

Github

Make an Account

When you're done, post the link to your account in #cset-105, something like: <https://github.com/username>

Goals:

- Learn what GitHub adds to our git workflow
- Practice using our remote commands on GitHub repos
- Learn about Forks, Pull Requests, and Issues

Setup SSH

1. [Read about SSH](#)
2. [Generate new SSH keys](#)
3. [Add keys to GitHub account](#)
4. [Test the connection](#)

Creating a GitHub Repo

[Here's a Guide](#)

But, it depends:

- Do you already have a local repo with commits?
- Or do you want a brand new repo?

Creating a GitHub Repo

Option 1

1. You've already ran `git init` locally
2. Click `+` and name your new repo on GitHub
3. **DO NOT** check "Initialize with a README"
4. Locally, use `git remote add` to point to the GitHub repo
5. Then push your code to the remote

Creating a GitHub Repo

Option 1

```
$ git remote add origin git@github.com:user/repo.git  
$ git push -u origin master
```

Creating a GitHub Repo

Option 2

1. Click `+` and name your new repo on GitHub
2. **Check** "Initialize with a README" which is your first commit
3. Optionally, add a `.gitignore` file and a License
4. Locally, use `git clone` to download your new repo

Creating a GitHub Repo

Option 2

```
$ git clone git@github.com:user/repo.git  
$ cd repo
```

The `clone` command will create a directory with your repo name in your current working directory. Make sure you're in the right spot!

Pushing to Origin

By now, you've used one of the previous options and have a local repo tracking a remote repo.

```
$ git add path/to/files  
$ git commit  
$ git push
```

Push will update all commits on your local branch, so you can commit many times before pushing.

Don't Force It

If the remote has changes that you don't have, `git push` will fail.

```
error: failed to push some refs to 'git@github.com:user
hint: Updates were rejected because the remote contains
hint: not have locally. This is usually caused by another
hint: to the same ref. You may want to first integrate
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push -
```

Updating From Changed Origin

Situation: both local and remote have new but different commits. You want your changes to be applied **after** the remote's changes.

```
$ git pull --rebase  
# gets remote commits, applies yours after  
$ git push
```

If the rebase works, then you can push your new changes.

Try It Yourself:

[Hello World guide](#)

Pull Requests

You can't force your changes on other people.

[Read more here](#)

Submitting Pull Requests

I'll give you access to a repo so you can make a change.

1. Clone my repo locally.
2. Make a new branch with your name
3. Checkout your branch, edit the file, add and commit.
4. Push your new branch to the remote
5. [Follow this guide to submit a PR](#)

Creating Forks

Create a copy of someone's repo to make your own changes.

1. [Read this guide](#)
2. Clone your fork (see the next slide)
3. Make some changes
4. Submit a Pull Request to the original repo

Cloning Forks

You can clone any repo you want!

Just make sure you're looking at the right repo:

```
$ git clone git@github.com:me/repo.git  
$ git clone git@github.com:you/repo.git
```

Submitting Issues

Issues are a way to communicate about repos: sharing bugs, wanted features, or simply ideas.

[Read how to create an issue](#)

You can mention users, highlight code sections, and a ton more.

[Mastering Issues](#)

Quick Tip: Markdown

- Like HTML, just different
- Way easier to learn
- Way easier to write
- Way easier to read

[Mastering Markdown](#)

What is due?

By 4:15, show me the following:

- [] Your own remote repo
- [] A fork of another repo
- [] A PR submitted to my repo
- [] A PR submitted to a fork
- [] An issue on your own repo (mention me [@zachfedor](#))
- [] Merge a PR submitted to your own repo by a classmate