

# An Introduction to GitHub for Librarians and Archivists

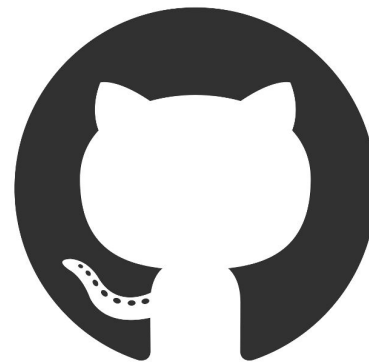
8/2/2017

Ethan Gates, NYU-MIAP and  
Dinah Handel, NYPL



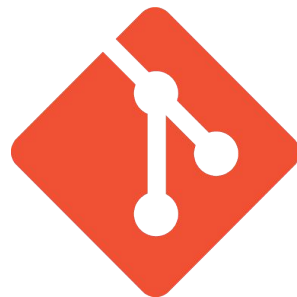
# What is GitHub?

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

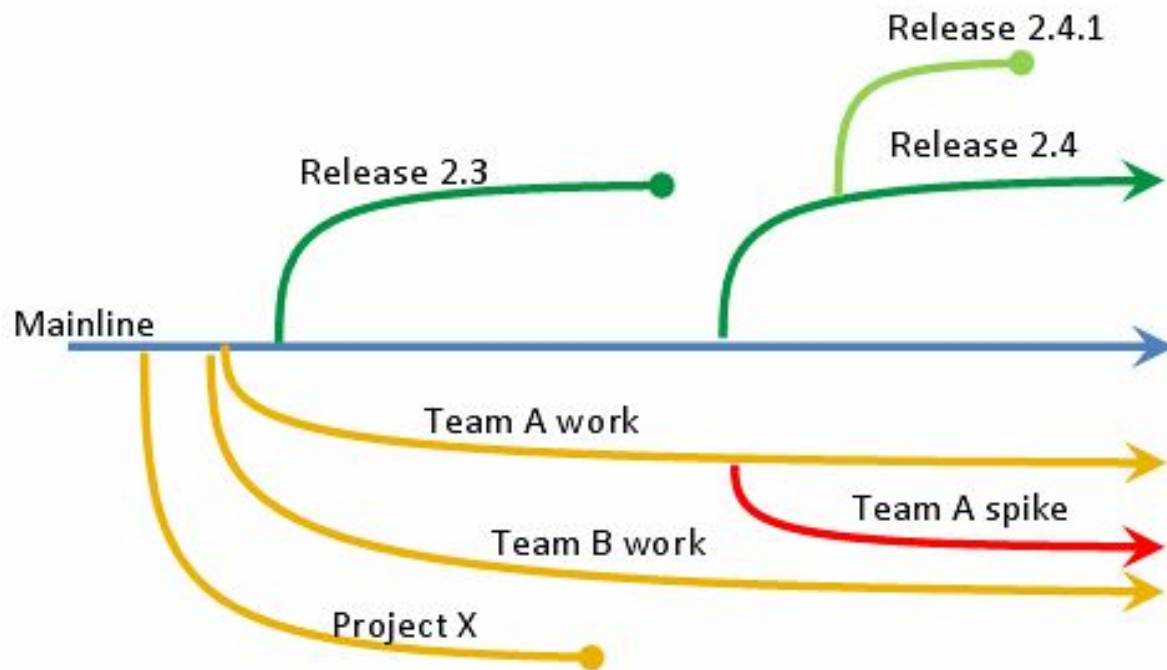


# Git and Version Control

- 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



**git**



# So what's the problem??



# Repositories

- “Repo”
- The folder/directory that contains your project
- Can be hosted locally or remotely



# Trending in open source

See what the GitHub community is most excited about today.

Repositories Developers Trending: today ▾ All languages

Unknown languages

C++

HTML

Java

JavaScript

PHP

Python


Ruby

Other: Languages ▾

**ProTip!** Looking for most starred repositories? [Try this search](#)

**gurugio / lowlevelprogramming-university** ★ Star


How to be low-level programmer

★ 2,263 🍴 104 Built by 

★ 1,767 stars today

**freeCodeCamp / freeCodeCamp** ★ Star


The <https://freeCodeCamp.com> open source codebase and curriculum. Learn to code and help nonprofits.

JavaScript ★ 257,527 🍴 10,916 Built by 

★ 602 stars today

**prettier / prettier** ★ Star


Prettier is an opinionated JavaScript formatter.

JavaScript ★ 7,550 🍴 245 Built by 

★ 561 stars today

**tootsuite / mastodon** ★ Star

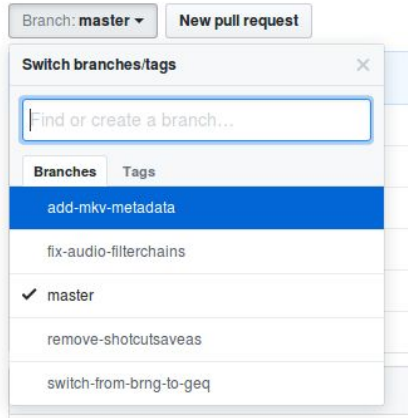
A GNU Social-compatible microblogging server

Ruby ★ 6,309 🍴 897 Built by 

★ 499 stars today

# Branches

- Individual versions of the repository - within the repository
- “Master” branch: front-facing, most stable (the version of a project or app others will likely download/use/edit)
- All editing or changes to codebase usually 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



## Commit changes

added example sentence

Add an optional extended description...

Commit directly to the `master` branch.

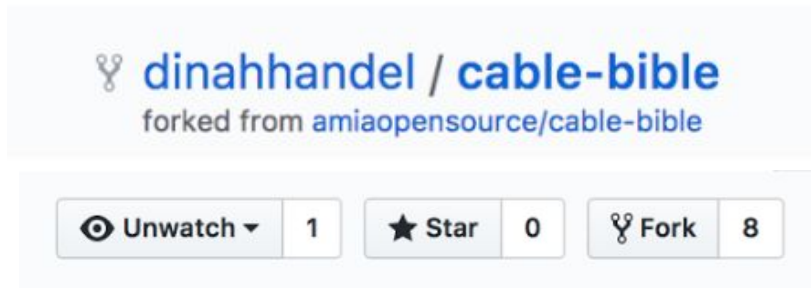
Create a **new branch** for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel

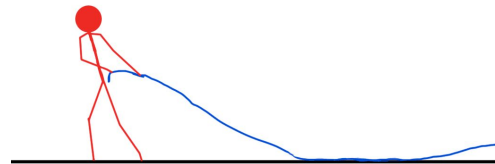
# Forking

- 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 proposed 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

```
1 # Markdown Preview
2
3 Type on the __left__, see it
4 * __rendered__ on the __right__.
5
6 This is a
7 * [link](https://github.com).
8
9 - and this is
10 - a list
11
12 :tada: :fireworks:
```

# Markdown Preview

---

Type on the **left**, see it *rendered* on the **right**.

This is a [link](#).

- and this is
- a list



# Examples of Internal and External Documentation

[https://github.com/yorkulibraries/preservation\\_documentation](https://github.com/yorkulibraries/preservation_documentation)

<https://github.com/mediamicroservices/mm>

<https://github.com/CarnegieHall>

# Test Repos

[https://github.com/dinahhandel/METRO\\_testingrepo](https://github.com/dinahhandel/METRO_testingrepo)

<https://github.com/MIAPtech/workshop-testing>

# GitHub Desktop

- Stand-alone “staging ground” application
- Syncs local repositories with your repositories hosted on GitHub
- Pushes commits and pull requests to GitHub without going through the web interface
- Gives you the flexibility to edit and manipulate files/code on GitHub without going through the web interface, but is not an editor itself





# Resources

## Introductions

- [“Non-technical person’s guide to becoming an open source contributor via Github”](#), Ashley Blewer
- [“GitHub for Beginners: Don’t Get Scared, Get Started”](#), Lauren Orsini
- [“Learning GitHub \(or, if I can do it, you can too!\)”](#), Andrew Weaver

## In-Depth Guides

- [GitHub Guides](#)
- [git - the simple guide](#)
- [Markdown Syntax](#)
- [Open Source Guides](#)

## Supplementary Software

- [GitBook](#)  
(documentation, “ebooks”)
- [Jekyll](#)  
(blogging/personal sites)
- [Academic Pages](#) (creating online CVs)