WEEK 3

Let's review Project A progress.

Learn Twitter Bootstrap Framework and build a webpage based on our original wireframe. Explore the concepts of the Bootstrap grid and introduce the concepts of push and pull classes to re-order blocks and available helper classes.

Add the slider component and compare ease of implementation, responsive functionality and page load speeds.

Evaluate the media query breakpoints and compare to current market of devices.
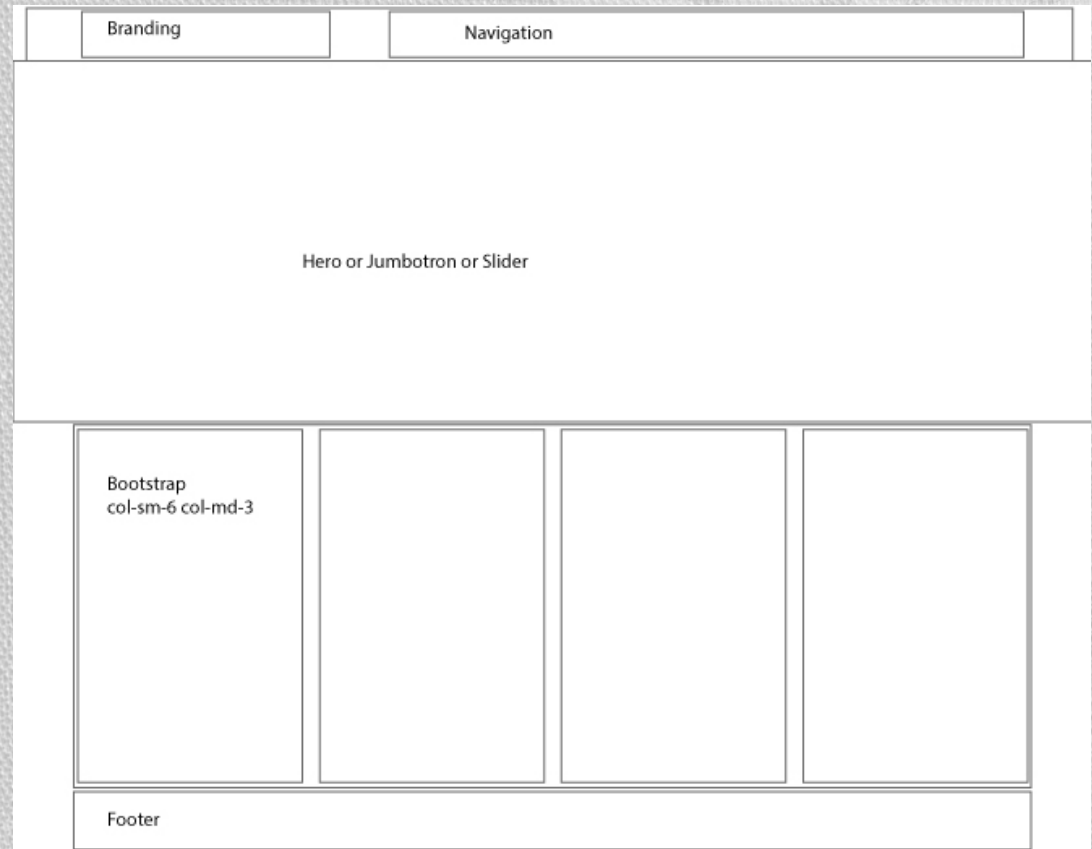
Project B

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What is LESS, SASS & SCSS ?

- Compiled CSS
- Requires some extra configuration to compile
- You can layer your customizations on top of compiled CSS without having to compile
- Beware of too many http requests!
- If the framework is overwhelming don't use it
- The cascade allows you to code over it without compiling.

Wireframe

- Start here
  - Same as last week
- Your logo
  - Prior art?
- Your three nav links
- Lorem Ipsum content
- Image attributions in the footer

Branding	Navigation

Hero or Jumbotron or Slider

Bootstrap col-sm-6 col-md-3

Footer

Bootstrap Get Started

- https://getbootstrap.com/getting-started/
- Download Bootstrap and create (copy) the template

```
bootstrap/
├── css/
│   ├── bootstrap.css
│   ├── bootstrap.css.map
│   ├── bootstrap.min.css
│   ├── bootstrap.min.css.map
│   ├── bootstrap-theme.css
│   ├── bootstrap-theme.css.map
│   ├── bootstrap-theme.min.css
│   └── bootstrap-theme.min.css.map
├── js/
│   ├── bootstrap.js
│   └── bootstrap.min.js
└── fonts/
    ├── glyphicons-halflings-regular.eot
    ├── glyphicons-halflings-regular.svg
    ├── glyphicons-halflings-regular.ttf
    ├── glyphicons-halflings-regular.woff
    └── glyphicons-halflings-regular.woff2
```

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <!-- The above 3 meta tags *must* come first in the head; any other head content must come
*after* these tags -->
    <title>Bootstrap 101 Template</title>

    <!-- Bootstrap -->
    <link href="css/bootstrap.min.css" rel="stylesheet">

    <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->
    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
    <!--[if lt IE 9]>
      <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
      <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
    <![endif]-->
  </head>
  <body>
    <h1>Hello, world!</h1>

    <!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/jquery.min.js"></script>
    <!-- Include all compiled plugins (below), or include individual files as needed -->
    <script src="js/bootstrap.min.js"></script>
  </body>
</html>
```
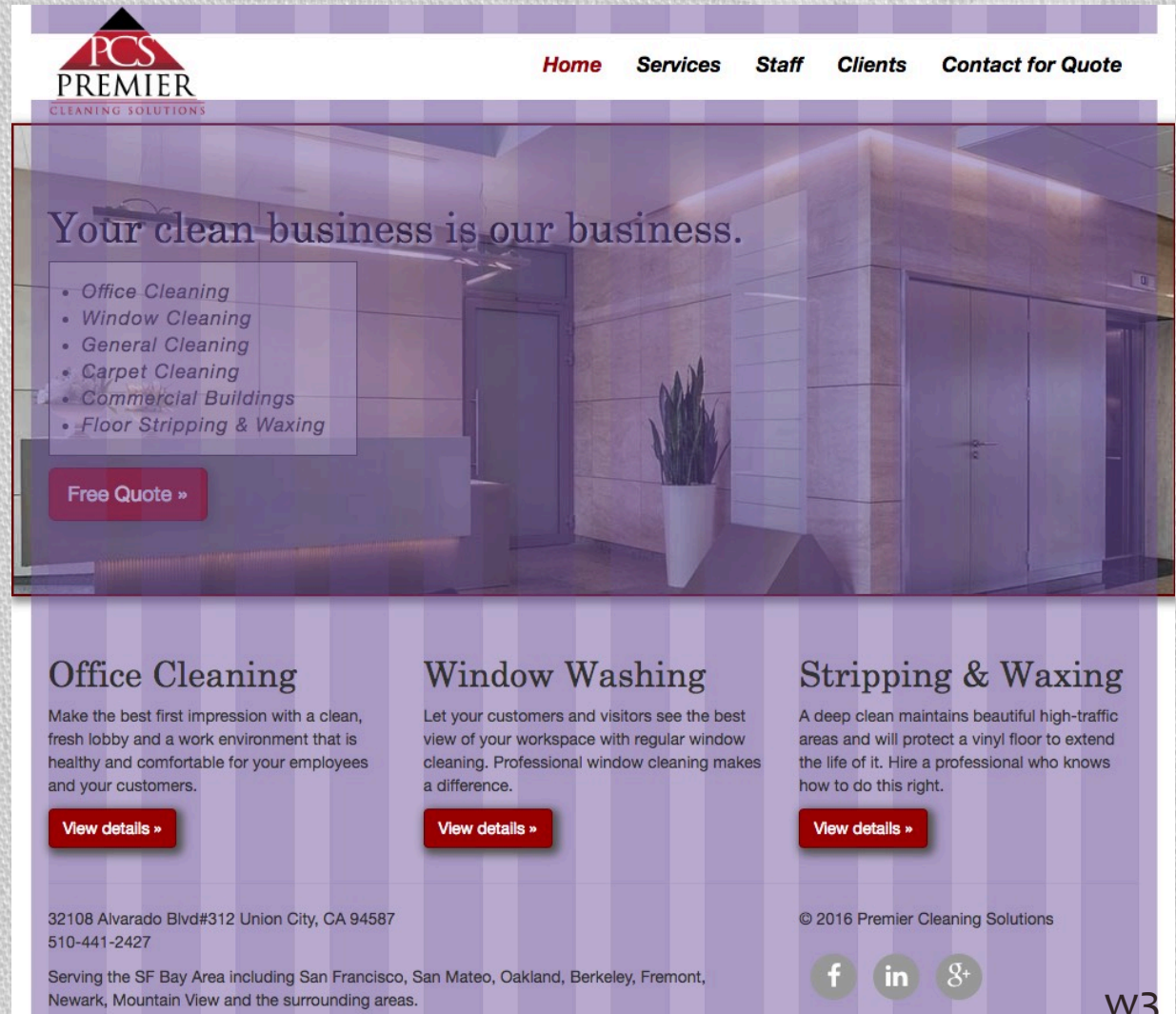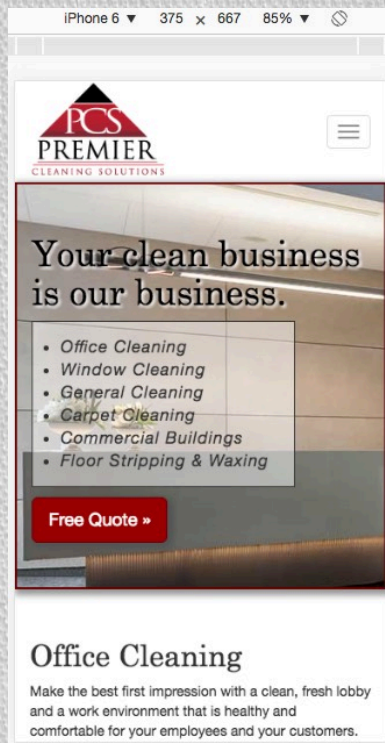
- Check paths…

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Twitter Bootstrap Grid

- Standard - out of the box
- Chrome dev tools
- Bootstrap Grid
  - lg md sm xs

Bootstrap Grid Naming Conventions cont'd

- Start here
  - http://bootstrapdocs.com/v3.0.3/docs/css/
- A great reference for understanding Bootstrap grid
  - http://michaelsoriano.com/exploring-the-bootstrap-3-0-grid-system/
- Start with a .container-fluid
  - Test difference with .container
- Then a .row
- Then .col-??-??
  - http://getbootstrap.com/css/#grid
- class="img-responsive"
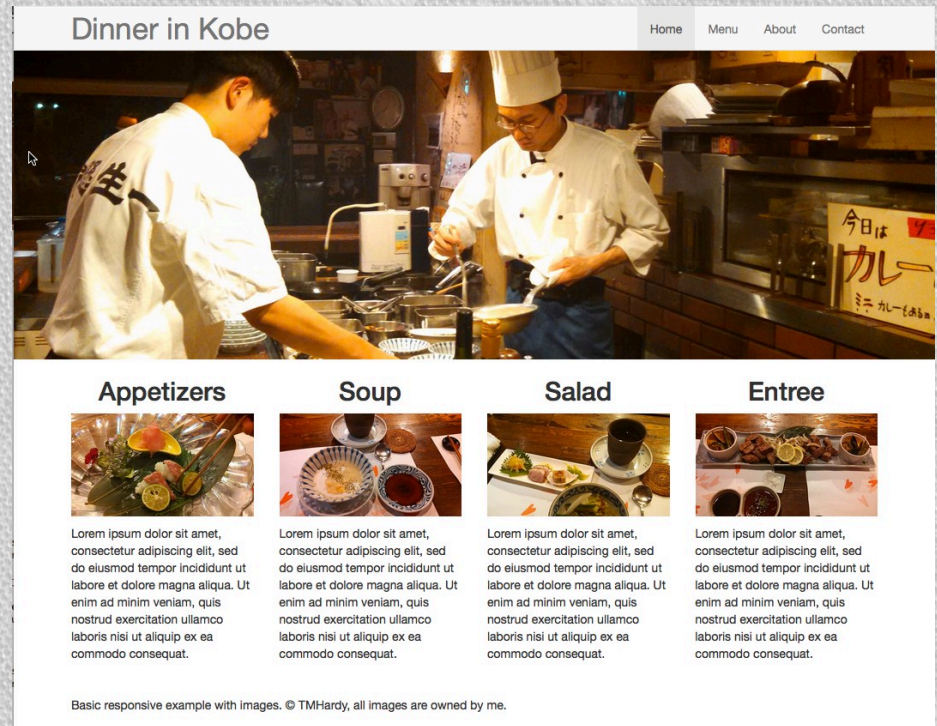
Grid options

See how aspects of the Bootstrap grid system work across multiple devices with a handy table.

	Extra small devices Phones (<768px)	Small devices Tablets (≥768px)	Medium devices Desktops (≥992px)	Large devices Desktops (≥1200px)
Grid behavior	Horizontal at all times	Collapsed to start, horizontal above breakpoints		
Container width	None (auto)	750px	970px	1170px
Class prefix	.col-xs-	.col-sm-	.col-md-	.col-lg-
# of columns	12			
Column width	Auto	~62px	~81px	~97px
Gutter width	30px (15px on each side of a column)			
Nestable	Yes			
Offsets	Yes			
Column ordering	Yes			

Exercise – Build with Bootstrap

- Leverage the framework first, then add what you need
- Start here http://getbootstrap.com/getting-started/
  - CDN or not?
  - Legacy browser support… or not?
  - Some issues with the templates on Bootstrap page.. Assets folder missing
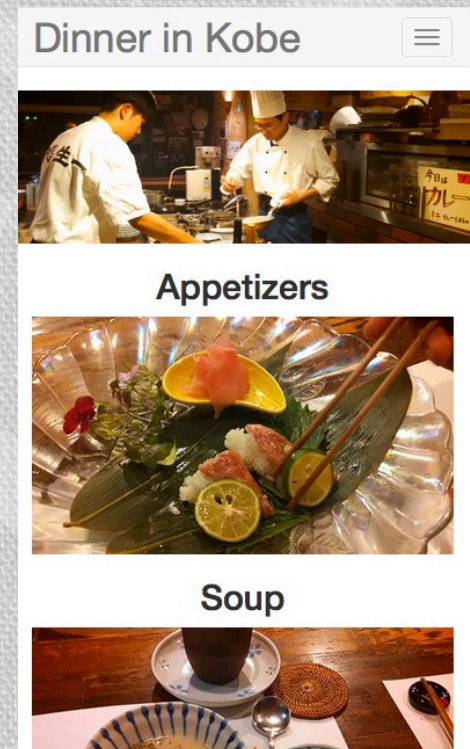 - We'll add the menu next

Add Menu
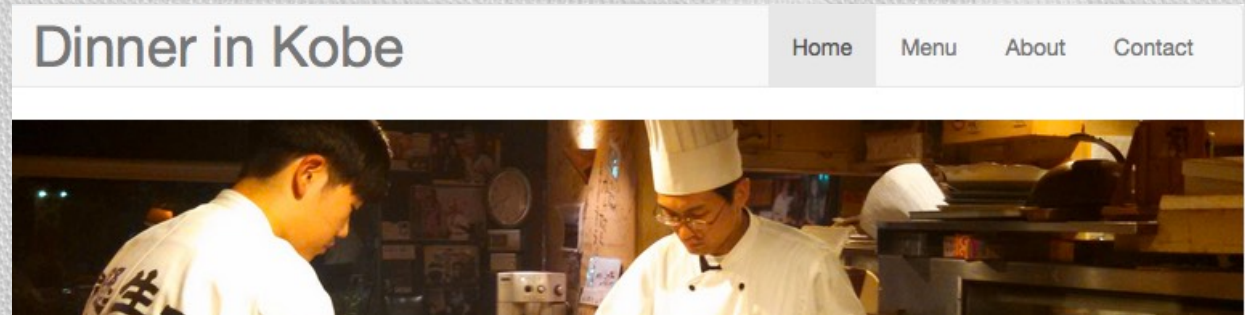
- Start here for Bootstrap Navbar

  - http://getbootstrap.com/components/#navbar

```
23  ▼       <body>
24  ▼       <nav class="navbar navbar-default">
25  ▼       <div class="container-fluid">
26            <!-- Brand and toggle get grouped for better mobile display -->
27  ▼         <div class="navbar-header">
28              <button type="button" class="navbar-toggle collapsed" data-toggle="collapse"
...  ▼       data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
29                <span class="sr-only">Toggle navigation</span>
30                <span class="icon-bar"></span>
31                <span class="icon-bar"></span>
32                <span class="icon-bar"></span>
33  └         </button>
34            <a class="navbar-brand" href="#">Dinner in Kobe</a>
35  └         </div>
36
37  ▼         <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
38  ▼           <ul class="nav navbar-nav navbar-right">
39              <li class="active"><a href="#">Home <span
...          class="sr-only">(current)</span></a></li>
40
41              <li><a href="#menu">Menu</a></li>
42              <li><a href="#about">About</a></li>
43              <li><a href="#contact">Contact</a></li>
44  └           </ul>
45  └         </div><!-- /.navbar-collapse -->
46  └       </div><!-- /.container-fluid -->
47  └       </nav>
48          <img src="images/hero2.jpg" class="img-responsive" alt="chefs"></div></div>
```

- Alternative off-canvas menu http://jsfiddle.net/premit/rDN3P/

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Typography

- Review the CSS file
  - *Do Not edit this file!*
  - *Always add your own CSS file if needed*
  - *Don't add CSS unless Bootstrap doesn't have what you need!*
- Consider .ht .h2 .h3 .h4 etc
- More details at
  - http://bootstrapdocs.com/v3.0.3/docs/css/#type

- See also Helper Classes
- See also Responsive Utilities

```
.navbar-brand { font-size: 250%; }
.navbar { margin-bottom: 0; }
.margin-top { margin-top: 10px; }
p { letter-spacing: .08em; }
```
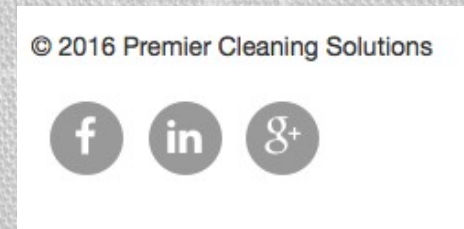
Components

- Navbar, Dropdowns, Breadcrumbs, Pagination, Badges, etc
  - http://getbootstrap.com/components

- Bootstrap comes with Glyphicon Halflings set
  - Add a glyph on your page
  - I prefer Font Awesome for social links
    - Copy files to the fonts and css folders
    - Or…

  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css">

- Makes sharp and clean symbols!
- Convert the hero image to a jumbotron with text and CTA

Add Social Media Icons

- Try the Glyphicons and then try the Font Awesome

- This version is Font Awesome

- Download latest fonts and css

  - http://fontawesome.io/

```html
<div class="social col-md-3">
<ul>
<li>
<a target="_blank"
href="https://www.facebook.com/Premier-Commerical-Cleaning-Solutions-Inc-310962123416/">
<i class="fa fa-lg fa-facebook"></i>
</a>
</li>
<li>
<a target="_blank" href="https://www.linkedin.com/company/290027">
<i class="fa fa-lg fa-linkedin"></i>
</a>
</li>
<li>
<a target="_blank" href="https://plus.google.com/115146114726257608656/about">
<i class="fa fa-lg fa-google-plus"></i>
</a>
</li>
</ul>
</div>
```

```css
/* for social icons with font awesome */
* {
    box-sizing: border-box;
  }
.social { margin: 0; padding: 0; }
.social ul { margin: 5em 2em; padding: 5px; }
.social ul li {
    display: inline-block;
    list-style: outside none none;
    margin: 5px;
    }
.social i {
    background-color: #555;
    border-radius: 50%;
    color: #fff;
    font-size: 22px;
    height: 40px;
    padding-top: 12px;
    text-align: center;
    transition: all 0.3s ease 0s;
    width: 40px;
    }

.social i:hover { color: #600; }
```

```html
<!-- Social icons my way -->
<link href="css/font-awesome.css" rel="stylesheet" media="all">
```

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Add a Form

- Bootstrap supports pre-formatted form layouts with several built in features
  - http://getbootstrap.com/components/#input-groups
  - See also the W3schools Bootstrap examples
- Consider Bootstrap progress bar component for longer forms

Reservations

First Name

First Name

Email address

Email
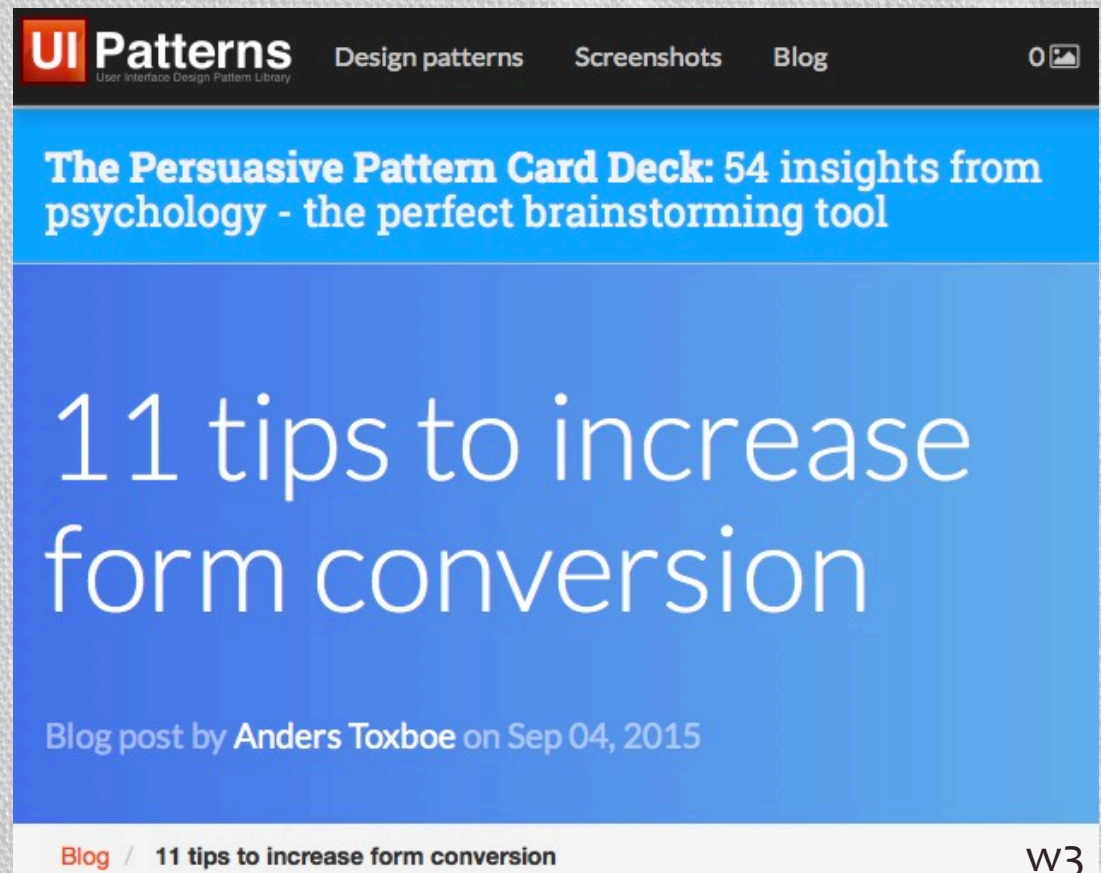
Date

☐ I would like to hear about special events.

Submit

```html
<div class="container">
<div class="row">
<div class="col-xs-12 col-sm-3">
<h2>Reservations</h2>
<form id="eventForm" role="form" action="" method="POST">
  <div class="form-group">
    <label for="firstName">First Name</label>
    <input type="text" class="form-control" id="firstName" name="firstName" placeholder="First Name">
  </div>
  <div class="form-group">
    <label for="email1">Email address</label>
    <input type="email" class="form-control" id="email1" placeholder="Email">
  </div>
  <div class="form-group">
      <label for="datePicker">Date</label>

          <div class="input-group input-append date" id="datePicker">
              <input type="text" class="form-control" name="date" >
              <!--span class="input-group-addon add-on"><span class="glyphicon
glyphicon-calendar"></span></span-->
      </div>
  </div>
  <div class="checkbox">
    <label><input type="checkbox"> I would like to hear about special events.</label>
  </div>
 <div class="form-group">
  <button type="submit" class="btn btn-default">Submit</button>
  </div>
</form>
```

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Form Conversion Discussion
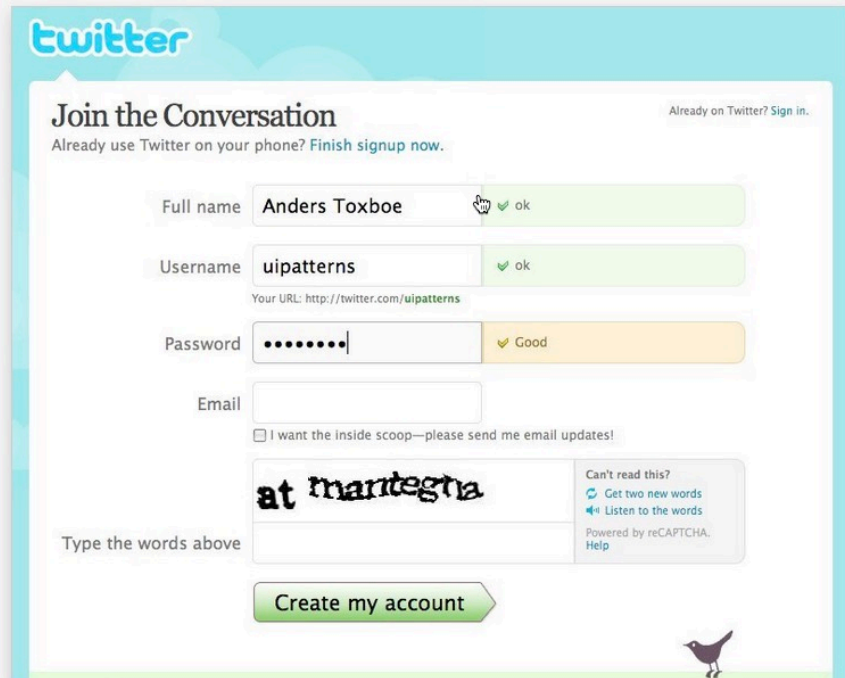
- Points to consider in your form designs
  - http://ui-patterns.com/blog/11-tips-to-increase-form-conversion
- *Design for conversion!*

More on Form Patterns

- For Discussion

- http://ui-patterns.com/patterns/InputFeedback

Bootstrap Push and Pull

- Reorder blocks of information for smaller displays
- Bootstrap is Mobile First
- See details at http://getbootstrap.com/css/#grid-column-ordering
- Push $\longrightarrow$
- Pull $\longleftarrow$
- .col-sm-push-[number of columns to shift]

```
<div class="container">
<div class="row">
<div class=" col-sm-6 col-md-3 col-md-push-3"><h2 class="text-center">Appetizers</h2>
<img src="images/appetizer.jpg" alt="food" class="img-responsive center-block">
<p class="margin-top">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.</p>
</div>
<div class="col-sm-6 col-md-3 col-md-pull-3"><h2 class="text-center">Soup</h2>
<img src="images/soup.jpg" alt="soup" class="img-responsive center-block">
<p class="margin-top">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.</p>
</div>
```
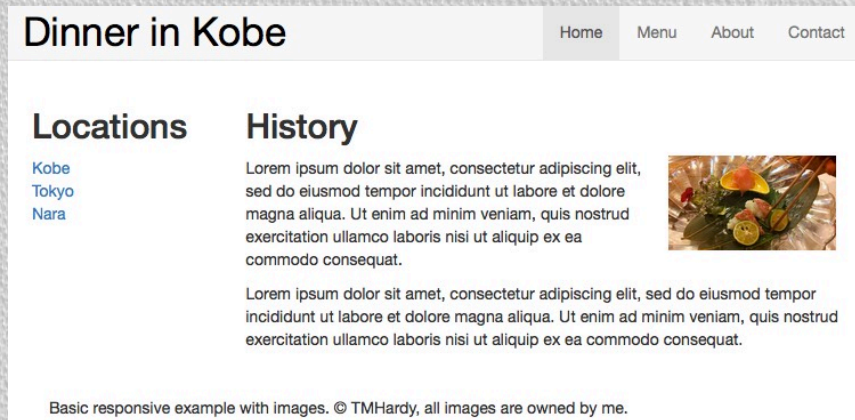
Reordering a Sidebar With Push/Pull

- Keep most important info at the top of html
- *Mobile First!*


```
<div class="container">
<div class="row">
<div class="col-xs-12 col-sm-9 col-md-9 col-sm-push-3"><h2 >History</h2><div
class="col-xs-6 col-sm-4 pull-right"><img src="images/appetizer.jpg" alt="food"
class="img-responsive"></div><p class="margin-top">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.</p><p class="margin-top">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.</p></div>
<div class="col-xs-6 col-sm-3 col-md-3 col-sm-pull-9">
<h2>Locations</h2>
<ul class="list-unstyled"><li><a href="#menu">Kobe</a></li>
<li><a href="#menu">Tokyo</a></li>
<li><a href="#menu">Nara</a></li>
</ul></div>
</div>
<footer class="footer">
```

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Assignment

- Finish styling and add content, post in portal before next class
- Read Week4 lecture notes
- Read Frameworks article - nice overview
  - https://colorlib.com/wp/free-css3-frameworks/