Git Workshop

What Is Git?

▶ git is a version control system

What is Version Control?

- We have all made a mistake when writing code and wanted to go back
- Version control systems allows us to do that
- Also allows for better collaboration

What Is Github

- Where you make your code available for others
- Youtube but for git instead of videos
- Provides features for collaboration, testing and much more
 - ► Some will be cover later in this workshop
- Alternatives
 - ► Gitlab, Bitbucket, etc



go to https://git-scm.com/downloads - Windows - Mac - Linux

The Terminal

- Windows
 - Just open git bash
 - Unless you know powershell
- Mac
 - Terminal
- Linux
 - You probably know

Why

- Often the fastest way to get things done
- Find out what the GUI is doing under the hood
- Think of it as a more picky Google assistant

Creating A Repo

- mkdir git_workshop
- cd git_workshop
- ▶ ls -a
 - The -a is for all
- ▶ git init
- ▶ ls -a
- ► You will now see a .git file
 - ► This is your local repository
 - It holds all the version control data for git

Adding A Change

- ▶ In the git_workshop directory lets create a file
 - ▶ touch README.md
- Now we need to tell git to start track add this change README.md
 - ▶ git add README.md

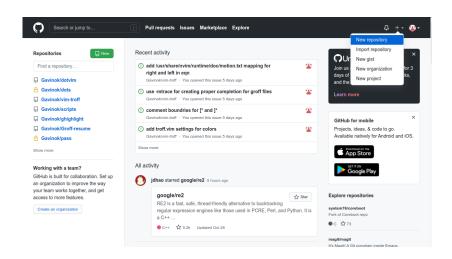
Committing A Change

- Now that git has tracked the creation of README.md lets commit it
 - Commits are similar to checkpoints in a video game
 - using git commit we can commit this change

Commit Messages

- Message explaining what changed since the last commit and why
 - Lets just make our git message something like added empty README file
 - ► To do this we run git commit -m "added empty README file"
 - Often commit messages are one line
 - ► An additional -m flag allows for adding more details

Lets Put It On Github



Pushing To The Git Repository

- Using github as your remote repo git remote add origin 'https://github.com/<YourGithubAccount>/<RepoName>.git
- ► Then we **push** our changes to github git push -u origin master or git push --set-upstream origin master
- Now lets check on the repository
 - Refresh the github page and it should now show your README.md

Quick Github Tour

- Issues
- ► Pull Requests

Forking

- ▶ What is a fork
- ▶ Why make a fork?
 - ► Try messing with the code
 - Creating a pull request

Lets Fork

- Go to https://github.com/Gavinok/git_workshop
- In the top right you will see a fork option
 - Click it
 - Now you will have your own version of the notes on this workshop
- Use git clone
 https://github.com/<YourGithubAccount>/git_workshop
 to get access to your fork

Lets Create A Pull Request

- 1. Make a change to the README.md file
- 2. Add, commit, and push this change to your fork
- 3. Click the green New or New Pull Request button
- 4. Set compare changes across forks
- 5. Compare your fork and make a pull request
- Click create pull request
- 7. explain what was changed in your fork
- Click the create pull request below the text box and you are done

Self Promo

► Check me out on Youtube

More Resources

- collections of git resources on Github
- guides on Github outside of git