The Zen of Coding

Web Development Boot Camp

Lesson 1.1

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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

Appreciate your successes

Advice for the Journey

Throughout this course, always remember to:

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Celebrate your successes

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

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

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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)
- ☐ Google Chrome

Accounts Checklist

You should also have accounts for:

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

Self-Check

Let’s do some quick checks of the following:

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

The Modern Web

What Exactly Is Full-Stack Development?

The “Magic” of YouTube

Full-Stack Development

In modern web apps, there's a constant back-and-forth communication between two key components: the visuals displayed in the user's browser (front end) and the data and logic stored on the server (back end).

Full-Stack Development

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.

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**
Cutting-Edge Development		Design patterns
Progressive Web Applications		
React.js		

Let’s Get Crackin’!

Intro to Console/Terminal

```
Macintosh HD — bash — 80×26
Terminal    nano    bash    bash
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

Activity:
Console Commands

Suggested Time:
12 minutes

Activity: Console Commands

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

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

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.

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 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>

How’d it go?

Homework Activity

Homework Activity

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.)