Hello, Octokitty!
An Introduction to GitHub

Talking Tech session #4
4/19/2017
Ethan Gates, NYU-MIAP and
Dinah Handel, NYPL
What is GitHub?

- Software development platform
- Hosting for code/applications
- “Social network”
- Both personal and enterprise service
- Web-based, graphical interface for git
Git and Version Control

- Command-line software developed by Linus Torvalds in 2005 for development of the Linux kernel
- Tracks and saves all changes to a given directory
- Snapshot-based
- Can be used locally or over a network
- Supports non-linear development
Repositories

- “Repo”
- The directory that contains your project
- Can be hosted locally or remotely
<table>
<thead>
<tr>
<th>Repository</th>
<th>Description</th>
<th>Stars</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>gurugio / lowlevelprogramming-university</td>
<td>How to be low-level programmer</td>
<td>2,263</td>
<td>C++</td>
</tr>
<tr>
<td>freeCodeCamp / freeCodeCamp</td>
<td>The <a href="https://freeCodeCamp.com">https://freeCodeCamp.com</a> open source codebase and curriculum. Learn to code and help nonprofits.</td>
<td>632</td>
<td>JavaScript</td>
</tr>
<tr>
<td>prettier / prettier</td>
<td>Prettier is an opinionated JavaScript formatter.</td>
<td>7,550</td>
<td>Python</td>
</tr>
<tr>
<td>tootsuite / mastodon</td>
<td>A GNU Social-compatible microblogging server</td>
<td>6,309</td>
<td>Ruby</td>
</tr>
</tbody>
</table>
Branches

- Individual versions of the repository
- “Master” branch: front-facing, most stable (the copy of a project or app others will download/use/edit)
- All editing or changes to codebase occur in branches
Commit

- Updating the codebase with the changes you’ve made, either to the master branch or via a pull request from another branch or a forked repository.
Forking

- A copy of a repository
- When you “fork” a repo, you are able to make changes to the code without it affecting the codebase
- Forks are useful for proposing changes to someone else’s code, or build your own project using someone else’s code as the starting point.
Pull Request

- Form of communication and notification on GitHub when working in branches or forks
- Tells others about changes you’ve made to the code
- Method of integrating changes to the code
- You create the pull request and someone else merges your pull request into the code, assuming there are no conflicts
- Mostly useful when editing code using the GitHub Desktop application
Markdown

- A plain text formatting syntax
- A software tool that converts plain text formatting to HTML
- Used on GitHub to structure text-based files - documentation, README’s, are some examples
- Relatively straightforward and simple once you remember the important symbols and rules
Internal and External Documentation

https://github.com/yorkulibraries/preservation_documentation

https://github.com/mediamicroservices/mm

https://github.com/CarnegieHall
Test Repos

https://github.com/dinahhhandel/NYUclasspractice

https://github.com/MIAPtech/talking-tech-test
Resources

- GitHub Guides
- Open Source Guides
- git - the simple guide
- “Non-technical person’s guide to becoming an open source contributor via Github”, Ashley Blewer
- “Learning GitHub (or, if I can do it, you can too!)”, Andrew Weaver
- Markdown Syntax
- Jekyll