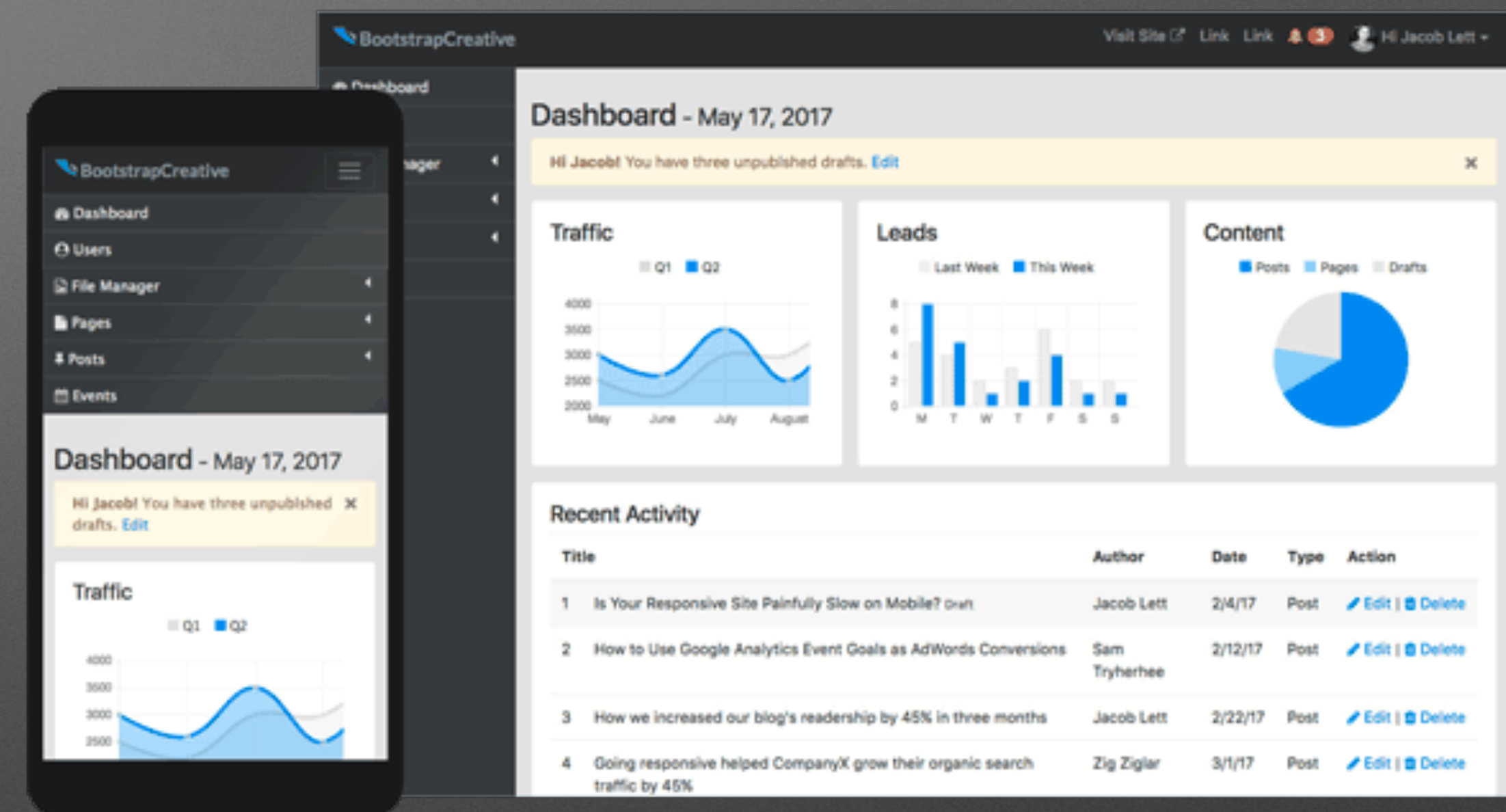
How do I master Bootstrap and responsive design basics?



- Bootstrap 4 Quick Start eBook [pdf]
- Web Development Primer [pdf]



Marketing Homepage



Admin Dashboard

How do I remember all of the class names?

- Bootstrap 4 cheat sheet with all class names, flexbox cheat sheet, and CSS default values reference
- Components Visual Reference [pdf]
- FontAwesome Icon Cheat Sheet [pdf]

How do I make my sites look less like Bootstrap?

- [Printable Sketch Sheets for Design Wireframing \[pdf\]](#)
- [Photoshop Grid Templates and Device Mockup \[psd\]](#)
- [Default Colors Reference \[pdf\]](#)
- [Get design critiques in the Facebook group](#)

**“Helps make technical
concepts clear and
easier to understand.”**

– Max, Web Developer

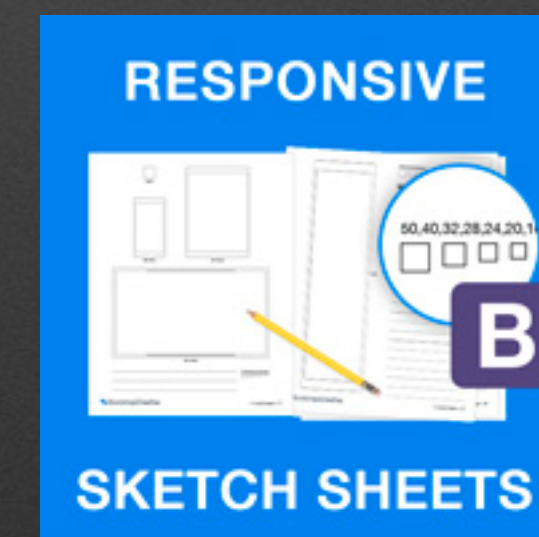
**“Your training is fantastic,
there is a lot of information
I understand now that
makes me look at how
I develop a website.”**

– Sutter Raymond, Beginner

Giveaway

Bootstrap 4 Quick Start
- Design Package
a \$120 value

**First one to answer
question in the chat
is the winner.**



**Free Gift for
Attending
Workshop**