



METIS

CREATING A PERSONAL GIT/GITHUB REPOSITORY



Making a Personal Git(Hub) Repo



- Git and GitHub are powerful tools for maintaining good code.
- They allow us to checkpoint via commits, and give us the power to move back in time if we break our code.
- GitHub allows us to create an online backup of our code and also share it with others, even allowing multiple people to make changes to the same code base.



What's in this Walkthrough?



- Worked code for setting up your own Git(Hub) repo, broken into 2 sections
- [Section 1](#): creating a Git repo on your local computer
- [Section 2](#): using this Git repo to create a linked GitHub repo



Section 1: Building a local repo





`zachariahmiller@metis-zachariahmiller~$`



```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
```



```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo  
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
```



```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo  
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/  
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
```

1. bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

python3.6 %1 bash %2 bash %3 1.bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
. .. .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

1.bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```



```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

1. bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

1. bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
```

1.bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ █
```



```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

1.bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git commit -m "added my_file.txt to the repo"
```

iTerm2 Shell Edit View Session Scripts Profiles Toolbelt Window Help 100% Wed Sep 26 9:26 AM Zachariah Miller

python3.6 %1 bash %2 bash %3 1. bash

```
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
. .. .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
. .. .git my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git commit -m "added my_file.txt to the repo"
[master (root-commit) 2c90153] added my_file.txt to the repo
 1 file changed, 1 insertion(+)
 create mode 100644 my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ █
```

```
iTerm2 Shell Edit View Session Scripts Profiles Toolbelt Window Help 11 100% Wed Sep 26 9:26 AM Zachariah Miller ⌂ ⌓
python3.6  *1  bash  *2  bash  *3  1. bash
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git commit -m "added my_file.txt to the repo"
[master (root-commit) 2c90153] added my_file.txt to the repo
1 file changed, 1 insertion(+)
 create mode 100644 my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 2c9015399839d375254f22a68db539ff3c05b485 (HEAD -> master)
Author: zwmiller <zaglimir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500

    added my_file.txt to the repo
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

```
iTerm2 Shell Edit View Session Scripts Profiles Toolbelt Window Help 11 100% Wed Sep 26 9:26 AM Zachariah Miller ⌂ ⌓
python3.6  %1  bash  %2  bash  %3  1. bash
zachariahmiller@metis-zachariahmiller~$ mkdir my_first_repo
zachariahmiller@metis-zachariahmiller~$ cd my_first_repo/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git init
Initialized empty Git repository in /Users/zachariahmiller/my_first_repo/.git/
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "YADA YADA" > my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ ls -a
.  ..  .git  my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master

No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)

    new file:  my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
fatal: your current branch 'master' does not have any commits yet
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git commit -m "added my_file.txt to the repo"
[master (root-commit) 2c0153] added my_file.txt to the repo
1 file changed, 1 insertion(+)
 create mode 100644 my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 2c015399839d375254f22a68db539ff3c05b485 (HEAD -> master)
Author: zwmiller <zaglimir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500

    added my_file.txt to the repo
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master
nothing to commit, working tree clean
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

1.bash

```
python3.6 %1 bash %2 bash %3
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "H00RAY" >> my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ cat my_file.txt
YADA YADA
H00RAY
zachariahmiller@metis-zachariahmiller~/my_first_repo$
```

iTerm2 Shell Edit View Session Scripts Profiles Toolbelt Window Help 100% Wed Sep 26 9:27 AM Zachariah Miller

python3.6 %1 bash %2 bash %3 1.bash

```
zachariahmiller@metis-zachariahmiller~/my_first_repo$ echo "H00RAY" >> my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ cat my_file.txt
YADA YADA
H00RAY
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git add my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    modified:   my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo$ git commit -m "update my_file.txt with H00RAY"
[master 4f72269] update my_file.txt with H00RAY
 1 file changed, 1 insertion(+)
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 4f722698c22bf3404fda8a9dba07943688f66471 (HEAD -> master)
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:27:49 2018 -0500

  update my_file.txt with H00RAY

commit 2c9015399839d375254f22a68db539ff3c05b485
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500

  added my_file.txt to the repo
zachariahmiller@metis-zachariahmiller~/my_first_repo$ █
```

Reverting to a previous point



python3.6 %1 bash %2 bash %3 1.bash

```
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 4f722698c22bf3404fda8a9dba07943688f66471 (HEAD -> master)
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:27:49 2018 -0500
```

```
    update my_file.txt with HOORAY
```

```
commit 2c9015399839d375254f22a68db539ff3c05b485
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500
```

```
    added my_file.txt to the repo
```

```
python3.6      bash      bash      1. bash
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 4f722698c22bf3404fda8a9dba07943688f66471 (HEAD -> master)
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:27:49 2018 -0500

    update my_file.txt with HOORAY

commit 2c9015399839d375254f22a68db539ff3c05b485
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500

    added my_file.txt to the repo
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git reset 2c9015399839d37
Unstaged changes after reset:
M       my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ cat my_file.txt
YADA YADA
HOORAY
```

```
python3.6      bash      bash      1. bash
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git log
commit 4f722698c22bf3404fda8a9dba07943688f66471 (HEAD -> master)
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:27:49 2018 -0500

    update my_file.txt with HOORAY

commit 2c9015399839d375254f22a68db539ff3c05b485
Author: zwmiller <zaglamir@gmail.com>
Date:   Wed Sep 26 09:26:04 2018 -0500

    added my_file.txt to the repo
zachariahmiller@metis-zachariahmiller~/my_first_repo$ git reset 2c9015399839d37
Unstaged changes after reset:
M       my_file.txt
zachariahmiller@metis-zachariahmiller~/my_first_repo$ cat my_file.txt
YADA YADA
HOORAY
```

python3.6 %1 bash %2 bash %3 1. bash
zachariahmiller@metis-zachariahmiller~/my_first_repo\$ git log
commit 4f722698c22bf3404fda8a9dba07943688f66471 (**HEAD -> master**)
Author: zwmiller <zaglamir@gmail.com>
Date: Wed Sep 26 09:27:49 2018 -0500

update my_file.txt with HOORAY

commit 2c9015399839d375254f22a68db539ff3c05b485
Author: zwmiller <zaglamir@gmail.com>
Date: Wed Sep 26 09:26:04 2018 -0500

added my_file.txt to the repo

zachariahmiller@metis-zachariahmiller~/my_first_repo\$ git reset 2c9015399839d37

Unstaged changes after reset:

M my_file.txt

zachariahmiller@metis-zachariahmiller~/my_first_repo\$ cat my_file.txt

YADA YADA

HOORAY

zachariahmiller@metis-zachariahmiller~/my_first_repo\$ git reset --hard 2c9015399839d37

HEAD is now at 2c90153 added my_file.txt to the repo

zachariahmiller@metis-zachariahmiller~/my_first_repo\$ cat my_file.txt

YADA YADA

zachariahmiller@metis-zachariahmiller~/my_first_repo\$ █

Section 2: Making your repo remote



**Let's start by
creating a repo on
GitHub called
“Test”**



Connecting GitHub to our Local Repo



- We now have a remote repo (on GitHub) and the local one where we put our test files. Let's link those together.

First, in the terminal, move to the repo we started earlier. You need to be in the folder where we did the `git init` earlier. (or any directory below that)



Connecting GitHub to our Local Repo



- We now have a remote repo (on GitHub) and the local one where we put our test files. Let's link those together.

```
Terminal:> git remote add origin URL_FROM_GITHUB
```



This tells git are about to tell it about the non-local version of the repo



Connecting GitHub to our Local Repo



- We now have a remote repo (on GitHub) and the local one where we put our test files. Let's link those together.

```
Terminal:> git remote add origin URL_FROM_GITHUB
```



This tells git we're adding a new remote place to interface with



Connecting GitHub to our Local Repo



- We now have a remote repo (on GitHub) and the local one where we put our test files. Let's link those together.

```
Terminal:> git remote add origin URL_FROM_GITHUB
```



This tells git that we're going to call this remote place "origin" (it's convention)



Connecting GitHub to our Local Repo



- We now have a remote repo (on GitHub) and the local one where we put our test files. Let's link those together.

```
Terminal:> git remote add origin URL_FROM_GITHUB
```



This is specific to your repo and tells git where the remote repo lives.



Connecting GitHub to our Local Repo



- Make sure it worked by testing your remote locations using:

```
Terminal:> git remote -v
```

I see an output like this:

```
origin https://github.com/ZWMiller/test (fetch)  
origin https://github.com/ZWMiller/test (push)
```



Connecting GitHub to our Local Repo



- Now let's move our code to GitHub

```
Terminal:> git push origin main
```

- When we go back to our GitHub and refresh, we should see our files there!



Connecting GitHub to our Local Repo



- Now let's move our code to GitHub

```
Terminal:> git push origin main
```



This told git we wanted to move our commit history up to GitHub



Connecting GitHub to our Local Repo



- Now let's move our code to GitHub

```
Terminal:> git push origin main
```



This told git to use the remote place we just created called “origin”



Connecting GitHub to our Local Repo



- Now let's move our code to GitHub

```
Terminal:> git push origin main
```



This told git to put those changes on the “main” (default) branch.



Best Practices



- It's a great idea to keep a GitHub repo for all code projects that you work on, especially for Metis courses! If the repo is maintained, this ensures that you have a backup of your code and are easily able to share and showcase your finished work
- It's a good idea to commit/push often. You can do so after every completed “point” in code. Finished a few functions that now work together? Commit. Updated comments in the code? Commit.

