

Game Time: Project Week

The Coding Bootcamp

Project Week Overview

You made it!!!



Project Week! (This Week)

Today's Class:

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

Next Class:

- Hardcore Development
- Instructor + TA Workshops

Rest of the Week:

- Hardcore Development



Project Week

Today (W)

- Planning and API Research

This Week (Th/F)

- Hardcore Development

Next Week (M/T):

- Hardcore Development

Next Week (W):

- Presentations!
- Intro to Node

Next Week (Th/F):

- Node & NPM

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.

Teams

Groups

Team #1

<NAME>, <NAME>, <NAME>,
<NAME>

Team #2

<NAME>, <NAME>, <NAME>,
<NAME>

Team #3

<NAME>, <NAME>, <NAME>,
<NAME>

Team #4

<NAME>, <NAME>, <NAME>,
<NAME>

Team #5

<NAME>, <NAME>, <NAME>,
<NAME>

Team #6

<NAME>, <NAME>, <NAME>,
<NAME>

Team #7

<NAME>, <NAME>, <NAME>,
<NAME>

Team #8

<NAME>, <NAME>, <NAME>,
<NAME>

Task

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 (Consider this basically a requirement).
- Mobile Responsive
- Use an alternative CSS framework like Materialize

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.

Be Glam for the Camera

- All presentations will be recorded...
- So treat it seriously!
- These can be great portfolio pieces if you invest the time.

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**

API Suggestions

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	auth	yes
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	oauth	yes
Pinterest API	yes	oauth	yes
Google Custom Search API	yes	API key	yes
Tumblr API	yes	outh	yes
Marvel API	yes	API key	yes
GeoNames API	yes	username	yes
OMDB	yes	n/a	n/a
Zillow	no	ID	yes

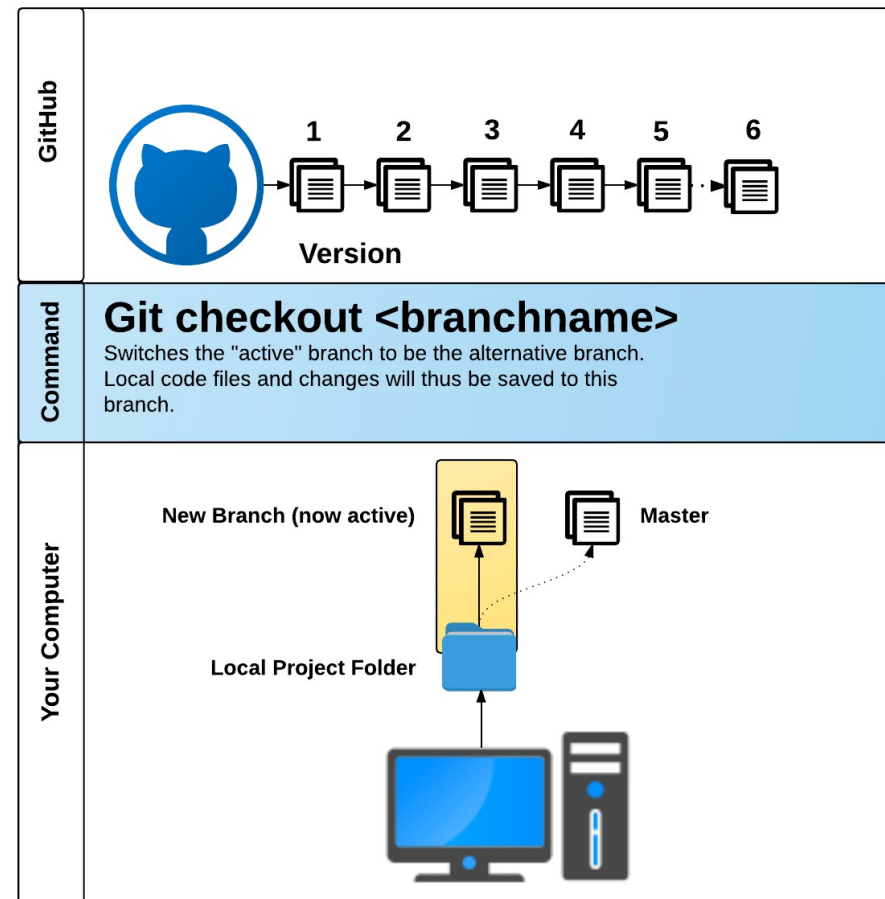
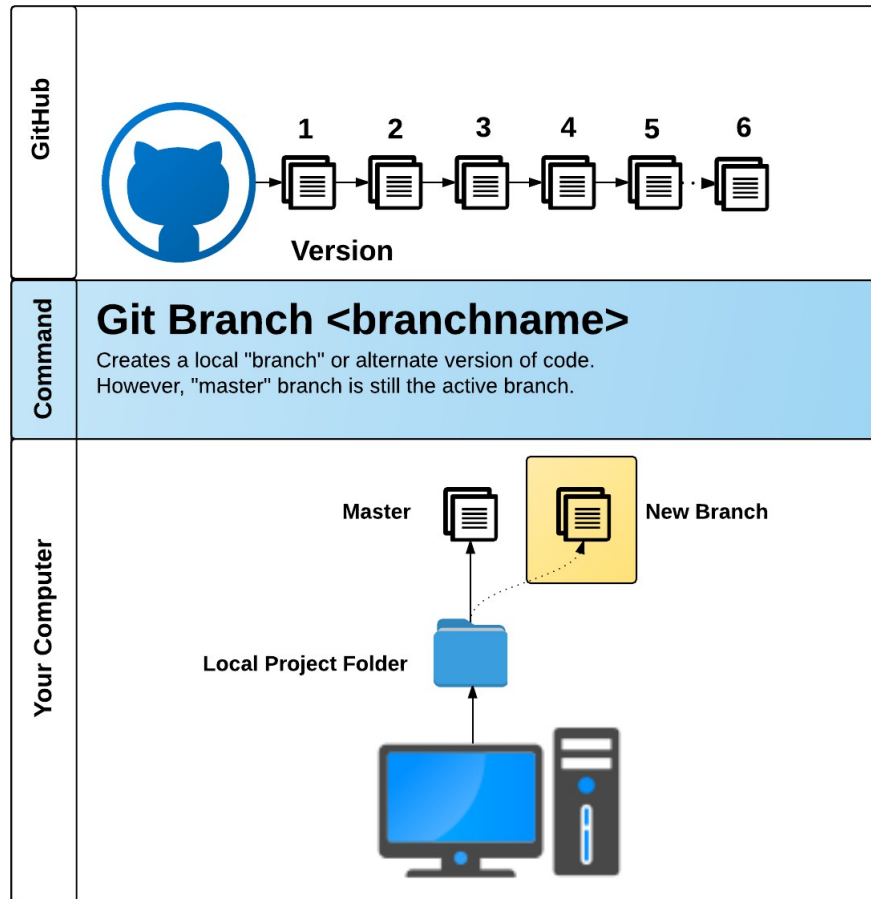
Open Street Maps	yes	n/a	no
GovTrack.us	yes	n/a	no
Sqoot	yes	API key	yes
Google Maps	yes	API key	yes
Giphy	yes	API key	yes
JSFiddle	yes	n/a	n/a
Bitcoin Charts	yes	n/a	n/a
StackExchange API	yes	oauth	yes
ProPublica NonProfit API	Yes?	n/a	no
U.S. City & County Web Data API	Yes	n/a	no
UN Data API	Yes	API key	yes
Face++ API	Yes	API Key	Yes
MusiXMatch	Yes	API Key	Yes
Words API	Yes	Token	No

Tools

Collaboration is Critical!

- Steering a project with remote developers like this one can be challenging.
- Consider using the following tools...

GitHub Pull Requests



- GitHub Pull Requests are a great way to “combine” code when multiple users are working on the same files.
- We’ll show you how to use this feature in the next class.

GitHub Issues

The screenshot displays the GitHub Issues interface for the Bootstrap repository. At the top, there are tabs for 'Issues', 'Pull requests', 'Labels', and 'Milestones'. A search bar contains the text 'is:open is:issue'. A green 'New issue' button is located 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, status labels (like 'confirmed', 'css', 'js', 'docs'), the issue number, the time since it was opened, the author's name, and the number of comments.

Issue Title	Status Labels	Issue Number	Time Opened	Author	Comments
.form-group-sm .form-group-lg shrink textarea	confirmed, css	#13989	opened 11 hours ago	limitstudios	4
Tooltip unnecessarily breaks into multiple lines when positioned to the right	confirmed, js	#13987	opened 15 hours ago	hnrch02	0
Tooltip Arrows in Modal example facing wrong way	css	#13981	opened a day ago	SDCore	6
Table improvement	css	#13978	opened a day ago	Tjoosten	0
docs/dist files	docs	#13977	opened 2 days ago	XhmikosR	7
Potential solution to #4647	js	#13976	opened 2 days ago	julioarmandof	4
Bootstrap site: right-hand navigation text becomes rasterized after scrolling	css, docs	#13974	opened 2 days ago	mg1075	4
Dropdown toggle requires two clicks	js	#13970	opened 3 days ago	Kirima	1

- GitHub Issues are a great way to keep track of bugs, feature requests, etc.

Trello

The screenshot displays a Trello board titled "The Great Kitchen Redesign" under the organization "Taco's Organization". The board is organized into four columns: "Ideas", "To Do", "Doing", and "Done!".

- Ideas:** Contains three cards: "Get a new window valence to match the cabinet colors", "Install pot rack over the island" (with an image of a pot rack), and "Replace drawer knobs with antique ones" (with 4 attachments).
- To Do:** Contains three cards: "Adjust water pressure of the sink" (1 vote, 0/4 progress, due Nov 10, 2013), "Remove old refrigerator and stove" (with 2 attachments), and "Install new flooring" (1 comment, 0/10 progress, due Nov 4, 2013). Below these is a color palette card and "Buy paint for cabinets" (1 attachment).
- Doing:** Contains two cards: "Pick countertop colors" (due Nov 27, 2013) and "Buy new kitchen cart" (1 attachment, with a kitchen layout diagram).
- Done!:** Contains one card: "Call contractor" (1/2 progress) and "Pick faucet to match new sink" (1 vote, 2 attachments, with a faucet image).

On the right side, the "Members" section lists "Adam Simms" and "Tracey Marlow". The "Activity" section shows recent actions: Adam Simms changed the board background, Tracey Marlow moved a card, Adam Simms renamed the board, and Tracey Marlow joined several cards.

- Trello is a great project management tool for creating to-do lists and communicating updates.

Example Project Ideas

Event Searcher

- Users type in the name of their favorite sporting team.
- Then using the SeatGeek API, your web application points them to the next game and location where the team is playing.
- The web application also provides them a link to Ebay where they can purchase memorabilia associated with the team.



UN Data API

- Use the Unofficial UN Data API to search a user specified country's health records.
- Then 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



Or...

***Just do your own thing.
Be creative! Be ambitious!***

Today's Focus

By End of Day - Today

- **Brainstorm possible ideas**
- **Begin API Research**
- **Create an initial draft / sketch of the final design**
- **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
