

Day 1

The Zen of Coding



UCF CODING BOOT CAMP

Quick Introductions! (30 seconds)

- Name
- Location
- Background (Career, Education, Interests)
- Why learn web development?
- Fears about class?



Instructor = {} ?

Bob Gregor

- BS in Behavioral Neuroscience from NEU
- Over 15 years coding, (with plenty of experience being a n00b at it.)



- *LOVES* teaching
- Reef Tank Enthusiast

Some Cool Stuff I Made...

eNom PRO 3.0.00

Home

Import Domains

Import TLD Pricing 3.0

Sort Pricing NEW

WHOIS Checker NEW

Edit SSL Email

Preview SSL Emails NEW

Help NEW

Settings

eNom PRO Helpful Links

Help

Module Log

Activity Log

eNom Registrar Settings

WHMCS Admin Roles

eNom PRO Meta

Version 3.0.00

32 seconds ago

Check for updates

View Changelog

Order Install Service

Restore Help Messages

Addons

eNom PRO

Twilio for WHMCS

Advanced Search

Clients

Client Name

Search

eNom PRO

Welcome to eNom PRO!

Import Domains

Import TLD Pricing

View Help

eNom PRO – Account Balance

Refresh

Enom Credit Balance: \$331.51 Available: **\$443.44** Refill Account

eNom PRO – Domain Stats

Refresh

2798	Registered Domains
0	Expiring Domains
27	Expired Domains
0	Redemption Period
0	Extended Redemption Period

eNom PRO – Pending Domain Verifications

Refresh

0	Pending Verification
0	Pending Suspension
2825	Suspended

Report Data From 3 minutes 37 seconds ago

eNom PRO – Pending Domain Transfers

Refresh

No pending transfers found in WHMCS

eNom PRO – SSL Certificates

Refresh

No Certificates Expiring in the next 30 days.
But there is 1 hidden certificates Show All

Some Cool Stuff I Made...

Users ▾ Menus ▾ Content ▾ Components ▾ Extensions ▾ Help ▾

Super User ▾

Welcome to J-Import 1.5.4

Import New Members

Update Data for Members

View Import History

J-Import Settings

Help

J-Import Help

Step 3 - Select CSV Fields to DB Map

Important Notes The Previously uploaded CSV file will be selected (or select it if you used FTP) The Data effective date is ... [See more...](#)

CSV File Preparation

Make sure the data is consistent. Save in UTF-8 encoding. The tool will check for duplicates against the database. For the best ... [See more...](#)

Getting Started with J-Import

Make sure that you unzip the archive file with the "unzip_first" in the title. Then you can use the Joomla! installer to ... [See more...](#)

Handling Errors & the History View

This view shows the history of data imports and updates performed, as well as the status for each item. Import ... [See more...](#)

Help ?

J-Import 1.5.4

J-IMPORT
for
JomSocial
Joomla!

0 Log out

© J-Import Joomla 3.1 2013

The Path of Learning

Common Student Goals

“To land a solid career.. and be able to support a family.”

“Hope to make something of myself one day...”

“An opportunity to be more creative in my day-to-day work.”

“...to get a better paying job.”

“I want nothing more in the entire world than to be a game designer.”

“Change careers and become a web developer.”

“...to build mastery. To learn a skill that I haven't yet explored.”

“[a chapter] better than the last.”

Your Goal = Our Goal

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

Our Promise:

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

This goes for everyone working behind the program:

- Instructors
- TAs
- Student Success Team
- Career Coaches
- Everyone Else...

Nothing Comes Easy...

As students, you face two **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



Learning Coding Requires Two Things:

1. Persisting in the face of something that feels incredibly hard and confusing
2. Maintaining the self-confidence necessary to believe that you CAN DO THIS

Learning is “Frustrating”

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

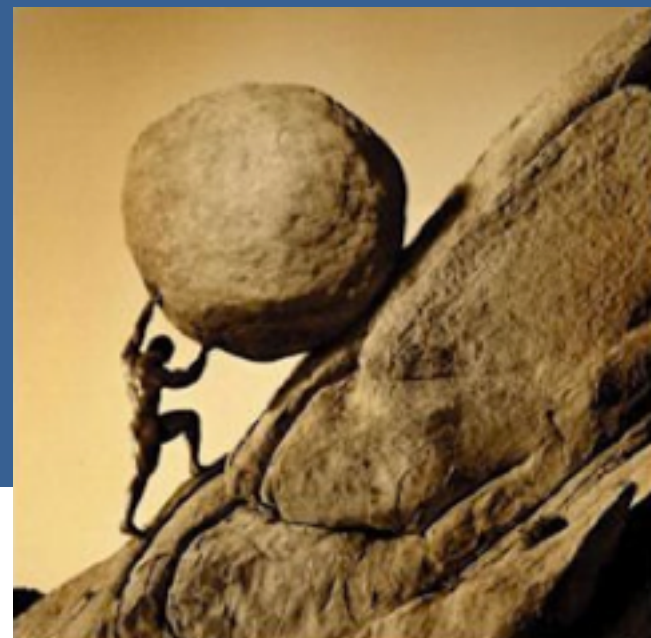
“What I’ve learned is that during this period of frustration is actually when people improve the most, and their improvements are usually obvious to an outsider. If you feel frustrated while trying to understand new concepts, try to remember that it might not feel like it, but you’re probably rapidly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

Phillip Dickey, Author of Write Modern Web Apps with the MEAN Stack: Mongo, Express, AngularJS, and Node.JS

Advice for the Journey

Throughout this course, always remember to:

1. Work Hard!!



Advice for the Journey

Throughout this course, always remember to:

1. Work Hard!!

2. Appreciate your successes



Advice for the Journey

Throughout this course, always remember to:

1. *Work Hard!!*
2. *Appreciate your successes*
3. *Trust yourself*



Course Structure

Daily Schedule

For each class we'll run through the following:

- Set Objectives
- Brief Background Lecture
- Watch Me / Coding Demos
- Code Discussions
- In-Class Exercises
- Project Work

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The Super Important Stuff!!!

i.e. Always be coding!

Today's Schedule

- Students will get to know their classmates, Instructor, TA's, and Support Team.
- Students will resolve any issues regarding pre-work and computer setup
- Students will understand the course structure.
- Students will learn common Terminal (Mac) / Git Bash (Windows) commands to set up your file and folder structures.
- Students will be able to use common Terminal (Mac) / Git Bash (Windows) commands for web development.
- Students will be able to set up a basic HTML document.

Pre-Work

Software Checklist

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

- ☐ Slack
- ☐ Sublime Text 3
- ☐ Git for Version Control
- ☐ Git Bash (Windows) or Terminal (Mac)
- ☐ Node.js
- ☐ Heroku Toolbelt
- ☐ MySQL
- ☐ Heidi SQL (Windows) or Sequel Pro (Mac)
- ☐ Google Chrome



Accounts Checklist

You should also now have accounts for:

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

Self-Check

Let's do some quick checks of the following

- ✓ Sublime Check
- ✓ Git Bash / Terminal Check
- ✓ Node Check
- ✓ Git Check
- ✓ Heroku Check

On the Modern Web

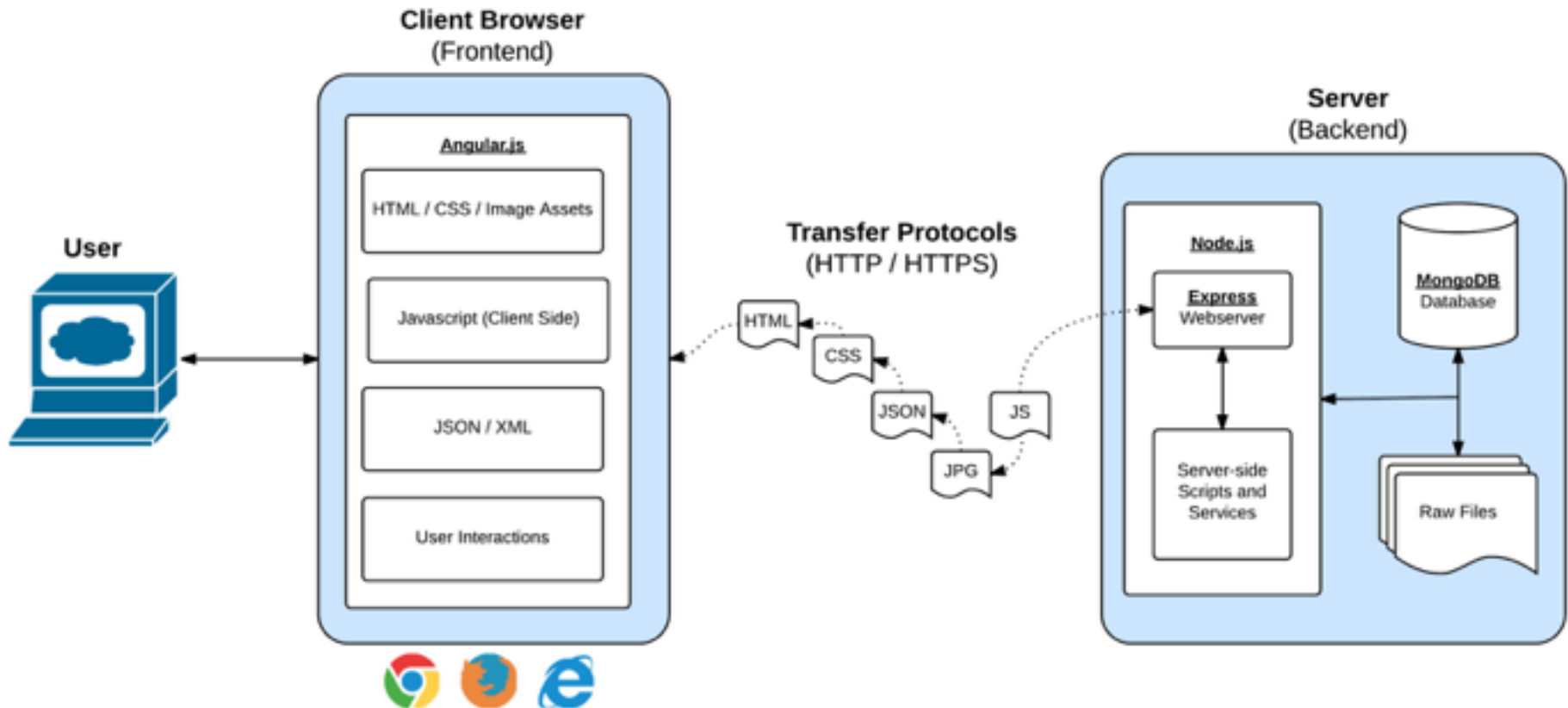
Full-Stack Development?



The “Magic” of YouTube

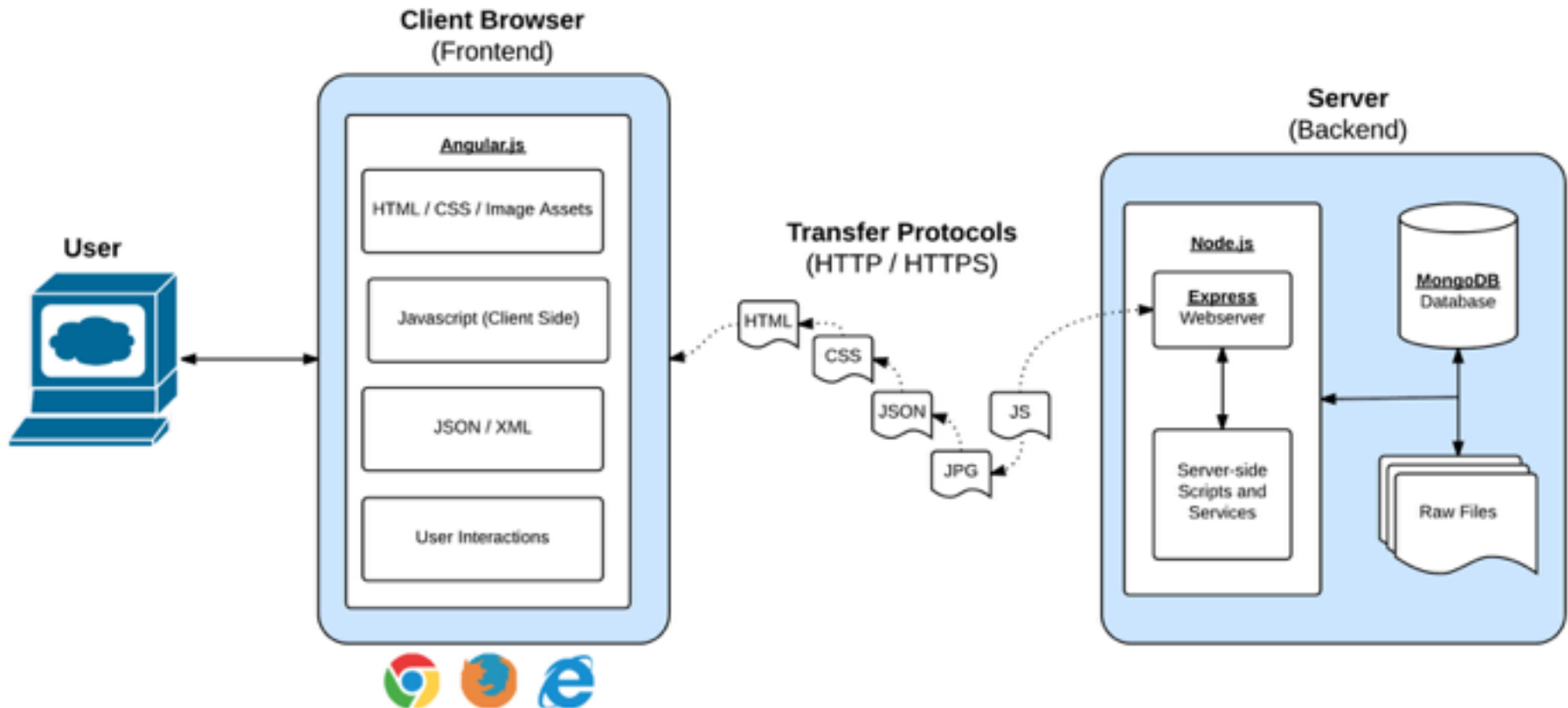
The screenshot shows the YouTube homepage in a web browser. The address bar displays <https://www.youtube.com>. The YouTube logo is in the top left. A search bar contains the text "how to be awesome", and a dropdown menu shows suggestions: "how to be awesome", "how to be awesome at everything", "how to be awesome in school", "how to be awesome at skateboarding", "how to be awesome at agario", "how to be awesome at basketball", "how to be awesome at soccer", "how to be awesome in middle school", "how to be awesome kid president", and "how to be awesome in minecraft". To the right of the search bar are "Upload" and "Sign in" buttons. Below the search bar, the "TODAY Recommendations" section features three video thumbnails: "Angelina Jolie, Brad Pitt Discuss Marriage, New Film, Cancer Fig..." (2,091,579 views, 2 months ago), "'Pretty Woman' Cast Reunites 25 Years Later | TODAY" (1,491,399 views, 9 months ago), and "Amy Schumer On Body Image, Kardashians, Style (Full..." (556,855 views, 3 months ago). A "Subscribe" button with 131K subscribers is visible next to the Amy Schumer video. Below this is the "Popular Videos - Movies & Walt Disney by #Movies" section, featuring three video thumbnails: "24 Historical Inaccuracies in Disney Movies - mental_floss Li..." (142,518 views, 3 days ago), "10 Hidden Details In Disney Movies" (11,553,738 views, 5 months ago), and "Walt Disney Movies 2015 - Animation Movies 2015 English..." (186,964 views, 4 months ago).

Full-Stack Development



- In modern **web applications** there is a constant back-and-forth communication between the visuals displayed on the user's browser (**frontend**) and the data and logic stored on the server (**backend**).

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

- HTML
- CSS
- JavaScript
- jQuery
- Bootstrap
- SEO

API Interactions

- APIs (Consuming)
- JSON
- AJAX
- Real Time via WebSockets
- via Firebase

Cutting

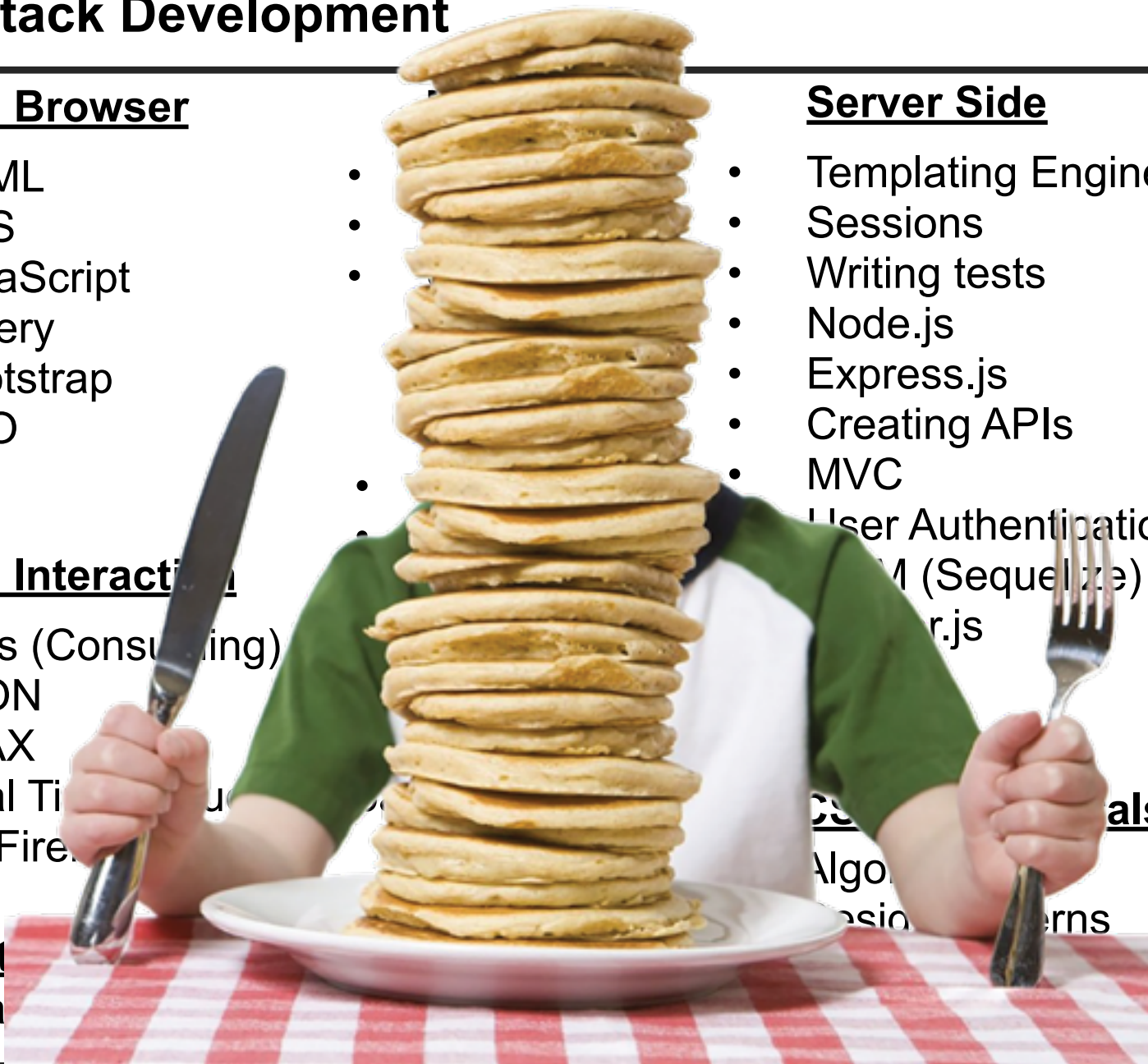
- Real

Server Side

- Templating Engines
- Sessions
- Writing tests
- Node.js
- Express.js
- Creating APIs
- MVC
- User Authentication
- ORM (Sequelize)
- GraphQL

CS

Algorithms
Design Patterns



Full-Stack Development

The Browser

- HTML
- CSS
- JavaScript
- jQuery
- Bootstrap
- SEO

API Interaction

- APIs (Consuming)
- JSON
- AJAX
- Real Time Cloud Database via Firebase

Cutting Edge Development

- React.js

Dev Tools

- Heroku
- Git
- GitHub

Databases

- MySQL
- MongoDB

Server Side

- Templating Engines
- Sessions
- Writing tests
- Node.js
- Express.js
- Creating APIs
- MVC
- User Authentication
- ORM (Sequelize)
- Meteor.js

CS Fundamentals

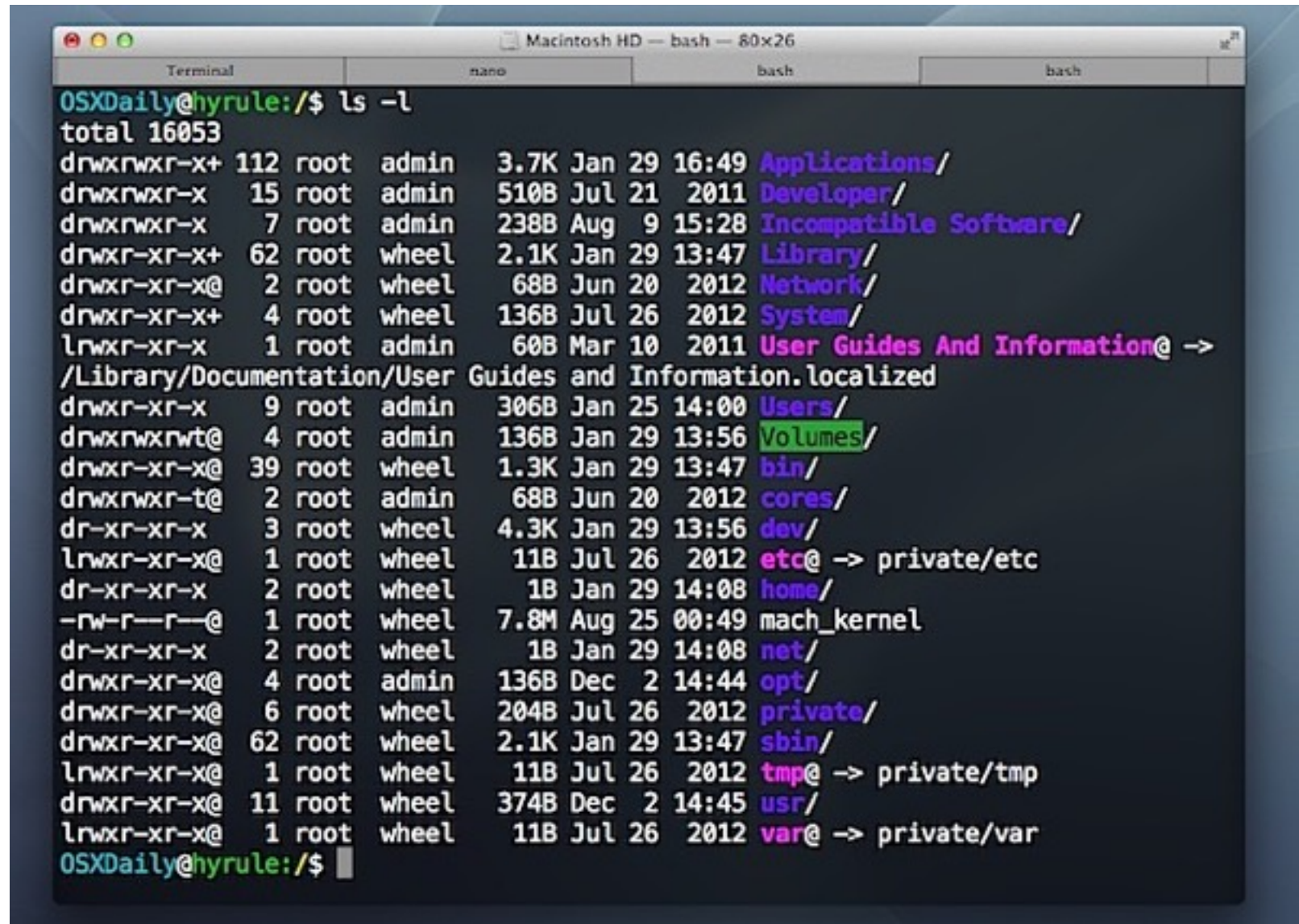
- Algorithms
- Design Patterns

the Kraken



Let's Get Crackin'!

Intro to Console / Terminal



```
Macintosh HD — bash — 80x26
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: Demo
(1-ConsoleCommands)***

> YOUR TURN!

Activity: Get Situated | **Suggested Time:** 1 min

Assignment:

- Make a folder on your desktop named code
- Put all of your code that you do inside of that folder

Best Practices:

- Always use lowercase for folder and file names
- Never put in spaces in your folder and file names (use_underscores_instead)
- Use dashes to separate

Assignment:

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

- 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:

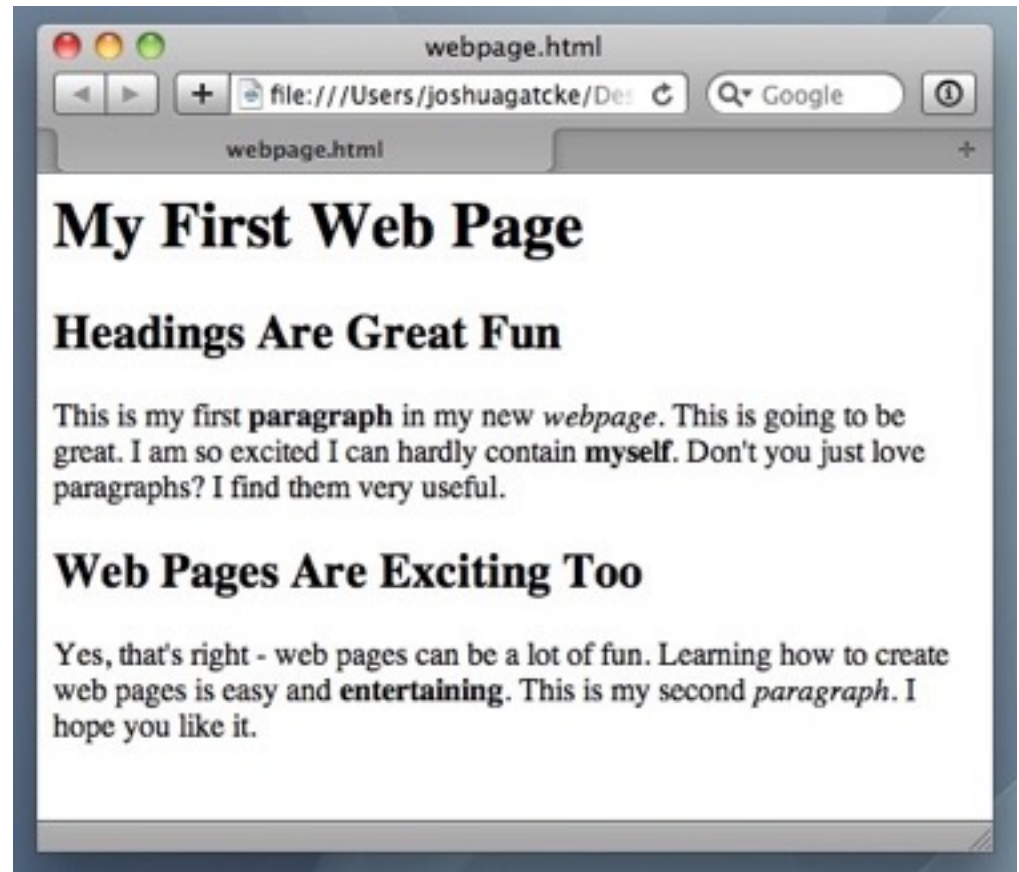
- Create multiple directories/folders with the names one_folder and second_folder in 1 command.
- Create multiple files with the names one.html and two.html in 1 command in the first_day_stuff directory.

Discuss with Neighbors



Hello, HTML

<title> Intro to HTML </title>



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

> YOUR TURN

Assignment:

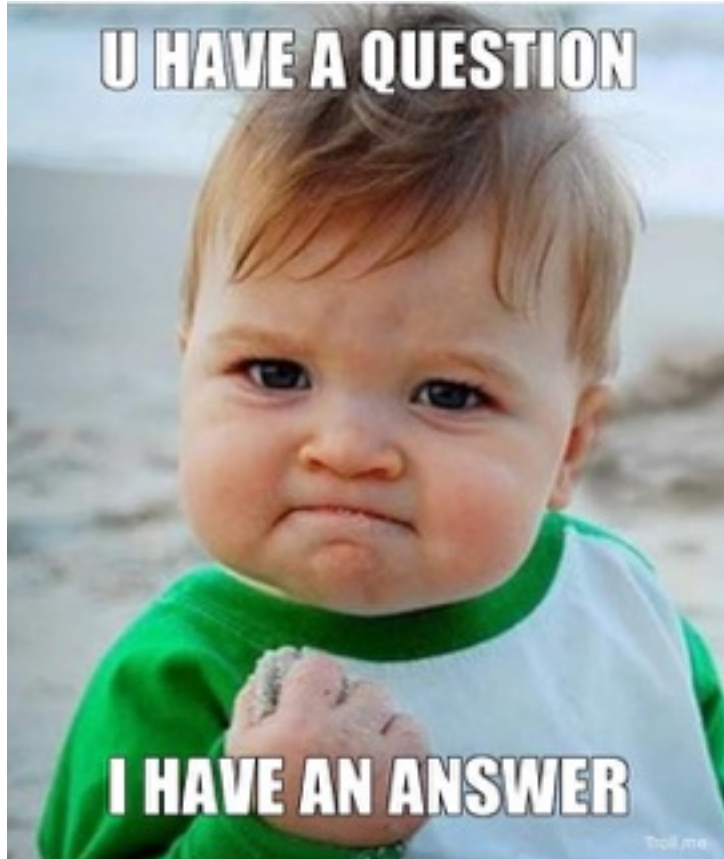
In a new HTML file, create the basic structure of an HTML document and include the following in it:

- DOCTYPE declaration
- Head tag with a title tag
- H1 tag with a title of your choice
- Embed an image
- Create the following three links on your page:
 - One link that is target="_blank" so that it opens a new tab when clicked on.
 - Make the second link bold.
 - Make the third link a placeholder so it goes nowhere.

Bonus:

- Create an ordered list of steps to make a sandwich.
- Create an unordered list of 5 bands/musicians you like.
- Create a table with 2 columns (animal class, animal name) and have 4 rows of animals
- Use an alternate way of separating links without line breaks.
- Embed a Youtube video of your favorite band/musician.

<title> Intro to HTML </title>



How'd it go?

Homework!
