**Exercise 1: Initializing a Repository in an Existing Directory**

for Linux:

$ cd /home/user/your\_repository

for Mac:

$ cd /Users/user/your\_repository

for Windows:

$ cd /c/user/your\_repository

and type:

$ git init

**Exercise 2: Cloning an Existing Repository**

If you want to clone the Git linkable library called GitHub-Workshops, you can do so like this:

$ git clone https://github.ncsu.edu/jnjacks3/GitHub-Workshops

If you want to clone the repository into a directory named something other than GitHub-Workshops, you can specify that as the next command-line option:

$ git clone https://github.ncsu.edu/jnjacks3/GitHub-Workshops myworkshop

That command does the same thing as the previous one, but the target directory is called myworkshop.

**Exercise 3: Recording Changes to the Repository**

$ git add README.md

$ git commit -m 'Update readme'

**Exercise 4: Recording Changes to the Repository**

The main tool you use to determine which files are in which state is the git status command.

$ git status

**Exercise 5: Viewing the Commit History**

$ git log

**Exercise 6: Working with Remotes**

To see which remote servers you have configured, you can run the git remote command.

$ git remote

You can also specify -v, which shows you the URLs that Git has stored for the shortname to be used when reading and writing to that remote:

$ git remote -v

**Exercise 7: Adding Remote Repositories**

To add a new remote Git repository as a shortname you can reference easily, run git remote add <shortname> <url>:

$ git remote add test https://github.ncsu.edu/jnjacks3/GitHub-Workshops

**Exercise 8: Fetching and Pulling from Your Remotes**

To get data from your remote projects, you can run:

$ git fetch [remote-name]

If you clone a repository, run git fetch origin

If your current branch is set up to track a remote branch (we will cover remote branches later), you can use the git pull command to automatically fetch and then merge that remote branch into your current branch.

**Exercise 9: Pushing to Your Remotes**

If you want to push your master branch to your origin server, then you can run this to push any commits you’ve done back up to the server:

$ git push origin master