



## WEEK 2

Let's review Project A progress.  
Continue refining page layout  
design pattern and navigation  
design pattern as discussed in  
class.





# MEDIA QUERIES

Breakpoints for a full range of viewports and syntax to style each individually



# Breakpoints for Media Queries

- **Bootstrap v 3.x**
  - $\leq 768\text{px}$
  - $768\text{px}$  to  $979\text{px}$
  - $980\text{px}$  to  $1199\text{px}$
  - $\geq 1200$
- **Bootstrap v 4.x**
  - $\leq 575\text{px}$
  - $576\text{px}$  to  $767\text{px}$
  - $768\text{px}$  to  $991\text{px}$
  - $\geq 1200$ 
    - These are mobile-first min-width, see all media breakpoints
- **Foundation**
  - $\$small-only$ : max-width:  $40\text{em}$ 
    - max-width  $640\text{px}$
  - $\$medium$ : min-width:  $40.063\text{em}$ 
    - min-width  $641\text{px}$
  - $\$large$ : min-width:  $64.063\text{em}$ 
    - min-width  $1025\text{px}$
  - $\$xlarge$ : min-width:  $90.063\text{em}$ 
    - min-width  $1441\text{px}$
  - $\$xx-large$ : min-width:  $120.063\text{em}$ 
    - min-width  $1921\text{px}$

## Market data on viewports

<http://viewportsizes.com/>

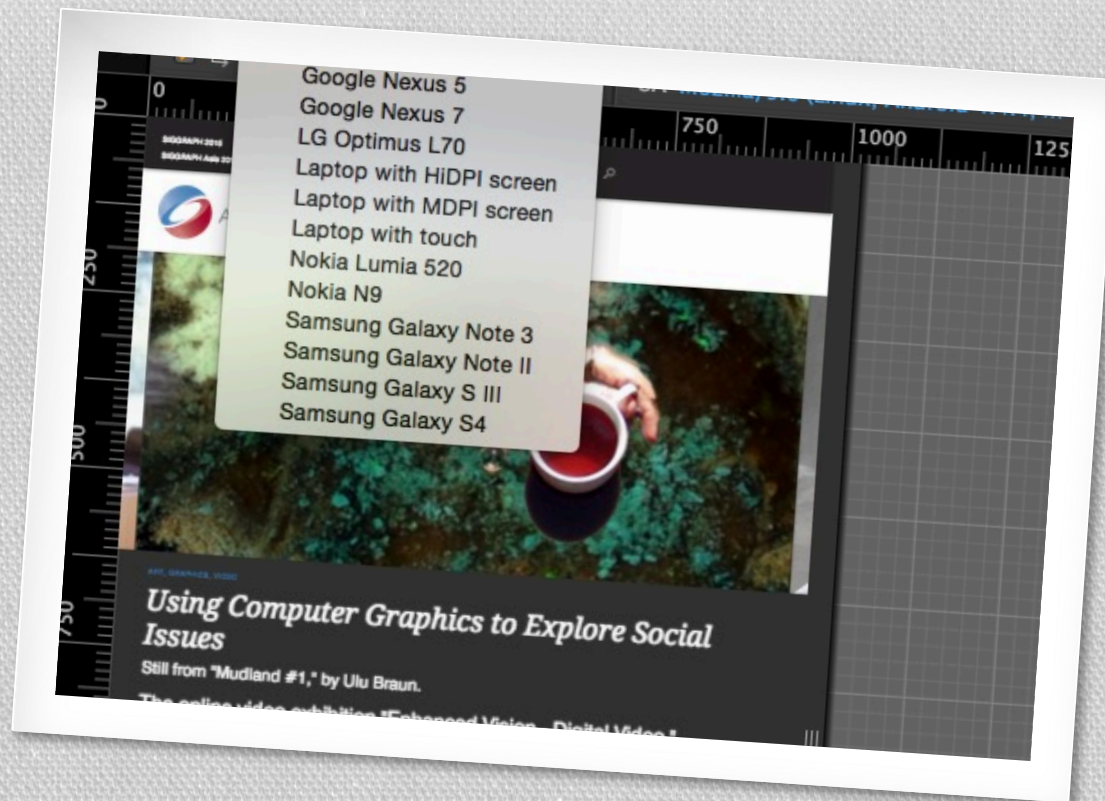
This is why you will see variations on these breakpoints!



# Features of Media Queries

- Allows you to set the CSS based on the size and orientation of the viewport.
- Features on Table 4-1 of RWD include...
  - Width, height, device-width, device-height, orientation, aspect-ratio, color, etc





# Media Query Developer Tool

A good feature in Chrome.

Notice it is spoofing the query parameters that would have come from the client.



STRATEGY AND ADVANCED TECHNOLOGY CONSULTING

MENU



INSIGHT & INNOVATION

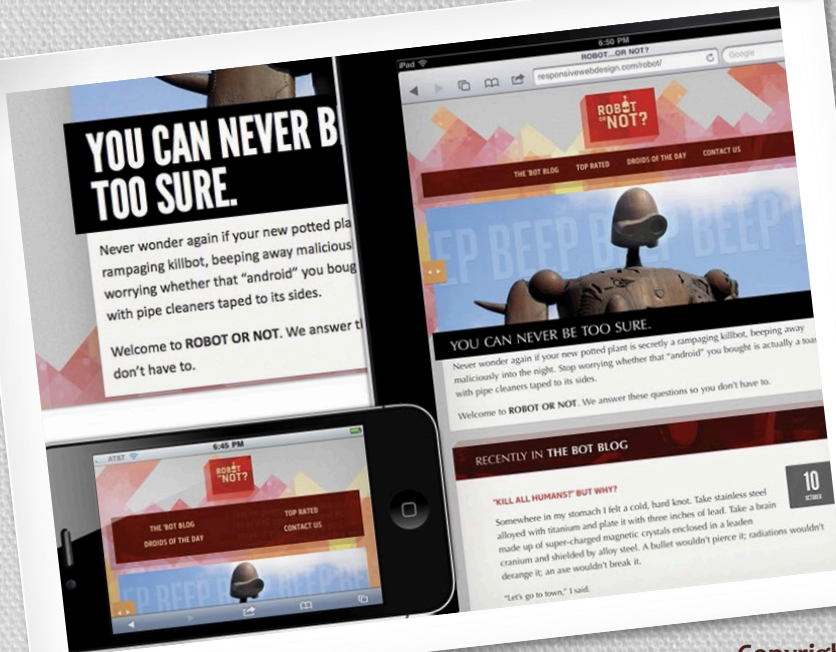
# Menus

Collapse the menu to an icon on mobile with a responsive menu widget

Create a media query for smaller screens that manages the menu without wraps in the wrong place

See RWD figure 4.21

Consider the usability of Off Canvas menu





# Exercise 2 - Responsive Menu

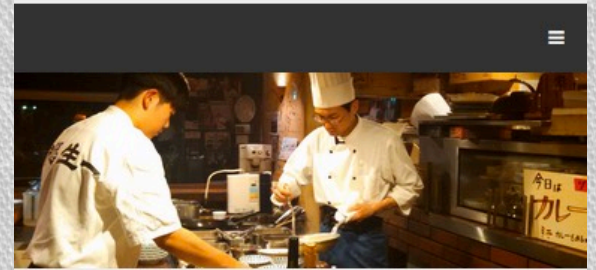
- Start with the most basic example
- This is basic JavaScript, no jQuery needed

```
<ul class="topnav">
<li>&nbsp;</li>
<li><a href="#home">Home</a></li>
<li><a href="#menu">Menu</a></li>
<li><a href="#about">About</a></li>
<li><a href="#contact">Contact</a></li>
<li class="icon">
  <a href="javascript:void(0);" onclick="myFunction()">&#9776;</a>
</li>
</ul>
```

```
<script>
function myFunction() {
  document.getElementsByClassName("topnav")[0].classList.toggle("responsive");
}</script>
```

- To void(o) or not...

## Dinner in Kobe



## Appetizers





# CSS For Responsive Menu

```
1 h1{-
2   ..font-size:-170%;~
3   ..padding:-.5em 0 .5em 0;~
4   ..margin:0;~
5   ..font-weight:-normal;~
6   ..color:-#555;~
7 }~
8 h1.brand{-
9   ..width:-50%;~
10  ..float:-left;~
11  ..padding-top:-0;~
12  ..padding-bottom:-0;~
13  ..line-height:-1.5em;~
14 }~
15 .../*Remove margins and padding from the list, and add a
background color*/~
16 ul.topnav{-
17   ...list-style-type:-none;~
18   ...margin:-0;~
19   ...padding:-0;~
20   ...overflow:-hidden;~
21   ...background-color:-#f8f8f8;~
22   ...width:-20em;~
23   ...float:-right;~
24 }~
25 ~
26 /*Float the list items side by side*/~
27 ul.topnav li{float:-left;}~
28 ~
29 /*Style the links inside the list items*/~
30 ul.topnav li a{-
31   ...display:-inline-block;~
32   ...color:-#333;~
33   ...text-align:-center;~
34   ...padding:-14px 16px;~
35   ...text-decoration:-none;~
36   ...transition:-0.3s;~
37   ...font-size:-17px;~
38 }~
39 ~
40 /*Change background color of links on hover*/~
41 ul.topnav li a:~hover{background-color:-#eee;}~
```

```
42 ~
43 /*Hide the list item that contains the link that should open
and close the topnav on small screens*/~
44 ul.topnav li.icon{display:-none;}~
45 /*When the screen is less than 680 pixels wide, hide all list
items, except for the first one ("Home"). Show the list item
that contains the link to open and close the topnav (li.icon)*/~
46 @media screen and (max-width:768px){~
47   ..ul.topnav li:~not(:first-child){display:-none;}~
48   ..ul.topnav li.icon{-
49     ...float:-right;~
50     ...display:-inline-block;~
51   }~
52 }~
53 ~
54 /*The "responsive" class is added to the topnav with JavaScript
when the user clicks on the icon. This class makes the topnav
look good on small screens*/~
55 @media screen and (max-width:768px){~
56   ..ul.topnav.responsive{position:-relative;}~
57   ..ul.topnav.responsive li.icon{-
58     ...position:-absolute;~
59     ...right:-0;~
60     ...top:-0;~
61   }~
62   ..ul.topnav.responsive li{-
63     ...float:-none;~
64     ...display:-inline;~
65   }~
66   ..ul.topnav.responsive li a{-
67     ...display:-block;~
68     ...text-align:-left;~
69   }~
70 }
```





# TYPOGRAPHY

## SCALE AND RHYTHM

Moving from px to em, a great explanation...

<http://typecast.com/blog/a-more-modern-scale-for-web-typography>



# Maintain typographical hierarchy

- You have font-size: 100%; at the body element
- Target 24 px in a standard browser where 100% is 16px
- $24 / 16 = 1.5 \text{ em}$
- Target / context = result
- We start here because it should be a top down design approach that supports the Cascade
- Review Bootstrap CSS





# Typography Advice From Inclusive Design Patterns Book

- Serving fonts does present a small risk
  - FLOUT (Flash of Unstyled Text) or FOIT (Flash of Invisible Text)
- To mitigate this undesired effect, your best strategy is to choose fallback system fonts with intrinsic dimensions (metrics) which are similar to the web font.
- In Robert Bringhurst's book *The Elements of Typographic Style*, he recommends a measure between 45 and 75 characters. In CSS, 1rem roughly corresponds to the width of the typeface's lowercase m, so a paragraph which is 60rem wide could be said to have a measure of 60 — nicely within range for comfort.



# Responsive Implementations

- Twitter Bootstrap
  - Zurb Foundation 5
  - SemanticUI
  - Materialize
  - Or your custom build
    - Consider <https://html5bones.com/> or <http://www.initializr.com/>
  - ETC...
- 
- A nice comparison of the top choices...
    - <http://responsive.vermilion.com/compare.php>
  - A nice discussion on Frameworks
    - <http://www.technig.com/top-7-best-css-frameworks-2016/>



# Assignment

- Finish styling class exercise and post in Assignments
- Change fonts from percent to em
- Read these key sections of the Bootstrap documentation
  - <https://getbootstrap.com/getting-started/>
  - <http://bootstrapdocs.com/v3.0.3/docs/css/>
  - <http://michaelsoriano.com/exploring-the-bootstrap-3-0-grid-system/>
- If you have any prior art that is suitable for a logo bring it
- Find 3 images for slider exercise next week
  - Images should be compatible height, 1440px width or 1920px
  - Pick a subject, any subject
  - *Copyright and Attribution of images is critical!*