

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

Wednesday/Thursday Class:

- Hardcore Development



Project Week (Next Week)

Saturday Class:

- Hardcore Development

Next Week (M/W):

- Hardcore Development
- Presentation Prep

Wednesday/Thursday Class:

- Presentations!
- 

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

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 (Github Pages)
- 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.

Metrics

Metrics

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

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 |

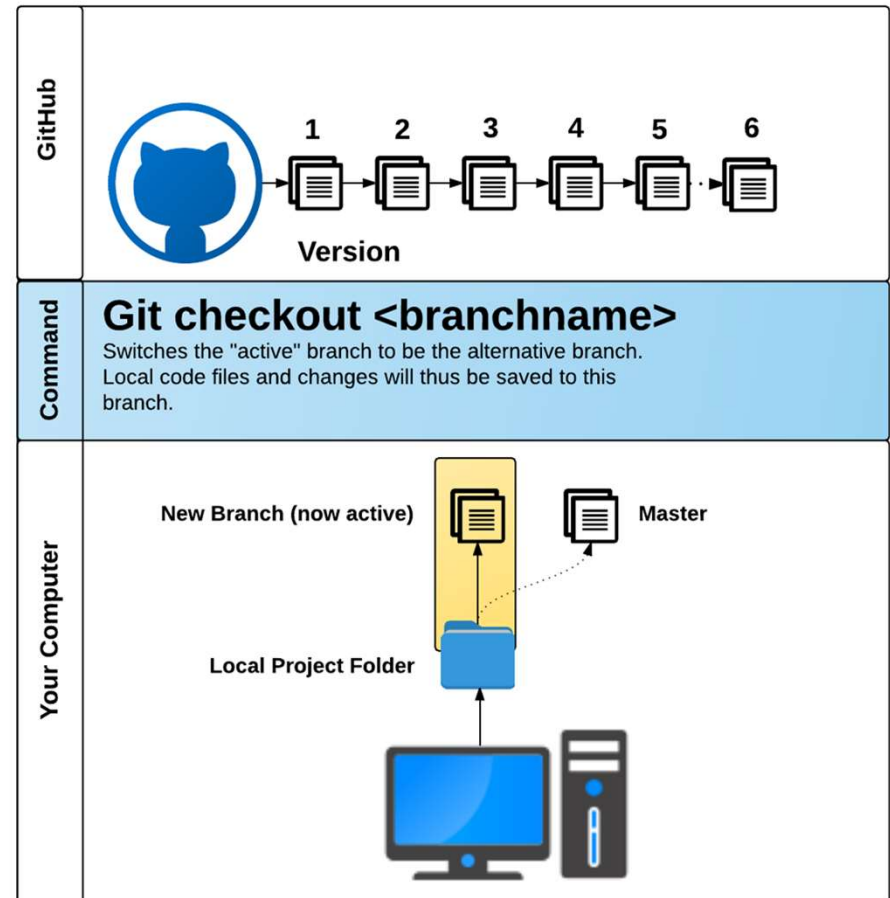
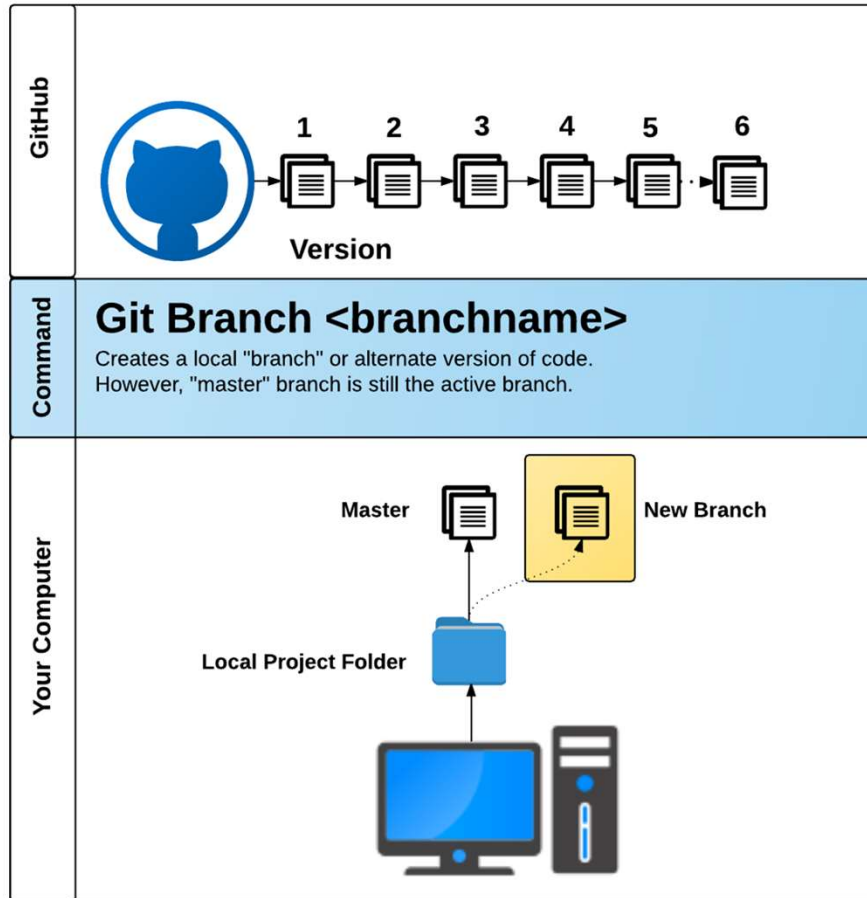
| | | | |
|---|------|---------|-----|
| Open Street Maps | yes | n/a | no |
| GovTrack.us | yes | n/a | no |
| Sqoot | yes | API key | yes |
| Google Maps | yes | API key | yes |
| Giphy | yes | API key | yes |
| JSFiddle | yes | n/a | n/a |
| Bitcoin Charts | yes | n/a | n/a |
| StackExchange API | 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 class.

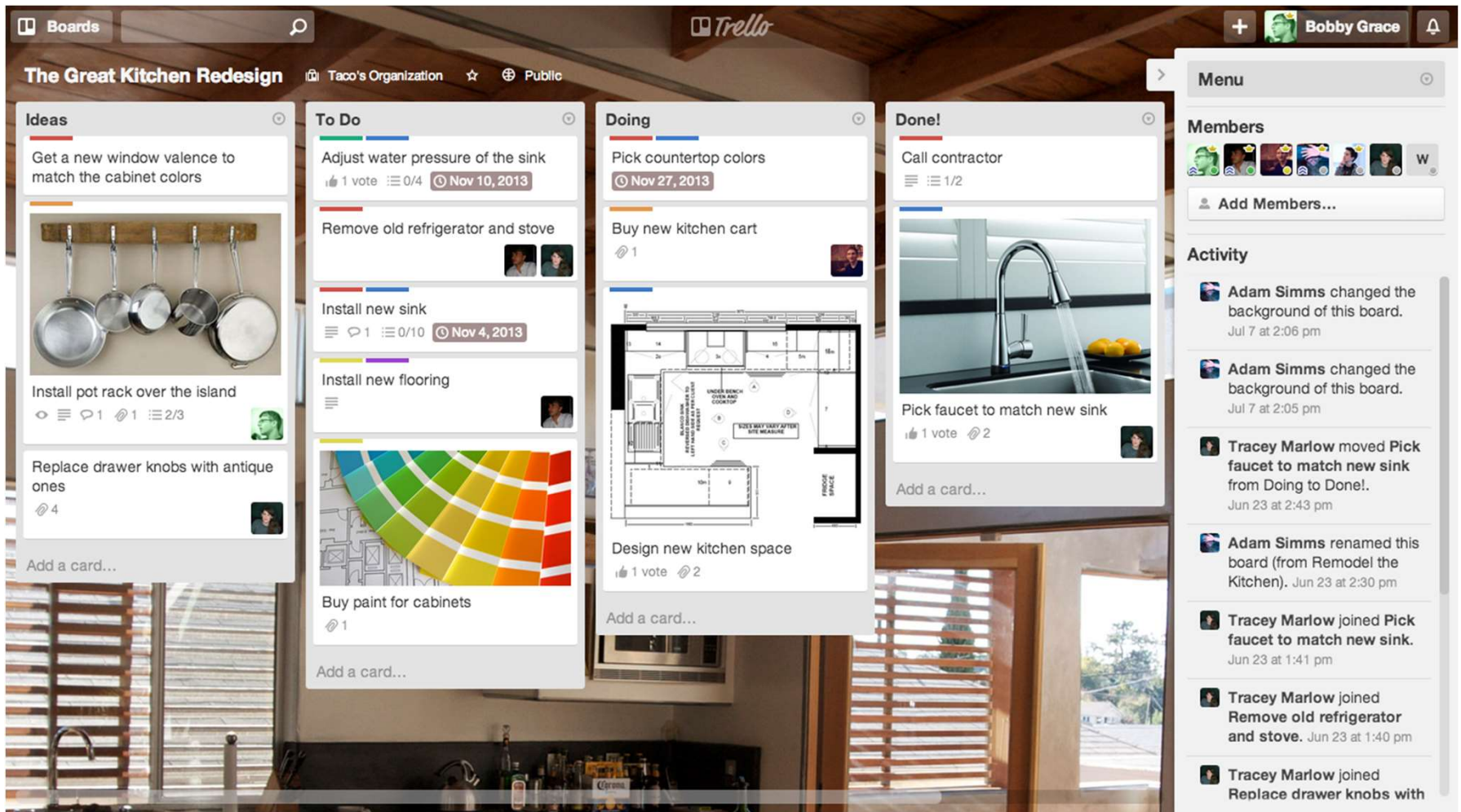
GitHub Issues

The screenshot shows 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'. A green 'New issue' button is on the right. Below the tabs, a summary bar shows '104 Open' and '9,660 Closed' issues. To the right of this bar are dropdown menus for 'Author', 'Labels', 'Milestones', 'Assignee', and 'Sort'. The main list of issues includes:

- .form-group-sm .form-group-lg shrink textarea** (confirmed, css) - #13989, opened 11 hours ago by limitstudios, v3.2.1, 4 comments.
- Tooltip unnecessarily breaks into multiple lines when positioned to the right** (confirmed, js) - #13987, opened 15 hours ago by hnrch02, v3.2.1, 0 comments.
- Tooltip Arrows in Modal example facing wrong way** (css) - #13981, opened a day ago by SDCore, 6 comments.
- Table improvement** (css) - #13978, opened a day ago by Tjoosten, 0 comments.
- docs/dist files** (docs) - #13977, opened 2 days ago by XhmikosR, v3.2.1, 7 comments.
- Potential solution to #4647** (js) - #13976, opened 2 days ago by julioarmandof, 4 comments.
- Bootstrap site: right-hand navigation text becomes rasterized after scrolling** (css, docs) - #13974, opened 2 days ago by mg1075, v3.2.1, 4 comments.
- Dropdown toggle requires two clicks** (js) - #13970, opened 3 days ago by Kimer, 1 comment.

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

Trello



- 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
