

Stand Up!



Objectives & Key Outcomes

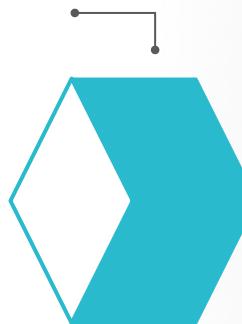
THE TAKEAWAYS FROM THIS CLASS

By the end of class today, you will be able to:

Identify rows
and columns in
grid layouts



Create mobile
responsive
websites using
media queries



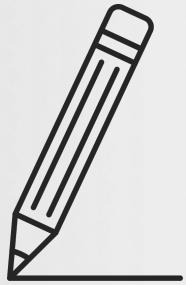
Utilize Bootstrap's
grid system to
create complete
web layouts



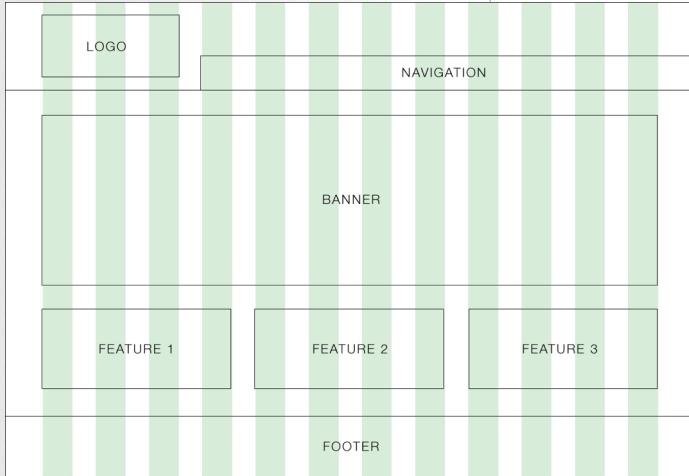
Grid Layout

Grid Layout

COLUMNS AND ROWS



Notebooks Ready? It's time for a mini lecture.



DESIGNING WITH A GRID

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 grid.

Another Example...

Edition: International | U.S. | MÉXICO | ARABIC
TV: CNN | CNN en Español
Set edition preference

Sign up | Log in | SEARCH | Hide | POWERED BY Google

Home | Video | World | U.S. | Africa | Asia | Europe | Latin America | Middle East | Business | World Sport | Entertainment | Tech | Travel | iReport | Make CNN Your Homepage

January 11, 2013 – Updated 2001 GMT (0401 HKT)

EDITOR'S CHOICE Dreamliner • Mayhem in Mali • Costa Concordia • Oscar nominations • Saudi beheading • CES 2013 • Syrian refugees

BULENT KILIC/AF/POOL/GETTY IMAGES

 Syria rebels claim to have taken key military base

Syrian rebels say they have captured a base used to bomb opposition forces – but U.N. envoy Lakhdar Brahimi insists there can be "no military solution." [FULL STORY](#)

- U.N.: Syrian war most complex in world
- Sheltering refugees from bitter cold
- Special | iReport | [CNNArabic.com](#)

DREAMLINER WOES

- U.S. opens probe into Dreamliner
- Dreamliner probe aimed at reliability
- Experts: 787 problems not unusual

 Click to play

Why Syrian refugee lives in dread

With young lives shattered by the continuing war in Syria, refugee Saleh tells CNN how he lives in fear that when the phone rings it will mean he has lost another brother in the fighting. [WATCH | REFUGEES FULL COVERAGE](#)

SYRIA CRISIS | SYRIAN REFUGEES »

 Sheltering refugees from bitter winter 2:23

 Tracking violence against women 6:58

 Sami: Why I fight the Assad regime 2:03

Like 1.5m | Follow @cnni

CNN TV

 Focus on plight of Syrian refugees Digging in for Winter

TV Programs | Full Schedule

WEATHER

Enter a U.S. Zip or Intl city GO

London, United Kingdom

Current conditions

Cloudy 1° Hi 5° | Lo 2° 10-day Feels like -1°

A Web Page
http://www.ahmedsnews.com

Ahmeds News

Home About Contact

Awesome Stories



The Greatest Website Ever Made

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The Greatest Website Ever Made

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ROWS

1

Ahmeds News

Home About Contact

Awesome Stories

1



The Greatest Website Ever Made

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The Greatest Website Ever Made

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1



4

Total

columns

1

Ahmeds News

Home About Contact

Awesome Stories

2



The Greatest Website Ever Made

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The Greatest Website Ever Made

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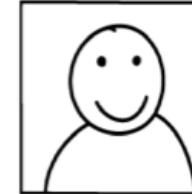
1



Total
Not
relevant

A screenshot of a web browser window showing a website for "AhmedsHouse". The page title is "The Greatest Website Ever Made". It features three identical placeholder images of a smiling person. Below each image is a block of placeholder text (Lorem ipsum). A central callout box also contains the same text. At the bottom, there are social media sharing icons for Twitter, Facebook, and Google+.

The Greatest Website Ever Made



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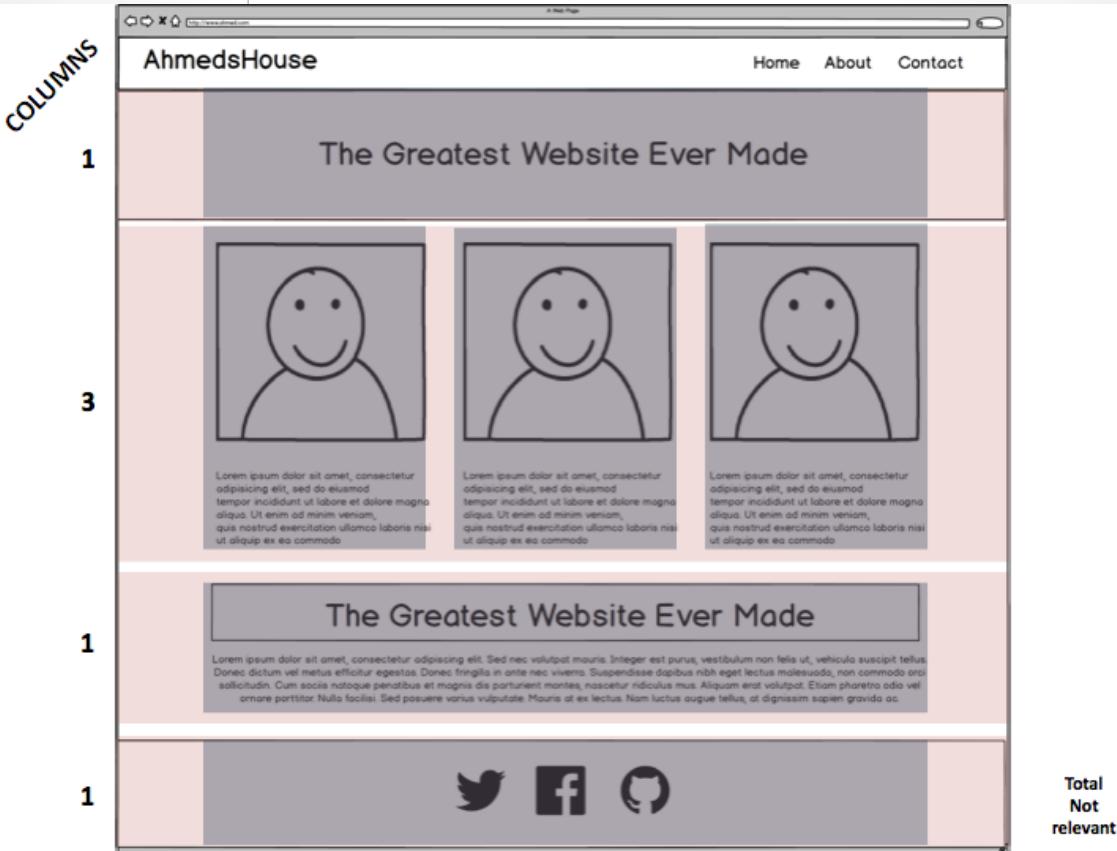
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The Greatest Website Ever Made

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Grid Layout Practice: Calculate the Grid

INDEPENDENT PRACTICE

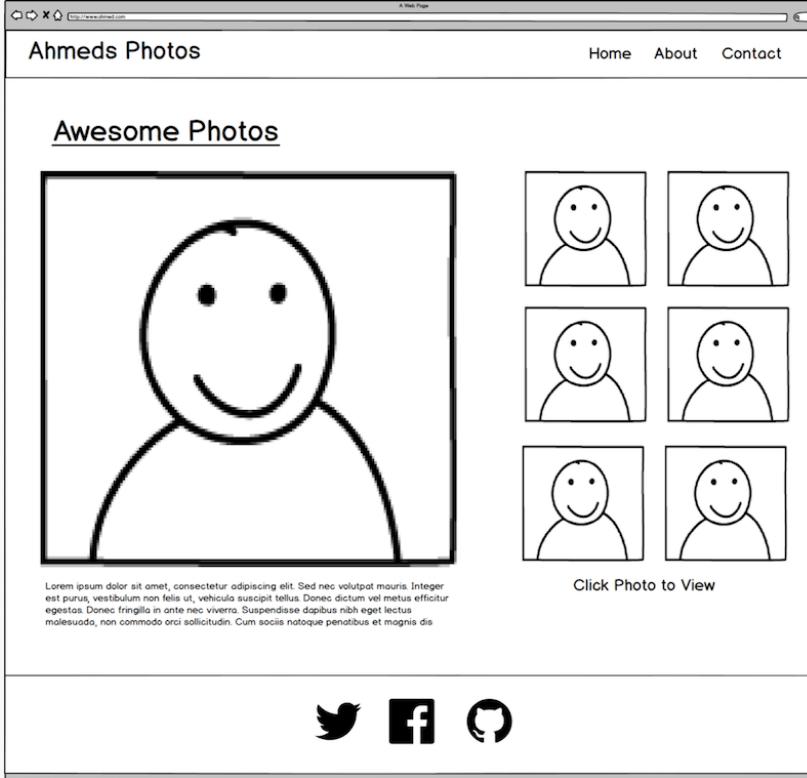
It's time to fly. Focus. Work hard. Ask for help when you need it.

Work in PAIRS to complete all of the goals below.

Goals:

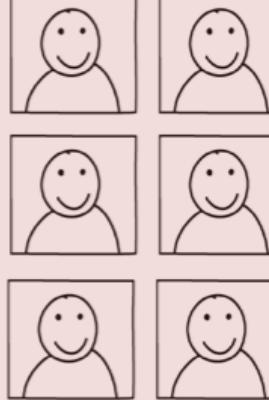
- Working with your partner, calculate the rows and columns in the image on the next slide.
- This is tricky! But break it down piece-by-piece.





CALCULATE THE GRID

ROWS

| 1 | <h2>Ahmeds Photos</h2> <h3>Awesome Photos</h3>  <p>Click Photo to View</p> <p>1***</p> <p>1***</p> <p>1</p> | <p>Home About Contact</p>  |
|---|--|---|
| | | 4 Total |

[Twitter](#) [Facebook](#) [G+](#)

COLUMNS

1

2

1

Ahmeds Photos

Home About Contact

Awesome Photos

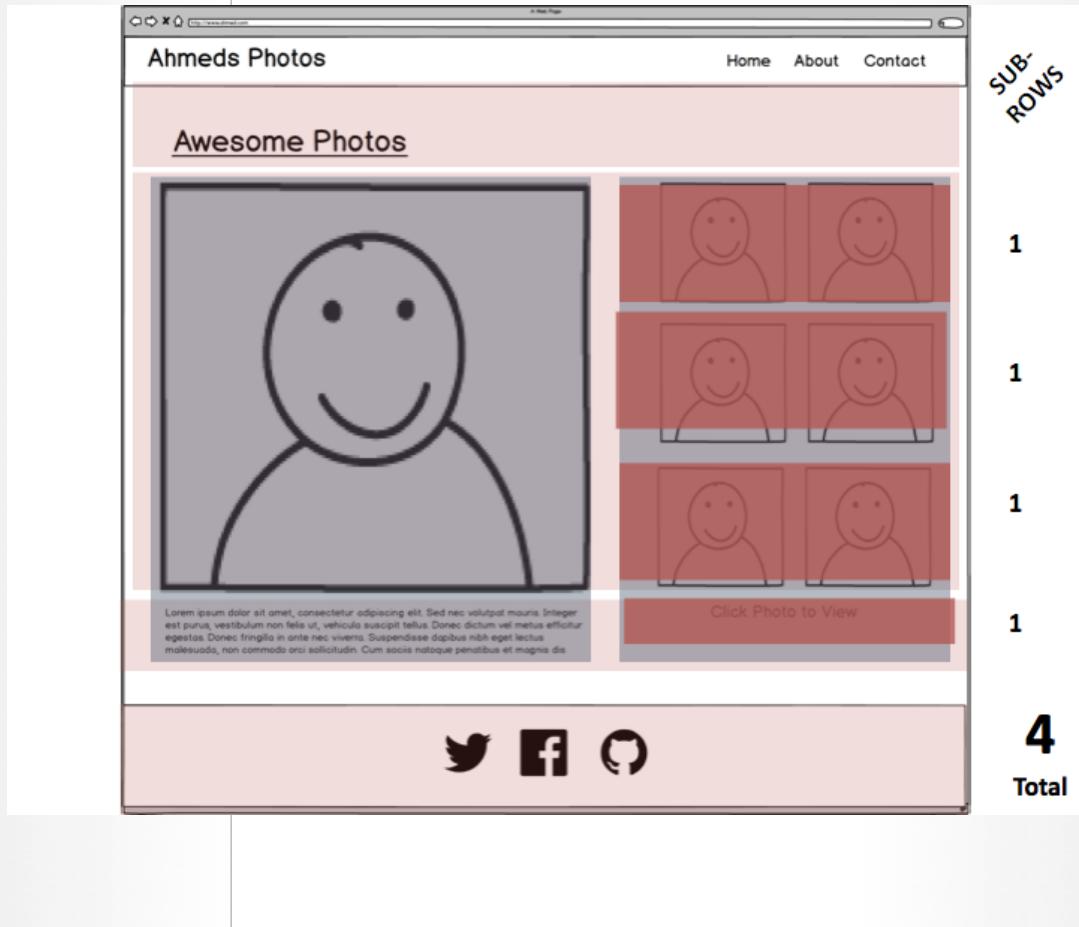
Click Photo to View

Twitter icon

Facebook icon

Github icon

Total Not relevant



A screenshot of a website titled "Ahmeds Photos". The header includes a logo (a smiley face icon), the title "Ahmeds Photos", and navigation links "Home", "About", and "Contact". Below the header is a section titled "Awesome Photos" containing a large image of a smiling person and a grid of smaller, dimmed images. A caption below the large image reads: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed nec volutpat mours. Integer est purus, vestibulum non felis ut, vehicula suscipit tellus. Donec dictum vel metus efficitur egestas. Donec fringilla in ante nec viverra. Suspendisse dapibus nibh eget lectus malesuada, non commodo orci sollicitudin. Cum sociis natoque penitus et magnis dis". At the bottom of the page are social media icons for Twitter, Facebook, and Google+. The right side of the image features a vertical stack of numbers and text: "SUB-COLUMNS", "2", and "1".

Ahmeds Photos

Home About Contact

Awesome Photos

Click Photo To View

1

2

SUB-COLUMNS



Breathe

Stay Seated & Take 3 Deep Breaths.

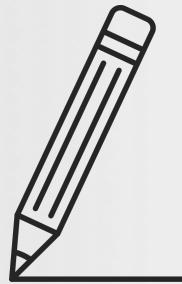
RELAX.

Now take a short walk. Clear your head. After a few minutes break, quickly review your notes.
We'll start back in 5 minutes.

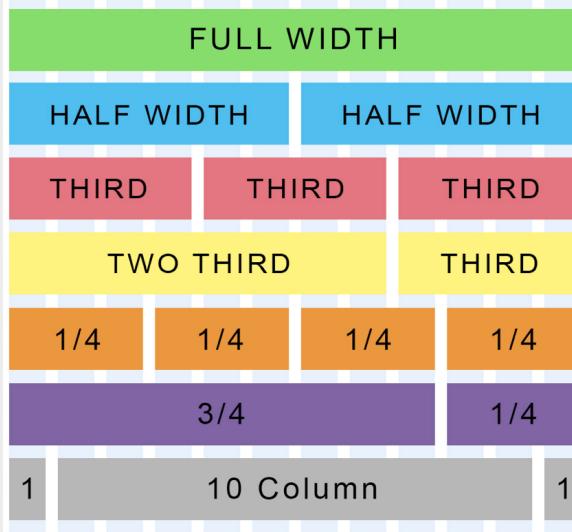
Bootstrap Grid

Bootstrap Grid

LET'S CODE IT USING BOOTSTRAP OUT!



Notebooks Ready? It's time for a mini lecture.



BOOTSTRAP GRID

Bootstrap lets you organize content based on the “number of columns” a div spans – out of a total 12 columns.

EXAMPLE:

```
<div class="col-md-12">  
(Spans full width)
```

```
<div class="col-md-4">  
(Spans 1/3 of full width)
```

BOOTSTRAP GRID

Container

Row #1

Column#1

Column#2

Column#3

Column#4

Each of these elements is implemented by creating a div with a specific class name.

Every Bootstrap Grid is made up of...

containers - which wrap 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 must add up to 12.

Coding Grids

WATCH & LEARN

Close your laptop. Eyes on my screen. Pay attention.

```
<!-- Creates the Overall Grid -->
<div class="container">

<!-- First Row -->
<div class="row">

    <!-- First (and only column) -->
    <div class="col-md-12">
        <h1>I'm in Column 1 of 1. I stretch the entire width. And keep
        going.</h1>
    </div>
</div>
```

BootStrap Practice

INDEPENDENT PRACTICE

It's time to fly. Focus. Work hard. Ask for help when you need it.

Work in PAIRS to complete all of the goals below.

Goals:

- Using Bootstrap CSS, create a layout that looks like the one shown on the next slide.

Hints:

- Spend some time prior to coding on drawing out the grid layout.
- Count the number of rows and columns.
- Then use the bootstrap grid syntax to code it out.



Header

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Create this Layout with Bootstrap's Grid

Bootstrap Wireframe Layout

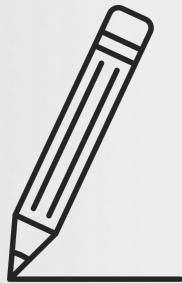
WATCH & LEARN

Close your laptop. Eyes on my screen. Pay attention.

MEDIA QUERIES

Media Queries

MOBILE RESPONSIVENESS



Notebooks Ready? It's time for a mini lecture.

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.

MEDIA QUERIES

Continued . . .

Media Query Practice

INDEPENDENT PRACTICE

It's time to fly. Focus. Work hard. Ask for help when you need it.

Work in PAIRS to complete all of the goals below.

Goals:

- Add more styling to the media query provided in `css/style.css` to create padding and margins for the two boxes when the page is below a `max-width` of 768px.

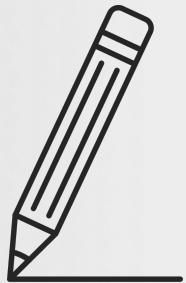


Challenge:

- Add more styling to the CSS file such that the `@media screen` code adjusts the padding and width for the two boxes when the page is below a `max-width` of 980px.

Viewport

MOBILE RESPONSIVENESS

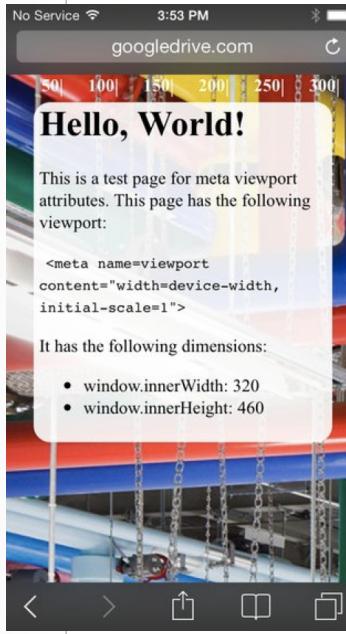


Notebooks Ready? It's time for a mini lecture.

No Viewport Content Scaling



Yes Viewport Content Scaling



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).

VIEWPORT

VIEWPORT INCLUSION

Just include this line in the head:

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

Then include media queries for various sized screens:

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

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