

FE101

Grid Systems, Other Responsive Concerns

**Any homework
questions?**

Other Responsive Concerns

float, display

- These two properties are quite useful for responsive content
- If elements are floated in the same direction, they'll naturally collapse underneath each other when the page is resized
- This is similar to the `display: inline;` or `display: inline-block;` properties

Fixed widths vs percentage widths

- If you use a percentage width, your text will resize with the page, which can be a useful tool
- Fixed width containers will not change width based on the size of the page

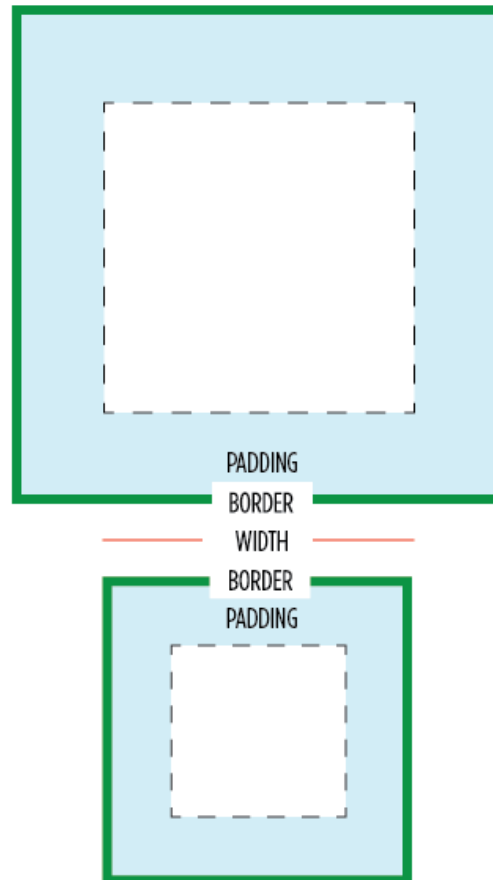
max-width VS width

- Setting a fixed `width` will mean that your container once again does not resize, regardless of how small the page gets
- More likely, the page will have a scroll bar to get to the non-visible part of the content
- Using `max-width` instead will actually resize the content based on the size of the viewport, up until your `max-width` is hit

!important

- Adding !important to the end of a css declaration will supersede any other use of that attribute anywhere else
`font-size: 20px !important;`
- **Use with caution.**
 - Only use this as a last resort if there's no other way to do what you're doing. Later on, when you're editing that attribute in the stylesheet you overrode, you may forgot that stylesheet was overridden.

*** {box-sizing: border-box;}**



What is a grid system?

(as it relates to design)

- A framework of intersecting lines meant to be used as a skeleton to arrange different graphic elements



Vermont Symphony Orchestra		
Winter 2007 Season	Aaron Copland The Tender Land January 2007	Eric Satie Gymnopedie 1, 2 February 2007
	01/12/07 Middlebury College Center for the Arts 8:00 pm	02/03/07 Johnson State College Dibden Center for the Arts 8:00 pm
	01/19/07 Johnson State College Dibden Center for the Arts 8:00 pm	02/10/07 Castleton State College Fine Arts Center 8:00 pm
	01/26/07 Lyndon State College Alexander Twilight Theater 8:00 pm	02/17/07 Middlebury College Center for the Arts 8:00 pm

What is a grid system?

(as it relates to CSS + web design)

- Rather than arbitrarily deciding how large content blocks on a web page should be, have them conform to a set width
- Going further, instead of a set width for each block, decide on a width unit and make certain blocks x number of that unit wide
- Makes for more symmetrical designs and easier to maintain, more easily responsive code

Existing grid system options

- Bootstrap - <http://getbootstrap.com/>
- Zurb Foundation - <http://foundation.zurb.com/>
- Unsemantic - <http://unsemantic.com/>
- Responsive Grid System - <http://www.responsivegridsystem.com/>

Using Bootstrap's Grid System

- Bootstrap is a full-featured front end CSS framework
- It is written in LESS, a higher-level version of CSS that gets compiled down to CSS
- To use Bootstrap, you include their library in the `<head>` section of your webpage
- Different features of the library are accessed using class names like `.row`, `.`

Using Bootstrap's Grid System

(according to the official docs at getbootstrap.com/css)

- Rows must be placed within a `.container` (fixed-width) or `.container-fluid` (full-width) for proper alignment and padding.
- Use rows to create horizontal groups of columns.
- Content should be placed within columns, and only columns may be immediate children of rows.

Using Bootstrap's Grid System

(according to the official docs at getbootstrap.com/css)

- Predefined grid classes like `.row` and `.col-xs-4` are available for quickly making grid layouts.
- Columns create gutters (gaps between column content) via padding. That padding is offset in rows for the first and last column via negative margin on `.rows`.
- Grid columns are created by specifying the number of twelve available columns you wish to span. For example, three equal columns would use three `.col-xs-4`.

Using Bootstrap's Grid System

some sample code

```
<div class="row">  
  <div class="col-md-8">.col-md-8</div>  
  <div class="col-md-4">.col-md-4</div>  
</div>
```

```
<div class="row">  
  <div class="col-md-4">.col-md-4</div>  
  <div class="col-md-4">.col-md-4</div>  
  <div class="col-md-4">.col-md-4</div>  
</div>
```

Exercise

- Create the webpage mocked up in the file `bootstrap.png` using Bootstrap's fluid grid system

Creating your own grid system

- You could also create your own grid system
- For inspiration, take a look at one of the major frameworks' code!

<https://github.com/twbs/bootstrap>

<https://github.com/nathansmith/unsemantic>

15 Minute Break

More Bootstrap

Setting up your first bootstrap project

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
  <head>
```

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

```
  </head>
```

```
  ...
```

```
</html>
```

Normalize.css

- Included with Bootstrap
- “Resets” the browser’s default styles so they are consistent accross browsers

More Components

- Buttons
- Navbar
- Jumbotron...

And more!

Exercise

Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

[Learn more »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

[View details »](#)

Sprite Sheets

Sprite Sheets

A sprite sheet is one big image file with many smaller images in it:

This improves performance, since we don't have to make several requests to download images



Sprite Sheets

```
.sprite {  
  background-image: url(spritesheet.png);  
  background-repeat: no-repeat;  
  display: block;  
}
```

```
.sprite-github {  
  width: 30px;  
  height: 30px;  
  background-position: -5px -5px;  
}
```

Exercise

Make a spritesheet with some social media icons and display them on an HTML page.