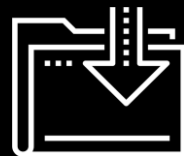


# The Zen of Coding

Web Development Boot Camp

Lesson 1.1



# Tech Check

# Tech Check

---

01

Your second monitor should be plugged in and working.

02

Open Zoom on one screen; VS Code and Slack should be on the other.

03

Make sure your camera is on and working.

04

Your headphones/headset should be plugged in with the audio working.

05

Double-check that you're logged into Slack.

# The Path of Learning

# Your Goals

---

Basically, 100% of you said **new career**.



# Your Goals

---

And why do you want a new career?



To pursue a **dream**



To escape a **dead-end job**



To be able to **create**



To follow a **fascination**



To attain **financial stability**



To obtain **financial freedom**



To **challenge yourself**



To be a **role model** to kids



## **Your Goal = Our Goal**

As instructors, we take your goals very, very seriously.

# Support Team Promise

---

If you're willing to put in the time and take our advice, we're here to help you 100% of the way.

This goes for everyone working on this program:

- Instructors
- TAs
- Student Success Team
- Career coaches
- Everyone else!







**But Remember:**  
Nothing good comes easily.

# Our Keys to Success

Don't Be This Person:

---



This Should Be You



# **Our Mantra for Today and Beyond**

When it comes to web development...

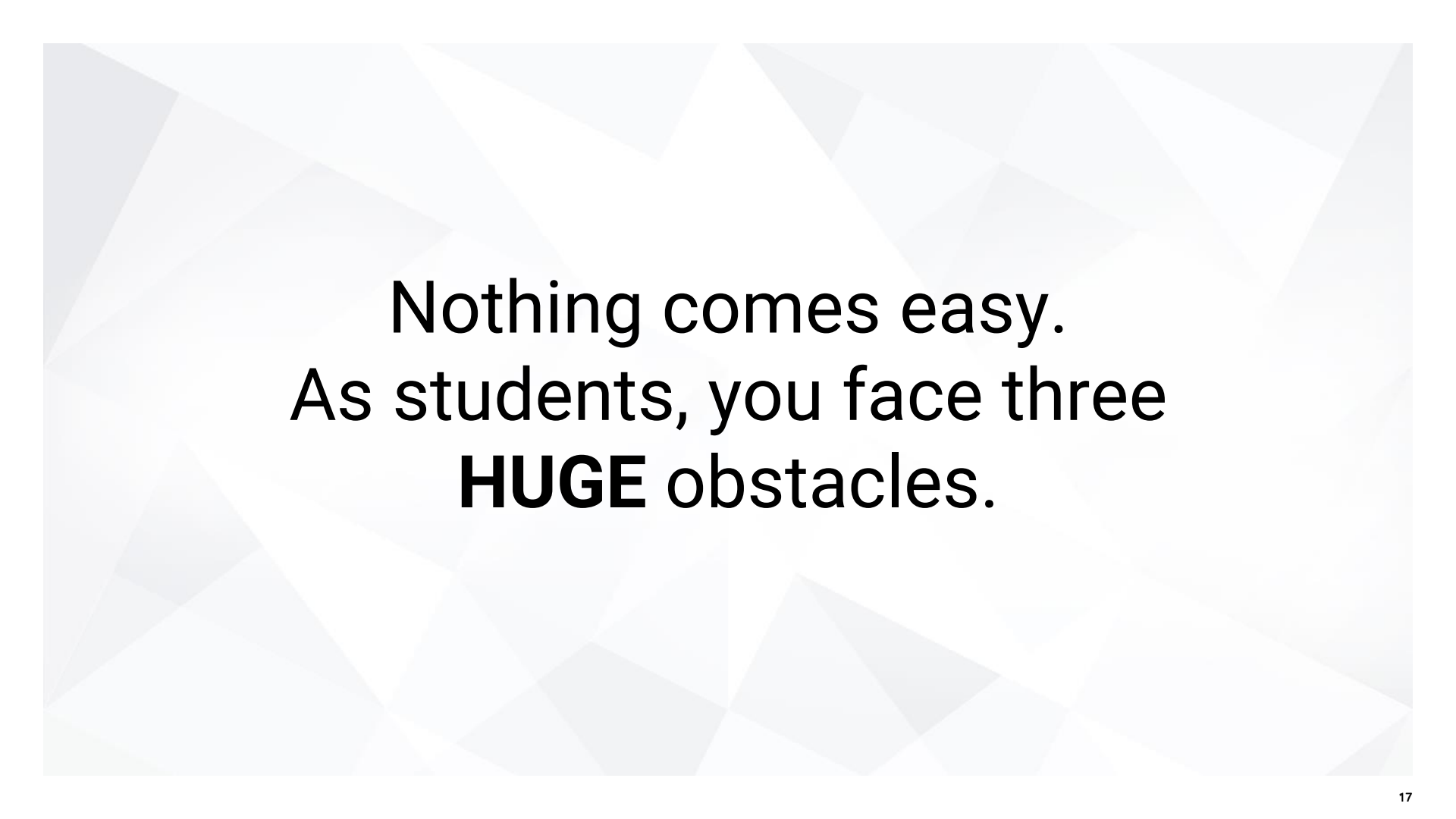


I know nothing.

↖  
You.

# The Path of Learning





Nothing comes easy.  
As students, you face three  
**HUGE** obstacles.

# Obstacle #1: The Great Confusion

---

**My code doesn't work and I don't know why.**

---

**My code works and I don't know why.**



## Obstacle #2: The Great Doubt

---

“Maybe I’m just dumb.”



# Obstacle #3: The Great Distance

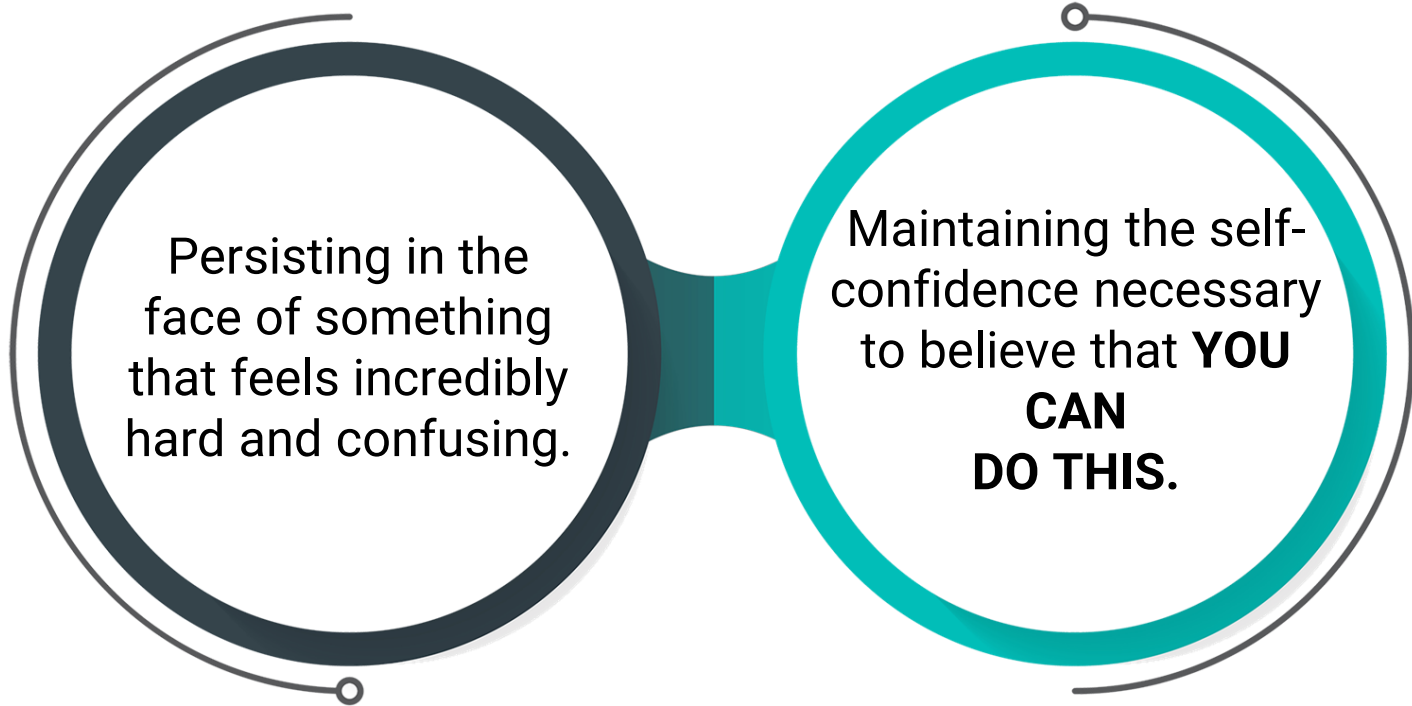
---



# Nothing Comes Easy

---

Learning to code requires two things:



# Learning Can Be Frustrating

---



You can't tell whether you're learning something when you're learning it—in fact, *learning feels a lot more like frustration*.

What I've learned is that during this period of frustration is actually when people improve the most, and their improvements are usually obvious to an outsider. If you feel frustrated while trying to understand new concepts, try to remember that it might not feel like it, but you're probably rapidly expanding your knowledge.



—Jeff Dickey, author of *Write Modern Web Apps with the MEAN Stack: Mongo, Express, AngularJS, and Node.JS* (Peachpit Press, 2014)

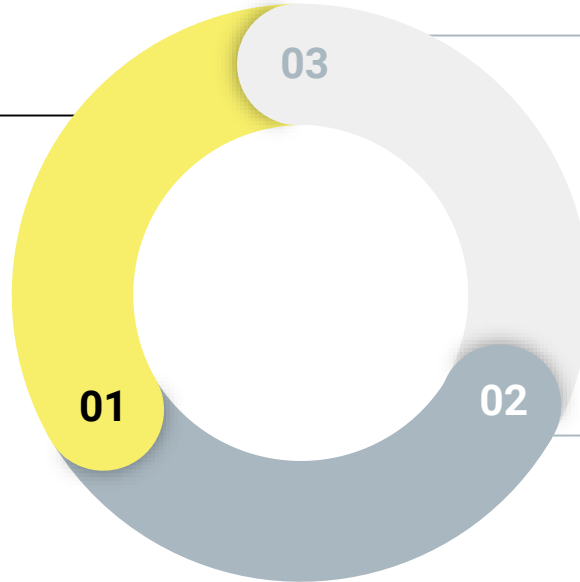
# Advice for the Journey

---

Throughout this course, always remember to:

---

Work hard!



---

Trust yourself

---

Celebrate your  
successes

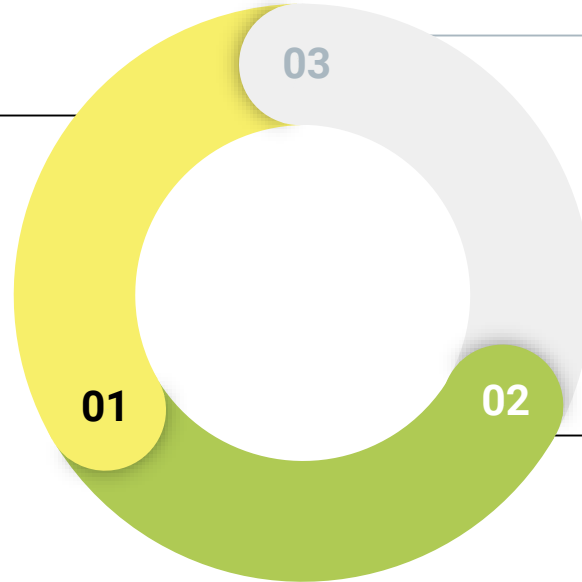
# Advice for the Journey

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# Advice for the Journey

---

Throughout this course, always remember to:

---

Work hard!



---

Trust yourself

---

Celebrate your  
successes

# And Remember...

---

If you want to go fast, go alone. If you want to go far, go with a team.



# Google Fu: The Most Important Skill of All

[What Is Google Fu?](#)



# Course Structure

# Daily Schedule

---

In each class, we'll cover the following:

01

Set objectives

02

Brief background lecture

03

Watch me/coding demos

04

Code discussions

05

In-class exercises

06

Project work

# Daily Schedule

---

In each class, we'll cover the following:

01

Set objectives

02

Brief background lecture

03

Watch me/coding demos

04

Code discussions

05

In-class exercises

06

Project work



This is the super important stuff—ALWAYS BE CODING!

# Prework

# Software Checklist

---

At this point, you should have all of these installed:



Slack



Visual Studio Code



Git



Git Bash (Windows) or Terminal (Mac)



Node.js



Heroku-CLI




Google Chrome



# Accounts Checklist

---

You should also have accounts for:

 GitHub (with SSH Integration)

 Heroku

 LinkedIn

 Stack Overflow

# Self-Check

---

Let's do some quick checks of the following:

 Visual Studio Code Check

 Git Bash/Terminal Check

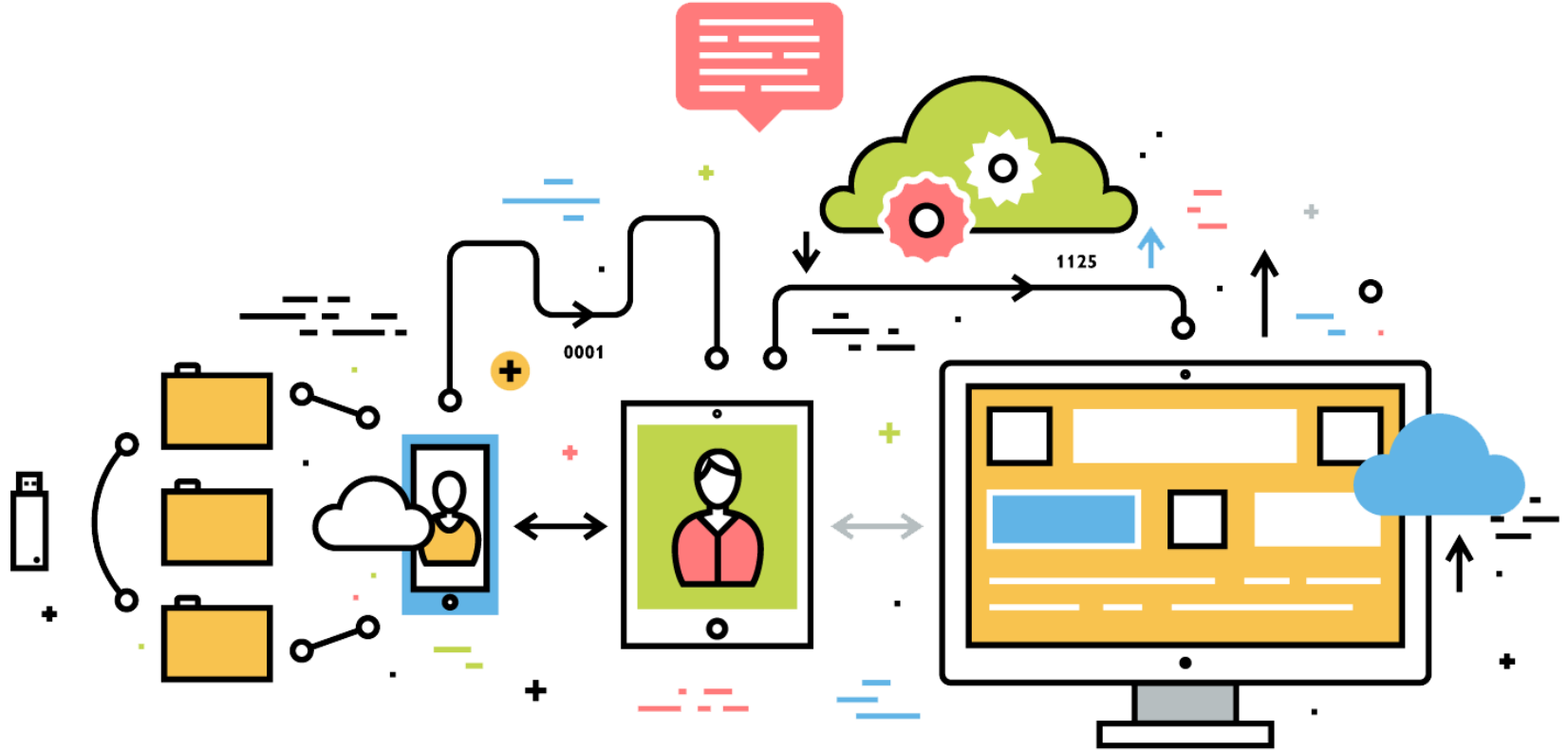
 Node Check

 Git Check

 Heroku Check

# The Modern Web

# What Exactly Is Full-Stack Development?

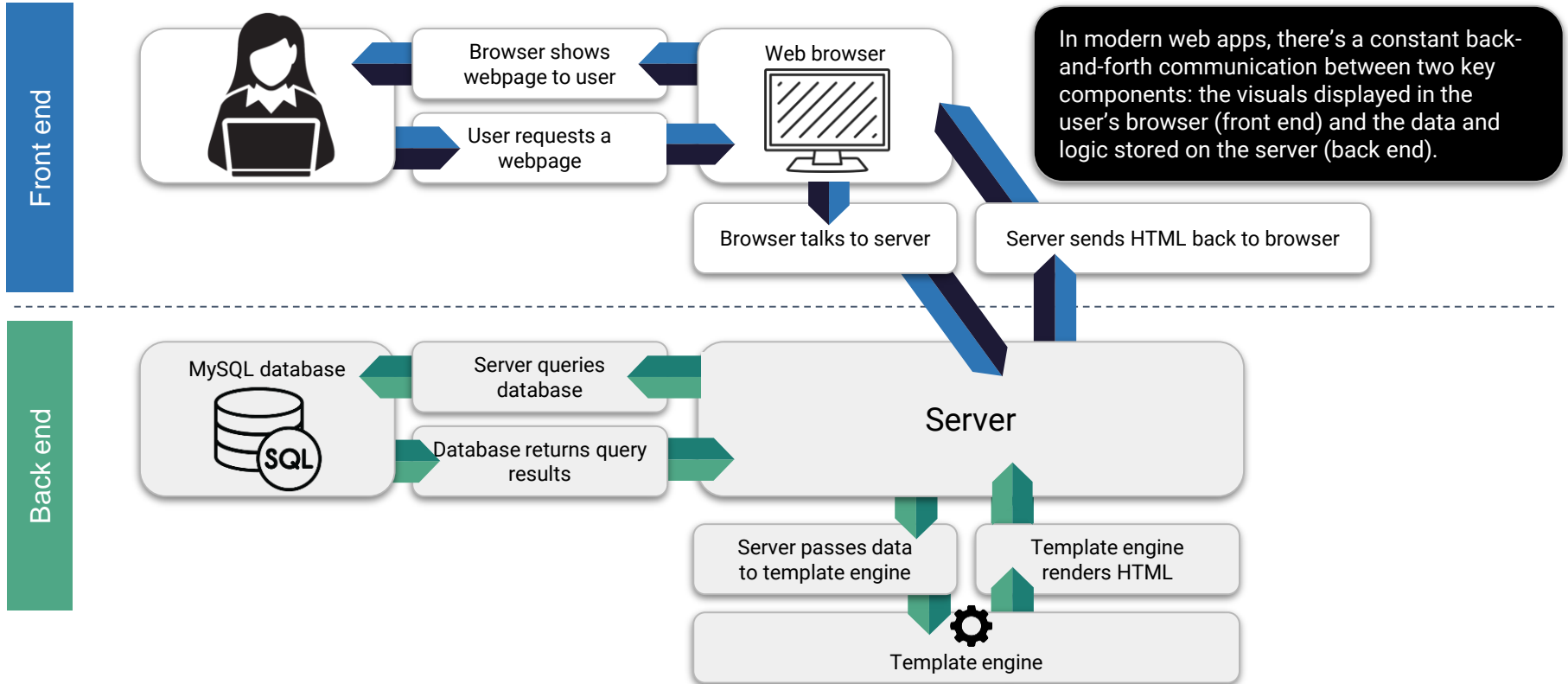


# The “Magic” of YouTube



# Full-Stack Development

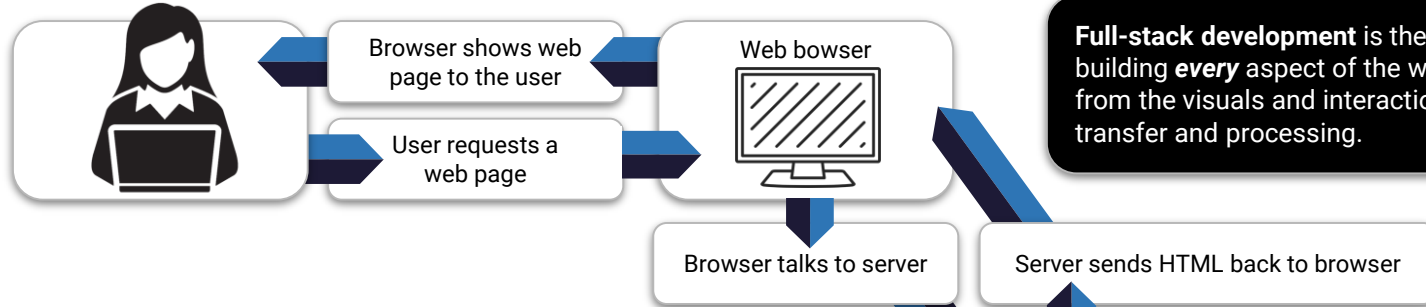
## FSF FLOW



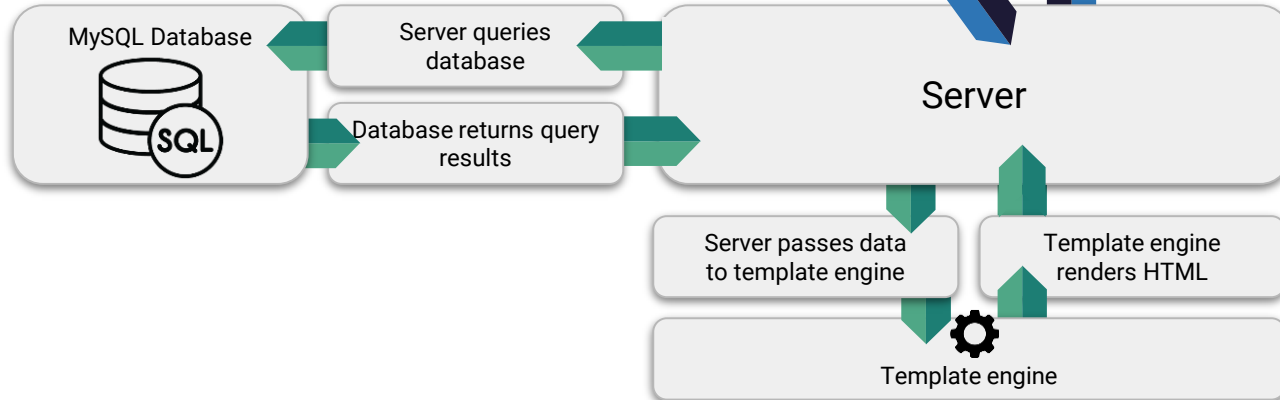
# Full-Stack Development

## FSF FLOW

Frontend



Backend



# Full-Stack Development

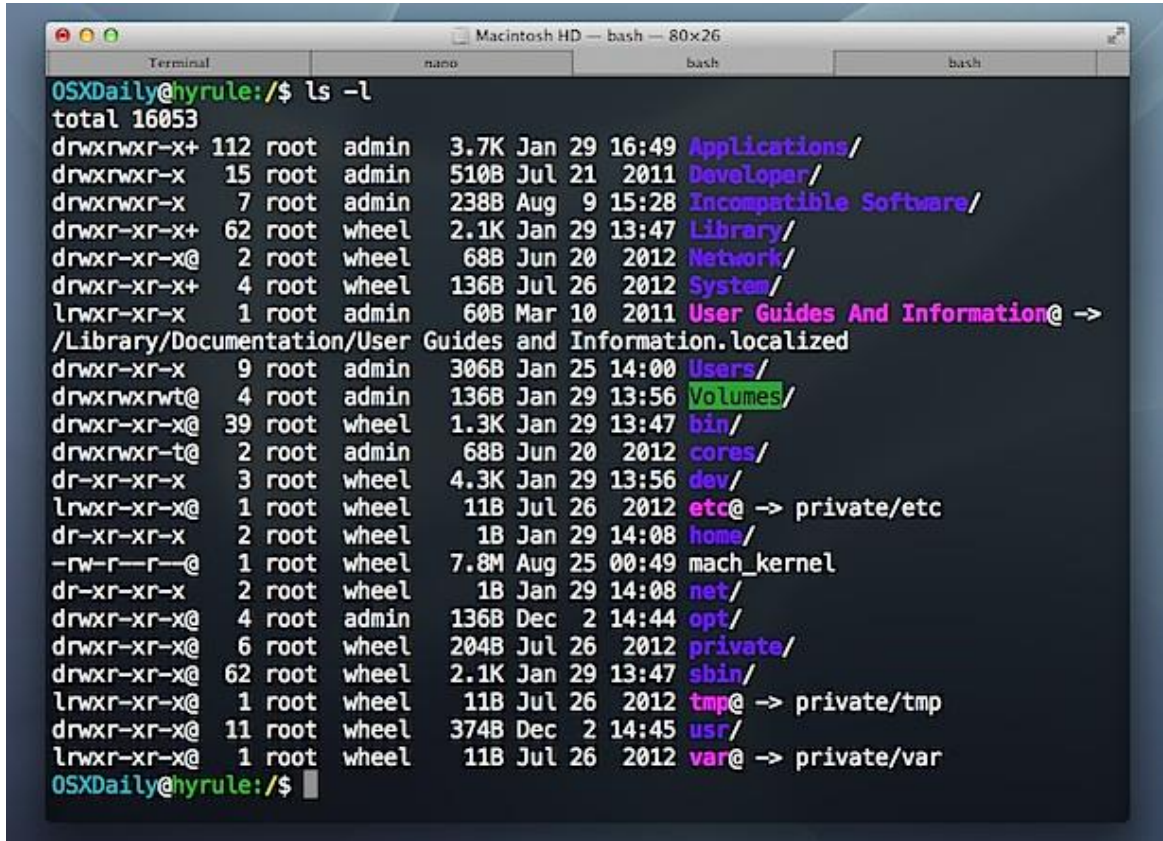
| The Browser                           | Dev Tools | Server Side                     |
|---------------------------------------|-----------|---------------------------------|
| HTML                                  | Heroku    | Templating engines              |
| CSS                                   | Git       | Sessions                        |
| JavaScript                            | GitHub    | Writing tests                   |
| jQuery                                | Databases | Node.js                         |
| Bootstrap                             | MySQL     | Express.js                      |
| SEO                                   | MongoDB   | Creating APIs                   |
| API Interaction                       |           | MVC                             |
| APIs (Consuming)                      |           | User authentication             |
| JSON                                  |           | ORM (Object-relational mapping) |
| AJAX                                  |           | CS Fundamentals                 |
| Real-time cloud database via Firebase |           | Algorithms                      |
| Cutting-Edge Development              |           | Design patterns                 |
| React.js                              |           |                                 |



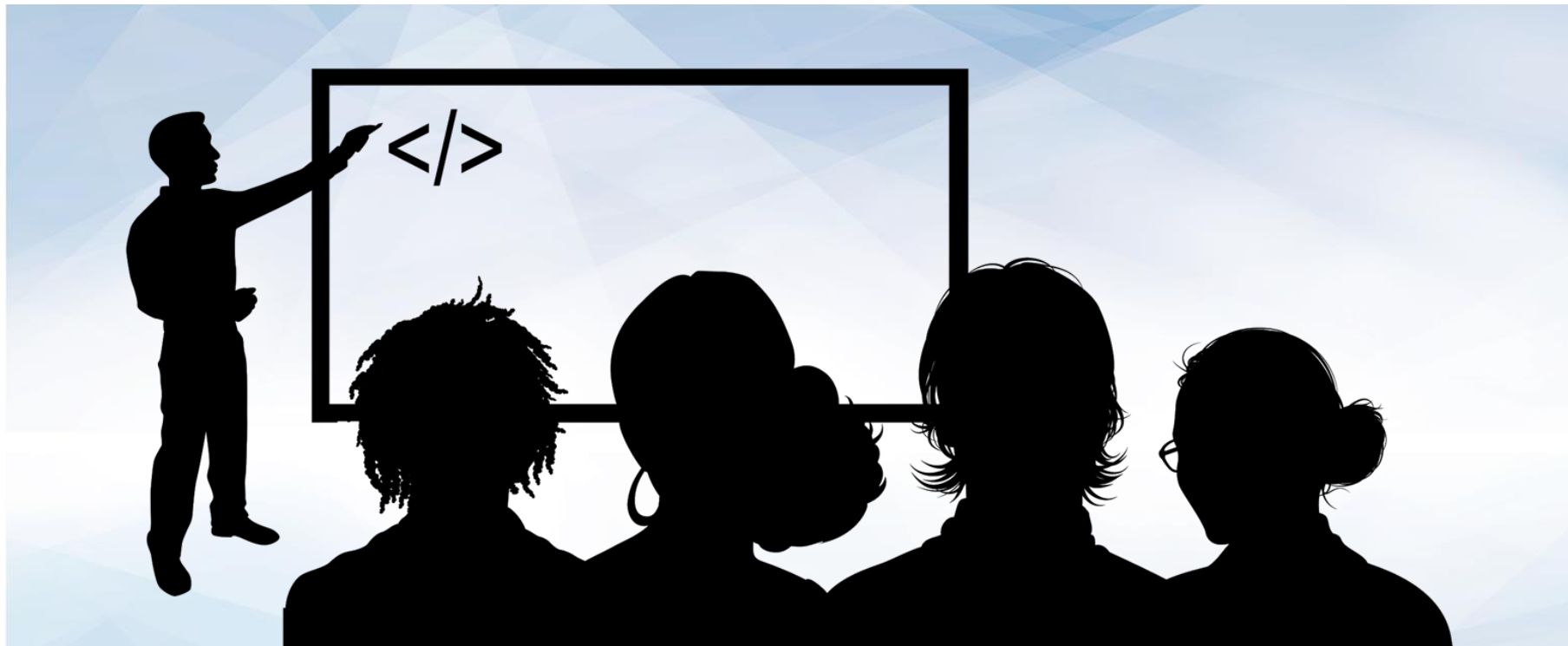


Let's Get Crackin'!

# Intro to Console/Terminal



```
OSXDaily@hyrule:/$ ls -l
total 16053
drwxrwxr-x+ 112 root  admin   3.7K Jan 29 16:49 Applications/
drwxrwxr-x   15 root  admin   510B Jul 21  2011 Developer/
drwxrwxr-x    7 root  admin   238B Aug  9 15:28 Incompatible Software/
drwxr-xr-x+  62 root  wheel   2.1K Jan 29 13:47 Library/
drwxr-xr-x@   2 root  wheel    68B Jun 20  2012 Network/
drwxr-xr-x+   4 root  wheel   136B Jul 26  2012 System/
lrwxr-xr-x    1 root  admin    60B Mar 10  2011 User Guides And Information@ ->
/Library/Documentation/User Guides and Information.localized
drwxr-xr-x    9 root  admin   306B Jan 25 14:00 Users/
drwxrwxrwt@   4 root  admin   136B Jan 29 13:56 Volumes/
drwxr-xr-x@  39 root  wheel   1.3K Jan 29 13:47 bin/
drwxrwxr-t@   2 root  admin    68B Jun 20  2012 cores/
dr-xr-xr-x    3 root  wheel   4.3K Jan 29 13:56 dev/
lrwxr-xr-x@   1 root  wheel    11B Jul 26  2012 etc@ -> private/etc
dr-xr-xr-x    2 root  wheel     1B Jan 29 14:08 home/
-rw-r--r--@   1 root  wheel   7.8M Aug 25 00:49 mach_kernel
dr-xr-xr-x    2 root  wheel     1B Jan 29 14:08 net/
drwxr-xr-x@   4 root  admin   136B Dec  2 14:44 opt/
drwxr-xr-x@   6 root  wheel   204B Jul 26  2012 private/
drwxr-xr-x@  62 root  wheel   2.1K Jan 29 13:47/sbin/
lrwxr-xr-x@   1 root  wheel    11B Jul 26  2012 tmp@ -> private/tmp
drwxr-xr-x@  11 root  wheel   374B Dec  2 14:45 usr/
lrwxr-xr-x@   1 root  wheel    11B Jul 26  2012 var@ -> private/var
OSXDaily@hyrule:/$
```



# Instructor Demonstration

Let's Get Crackin'—Intro to Console

# Instructor Demo

---

|                     |   |
|---------------------|---|
| cd                  | change directory  |
| cd ~                | change to home directory  |
| cd ..               | move up one directory   |
| ls                  | list files in folder  |
| pwd                 | show current directory ( <u>p</u> rint <u>w</u> orking <u>d</u> irectory) |
| mkdir <FOLDERNAME>  | create new directory  |
| touch <FILENAME>    | create a new file   |
| rm <FILENAME>       | delete file   |
| rm -r <FOLDERNAME>  | delete folder   |
| open .              | open the current folder (MAC)   |
| open <FILENAME>     | open a specific file (MAC)  |
| explorer .          | open the current folder (BASH)  |
| explorer <FILENAME> | open a specific file (BASH)   |



directory ~ folder



file ~ document



## **Group Activity:** Console Commands

**Suggested Time:**  
15 minutes



# Group Activity: Console Commands

---

From the Terminal/Console and using only the command line, create the following:



A new folder with the name of `first_day_stuff`



A new HTML file with the name of `first-day.html`



Open the current folder containing the new HTML file.

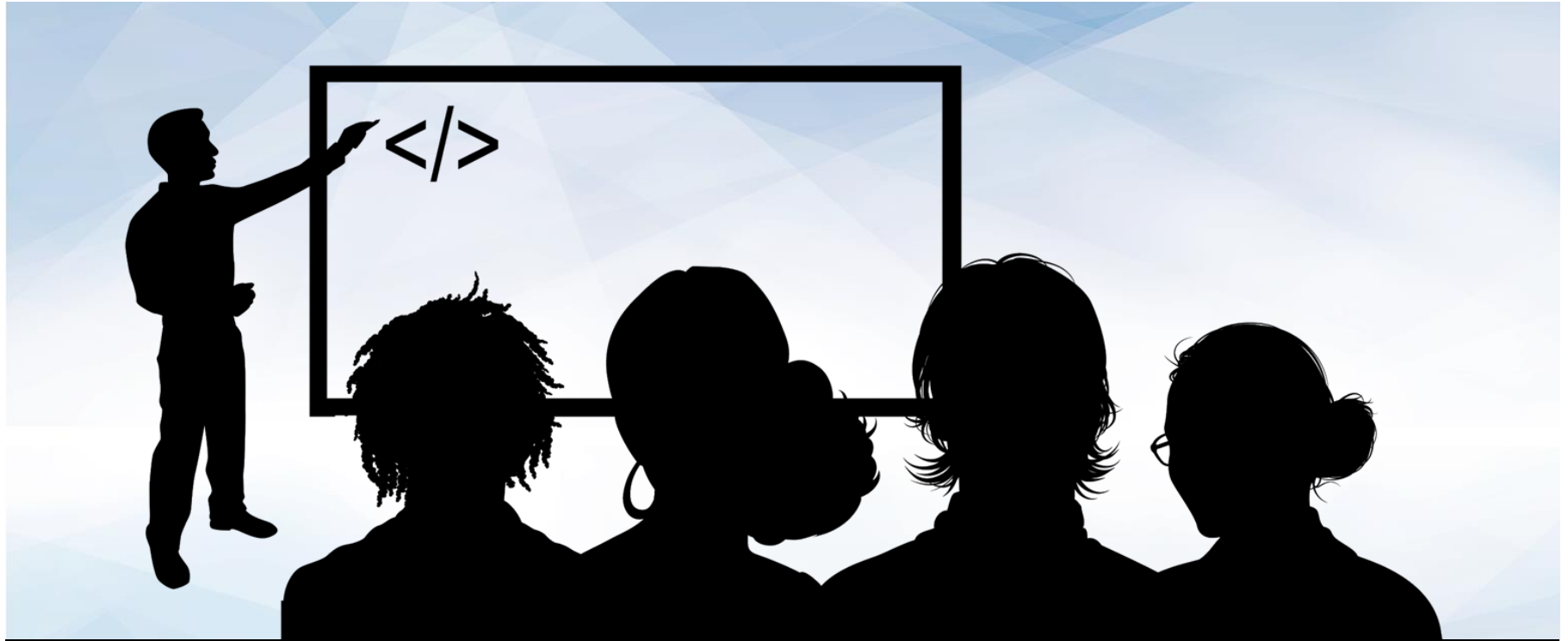
## BONUS:

Create multiple directories/folders with the names `one_folder` and `second_folder` in one command.

Create multiple files with the names `one.html` and `two.html` in one command in the `first_day_stuff` directory.

**Suggested Time:** 15 minutes





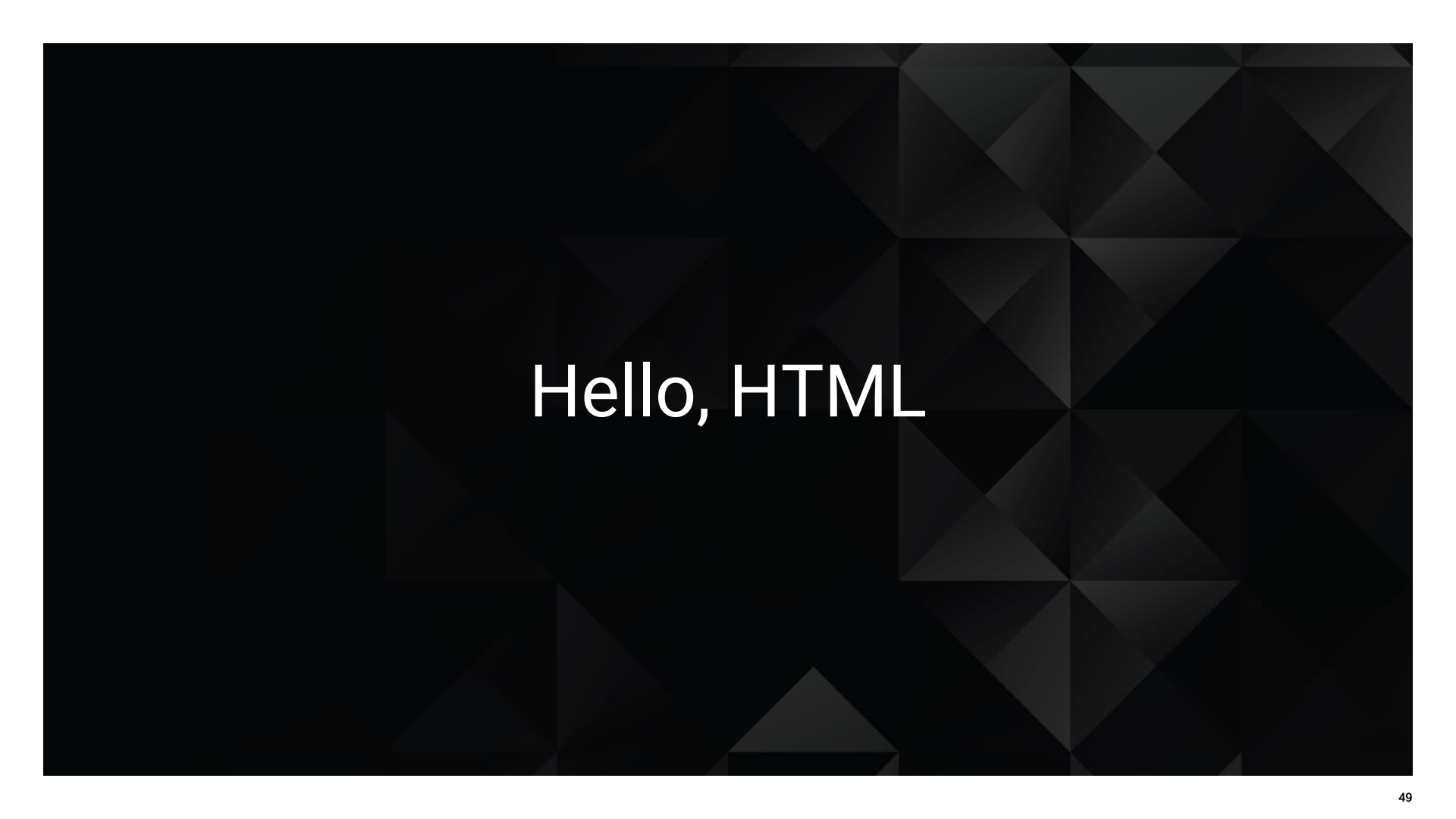
# Instructor Demonstration

## Console Commands Solution

# PEER REVIEW





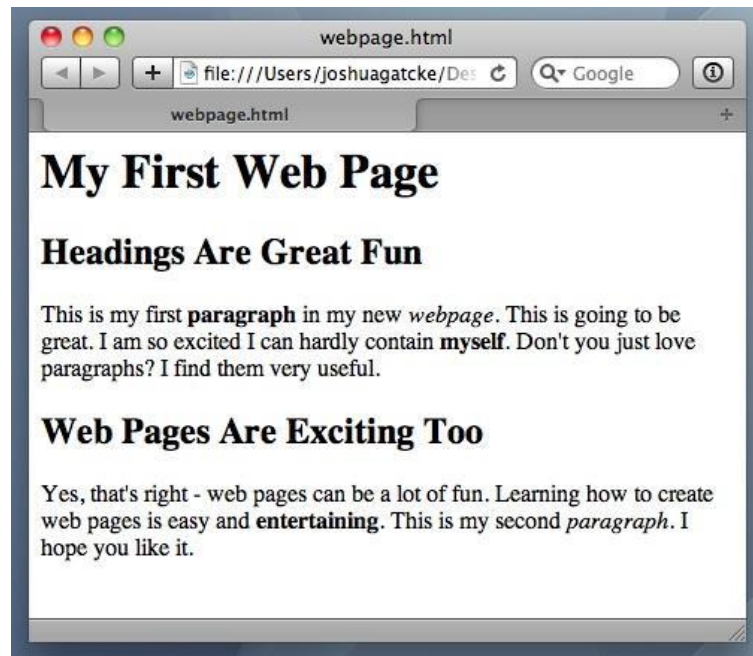
The background of the slide is a dark, almost black, field filled with a complex, repeating pattern of triangles. These triangles are arranged in a way that creates a sense of depth and movement, with some triangles appearing slightly lighter than others, giving the overall effect a low-poly or isometric feel. The triangles vary in size and orientation, creating a textured, crystalline appearance.

# Hello, HTML

# <title>Intro to HTML</title>

## HTML5

- HTML is one of the three base languages behind every website.
- It defines all the basic content and a bit of formatting.



# HTML Basics - Overview

---

## Tags

- HTML uses tags to identify page content
- `<h1>` - heading 1
- `<p>` - paragraph
- `<img>` - image
- `<a href="">` - link
- `<strong>` - bold
- `<em>` - italic

## Elements

- Refer to tags and their elements
- Most elements have a open and close tag
- Elements must be nested properly

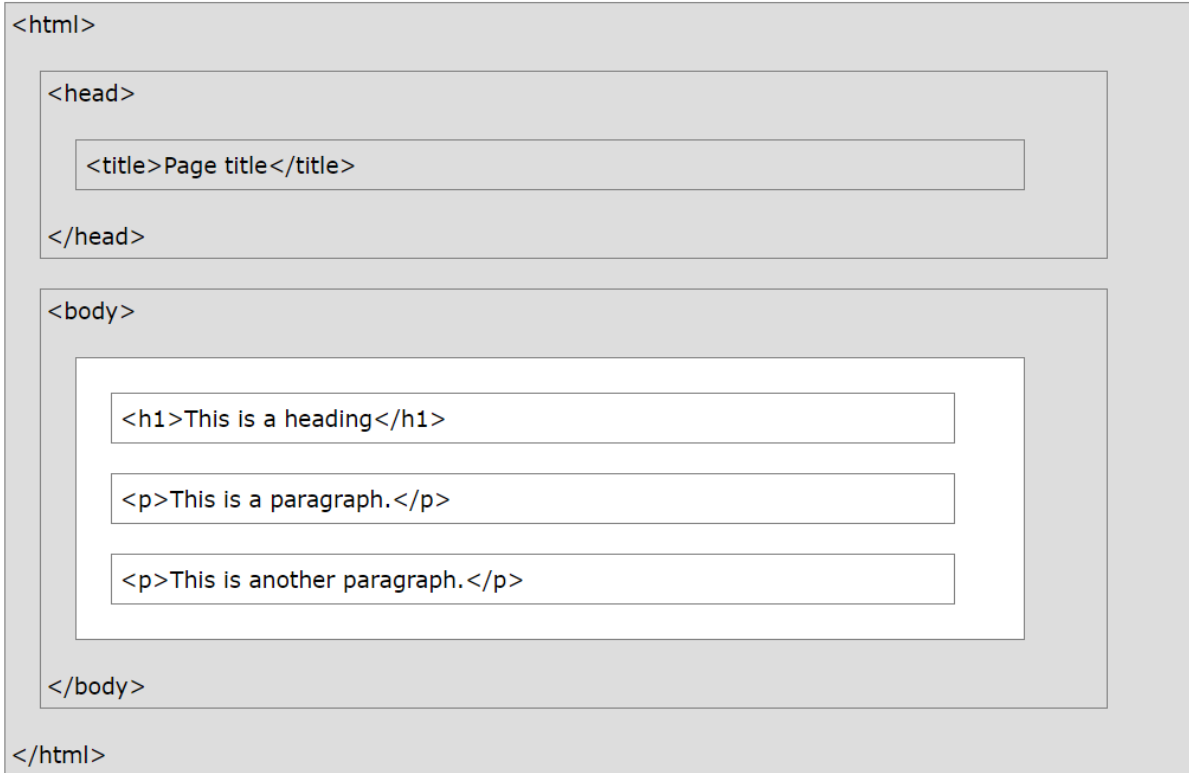
## Attributes

- Attributes add function or meaning to elements

# HTML Basics - Overview

---

<!DOCTYPE html>





## **Activity:** Intro to HTML

**Suggested Time:**  
5 minutes



# Activity: Intro to HTML

---

**In a new HTML file, create the basic structure of an HTML document and include the following:**

- DOCTYPE declaration
- Head tag with a title tag
- H1 tag with a title of your choice
- An embedded image

**Now add the following three links to your page:**

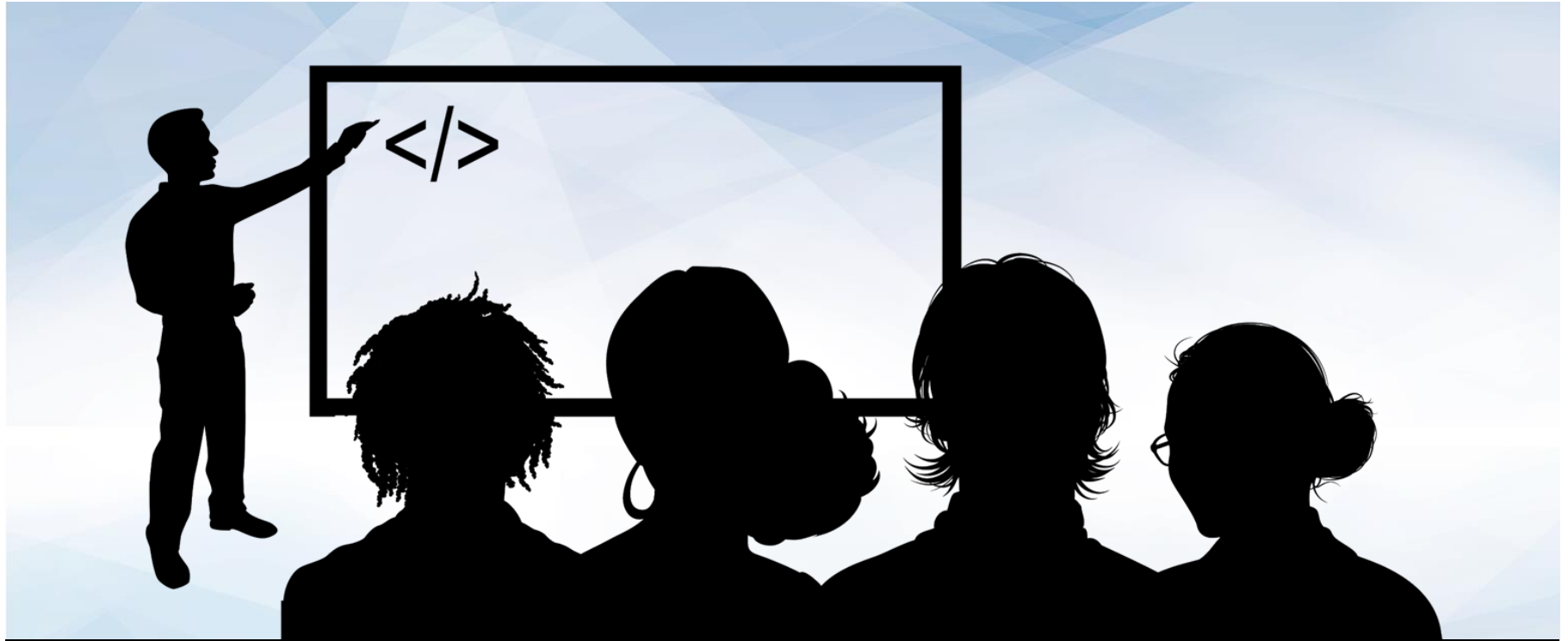
- One link that has target="\_blank" so that it opens a new tab when clicked
- One link that is bold
- One link that is only a placeholder (it goes nowhere)

## **BONUS!**

- Create an ordered list of steps to make a sandwich
- Create an unordered list of five bands/musicians you like
- Create a table with two columns (animal class and animal name) and four rows of animals
- Use an alternate way of separating links without line breaks
- Embed a YouTube video of your favorite band/musician

Suggested Time: 5 minutes



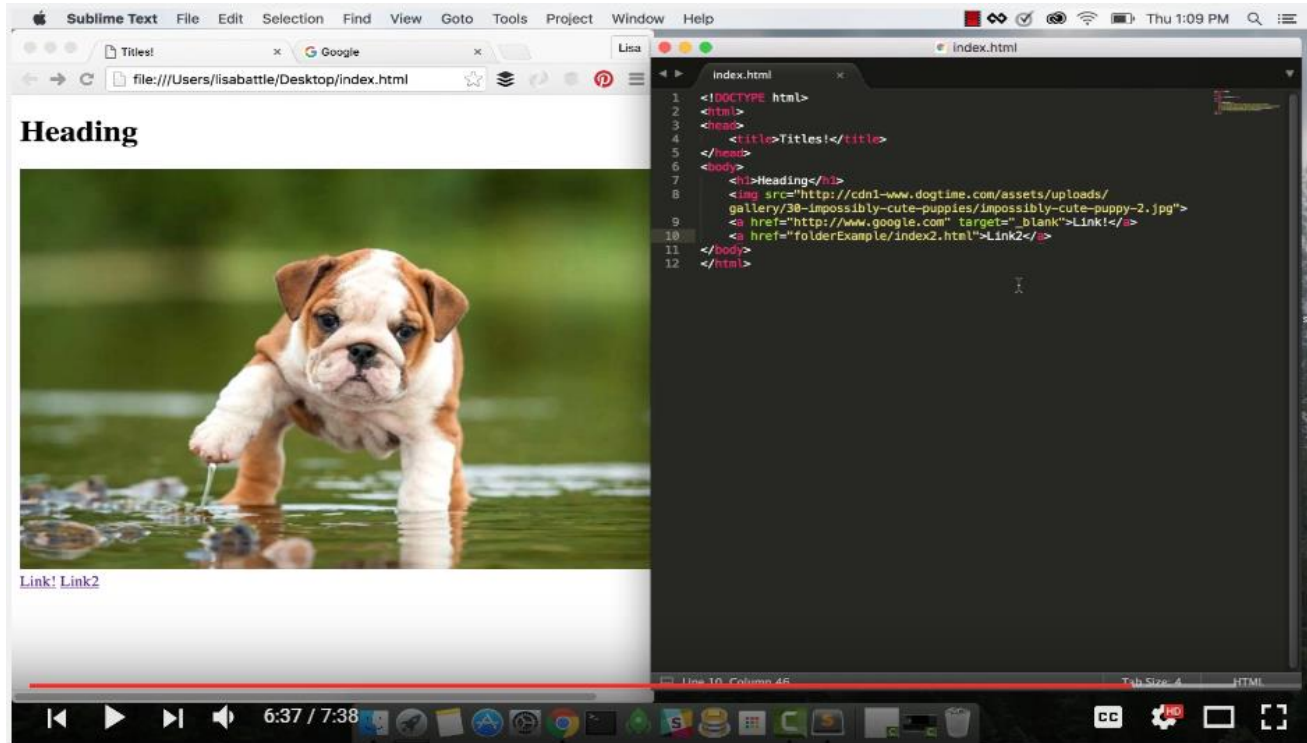


# Instructor Demonstration

## HTML Solution Review

# YouTube Video Walkthrough

Watch the [walkthrough video](#):



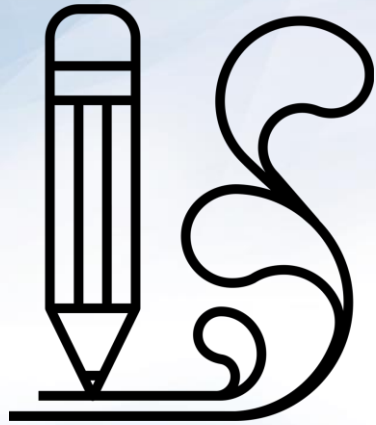


<title>Intro to HTML</title>

---



How'd it go?



# Homework Assignment

**Due Date:**  
Next Class



# Homework Assignment

---

01

Figure out where the GitHub repo is for our class.

02

Redo the Terminal example from today's class.

03

Redo the HTML example from today's class.  
(Watch the [walkthrough video](#) if you feel a bit lost.)

**Due Date:** Next Class

