Moving a repository from GitHub.com to

ghe-pip2.fnal.gov

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Elliott McCrory

The basics of this process are found here: <https://coderwall.com/p/istvca/how-to-move-git-repo-from-one-server-to-another>

Getting the tokens in place so you can ssh with the various servers is probably the hardest part. (There is likely a simpler way to do this.)

*(I am doing the transfer for my PHP “AD Attendance” repository as I write this document. Thus the choices of username and repository name.)*

First, make a an RSA key for github.com:

linux $ **ssh-keygen -t rsa -b 4096 -C "emccrory@github.com"**

Then clone the repository using the “--bare” tag:

linux $ **git clone git@github.com:emccrory/ad-attendance.git --bare**

Cloning into bare repository 'ad-attendance.git'...

X11 forwarding request failed on channel 0

remote: Enumerating objects: 159, done.

remote: Counting objects: 100% (159/159), done.

remote: Compressing objects: 100% (99/99), done.

remote: Total 159 (delta 96), reused 105 (delta 52), pack-reused 0

Receiving objects: 100% (159/159), 100.61 KiB | 0 bytes/s, done.

Resolving deltas: 100% (96/96), done.

Now you have a cloned, bare version of your repository:

linux $ **ls -l \*.git**

total 0

drwxrwxr-x. 7 mccrory mccrory 138 Jun 12 11:25 ad-attendance.git

linux $ **cd ad-attendance.git/**

linux $ **ls -l**

total 16

drwxrwxr-x. 2 mccrory mccrory 6 Jun 12 11:25 branches

-rw-rw-r--. 1 mccrory mccrory 133 Jun 12 11:25 config

-rw-rw-r--. 1 mccrory mccrory 73 Jun 12 11:25 description

-rw-rw-r--. 1 mccrory mccrory 23 Jun 12 11:25 HEAD

drwxrwxr-x. 2 mccrory mccrory 242 Jun 12 11:25 hooks

drwxrwxr-x. 2 mccrory mccrory 21 Jun 12 11:25 info

drwxrwxr-x. 4 mccrory mccrory 30 Jun 12 11:25 objects

-rw-rw-r--. 1 mccrory mccrory 98 Jun 12 11:25 packed-refs

drwxrwxr-x. 4 mccrory mccrory 31 Jun 12 11:25 refs

Next step is to create an empty repository on our GitHub enterprise server. This is done through the web browser:

A screenshot of a cell phone

Description automatically generated

The next step is to generate a key for the PIP-2 repository. There must be a simpler way to do this that what I show here, but here it is.

linux $ **cd ~/.ssh**

linux $ **ls -l**

total 24

-rw-------. 1 mccrory mccrory 3243 Jun 5 11:28 id\_rsa

-rw-r--r--. 1 mccrory mccrory 745 Jun 5 11:28 id\_rsa.pub

-rw-r--r--. 1 mccrory mccrory 6088 Jun 5 16:32 known\_hosts

linux $ **mv id\_rsa id\_rsa1**

linux $ **mv id\_rsa.pub id\_rsa1.pub**

Now you can generate keys for our PIP-2 GitHub:

linux $ **ssh-keygen -t rsa -b 4096 -C "mccrory@ghe-pip2.fnal.gov"**

linux $ **ls -l**

total 24

-rw-------. 1 mccrory mccrory 3243 Jun 5 11:35 id\_rsa

-rw-------. 1 mccrory mccrory 3243 Jun 5 11:28 id\_rsa1

-rw-r--r--. 1 mccrory mccrory 745 Jun 5 11:28 id\_rsa1.pub

-rw-r--r--. 1 mccrory mccrory 751 Jun 5 11:35 id\_rsa.pub

-rw-r--r--. 1 mccrory mccrory 6088 Jun 5 16:32 known\_hosts

With these ssh file in place, you can now push this bare repository onto the new server:

linux $ **git push --mirror git@ghe-pip2.fnal.gov:mccrory/ad-attendance.git**

X11 forwarding request failed on channel 0

Counting objects: 159, done.

Delta compression using up to 8 threads.

Compressing objects: 100% (55/55), done.

Writing objects: 100% (159/159), 100.61 KiB | 0 bytes/s, done.

Total 159 (delta 96), reused 159 (delta 96)

remote: Resolving deltas: 100% (96/96), done.

To git@ghe-pip2.fnal.gov:mccrory/ad-attendance.git

+ 78e5fd0...497b3af master -> master (forced update)

To verify, go to our Enterprise GitHub server to see what just happened:

A screenshot of a cell phone

Description automatically generated

Task complete.