
LET'S GET EVERYTHING SET UP!

1. In Schoology, go to: **Courses(in the top menu) > FEWD CHI 1: Section 1**
2. Then go to the **Class Materials** folder — it's the pink one!
3. Navigate to the **Week 10 (It's the yellow folder) > Lesson 19 folder**
4. There you'll find all the materials for today's class
5. Download `starter_code_lesson_19.zip`
6. Move it from your Downloads folder to your Desktop
7. Double-click on `starter_code_lesson_19.zip` to unzip it
8. After you've unzipped, delete the original .zip to avoid confusion and make sure you don't unzip it again later!!!

GRIDS & LAUNCHING A SITE

Sarah Holden

LEARNING OBJECTIVES

- Integrate Bootstrap to create a responsive layout
- Identify different image formats and when each should be used.
- Demonstrate the ability to transfer files to a server using FTP

AGENDA



- Integrating Bootstrap
- Optimizing Images
- Up and Running!
- Next Steps

GRID SYSTEMS

INTEGRATING BOOTSTRAP

LAYOUT GRIDS

- Composition in any visual art is the placement or arrangement of visual elements — how they are organized on a page.
- Many designers use a grid structure to help them position items on a page.



BENEFITS OF GRID SYSTEM LAYOUTS

While grids might seem like a restriction at first, they have many benefits including:

- Creating continuity between different pages
- Helping users predict where they can find information on various pages
- Making it easier to add new content to the site in a consistent way
- Helping designers/developers collaborate in a consistent way



Image credit: [Viking](#)

CSS FRAMEWORKS

- CSS *Frameworks* that aim to make life easier by providing code for common tasks, such as creating responsive layout grids, styling forms, styling UI elements, etc.

PROS:

- Save developers from repeatedly writing code for the same tasks
- Tested across various browsers
- Useful for rapid website development

CONS:

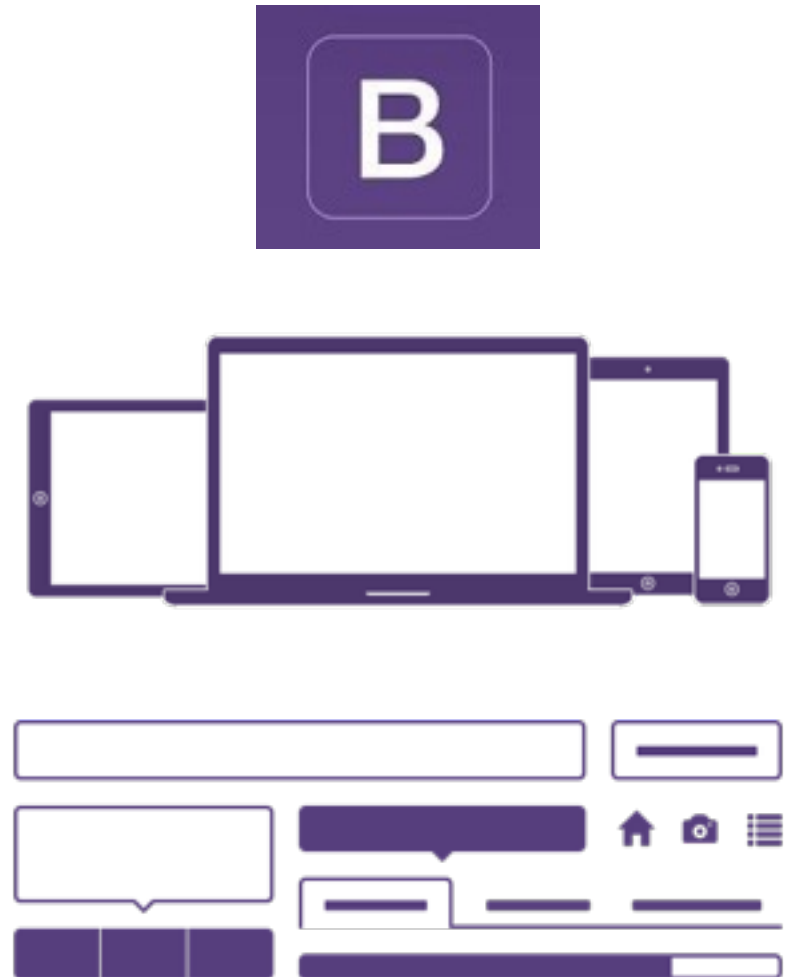
- Often require developers to use class names in HTML that only control the presentation of the page (rather than describe content)
- Often contain more code than you need for your particular page, creating “bloat”

HELLO BOOTSTRAP!

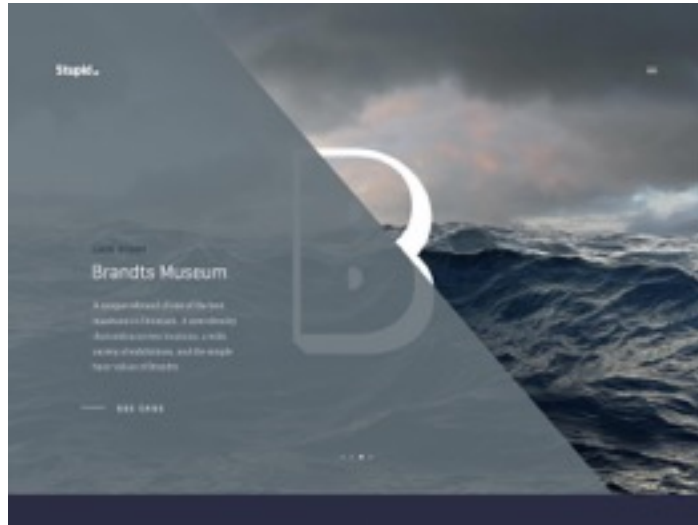
- **Bootstrap** is *“the most popular HTML, CSS and JS framework for developing responsive, mobile first projects on the web.”*

FEATURES:

1. Grid system
2. Forms/buttons
3. Navigation
4. Tabs and pills
5. Alerts/error messages
6. Modals
7. And much more



SITES THAT USE BOOTSTRAP



And many, many more: [Bootstrap Expo](#)

BOOTSTRAP

GETTING STARTED

GETTING STARTED

1. Download Bootstrap [here](#)
2. Once downloaded, unzip and open folder in Finder. You'll see something like this:

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

3. We'll then need to add the files we want to use to our project and include those files in our HTML.

BOOTSTRAP

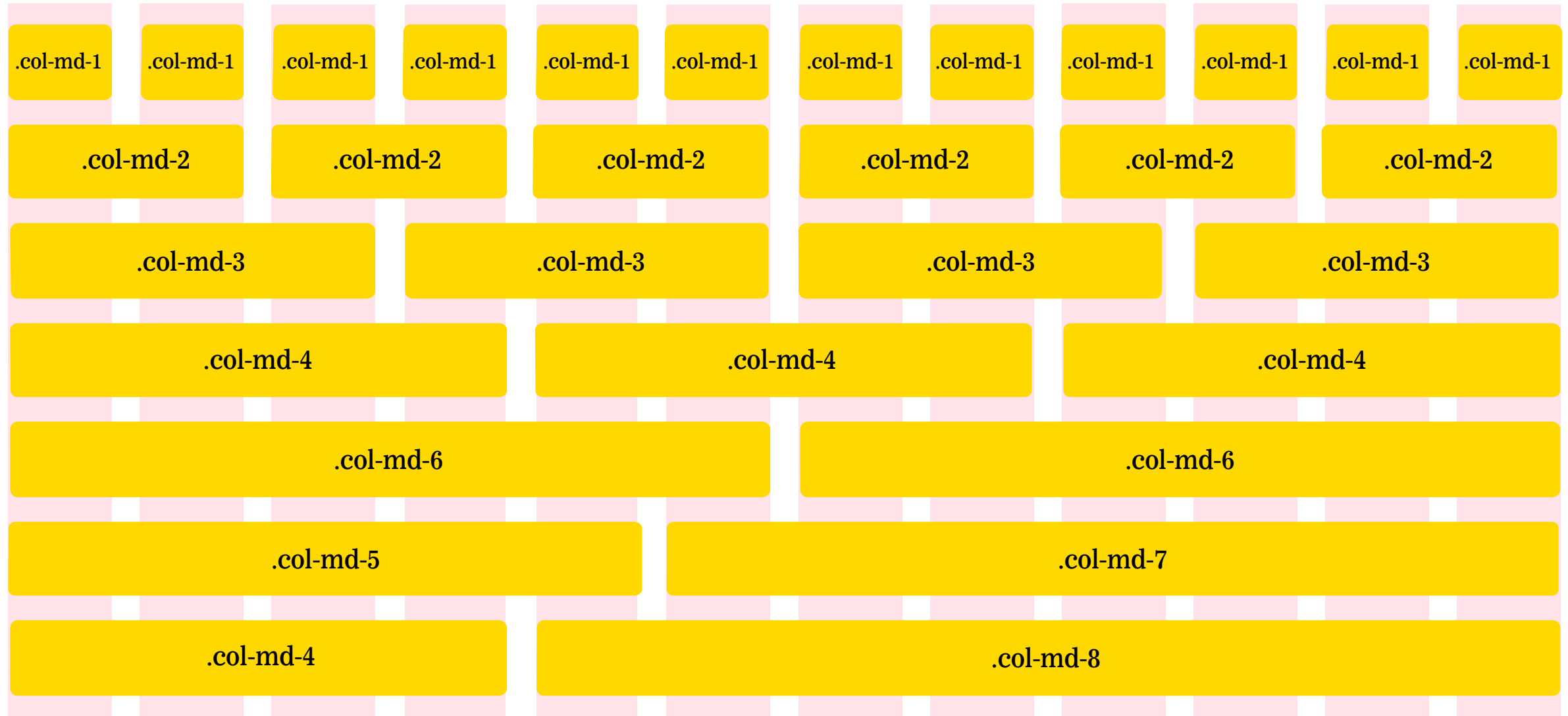
GRID SYSTEM

BOOTSTRAP — GRID SYSTEM

- Bootstrap includes a responsive, mobile-first fluid grid system that appropriately scales up to **12 columns** as the device or viewport size increases.
- Page layouts are created through a series of rows and columns that house your content

BOOTSTRAP — GRID SYSTEM

- It includes predefined classes for easy layout options.



BOOTSTRAP — SETTING UP GRID

1. Add containing element to page
2. Add rows to create horizontal groups of columns
3. Place content within columns, specifying the number of twelve available columns you wish to span.

STEP 1 — CONTAINING ELEMENT

- › Bootstrap requires a containing element to wrap site contents and house our grid system. You may choose one of two containers to use in your projects:

Use `.container` for a responsive fixed width container.

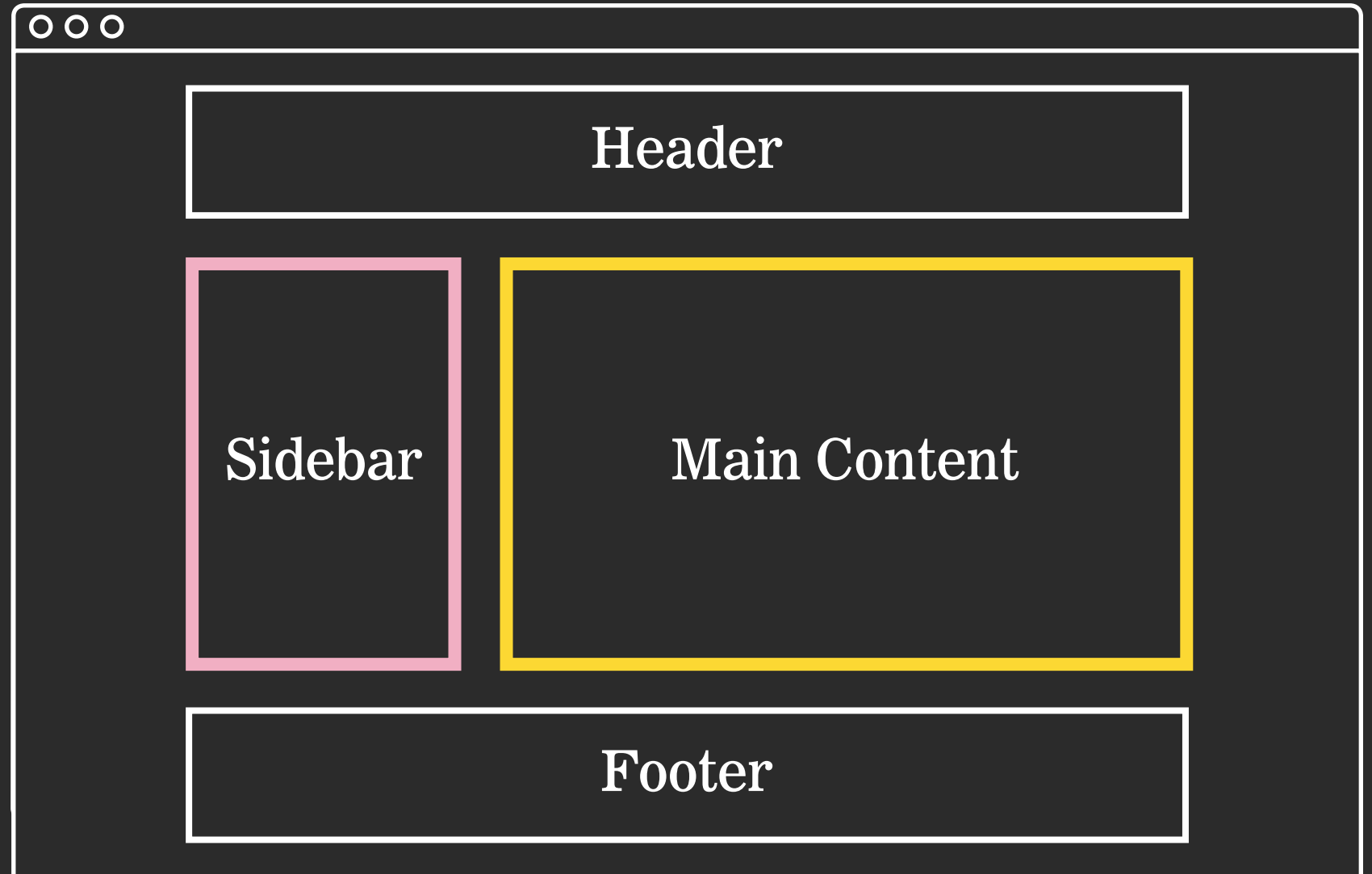
```
<div class="container">
  ...
</div>
```

Use `.container-fluid` for a full width container, spanning the entire width of your viewport.

```
<div class="container-fluid">
  ...
</div>
```

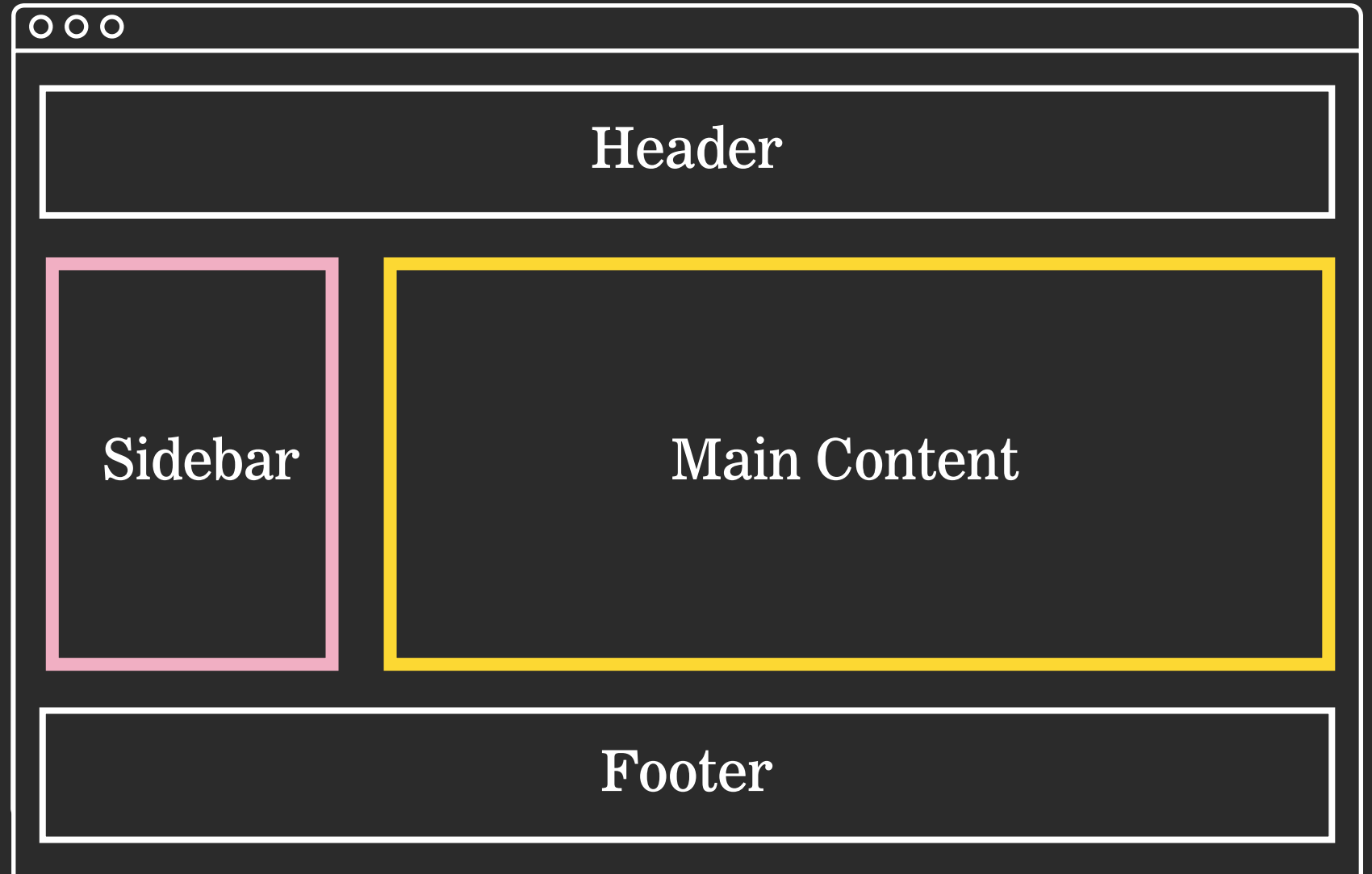
FIXED WIDTH LAYOUT

Fixed width layouts do not change size as the user increases/decreases width of browser window



FLUID LAYOUT

Fluid layouts stretch and contract as the user increases/decreases the size of their browser window



STEP 1 — CONTAINING ELEMENT

	Extra small devices Phones (<768px)	Small devices Tablets (≥768px)	Medium devices Desktops (≥992px)	Large devices Desktops (≥1200px)
Container width (fixed)	None (auto)	750px	970px	1170px

STEP 2 — ADD ROWS

- Use rows to create horizontal groups of columns.
- Only columns may be immediate children of rows.

```
<div class="row">  
  (columns)  
</div>
```

▪ row



▪ row



▪ row



STEP 3 — ADD COLUMNS

- Content should be placed within columns.
- Columns create gutters (gaps between column content) via padding.
- Predefined grid classes like `.row` and `.col-xs-4` are available for quickly making grid layouts.

	Extra small devices Phones (<768px)	Small devices Tablets (≥768px)	Medium devices Desktops (≥992px)	Large devices Desktops (≥1200px)
Container width	None (auto)	750px	970px	1170px
Class prefix	<code>.col-xs-</code>	<code>.col-sm-</code>	<code>.col-md-</code>	<code>.col-lg-</code>
Column width	Auto	~62px	~81px	~97px
Gutter width	30px (15px on each side of a column)			

STEP 3 — ADD COLUMNS — STACKED TO HORIZONTAL

- Using a single set of `.col-md-*` grid classes, you can create a basic grid system that starts out stacked on mobile devices and tablet devices (the extra small to small range) before becoming horizontal on desktop (medium) devices.

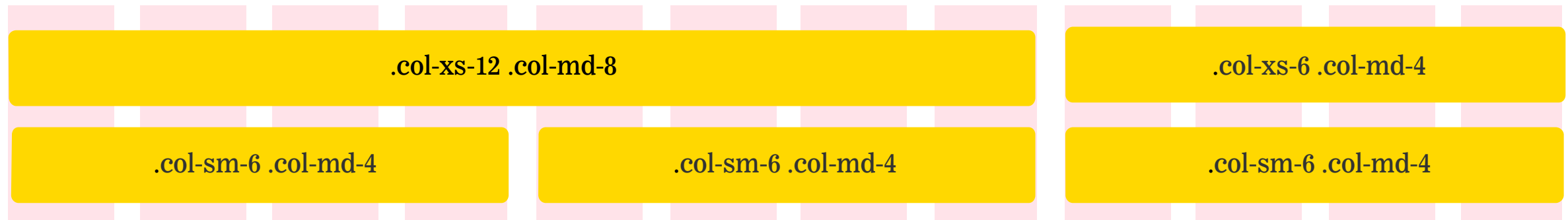
```
<div class="row">
  <div class="col-md-5">.col-md-5</div>
  <div class="col-md-7">.col-md-7</div>
</div>
<div class="row">
  <div class="col-md-4">.col-md-4</div>
  <div class="col-md-4">.col-md-4</div>
  <div class="col-md-4">.col-md-4</div>
</div>
```



STEP 3 — ADD COLUMNS — MOBILE AND DESKTOP

- › Don't want your columns to simply stack in smaller devices? Use the extra small and medium device grid classes by adding `.col-xs-*` `.col-md-*` to your columns.

```
<div class="row">
  <div class="col-xs-12 col-sm-6 col-md-8">.col-xs-12 .col-sm-6 .col-md-8</div>
  <div class="col-xs-6 col-md-4">.col-xs-6 .col-md-4</div>
</div>
<div class="row">
  <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
  <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
  <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
</div>
```



STEP 3 — ADD COLUMNS — NESTING

- To nest your content with the default grid, add a new .row and set of columns within an existing column.

```
<div class="row">
  <div class="col-md-9">
    Level 1: .col-md-9
    <div class="row">
      <div class="col-md-8">
        Level 2: .col-md-8
      </div>
      <div class="col-md-4">
        Level 2: .col-md-4
      </div>
    </div>
  </div>
</div>
```

[Codepen Example](#)

RESPONSIVE UTILITIES

- Try to use these on a limited basis and avoid creating entirely different versions of the same site. Instead, use them to complement each device's presentation.

	Extra small devices Phones (<768px)	Small devices Tablets (≥768px)	Medium devices Desktops (≥992px)	Large devices Desktops (≥1200px)
<code>.visible-xs-*</code>	Visible	Hidden	Hidden	Hidden
<code>.visible-sm-*</code>	Hidden	Visible	Hidden	Hidden
<code>.visible-md-*</code>	Hidden	Hidden	Visible	Hidden
<code>.visible-lg-*</code>	Hidden	Hidden	Hidden	Visible
<code>.hidden-xs</code>	Hidden	Visible	Visible	Visible
<code>.hidden-sm</code>	Visible	Hidden	Visible	Visible
<code>.hidden-md</code>	Visible	Visible	Hidden	Visible
<code>.hidden-lg</code>	Visible	Visible	Visible	Hidden

GRID REFERENCE

- Reference page for grid info: <http://getbootstrap.com/examples/grid/>

Bootstrap grid examples

Basic grid layouts to get you familiar with building within the Bootstrap grid system.

Three equal columns

Get three equal-width columns **starting at desktops and scaling to large desktops**. On mobile devices, tablets and below, the columns will automatically stack.

.col-md-4

.col-md-4

.col-md-4

Three unequal columns

Get three columns **starting at desktops and scaling to large desktops** of various widths. Remember, grid columns should add up to twelve for a single horizontal block. More than that, and columns start stacking no matter the viewport.

.col-md-3

.col-md-6

.col-md-3

Two columns

Get two columns **starting at desktops and scaling to large desktops**.

.col-md-8

.col-md-4

Full width, single column

No grid classes are necessary for full-width elements.

Two columns with two nested columns

Per the documentation, nesting is easy—just put a row of columns within an existing column. This gives you two columns **starting at desktops and scaling to large desktops**, with another two (equal widths) within the larger column.

At mobile device sizes, tablets and down, these columns and their nested columns will stack.

BOOTSTRAP

RESPONSIVE IMAGES

RESPONSIVE IMAGES

- Images can be made responsive-friendly via the addition of the `.img-responsive` class. This applies `max-width: 100%;`, `height: auto;` and `display: block;` to the image so that it scales nicely to the parent element.

```

```

[Codepen Example](#)

LAB

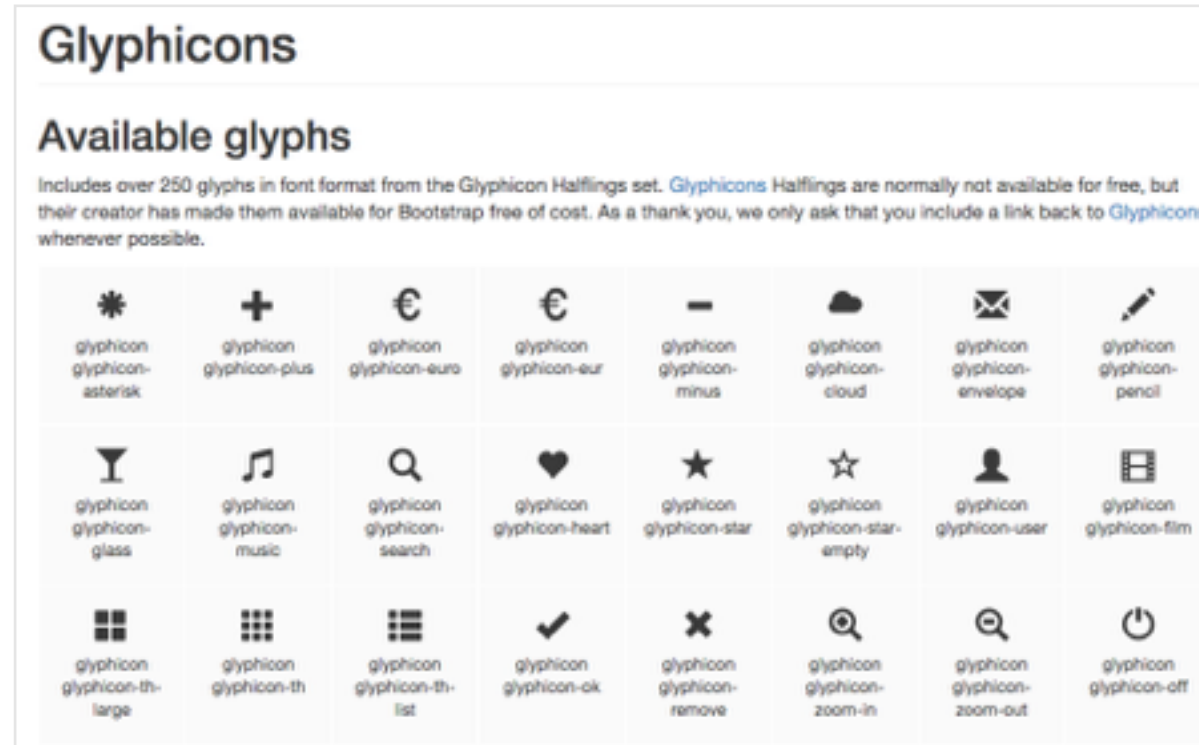


BOOTSTRAP

COMPONENTS

GLYPHICONS

- › Includes over 250 icons that are free for use!



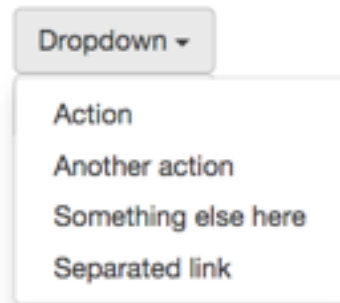
```
<span class="glyphicon glyphicon-heart"></span>
```



[Codepen Example](#)

DROPDOWN MENUS

- › Be sure to include Bootstrap's JavaScript file (after jQuery) in your HTML

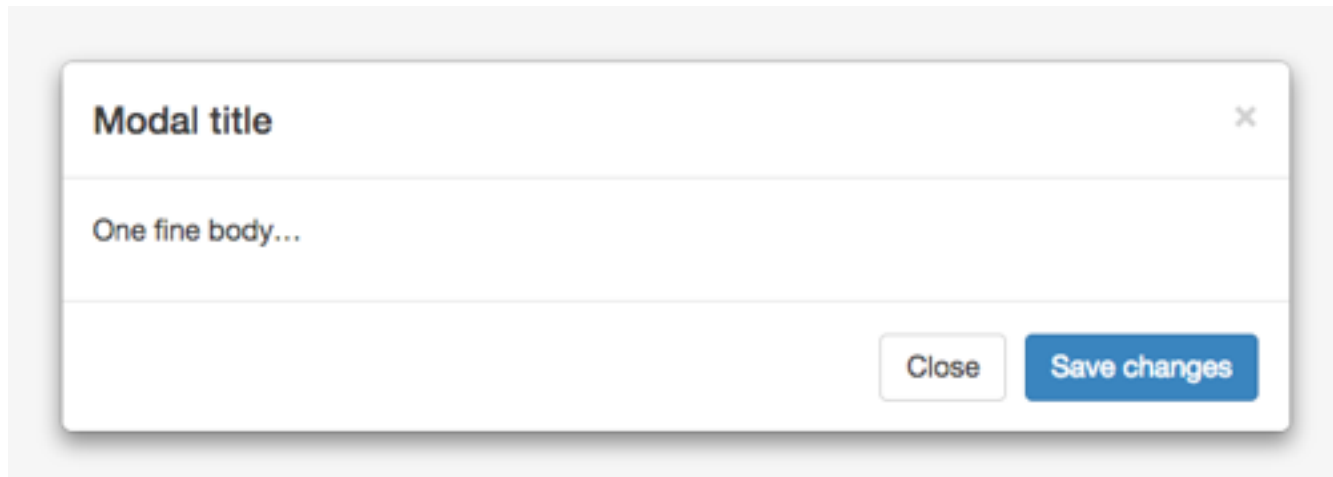


[Codepen Example](#)

[Documentation](#)

MODALS

- › Be sure to include Bootstrap's JavaScript file (after jQuery) in your HTML



[Codepen example](#)

[Bootstrap documentation](#)

CAROUSELS

- › Be sure to include Bootstrap's JavaScript file (after jQuery) in your HTML



[Codepen Example](#)

[Bootstrap Documentation](#)

LAB



ACTIVITY



EXERCISE

KEY OBJECTIVE

- ▶ Get practice referencing the Bootstrap documentation and implementing a simple navbar.

TYPE OF EXERCISE

- ▶ Individual/Partner

TIMING

15 min

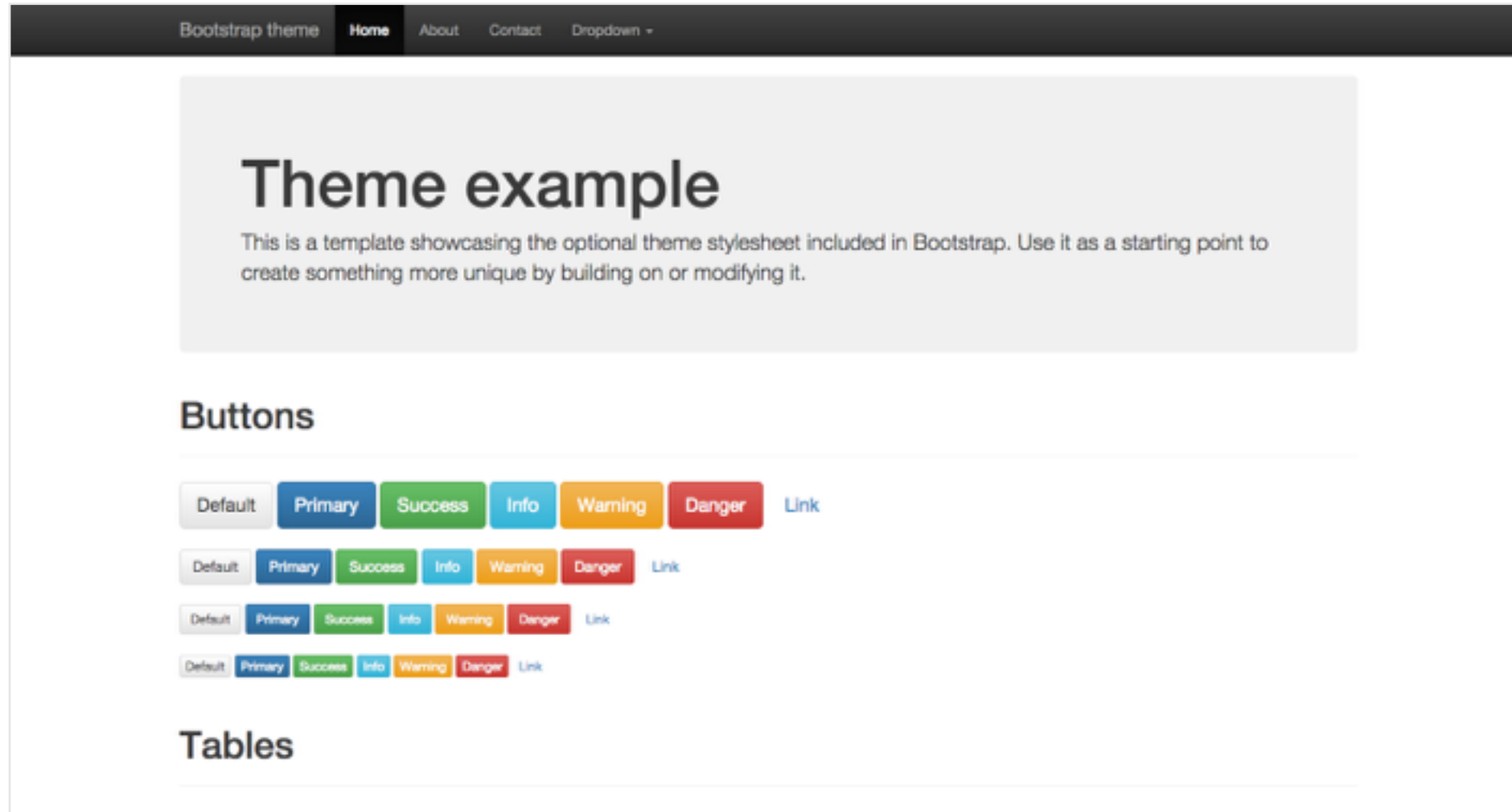
1. Read about the Bootstrap's navbar in the [documentation](#).
2. Implement the navbar in your page. (Be sure to include the Bootstrap JS file)

**See a stripped-down version of the navbar [here](#) if you need a hint :)*

BOOTSTRAP

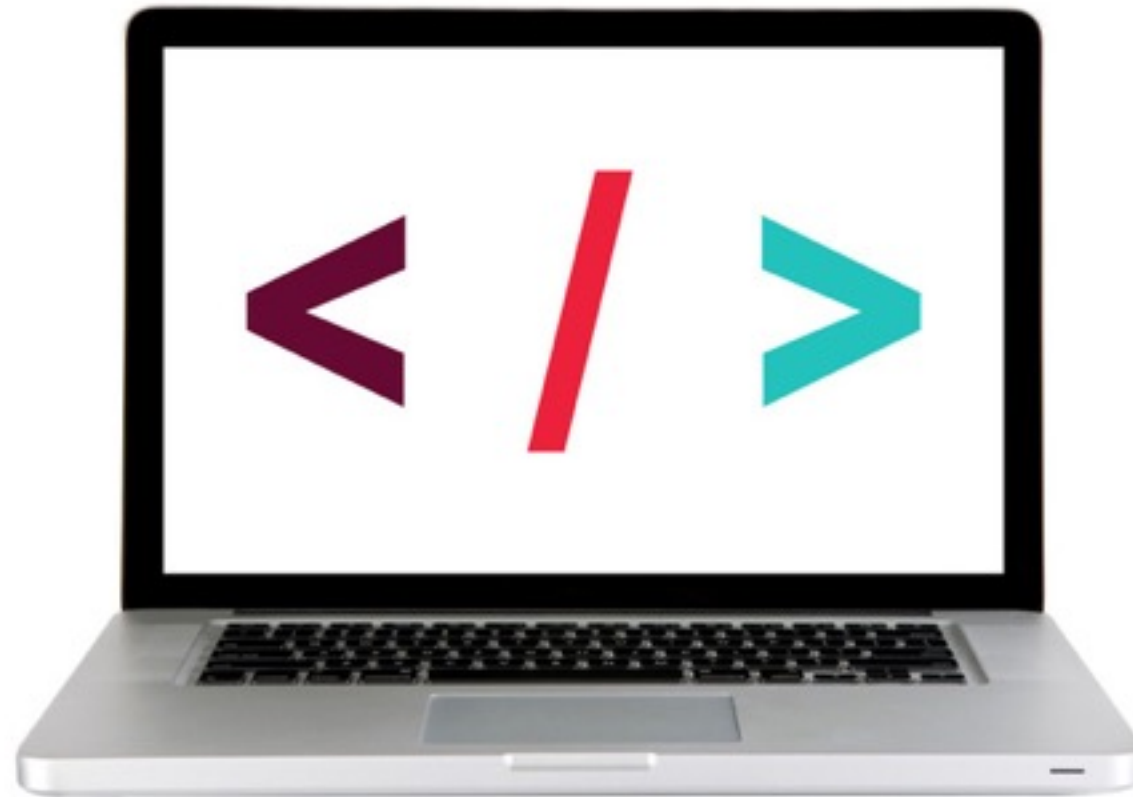
THEME

BOOTSTRAP THEME EXAMPLE



Also see the documentation: <http://getbootstrap.com/css/>

LET'S TAKE A CLOSER LOOK



[Bootstrap Theme](#)

ASSETS

OPTIMIZING IMAGES

OPTIMIZING IMAGES FOR THE WEB

INSTRUCTIONS FOR PHOTOSHOP:

- [Photoshop](#) - This is going to be a must-have for those of you who'd like to have a career as a developer. It's now a part of the Creative cloud and is available for \$9.99/month or \$119/year
- Step by step: [optimizing images for the web in Photoshop](#)

INSTRUCTIONS FOR GIMP:

- [Download Gimp for Mac](#) - it's a free program that's similar to Photoshop
- Step by step: [optimizing images for the web in Gimp](#)

IMAGE FORMATS: JPEG

- ▶ JPEGs should be used for images with many different colors in the picture.



IMAGE FORMATS: GIF AND PNG

- ▶ Use GIF or PNG with saving images with few colors (a.k.a flat color)

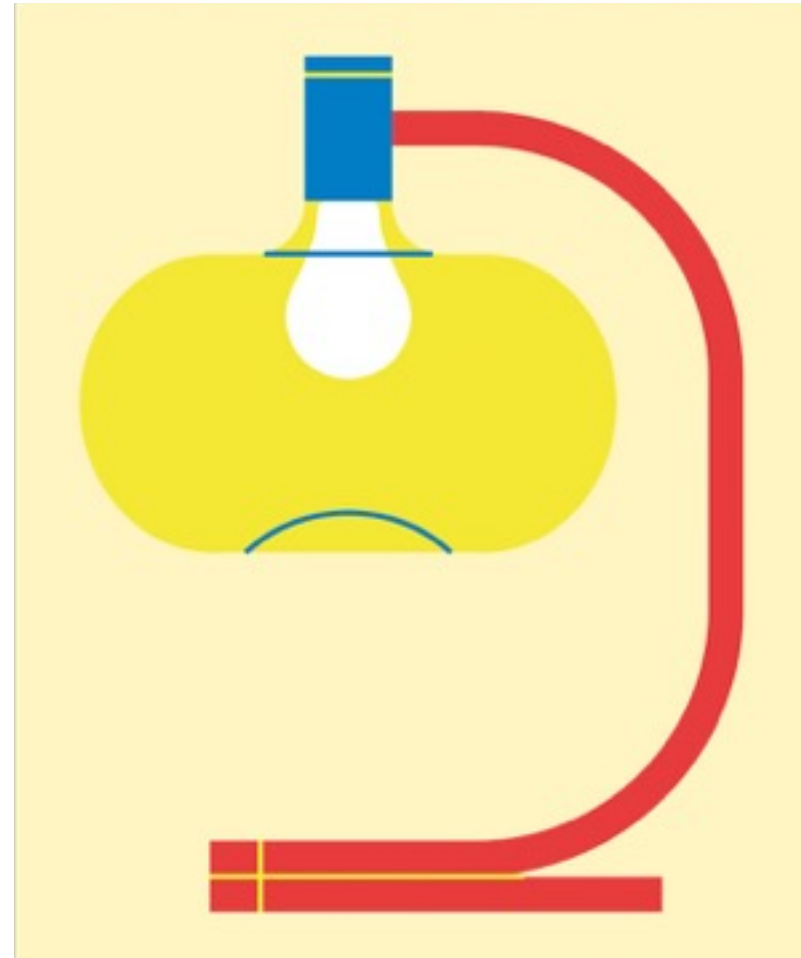


IMAGE FORMATS: PNG

- Supports transparency *and semi-transparency*, great for logos, icons, and repeating background tiles.
- Almost always preferable to a gif, unless semi-transparency is not needed, and the gif format is significantly smaller.

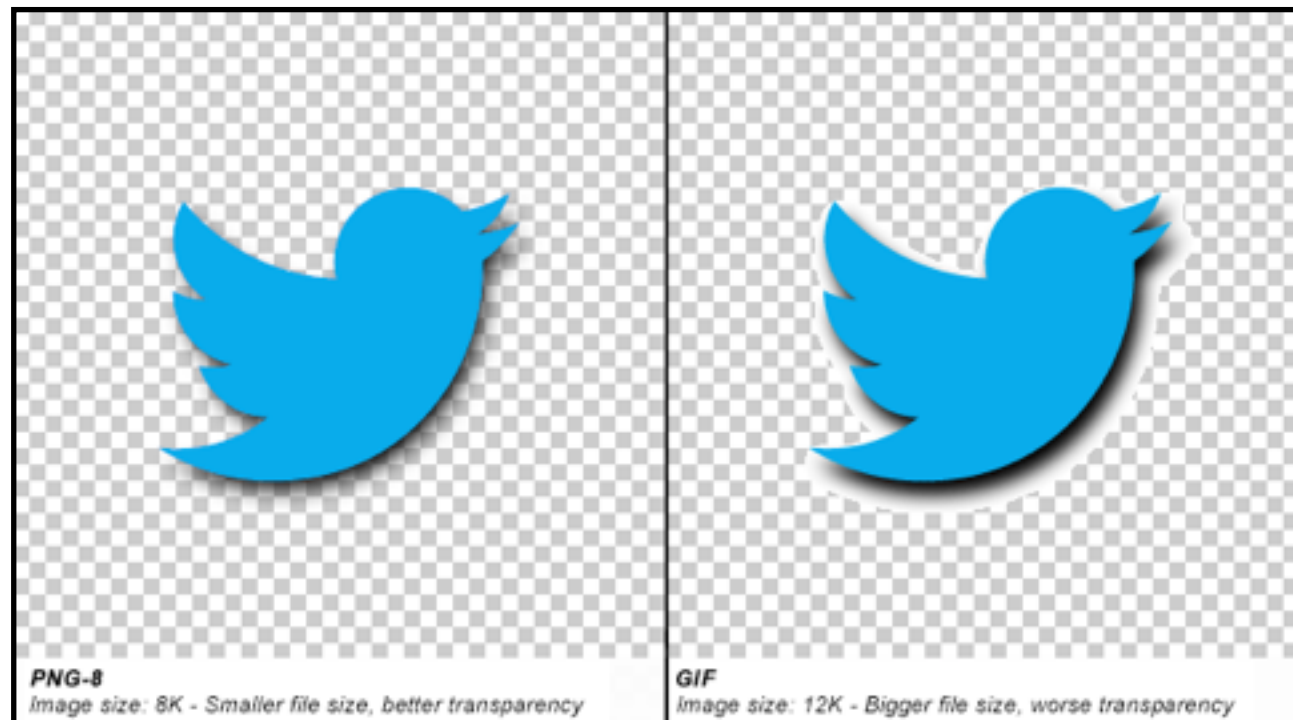


IMAGE FORMATS: GIF

- ▶ Can have basic transparency but does not support semi-transparency
- ▶ Png is preferable unless the image meets **both** these conditions:
 1. Semi-transparency is not needed
 2. The gif format is *significantly* smaller than the png format



ACTIVITY



EXERCISE

KEY OBJECTIVE

- Identify which file format should be used for selected images

ACTIVITY

1.



2.



3.



4.



5.



6.



GRID SYSTEMS

UP AND RUNNING!

DOMAINS, WEB HOSTING AND FTP

Local: Your Computer



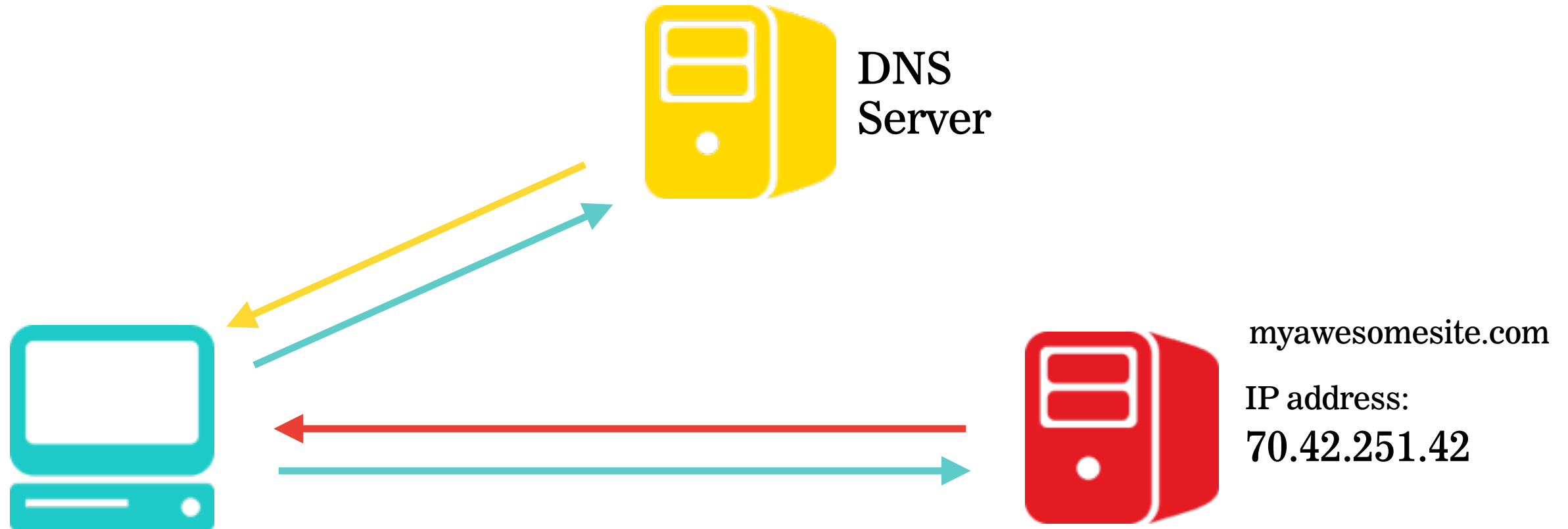
Server: Web Hosting



FTP

REQUEST/RESPONSE

- “I need directions to <http://www.myawesomesite.com>”
- “The domain name www.myawesomesite.com maps to this IP address: 70.42.251.42”



HOSTING BASICS



SHARED HOSTING

- Sufficient for most users
- Starts at around \$5-\$10 a month



VPS HOSTING

- More customization
- Starts at around \$20/month



DEDICATED HOSTING

- No restrictions on customization
- Starts at around \$150/month

REGISTERING A DOMAIN NAME

REGISTERING A DOMAIN NAME

- Recommended — purchase through hosting provider (I use BlueHost)
- [Go Daddy](#) is probably the most popular registrar
- [Google Domains](#) (in beta)

FIND OUT WHO OWNS A DOMAIN

- [Whois](#)

LIST OF POPULAR TOP LEVEL DOMAINS


- [Wikipedia Top Level Domain list](#)

CHOOSING A HOSTING PLAN

TOP HOSTING PROVIDERS


- [Bluehost](#) — The shared hosting "plus" plan might be a good place to start
- [Hostgator](#) — The shared hosting "baby" plan might be a good place to start

AFTER SIGNING UP FOR A HOSTING PLAN




Thank you for choosing Bluehost. We appreciate your business.
Our goal is to provide you with the absolute best hosting experience on the planet.
Please keep this e-mail for your records. A receipt for this purchase is available [here](#).


Get Started:



Domains
[Transfer](#) | [Point to Bluehost](#) | [Buy](#) | [Privacy](#)



Websites
[Build](#) | [Upload](#) | [Transfer](#) | [Stats](#)



E-mails
[Create](#) | [Read](#) | [Configure](#) | [Block Spam](#)

Your Resources:

[FREE Webinars](#) | [1-Click Installs](#) | [Helpdesk Articles](#) |
[Subscribe to Our Blog](#) | [\\$100 Google Advertising Offer](#)

Your Account Information:


Domain: **websitecreationsteps.com**
Username: **website**
Password: [Update Your Password](#)
Temporary URL: <http://66.147.244.82/~website1/>
Email Server: **mail.websitecreationsteps.com**
Name Server 1: **ns1.bluehost.com**
Name Server 2: **ns2.bluehost.com**

Your FTP Information:

Host: **ftp.websitecreationsteps.com**
FTP: **website**
Username:
Password: [Update Your Password](#)
Web Directory: **public_html**

Need Support?
100% US-based customer service, always available 24/7.

(888) 401-4678
[Helpdesk](#) | [Chat](#) | [E-mail](#)



AFTER SIGNING UP FOR A HOSTING PLAN

- ▶ Already have a domain and want to hook it up with a hosting provider?
- ▶ Steps for GoDaddy.com: You'll want to follow the instructions [here](#) (login to where you bought your domain name, enter the name servers you received in your welcome email)

Name Server 1: ns1.bluehost.com
Name Server 2: ns2.bluehost.com

TRANSFERRING FILES VIA FTP

- Open FileZilla
- Go to File > Site Manager

STUDIO.GENERALASSEMB.LY

Host: studio.generalassemb.ly

Protocol: SFTP

Logon Type: Normal

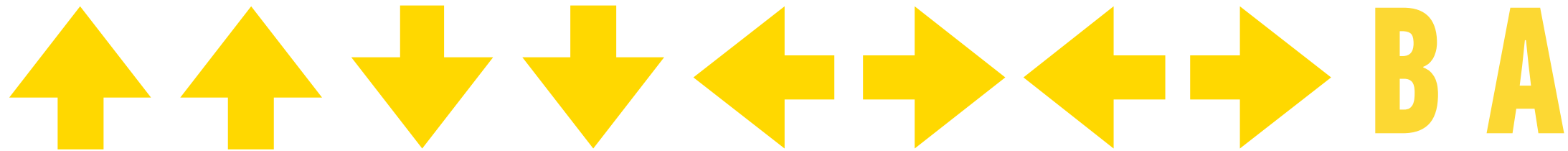
User: student

Password: yellowpencil

GRID SYSTEMS

WE'VE MADE IT!

KONAMI!!



<http://konamcodesites.com/>

LEARNING OBJECTIVES

- Integrate Bootstrap to create a responsive layout
- Identify different image formats and when each should be used.
- Demonstrate the ability to transfer files to a server using FTP

GRID SYSTEMS

EXIT TICKETS