Github Setup for the Autograder

*Please follow the steps listed below to complete the Github set up needed for **all** coding assignments in this course. If you ever get confused, you may always refer back to this document even while doing future assignments :*

1. Create a Github account, if you don't have one already
2. Create a repository for the assignment you want to work on.
3. Open the assignment in Codio. In the directory `'/home/codio/workspace/'` (this is the default directory where you land when you first open Codio), create a file called `'student_credentials'` with the following two lines:
    a. The first line is your Github username
    b. The second line is the name of your repo

    Make sure to only have these two lines in the file. Additional blank lines may cause a "Failed to clone the repository" error.
4. In the directory `'/home/codio/workspace/'`, create a folder called `'ssh_keys'`.
5. In your Codio terminal, use the following `'ssh-keygen'` command to generate a key pair with the path `'/home/codio/workspace/ssh_keys/id_mcit5830'`
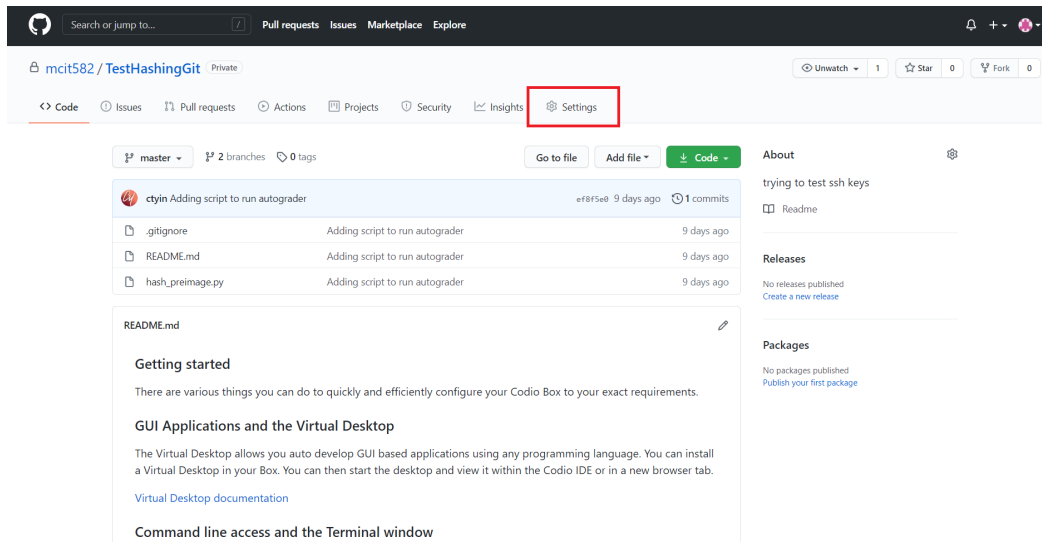
    `> ssh-keygen -t ed25519 -f ~/workspace/ssh_keys/id_mcit5830`
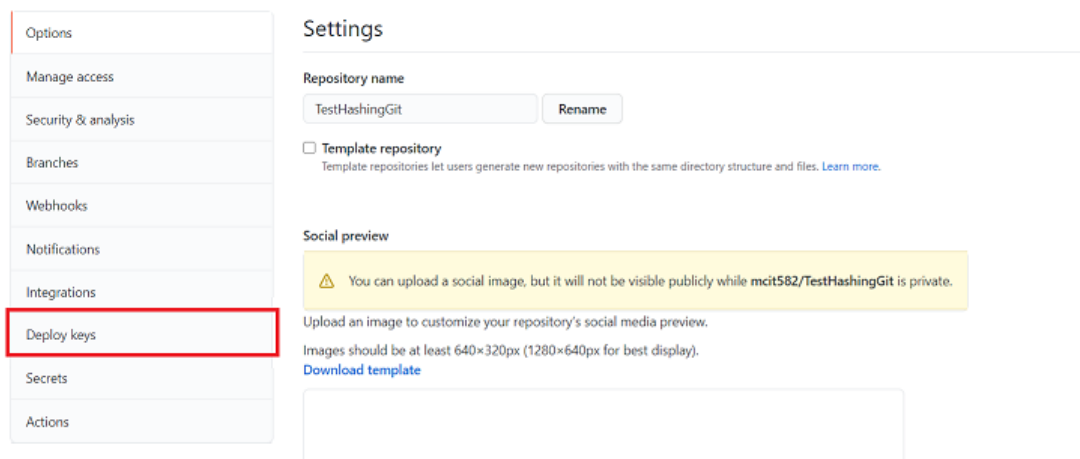   Do not put a passphrase on this SSH key.

    Check the folder `'/home/codio/workspace/ssh_keys'` to make sure you have both the private key `id_mcit5830` file and the public key `id_mcit5830.pub`

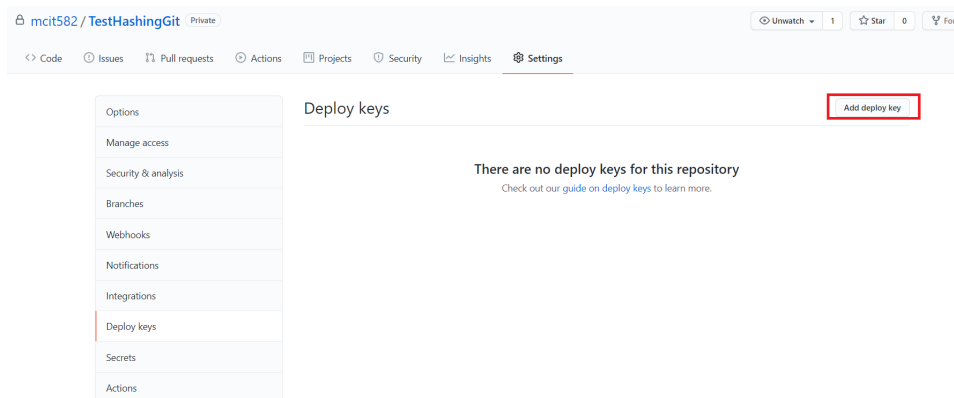6. Copy the contents of `id_mcit5830.pub` to your clipboard

7. In your repo, go to the "Settings" tab

8. Head to "Deploy Keys"

9. Add deploy key

10. Paste your copied SSH public key into the "Key" text box. Note that our autograder doesn't need write access so you can safely ignore that checkbox.

Deploy keys / Add new

Title

Key

Begins with 'ssh-rsa', 'ssh-ed25519', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', or 'ecdsa-sha2-nistp521'

☐ Allow write access
Can this key be used to **push** to this repository? Deploy keys always have pull access.

Add key

11. That's it! Both the autograder and the "Run Test Cases" button in Codio will try to pull from your repo, instead of looking at your workspace files. Make sure you've pushed the proper files to the repo before running those scripts!

Troubleshooting Tips:

If you are seeing error messages in Codio related to the GitHub setup, check for the following common mistakes:

- Incorrect setup for `student_credentials` file, such as:
  - misspelled filename
  - misspelled username and/or repo name
  - extra lines in the file
- Misspelled .py filename in your repo
- Using a subdirectory in your repo. The .py file that is being tested needs to be in the root directory.
- Using rsa instead of ed25519 when generating your ssh keys.