



# The Zen of Coding

Web Development Boot Camp  
Lesson 1.1



# The Path of Learning

# Your Goals

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



# Your Goals

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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

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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:

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A close-up photograph of a baby with light blue eyes and a wide-open mouth, appearing surprised or excited. The baby is wearing a bright pink, puffy jacket. The background is a dark, textured surface covered in numerous small water droplets, suggesting rain or condensation. The overall mood is one of wonder and discovery.

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

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

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



## Obstacle #2: The Great Doubt

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“Maybe I’m just dumb.”



# Obstacle #3: The Great Distance

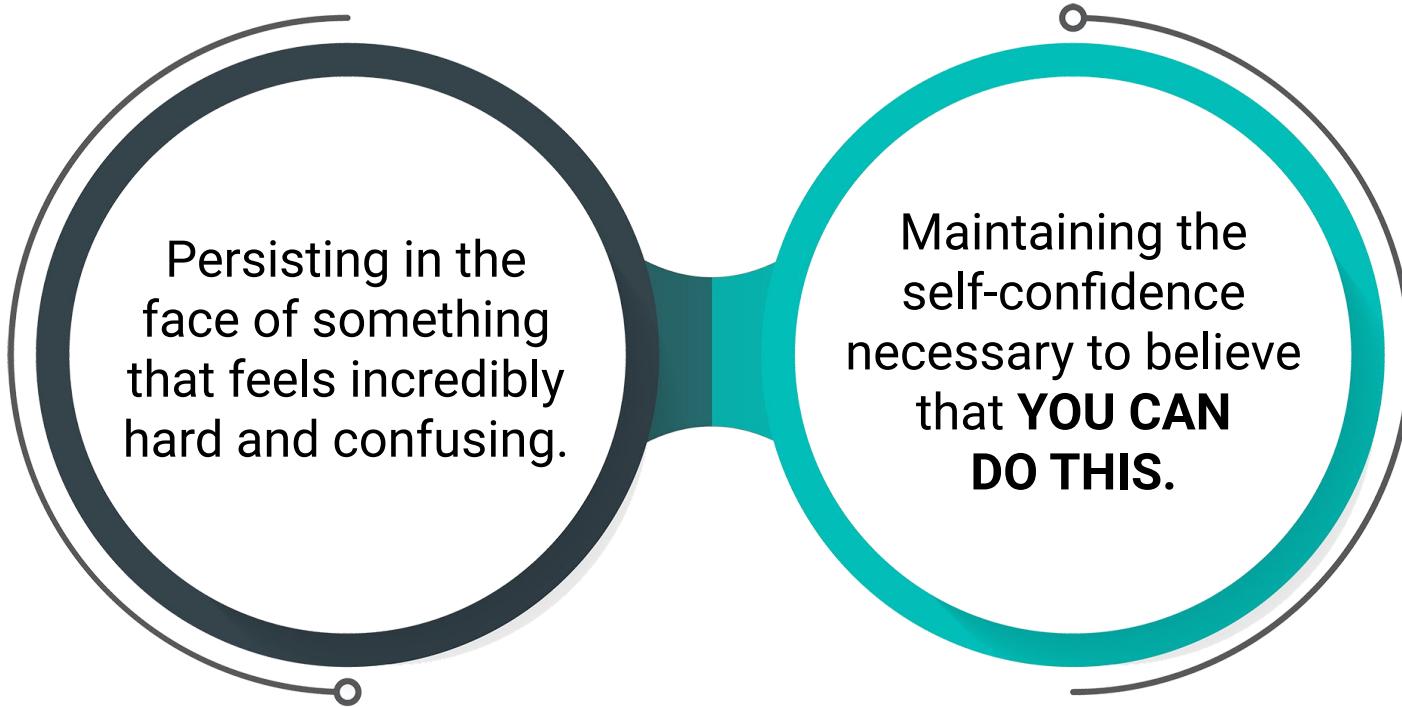
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# Nothing Comes Easy

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Learning to code requires two things:



# Learning Can Be Frustrating

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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)

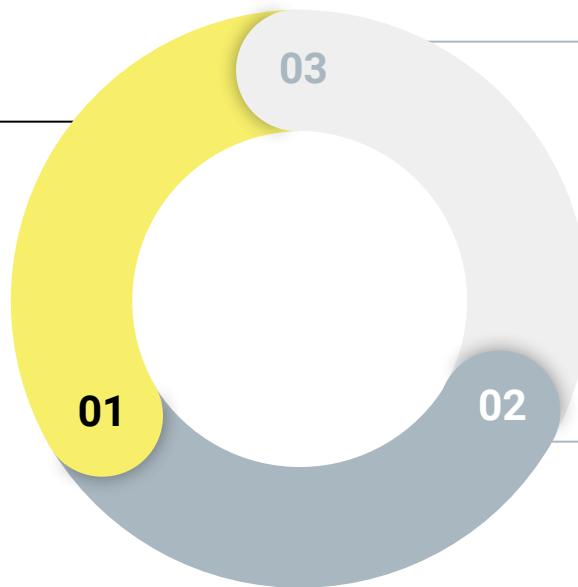
# Advice for the Journey

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Throughout this course, always remember to:

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Work hard!



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Trust yourself

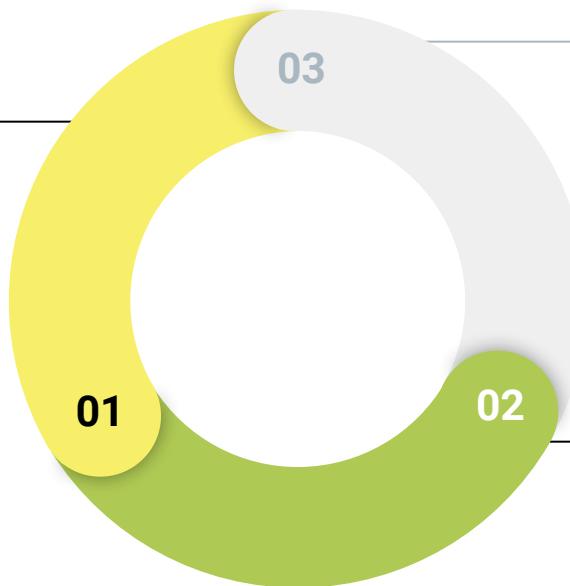
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Appreciate your successes

# Advice for the Journey

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Throughout this course, always remember to:



Work hard!

Trust yourself

Celebrate your  
successes

# Advice for the Journey

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Throughout this course, always remember to:



Work hard!

Trust yourself

Celebrate your  
successes

# And Remember...

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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

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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

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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

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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

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You should also have accounts for:

- GitHub (with SSH Integration)
- Heroku
- LinkedIn
- Stack Overflow

# Self-Check

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Let's do some quick checks of the following:

- Visual Studio Code Check
- Git Bash/Terminal Check
- Node Check
- Git Check
- Heroku Check

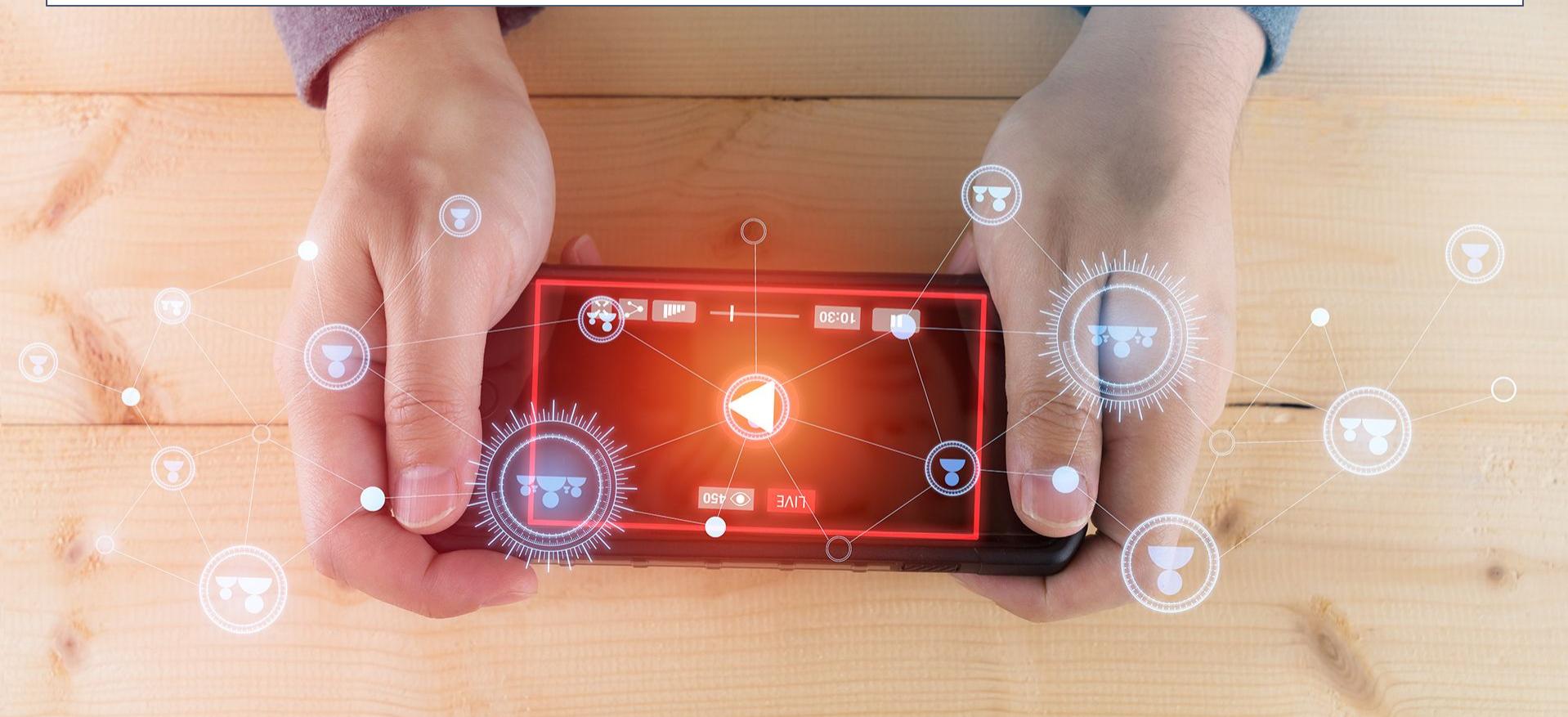
# The Modern Web

# What Exactly Is Full-Stack Development?

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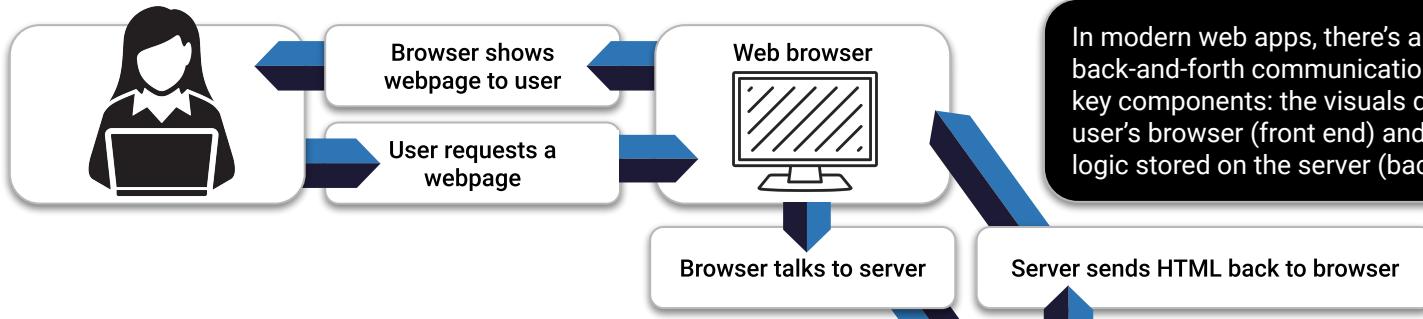
# The “Magic” of YouTube



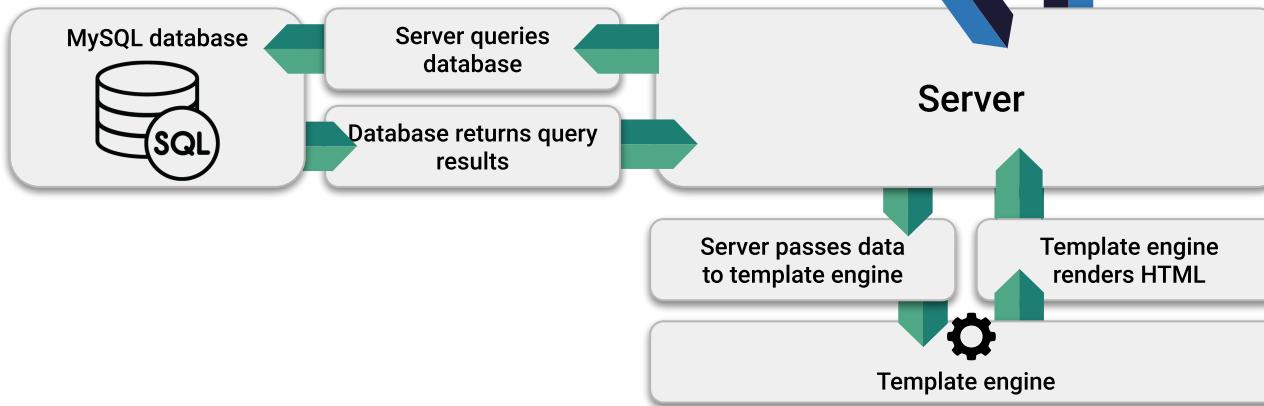
# Full-Stack Development

Front end

FSF FLOW



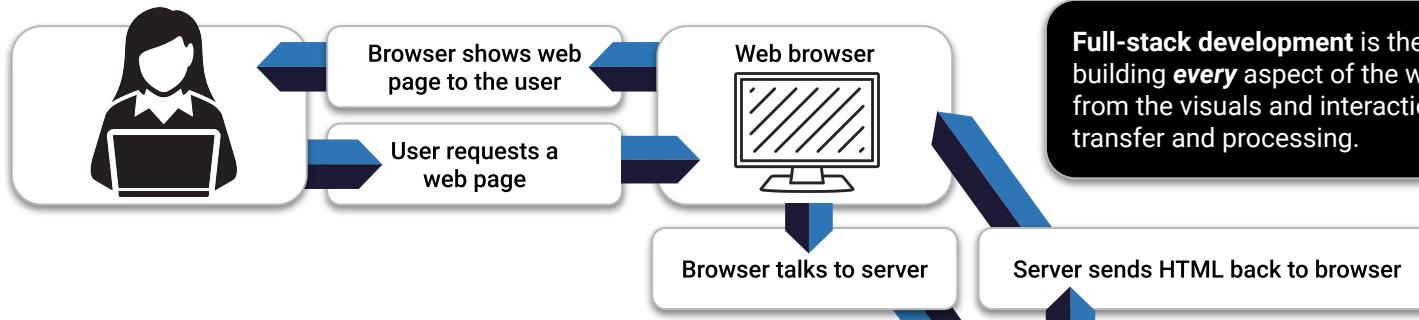
Back end



# Full-Stack Development

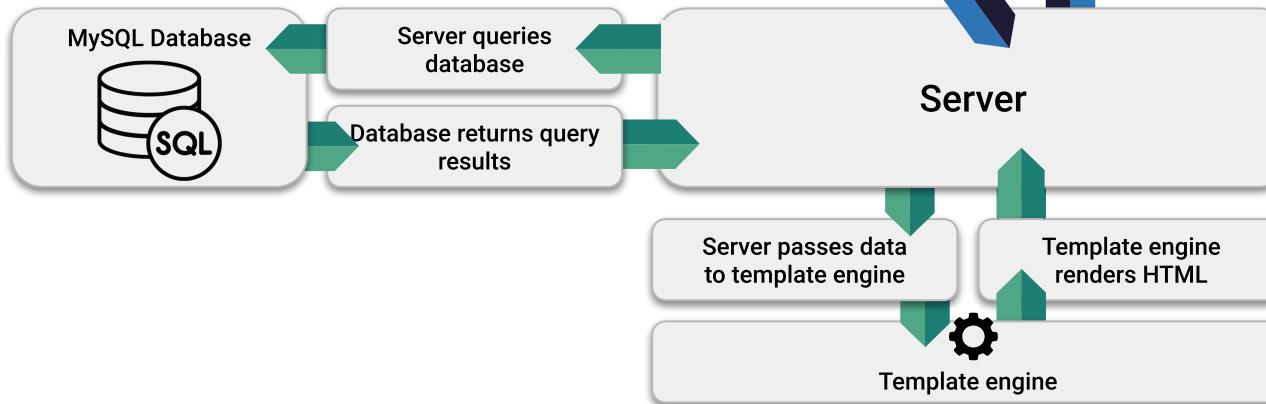
## FSF FLOW

Frontend



**Full-stack development** is the concept of building **every** aspect of the web application—from the visuals and interactions to the data transfer and processing.

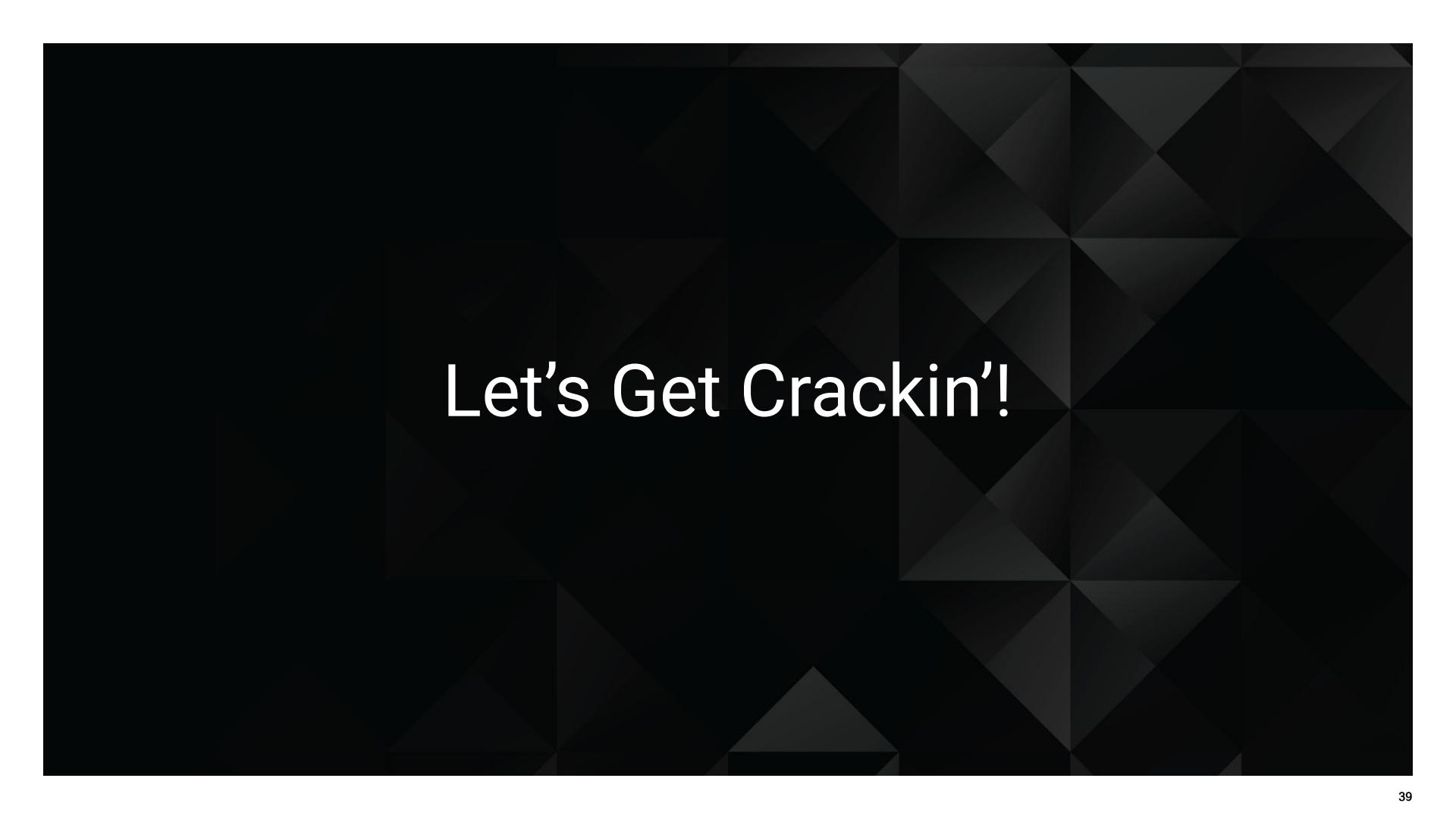
Backend



# Full-Stack Development

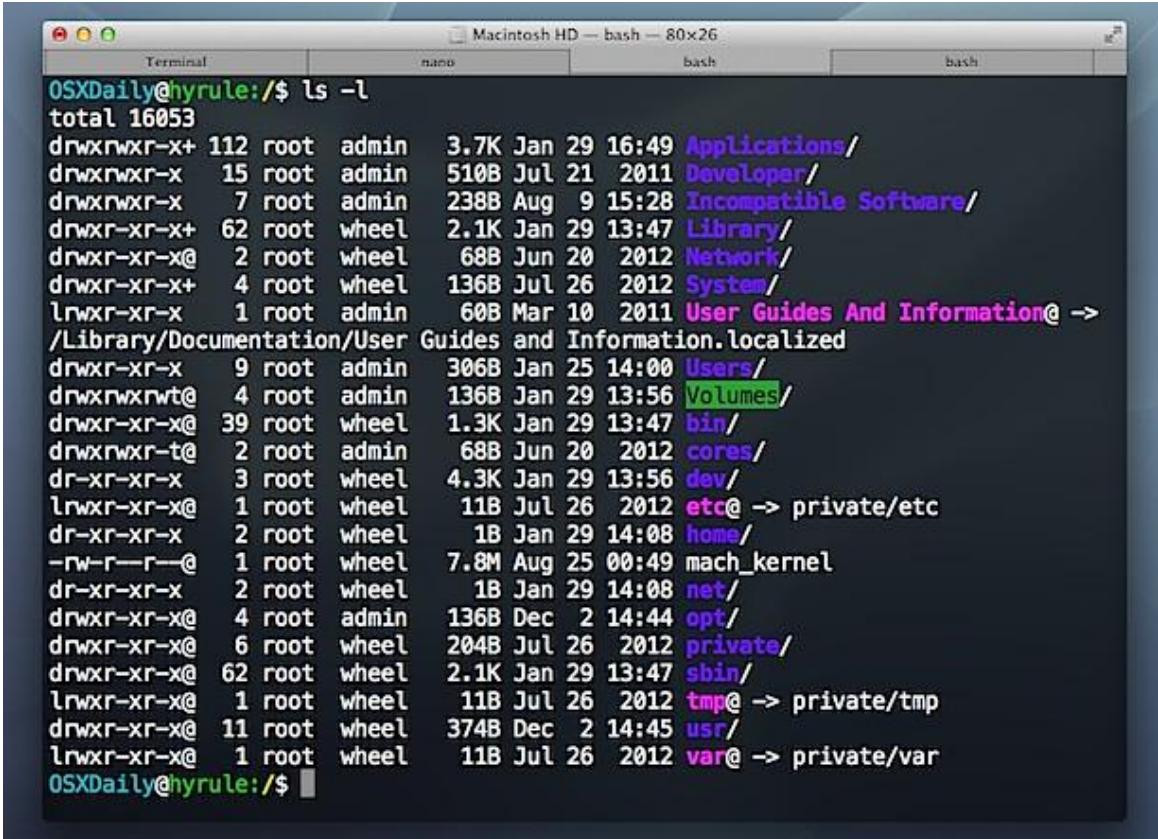
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| The Browser                           | Dev Tools | Server Side                     |  |
|---------------------------------------|-----------|---------------------------------|--|
| HTML                                  | Heroku    | Templating engines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



Let's Get Crackin'!

# Intro to Console/Terminal



A screenshot of a Mac OS X Terminal window titled "Macintosh HD — bash — 80x26". The window shows the output of the command "ls -l". The output lists numerous files and directories in the root directory, including "Applications/", "Developer/", "Incompatible Software/", "Library/", "Network/", "System/", "User Guides And Information@ > /Library/Documentation/User Guides and Information.localized", "Users/", "Volumes/", "bin/", "cores/", "dev/", "etc@ > private/etc", "home/", "mach\_kernel", "net/", "opt/", "private/", "sbin/", "tmp@ > private/tmp", "usr/", and "var@ > private/var". The "Volumes/" directory is highlighted with a green rectangle. The terminal prompt at the bottom is "OSXDaily@hyrule:/\$".

```
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/
drwxrwxnwt@  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



# Activity:

## Console Commands

Suggested Time:  
12 minutes



# Activity: Console Commands

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Create a folder on your desktop named code. You'll put all the code you write today inside that folder.

## Best Practices:



Always use lowercase for folder and file names.



Never put spaces in folder and file names.



Use dashes to separate words in folder and file names.

Suggested Time: 1 min



# Activity: Console Commands

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From the Terminal/console and using only the command line:



Create a new folder with the name **first-day-stuff**.



Create a new HTML file with the name **first-day.html**.



Open the current folder containing the new HTML file.

## BONUS!

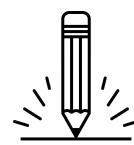


Create multiple directories/folders with the names **one-folder** and **second-folder** with one command.



Create multiple files with the names **one.html** and **two.html** with one command in the **first-day-stuff** directory.

Suggested Time: 12 minutes



# Intro to Console: Discuss with Neighbors

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Hello, HTML

# <title>Intro to HTML</title>

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## HTML5

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





# Activity:

## Intro to HTML

Suggested Time:  
5 minutes



# Activity: Intro to HTML

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

- 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!

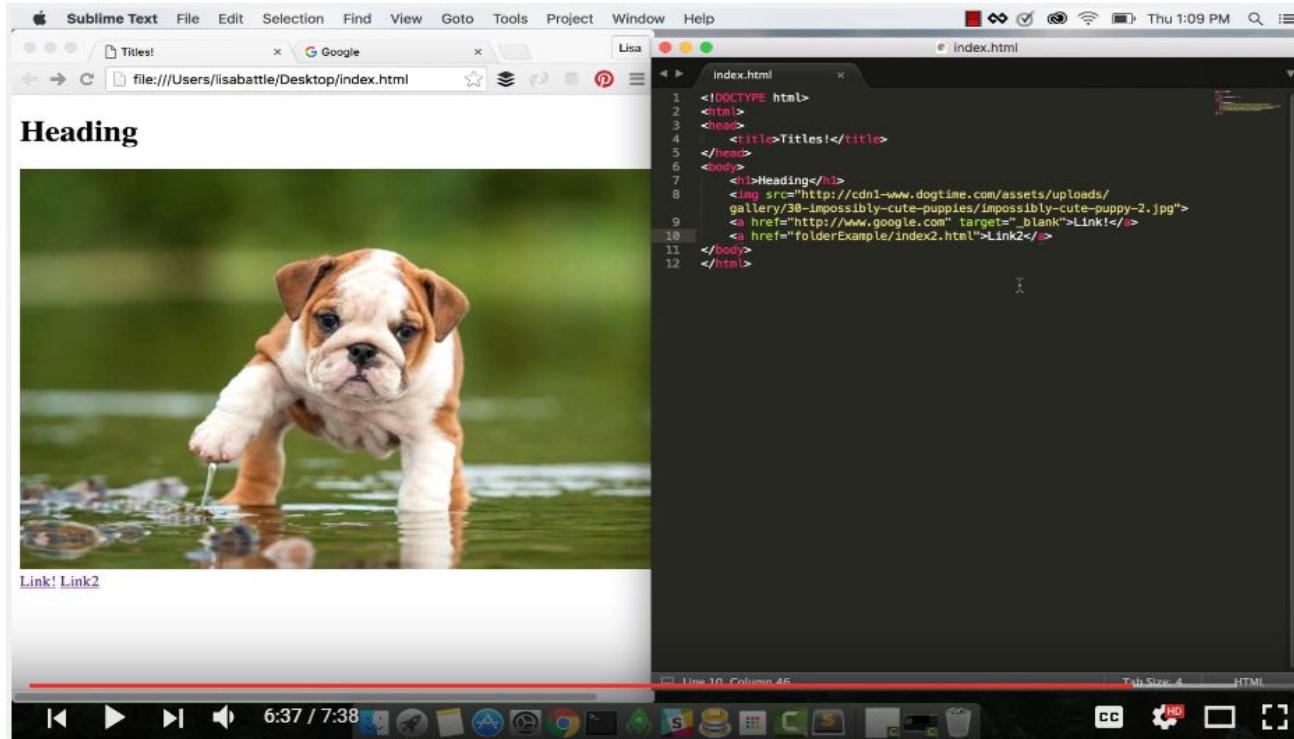
- Create an ordered list of steps to make a sandwich
- Create an unordered list of five bands/musicians you like
- Create a table with two columns (animal class and animal name) and four rows of animals
- Use an alternate way of separating links without line breaks
- Embed a YouTube video of your favorite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

Suggested Time: 5 minutes



# YouTube Video Walkthrough

Watch the [walkthrough video](#):

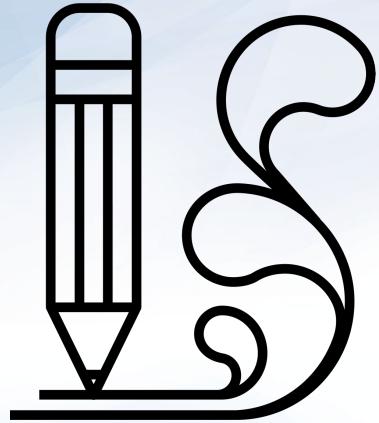


# <title>Intro to HTML</title>

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How'd it go?



# Homework Assignment

**Due Date:**  
Next Class



# Homework Assignment

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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

