01-3 – git – Remote Repositories

Much of this is from

https://help.github.com/articles/using-pull-requests

and

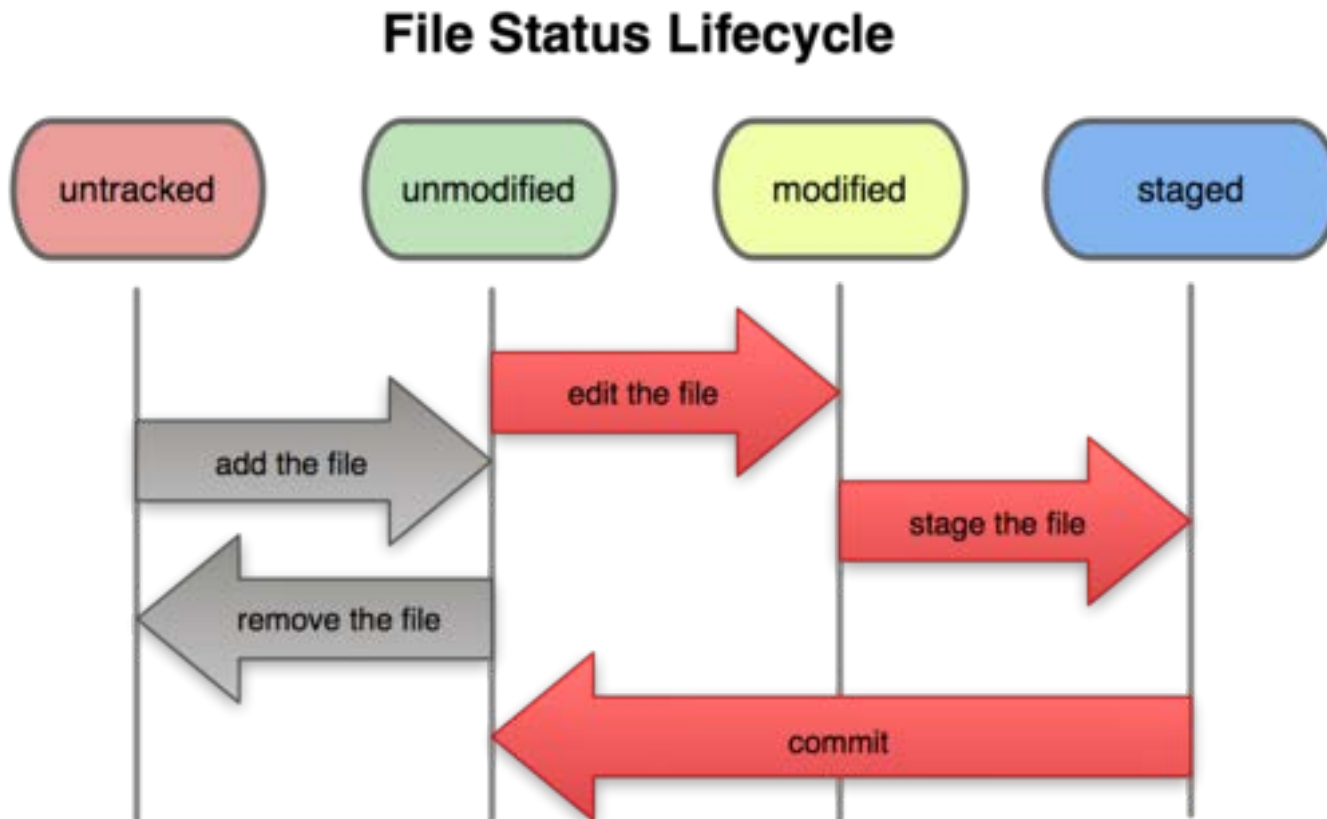https://help.github.com/articles/fork-a-repo

git with remote repositories

- Last time we looked at git and learned:
- Every Git working directory is
    - a full-fledged repository
    - with complete history and
    - full revision tracking capabilities,
    - not dependent on network access or a central server

- Now we'll look at ways of using git for collaboration

File Status Lifecycle

- See: http://progit.org/book/ch2-2.html
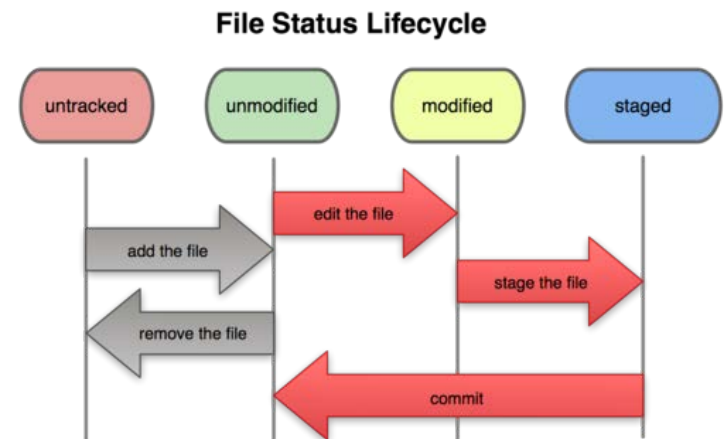
File Status Lifecycle
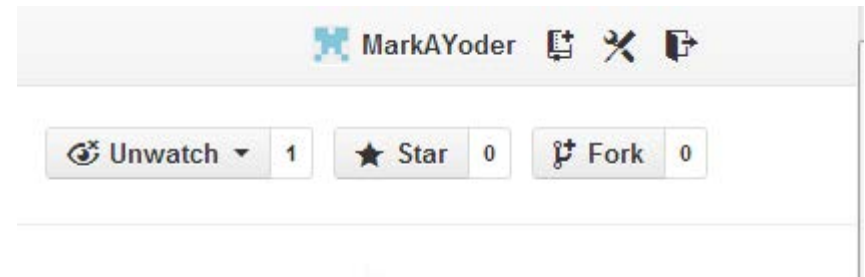
Two popular models for collaboration

- Shared Repository Model
  - Use with small teams on private project
  - Everyone has access to a single shared repository
  - Topic branches us to isolate change
- Fork & Pull
  - Anyone can fork an existing repository
    - Push changes to own repository without permission to original source
  - Changes are pulled into the source by the maintainer
  - Reduces friction for new contributors
  - People can work independently without coordination

Fork and Pull Workflow

- Fork the Repo
- Use same local work flow
- Push to your repo
- Pull Request
  - Initiate The Pull Request
  - Review The Pull Request
  - Send The Pull Request
- Receiving Pull Requests
- Manage Pull Requests
  - Review Proposed Changes
  - Apply the Changes

File Status Lifecycle

| untracked | unmodified | modified | staged |

add the file

edit the file

stage the file

remove the file

commit

Fork a Repo

- Go to https://github.com/MarkAYoder/gitLearnFork

- Click the **Fork** button in the upper right

- Clone your fork

- **git clone https://github.com/*username*/gitLearnFork.git**

- Configure remotes

- **git remote add upstream https://github.com/MarkAYoder/gitLearnFork.git**

- **git fetch upstream**

- Pulls in changes not present in your local repository, without modifying your files

More things

- Push commits to *your* remote repository stored on GitHub
- **git push origin master**
- Fetches any new changes from the original repository
- **git fetch upstream**
- Merges any changes fetched into your working files
- **git merge upstream/master**

Try it

- Fork the gitLearnFork repo
- Configure the remote
- Add your name to **`helloWorld.c`**
- Do the git add, git commit –m, git push origin master
- Do a pull request