EECS348 Software Engineering Spring 2023

Lab I

from

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Supplementary Instructions

During the first lab, all students do a great job to create a repository following the professor's experiment description. But some of them face the problem of how to push the repository to GitHub. Here are some supplementary instructions. I have tested it on a clean MAC.

You need to read both files to finish your lab, generally say, you need to read the professor's file first.

1. Change the default editor

Some students are familiar with **vim** and some students are familiar with **nano**. When you commit, you need to use the editor to write the message. You could use the following command to change the default editor to vim(or nano). You need to learn some basic usage of vim, nano, or other editor. You will find lots of tutorials using Google.

```
git config --global core.editor vim
```

2. SSH your cycle server

Your cycle server has installed Git for you, so you can ssh your cycle server to finish your work without installing Git. To do that, you just need to type the following command.

```
ssh networkid@cycle3.eecs.ku.edu
```

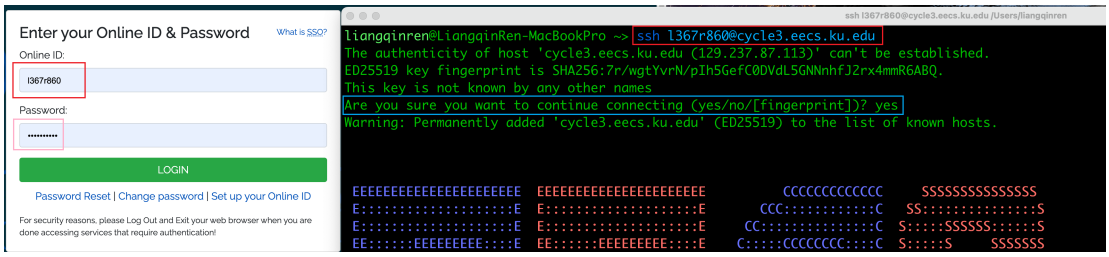

Figure 1: SSH your cycle server

3. Use the SSH protocol for the authentication

You need a GitHub account, if not, please create a new one.

The first thing you need to do is to have the SSH key pairs. Take the Linux system as an example, usually, you will have a folder **$HOME/.ssh**, if not, just create it. Then, you could use the command **ssh-keygen** to create a pair of SSH keys. It will ask you some questions such as the location to store the keys, just use the default value and press Enter. After this, you will get two files **id_rsa id_rsa.pub**. Then, you need to copy the content of **id_rsa.pub** to GitHub.

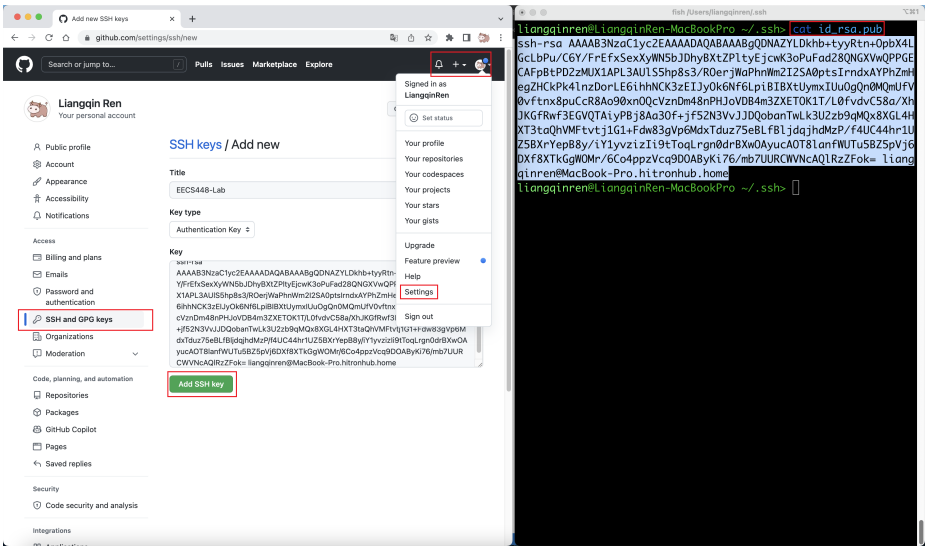

Figure 2: Add your key pairs to GitHub

Then, suppose your repository is called ***Lab1***, so you need to create a repository on GitHub with the same name. It's pretty easy, but you need to select **SSH** protocol. Since you have your own repository, so need to follow the second option to push your repository to GitHub.

After that, you can see your repository has been pushed to GitHub, then, you need to submit the link to your first lab assignment and I could grade that.

4. Possible solutions

1. Check your network

   If you can't push the repository to Github, please check your network. I fail to push using the cycle server, and I find that sometimes the cycle can't connect to GitHub at all. So, please make sure the computer you use can connect to GitHub, a simple method is to use the **ping** command.

```
ping github.com
```

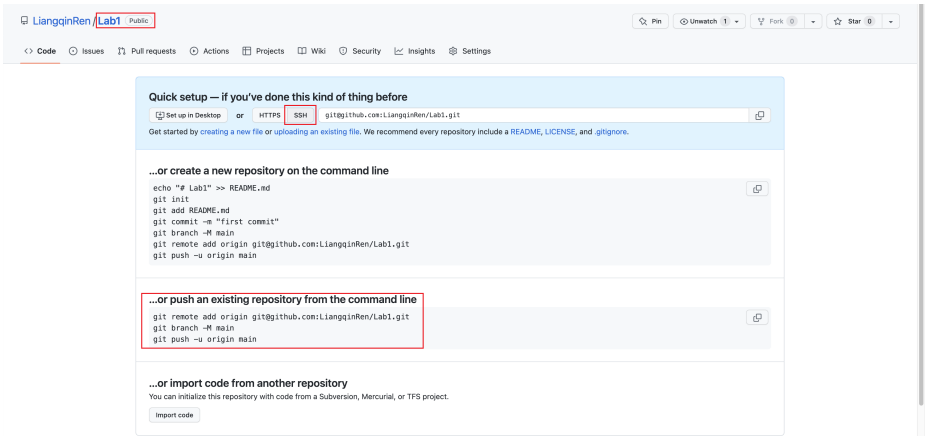

Figure 3: Push your repository to GitHub

2. Generate a new key pairs

   GitHub offers instructions about how to generate a new SSH key pair at Generating a new SSH key. In short, just use the following command to generate key pairs, the first parameter following **-t** is the algorithm, and you don't need to change it. The second parameter following **-c** is your GitHub account email. Delete old keys from your computer and GitHub and upload the new key pairs to GitHub, then, try again. The new public key's name will be **id_ed25519.pub**.

```
ssh-keygen -t ed25519 -C "your_email@example.com"
```

3. If you still can't push...

   Please contact me by sending me an email.

5. Final result

It's OK if you do something wrong during the process, so you have more commits, Git allows you to do something wrong. But you should have at least these two commits.

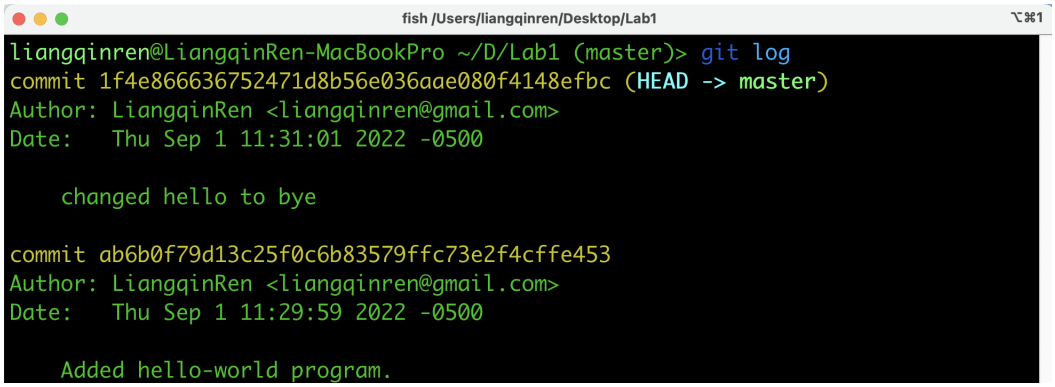

Figure 4: The repository you push to GitHub