

Week 8

It's Game Time: Project Week

Rutgers Coding Bootcamp | March 21, 2016

Project Week Overview

Yay!

You made it!!!

Project Week

Today's Class:

- Divide into groups
- Begin researching APIs
- Outlining project ideas
- Submitting Project Proposal for Approval
- Initial Design work

Next Class:

- Hardcore Development
- Presentation prep

Saturday Class:

- Group Presentations
- Pizzzzzza!
- Awards!!

The Great Push

- ***Be serious about project week!***
- Use this as an opportunity to push yourself and prove what you know.
- Because you ***DO KNOW*** shiz.

Task

*To build some **awesome shiz.***

Coding Requirements

- Must use at least two APIs
- Must use AJAX to pull data
- Must utilize at least one new library or technology that we haven't discussed
- Must have a polished frontend / UI
- Must meet good quality coding standards (indentation, scoping, naming)
- Must NOT use alerts, confirms, or prompts (look into *modals!*)
- Must have some sort of repeating element (table, columns, etc)
- Must use Bootstrap or Alternative CSS Framework
- Must be Deployed (Heroku or Firebase)
- Must have User Input Validation

Coding – Nice To Haves

- Utilize Firebase for Persistent Data Storage (Actually I want this. So its basically a requirement)
- Mobile Responsive
- Use an alternative CSS framework like Material or Foundation

Presentation Requirement

- You will also be responsible for preparing a 10 minute presentation.
- This will be a formal presentation.
- One in which you explain in detail:
 - Your overall application's concept
 - The motivation for its development
 - Your design process
 - The technologies you used (and briefly how they work)
 - A demonstration of its functionality
 - Directions for future development
- Treat the presentation seriously!
- Talking intelligently about tech > doing tech sometimes.

Metrics

Metrics

- **Concept**
- **Design**
- **Functionality**
- **Collaboration**
- **Presentation**

Awards Yay!

- **Most Awe-Inspiring**
- **Most Useful**
- **Most Creative**
- **Best Use of Tech**
- **Best UI/UX**
- **Most Hilarious**
- **Most Disruptive**
- **Most Socially Conscious**

Past Projects

Let's take a moment to see what the last class built...

Last Class

BitCurrent:

<http://bitcurrents.herokuapp.com/>

FaceCurrent:

<http://face-check.herokuapp.com/>

ToGoList:

<http://to-go-list.herokuapp.com/>

GymTriton:

<http://gymtrition.herokuapp.com/>

OurPets:

<https://showusapet.herokuapp.com/>

Uh?

<https://immense-forest-3648.herokuapp.com/>

Yeah. So I think we can crush them.

API Suggestions

Stick to APIs that do all of the following:

- Allows CORS
- Simple or no authentication
- JSON response returned
- Well documented

API Suggestions

API List



Name	Allows CORS	Authentication Method	Authentication Required
spotify web api	yes	oauth	yes/no
reddit api	yes	n/a	no
youtube api	yes	api key	yes/no
linkedin	yes	api key	yes
soundcloud	yes	api key	yes
wikipedia	yes	n/a	n/a
rotten tomatoes	yes	api key	yes
flickr	yes	n/a	n/a
pinterest api	yes	n/a	n/a
google search api	yes	n/a	n/a
tumblr api	yes	n/a	n/a
marvel api	yes	api key	yes
geonames api	yes	n/a	n/a
OMDB	yes	n/a	n/a
Zillow	no	n/a	n/a
Open Street Maps	yes	n/a	n/a
GovTrack.us	yes	n/a	n/a
Sqoot	yes	api key	yes
GoogleMaps	yes	n/a	n/a
Giphy	yes	api key	yes
JSFiddle	yes	n/a	n/a
Bitcoin Charts	yes	n/a	n/a

StackOverflow	yes	api key	yes
ProPublica NonProfit API	Yes?	n/a	no
AssessmentNJ Counties	Yes	n/a	no
AssessmentNJ Towns	Yes	n/a	no
AssessmentNJ Street Addresses	Yes	n/a	no
UN Data API (https://www.undata-api.org/docs)	Yes	api key	yes
FaceFacePlus API	Yes	API Key	Yes
MusXMatch (Lyrics)	Yes	API Key	Yes
Words API (https://www.wordsapi.com/)	Yes	Token	No

<https://news.ycombinator.com/item?id=7546040>

<http://www.programmableweb.com/api/directory>

get access to a REST console for all different API's: <https://apigee.com/console/linkedin?v=0>

spotify example (no auth): <http://www.codemaut.co.uk/wp-content/themes/codemaut/demos/simple-spotify-song-search/>

reddit example:

<http://jsfiddle.net/danielvassallo/87/6k2j5yq/>

<http://speckyboy.com/2014/01/22/building-simple-reddit-api-webapp-using-jquery/>

soundcloud example:

<http://jsfiddle.net/tobiasbeuving/26p40X/5/>

wikipedia example:

<http://jsfiddle.net/gastamadude/hm8p/1/>

rotten tomatoes example:

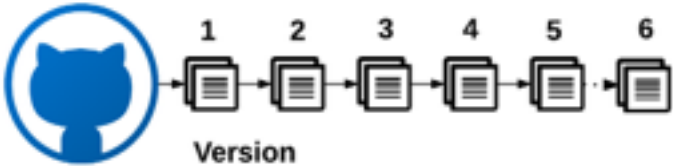

<http://developer.rottentomatoes.com/docs/read?snr=10/examples>

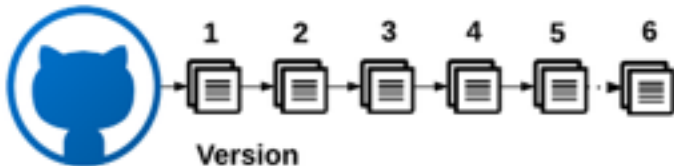
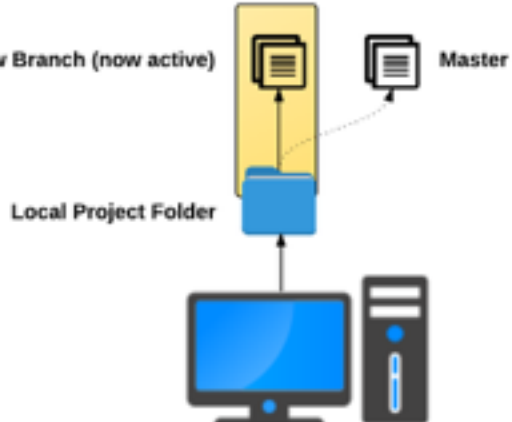
pinterest api example:

<http://jsfiddle.net/anupjohny/76PHM/>

Tools

Time to Get Git...

GitHub	 <p>Version</p>
Command	Git Branch <branchname> Creates a local "branch" or alternate version of code. However, "master" branch is still the active branch.
Your Computer	

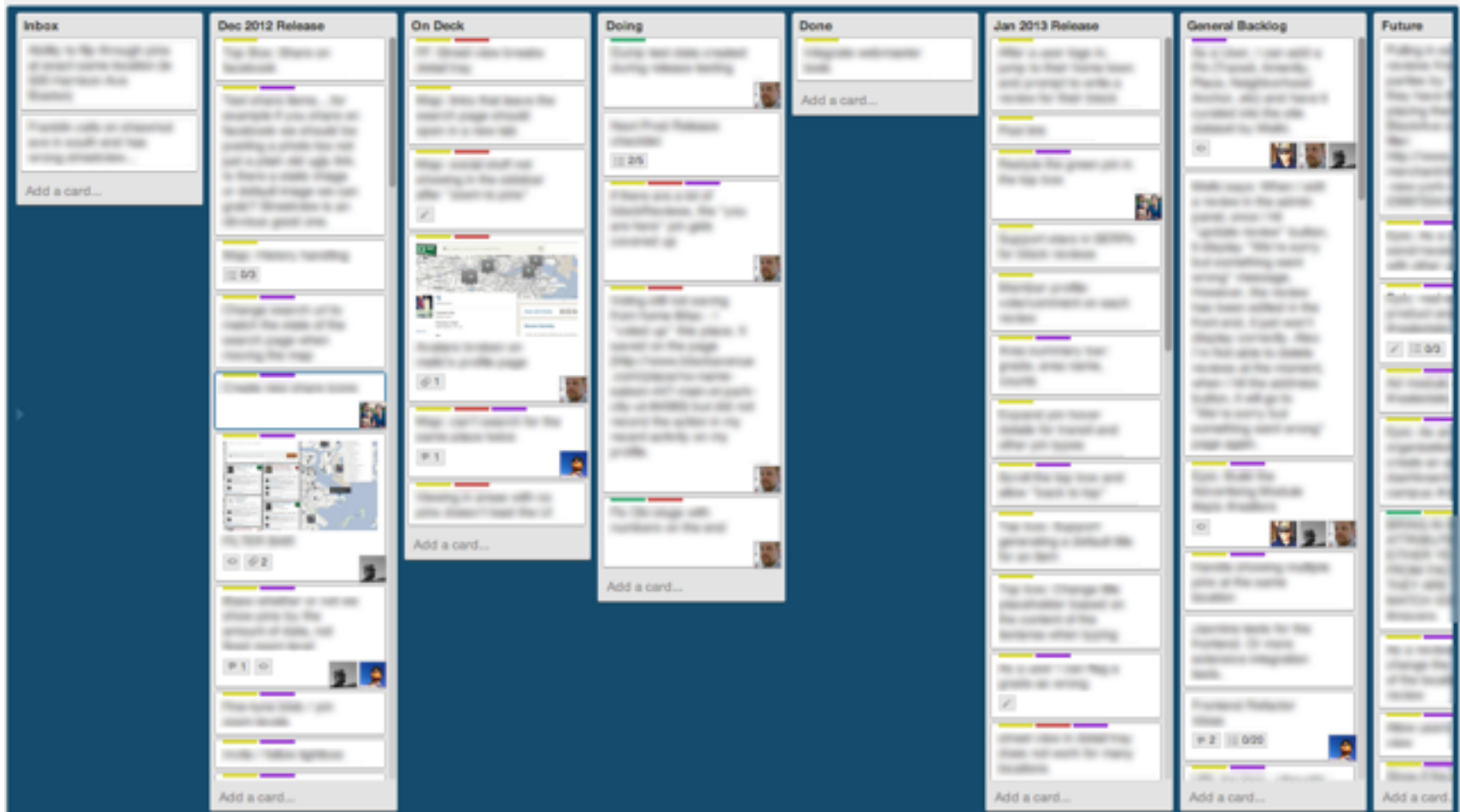
GitHub	 <p>Version</p>
Command	Git checkout <branchname> Switches the "active" branch to be the alternative branch. Local code files and changes will thus be saved to this branch.
Your Computer	

Git Collaboration + Issues

The screenshot displays the GitHub Issues interface for the Bootstrap project. At the top, there are tabs for 'Issues', 'Pull requests', 'Labels', and 'Milestones'. A search bar contains the text 'is:open is:issue', and a 'New Issue' button is on the right. Below the tabs, a summary bar shows '104 Open' and '9,660 Closed' issues. A header row includes filters for 'Author', 'Labels', 'Milestones', 'Assignee', and 'Sort'. The main content area lists several open issues, each with a title, a status label (e.g., 'confirmed'), a category label (e.g., 'css', 'js', 'docs'), the issue number, the time since it was opened, the author's name, and the number of comments.

Issue Title	Status	Category	Issue Number	Time Opened	Author	Comments
.form-group-sm .form-group-lg shrink textarea	confirmed	css	#13989	11 hours ago	limitstudios	4
Tooltip unnecessarily breaks into multiple lines when positioned to the right	confirmed	js	#13987	15 hours ago	hnrch02	0
Tooltip Arrows in Modal example facing wrong way		css	#13981	a day ago	SDCore	6
Table improvement		css	#13978	a day ago	Tjoosten	0
docs/dist files		docs	#13977	2 days ago	XhmikosR	7
Potential solution to #4647		js	#13976	2 days ago	julioarmandof	4
Bootstrap site: right-hand navigation text becomes rasterized after scrolling		css, docs	#13974	2 days ago	mg1075	4
Dropdown toggle requires two clicks		js	#13973	2 days ago	mg1075	1

Trello



Project Ideas

- Utilizes the Github API to create a new frontend for Github
- Hover over commit message words to get definitions (utilizing WordsAPI)
- Search Giphy using commit messages to return animated GIF's

Student / Employer Site

- Utilize Firebase to show a list of students and employers (think social network)
- Employers can view student pages and pull in information from Github API
- Rutgers Coding Bootcamp would use this!

Deal Searcher

- Users type in a street address
- Address is Geocoded via Google Maps API
- Deals are searched (via Sqoot API) in that vicinity
- Flickr Images pertaining to that deal are shown

- Use the Marvel API to let the user search for a story / character / concept
- Cross correlate that with Flickr images of that concept
- Search the OMDB to see if any movies / shows exist for that character / story

Homework Submission

- Create a new way for your fellow students to submit homework
- Look up their Github Repo automatically when they enter their Github username
- Mark as “done” / “late” via Firebase

UN Data API

- Use the Unofficial UN Data API to search a user specified country
- Return relevant data for the users' desire
- Use a secondary data source (Google Maps, Flickr, YouTube, etc) to provide additional context or data
- Examples: Per Capita Govt Expenditures on Health, # of Physicians, Deaths due to HIV, Malaria Cases etc, low birth weight newborns

Facial Recognition

- Use the Face++ API
- Allow users to provide a URL link to a facial image then provide viewers with information on the image's gender, race, whether they are wearing glasses, and their age
- Use Firebase to update ALL users of the site about the current search

- Use a Finance API in conjunction with the New York Times Article API to observe changes in stock prices against new articles about a company
- Allow users to scan for % changes in companies over 1, 5, 10 day periods

Today's Focus

Today's Focus

- **Brainstorm possible ideas**
- **Begin API Research**
- **Create an initial draft / sketch of the final design**
- **Make sure you know how to use Git Collaboratively. (PRACTICE THIS!!!!)**
- **Create a short 1 page proposal listing out each of the following:**
 - **Project Title**
 - **Team Members**
 - **Project Description**
 - **Sketch of Final Product**
 - **APIs to be Used**
 - **Rough Breakdown of Tasks**

Questions
