GitHub

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CCQ C++ Bootcamp - 10/24/2019

SSH Key Setup

to avoid entering a password.

<u>Generate Key</u>
```
$ ssh-keygen -t rsa -b 4096 -C "your_email@example.com"
```

<u>Add key to ssh agent</u>
```
$ eval "$(ssh-agent -s)"
$ ssh-add ~/.ssh/id_rsa
```

<u>Add key on github</u>
go to your github settings - SSH and GPG keys - New SSH key
copy content of ~/.ssh/id_rsa.**pub** file

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GitHub Issues

- **Example 1: TRIQS/dft_tools issue #110**
  What is good/bad about it?

- **Example 2: TRIQS/dft_tools issue #75**
  What is good/bad about it?

- **45 GitHub Issues Dos and Don'ts**
  https://hackernoon.com/45-github-issues-dos-and-donts-dfec9ab4b612

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Fork and Pull Request Exercise

- GOTO: https://github.com/flatironinstitute/ccq_coding_bootcamp_testrepo

- click on Fork and create a fork in your private account USER

- clone your fork
  `$ git clone git@github.com:USER/ccq_coding_bootcamp_testrepo.git .`

- checkout branch dev
  `$ git checkout dev`

- create your own dev branch
  `$ git checkout -b dev_USER`

- create a file USER.txt, add, commit and push to your fork
  `$ git add USER.txt`
  `$ git commit`
  `$ git push`

- GOTO your branch on github and open a pull request to the flatiron repo

How to keep your fork up-to-date?

- add flatiron repo as "upstream"
  ```
  $ git remote add upstream
        git@github.com:flatironinstitute/ccq_coding_bootcamp_testrepo.git
  ```

- fetch upstream
  ```
  $ git fetch upstream
  ```

- look at all available branches
  ```
  $ git branch -a
  ```

- merge
  ```
  $ git merge upstream/dev dev_USER
  ```

- or better: rebase
  ```
  $ git rebase upstream/master
  ```

- push your updated branch to your fork