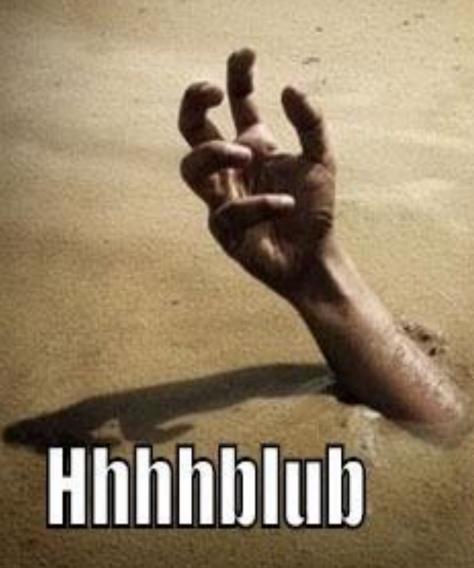
Behold Bootstrap!

The Coding Bootcamp

Heeeelp Meeee



blab

blub

quickmeme.com





IT'S ALL GOING TOBEOKAY.

YOU ARE

FREAKING

AWESOME



Today's Class

Objectives

- 1. Students will use the **Bootstrap CSS Framework** to create layouts
- 2. Students will learn to use **media queries** for mobile responsive websites
- Students will learn to use the meta tag to make sure all devices are displaying web pages optimally for their viewport.

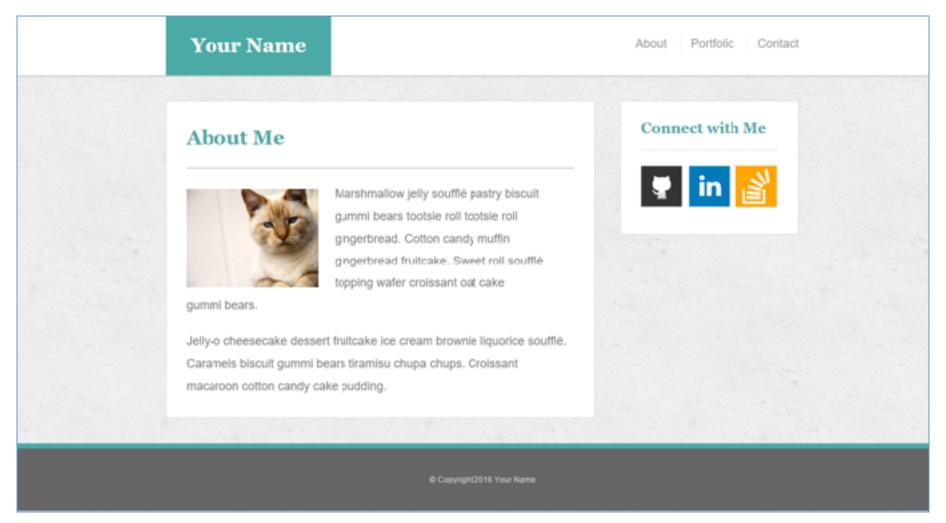
Focus!



This stuff is important...

Recap Bootstrap

The Pains of HW 1



Plain HTML + CSS makes layout building challenging

How You (Probably) Feel About CSS



But Then Came Bootstrap...

The Coding Bootcamp

Home

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Contact

Dropdown +

Default

Static top:

Fixed lop

Awesome Header

Smaller Awesome Header

Even Smaller Header





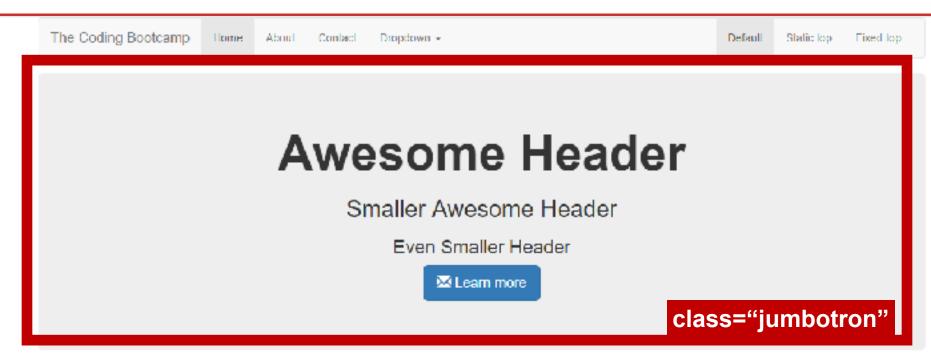
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Powered by Bootstrap

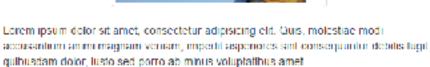
External CSS Link

Pre-Defined CSS Class (ex: "Jumbotron")

Powered by Bootstrap

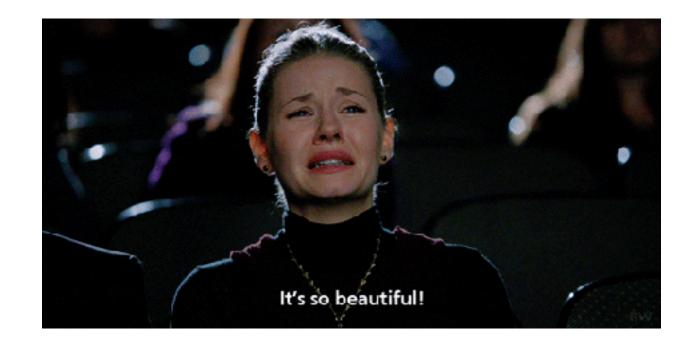






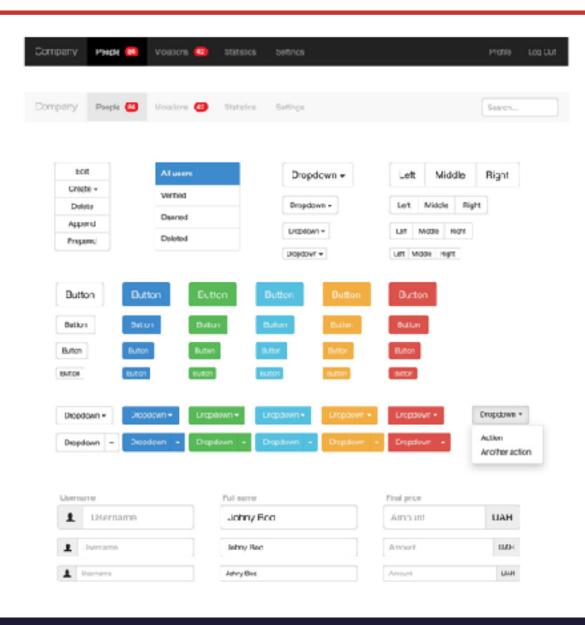


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Using Bootstrap, we have <u>PRE-DEFINED</u> CSS Styles.

Why Use Bootstrap?



- Reason #1: UI Kit
- Familiarize yourself with the UI features it offers via the documentation.
- Once Bootstrap is active, you can simply copy snippets from the documentation to save yourself major time of creating elements yourself.

Why Use Bootstrap?

Reason #2: Mobile Responsiveness

- One of the most compelling reasons to use Bootstrap is the default <u>mobile-responsive</u> quality it provides.
- This means that your website will look "good" automatically when viewed on screens ranging from monitors to tablets to phones.



> YOUR TURN!!

Warmup Activity:

As a repeat of last class, quickly create an HTML webpage.

Then add in a Bootstrap component of your choosing.

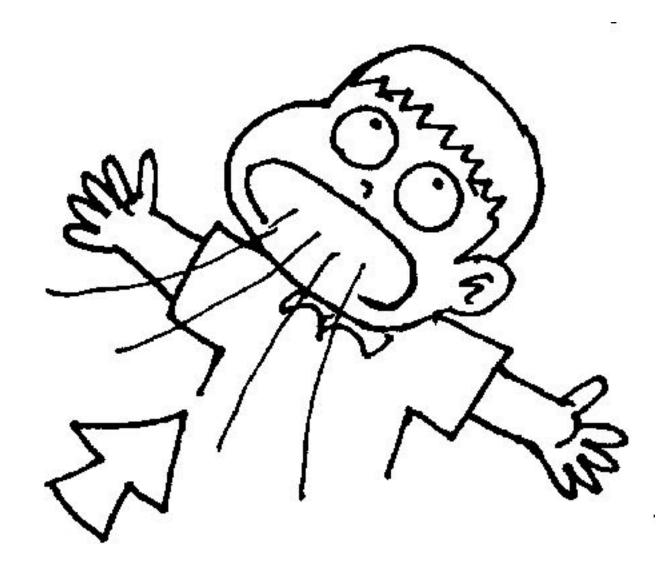
Hint: Copy the Bootstrap CSS link. Then copy the code from any Bootstrap element or CSS.

Last class, we focused on Bootstrap Components (like buttons and tables).

Today we'll be focused on using Bootstrap to build layouts.

Sketching / Grid Layouts

Take a Huge Breath...



FOCUS!

Because in our opinion, these next two sections are some of the

MOST IMPORTANT ONES

in the **ENTIRE** program.



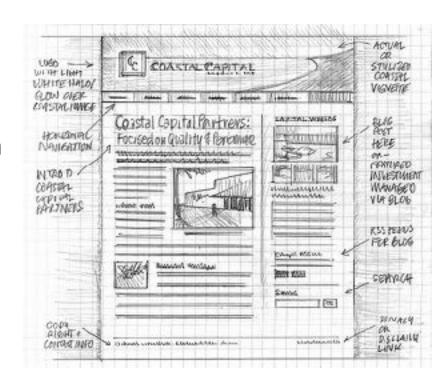
Facebook surf at your own peril (and to the peril of the galaxy)

FOCUS!

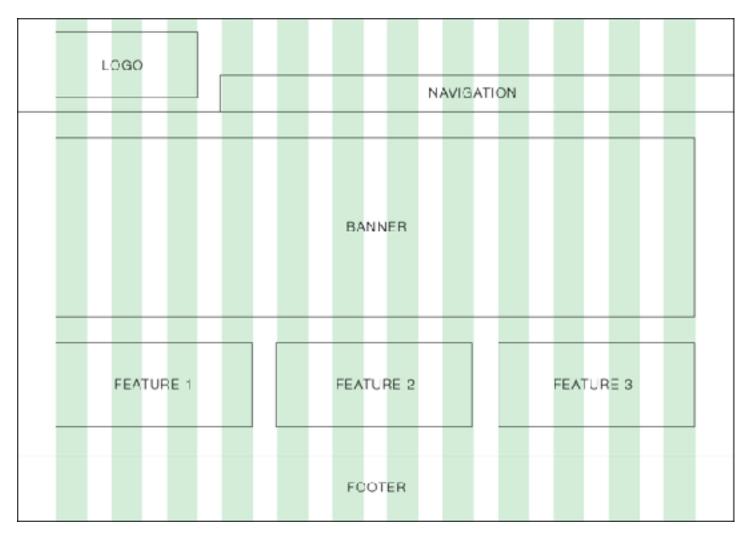
Relax. That doesn't mean its hard.

Importance of Sketches

- Because every aspect of a site's "look" is defined by HTML/CSS – it is crucial to have a detailed sketch going in.
- Pay particular attention to the location of navigation bars, titles, headers, content, images, footers etc.
- When imagining alignments, in particular, be mindful of the <u>grid</u>

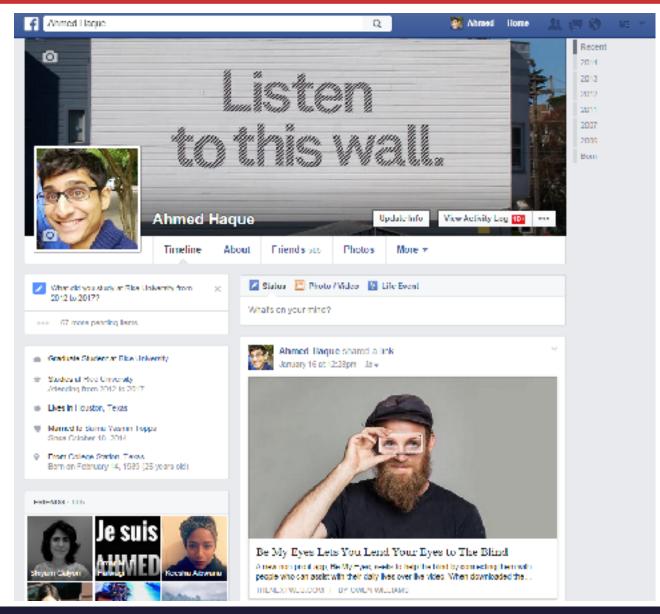


Designing with a Grid in Mind



• Grids serve to align elements aesthetically.

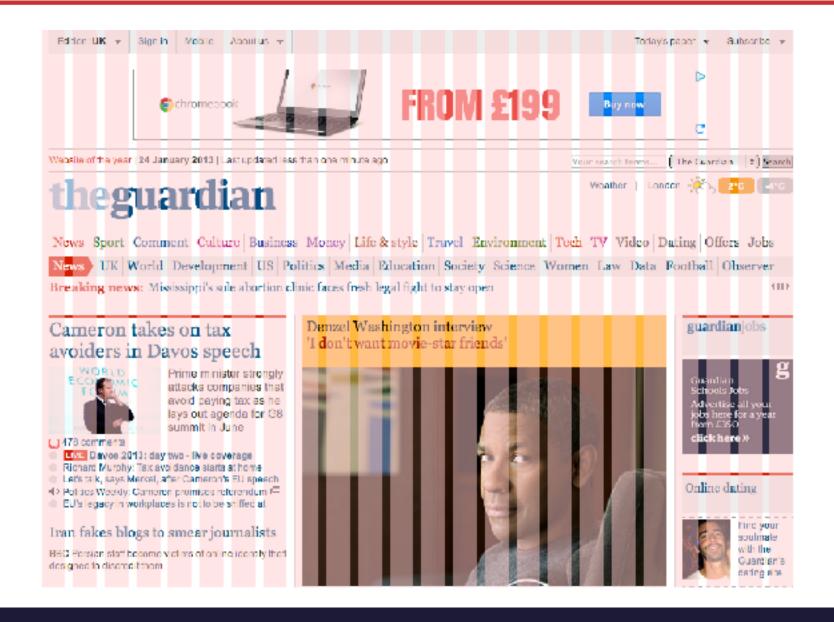
Facebook's Grid



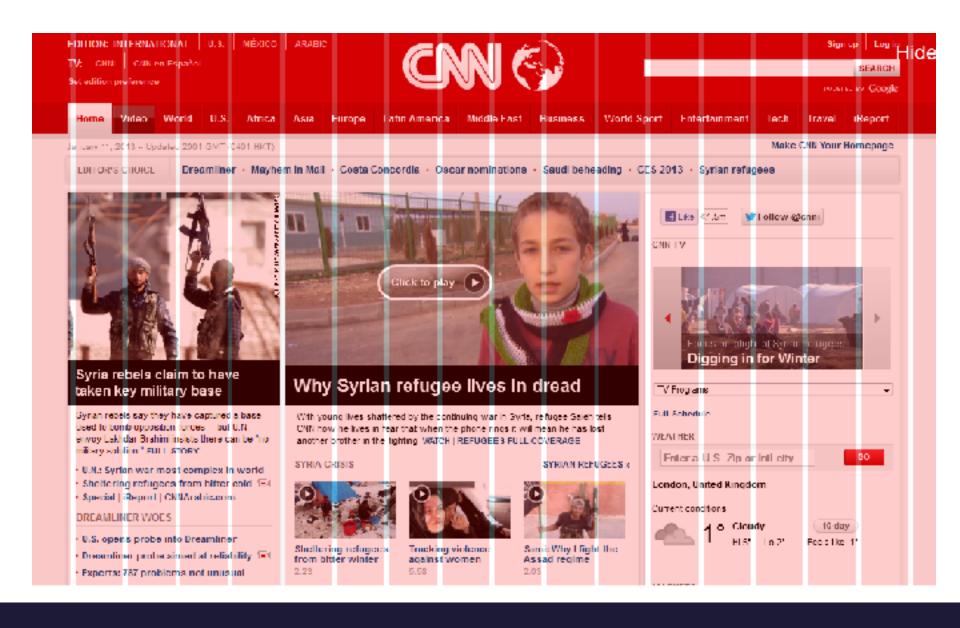
Facebook is a perfect example of a website where the "grid-layout" is obvious.

Grids make it easy to have content (text, images, and regions) align aesthetically.

A More Complex Grid...



A More Complex Grid...



Tools for Sketch / Grid Creation

Wireframing Tools:

- Balsamiq***: https://balsamiq.com/
- Framebox: http://framebox.org/
- Pen and Paper: Your notebook

Grids for Photoshop / Illustrator:

- 960 GS: http://960.gs/
- GuideGuide: https://guideguide.me/

Designing with Grids Guides:

- 960 Grid System Made Easy: http://bit.ly/1sjYaFC
- Design by Grid: http://www.designbygrid.com/
- Designing with Grid-Based Approach: http://bit.ly/1CM4Hzo

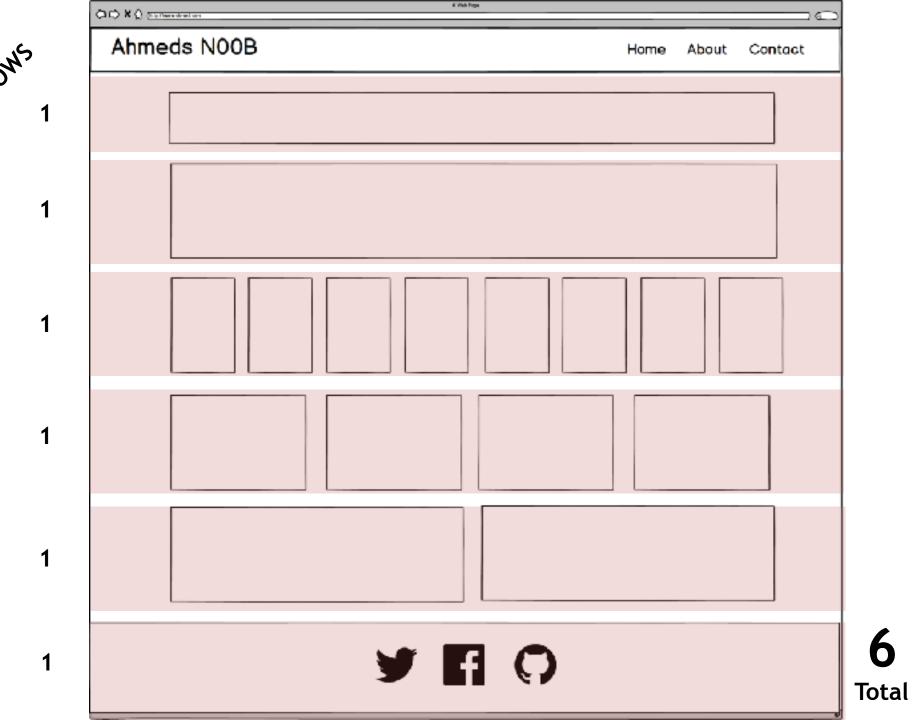


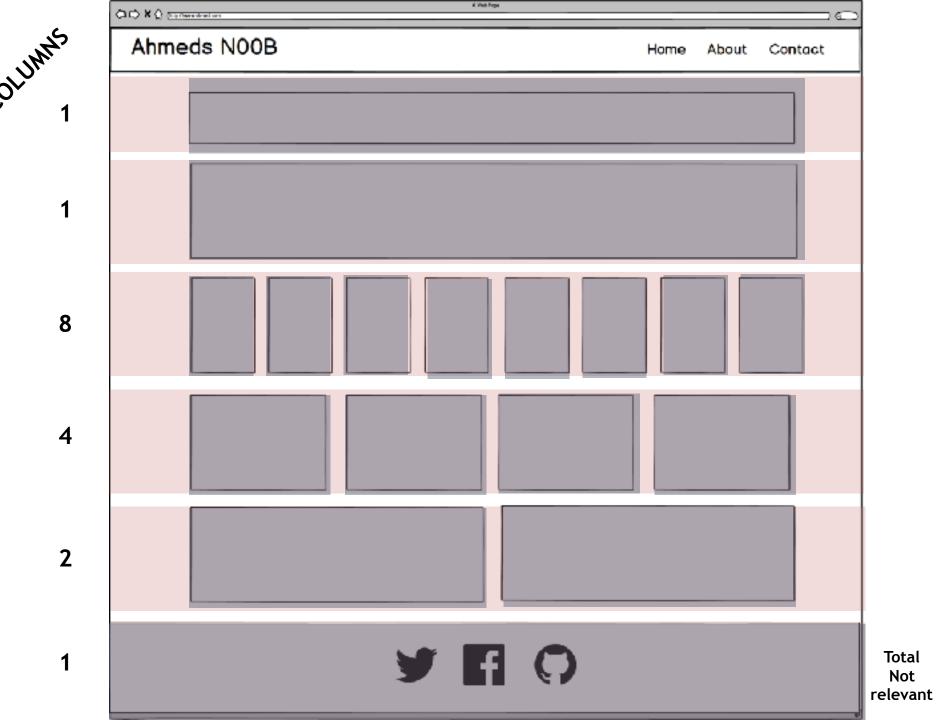
Rows and Columns

Workshop

Web Design Fundamentally = Wireframes







YOUTHY!

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Ahmeds N00B				Home	About	Contact
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Level Up!

Now, let's make it more challenging...



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Awesome Stories



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COLUMNS

Level Up!

Now for another...



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Level Up!

This final one is tricky...



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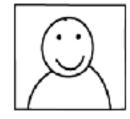
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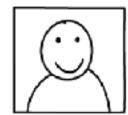












Click Photo to View



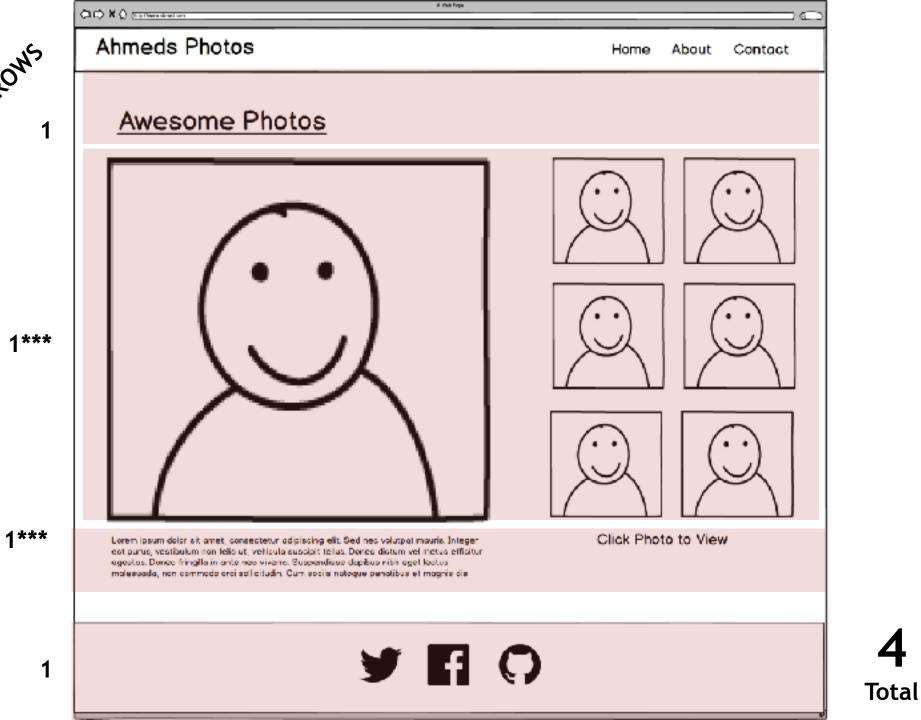




Level Up!

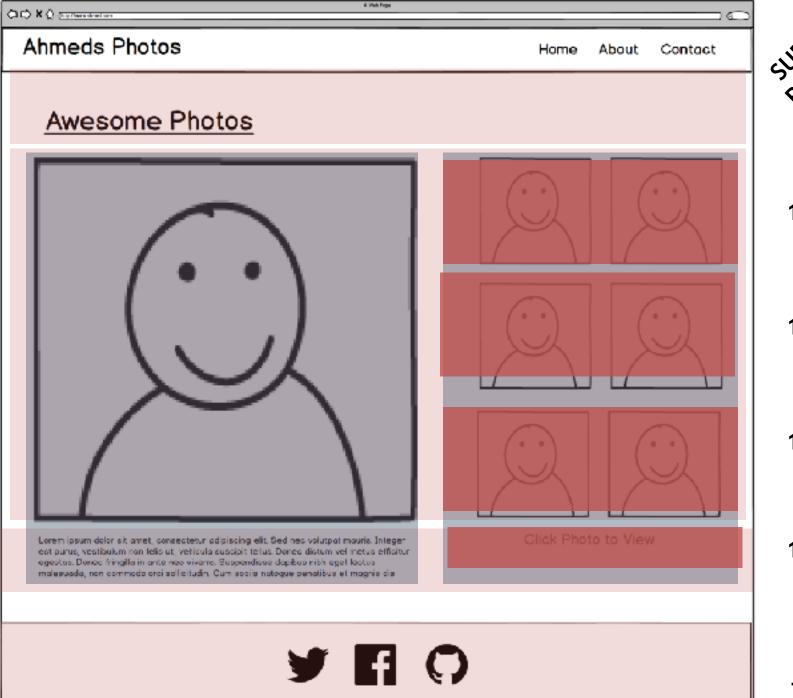
Didn't quite work right?

For this one we need <u>sub-rows</u> and <u>sub-columns</u>

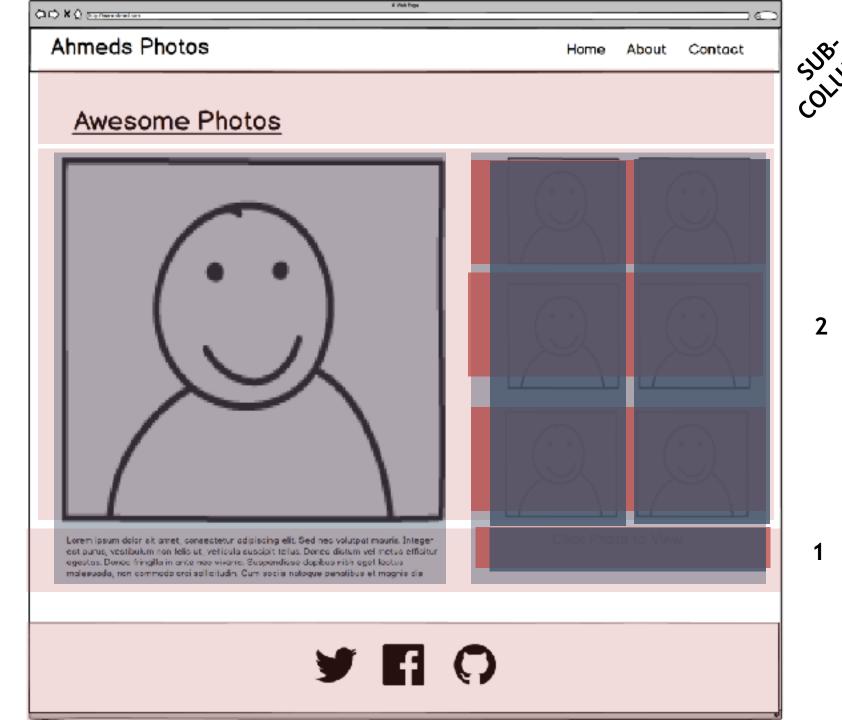




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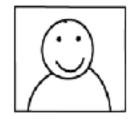
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#. Visb Page



YOU MAL

Grid Design with Bootstrap

More Genius Time!

Warning!

This is a fairly "tricky"... but VERY IMPORTANT topic.



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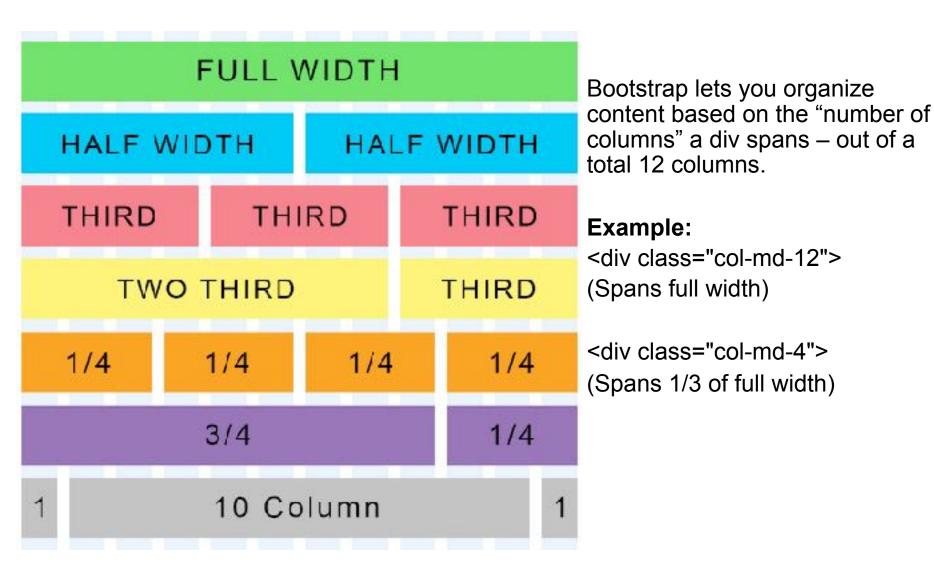
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Bootstrap Grid

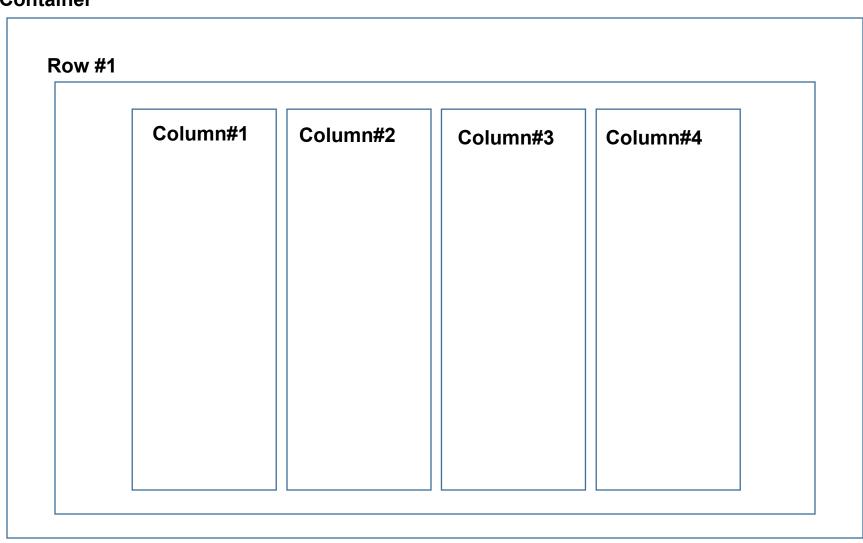


Bootstrap Grids

- Every Bootstrap Grid is made up of...
 - containers which wrap around the entire grid
 - rows which are defined first and are just rows
 - columns which are defined within rows and specify the columns. The sum total of all columns within a row <u>must</u> add up to 12.
- Each of these elements is implemented by creating a div with a specific class name.

Defining Columns

Container



> YOUR TURN!!

Quick Activity:

Turn to your neighbors and explain to one another:

- The relationship between containers, rows, and columns.
 (Draw it on a piece of paper for them)
- 2. The syntax for each.
- 3. The specific syntax details for columns.

Coding Grids

Instructor: Demo (quickgrid.html | 13-InstructorGrids)

Bootstrap Grid

```
<!-- Creates the Overall Grid -->
<div class="container">
    <div class="row">
        <div class="col-lg-12">
            <h1>I'm in Column 1 of 1. I stretch the entire width. And keep going.</h1>
        </div>
    </div>
    <div class="row">
        <!-- First of two columns -->
        <div class="col-lg-6">
            <h1>I'm in Column 1 of 2</h1>
        </div>
        <div class="col-lg-6">
            <h1>I'm in Column 2 of 2</h1>
        </div>
    </div>
</div>
```

Note the rows, columns (col-lg-6), and containers

Bootstrap Grid

```
<!-- Creates the Overall Grid -->
<div class="container">
    <div class="row">
← → C 🛅 file:///C:/Users/ahmed.LAB-QALMEAL/Desktop/BootstrapQuick.html
III Aops 🚰 Inbox (695) ba... 🔤 LearnerNation
  I'm in Column 1 of 1. I stretch the entire width. And keep going.
  I'm in Column 1 of 2
                                                    I'm in Column 2 of 2
        </div>
        <div class="col-lg-6">
            <h1>I'm in Column 2 of 2</h1>
        </div>
    </div>
</div>
```

Note the rows, columns (col-lg-6), and containers

Defining Containers

```
<!-- Creates the Container -->
<div class="container">
     <!-- Inside we fill it up with rows and columns -->
</div>
```

"Containers" are like the box that the entire grid sits inside.

Defining Rows

```
<div class="container">
    <!-- Defines the row -->
    <div class="row">
        <!-- Columns fit inside -->
    </div>
</div>
```

"Rows" are like the rows we talked about earlier.

Defining Columns

```
<div class="row">
    <div class="col-md-4">
        <!-- This is column 1 of 3 -->
    </div>
    <div class="col-md-4">
        <!-- This is column 2 of 3 -->
    </div>
    <div class="col-md-4">
        <!-- This is colmn 3 of 3 -->
    </div>
</div>
```

```
"Columns" fit inside of rows. Note the syntax: col-sz-#

Col = column

sz = viewing size (in this case: medium)

# = number of "columns taken" out of 12. (in this case 4 of 12)
```

> YOUR TURN!!

Activity:

Using Bootstrap, create a layout that looks like the one shown on the next screen.

- Spend some time prior to coding to draw out the grid layout
- Count the number of rows and columns
- Then use the bootstrap grid syntax to code it out.
- •Slack a screenshot of your page when you are done.
- Ipsum Generator: http://www.lipsum.com/

> YOUR TURN!!

Header

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Break?

Building Bootstrap Layouts

Activity:

Working in pairs and using Bootstrap make the following design.

Be sure to note the:

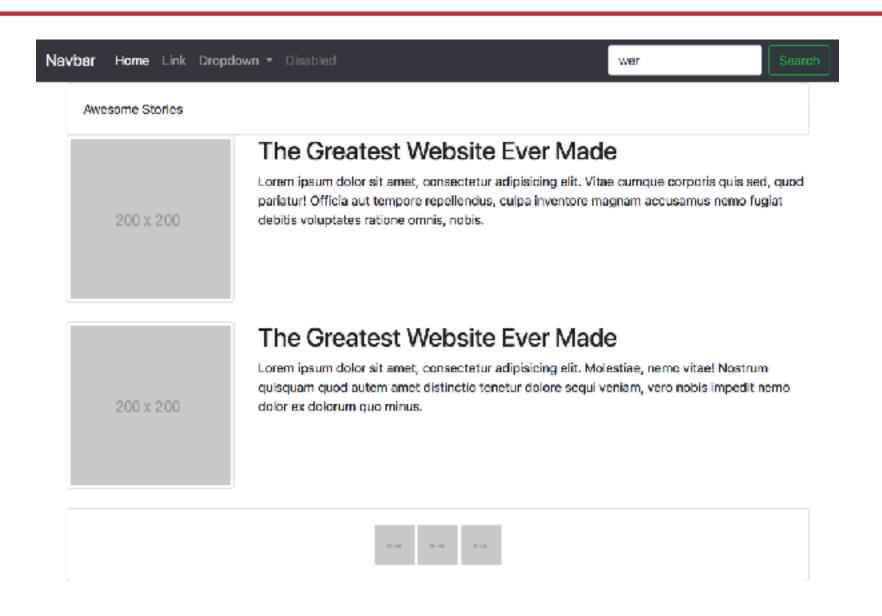
- Grid Layout
- Navbar
- Sidebar panel
- Thumbnail

Additional details will be sent to you via slack.

INSTRUCTOR DEMO!

Instructor: Demo

(InClass-DemoLayout.html | 15-InstructorLayout)



Common Questions

1. Can I reverse the order (i.e. rows inside columns)? Not usually. Columns should go inside of rows. Though, you can create sub-rows inside of columns. But those columns would still need to be inside of a row of their own.

2. Can I just avoid having a container? You could... But it will mess things up. Just throw in a container.

3. What if I have columns that go past 12? Then your bootstrap grid won't behave as expected. Don't go past 12.

4. What if I don't add up to 12?

Nothing. You will have empty space at the end. But be careful, because the next column you add in this row will fill up the empty space (sometimes without your intention).



Mobile Responsive (HW)

Still No Facebook Time

Warning!

This next section matters a lot for your <u>homework</u>



Media Queries

- Media Queries define how CSS styles are applied in relation to the characteristics of the device viewport.
- Through media queries we can change the way a web page is displayed based on width, height, orientation, and even media type (screen, paper, braille, etc).
- Bootstrap extensively uses media queries under the hood to help you create mobile responsive websites.
- But remember! Media queries must be declared last.

INSTRUCTOR DEMO!

Instructor: Demo (17-InstructorMedia)

Quick Demo

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Morbi ut tellus sed felis consectetur auctor eget non justo.

Nunc in laoreet nunc. Quisque accumsan tincidunt neque, at dictum turpis. In hac habitasse platea dictumst.

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Morbi ut tellus sed felis consectetur auctor eget non justo.

Nunc in laoreet nunc. Quisque accumsan tincidunt neque, at dictum turpis. In hac habitasse platea dictumst.

Activity:

Explain to your partner what the following CSS code does:

```
@media screen and (max-width: 768px) {
    body {
       background-color: #333;
    }
    .wrapper {
       width: 600px;
    }
}
```

Activity:

Build your own mobile responsive HTML /CSS page using media queries.

Just follow the steps sent to you via Slack.

Viewport

- Viewport refers to the display being used to view the website.
- By default, mobile devices with small screen, high resolution viewports may render content at a typical desktop screen ratio (scaled down at the smaller screen size).
- We can specify that a web page should scale its content to the width of its current viewport using a `meta` tag.

Viewport

No Viewport Content Scaling



Yes Viewport Content Scaling



Viewport Inclusion

Just include this line in the head

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

And then include a variety of @media queries for various sized screens.

```
@media screen and (max-width: 768px) {
@media screen and (max-width: 480px) {
```

Activity:

Spend the next few moments on the site viewportemulator.com and visit your favorite websites using various viewports.

Notice how the sites change display wise.



Questions?