Common Git Commands

`Github`

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1. Set Your Profile

- `git config --global user.name "Yunqiu Xu"`
- `git config --global user.email "your email"`
- `git config --list`
- `exit`

2. Set Your Repository

- `pwd` show your current position
- `cd /xyq/` switch to given position
- `ls` list the files in this position
- `touch fileName` create a empty file here
- `mkdir xyq` create a folder here
- `git init` initialize this folder as a git repository

3. Check the Status of Git Repository

- This repository should be a "git repository" (using `git init`)
- `git status` check the status
- `git diff` check the differences

4. Commit Your Changes

- `git add xyq.py` add your file to the cache
  - `git add .` add all the files in this repository
- `git rm -cached` remove the files in the cache
- `git commit -m 'your comment'`
- `git log` check the commit history
- `git reset --hard HEAD^` go back to previous version
  - `git reset --hard HEAD` current version
  - `git reset --hard HEAD^^` second last version
  - `git reset --hard HEAD^^^` third last version

5. Connect to Github

- `ssh-keygen -t rsa` generate the SSH key
- `cd ~/.ssh`
- `cat id_rsa.pub` check the SSH key
- Github -- Settings -- SSH and GPG keys -- New SSH Key -- Add your SSH key here
- `ssh -T git@github.com` check whether SSH is added successfully

6. Push Your Files to Github

- Create an empty repository on Github, whose name is same to your local repository
- `git pull origin master` if the remote repository is not empty, you'd better to pull it to local first
- `git push -u origin master` push the committed files to Github

7. Clone the Repository

- `git clone git@github.com:YunqiuXu/my_notes.git`
- Then you can make some changes and push it back to Github

8. Branch Operations

- `git branch` check current branches
- `git branch xyq` create a new branch
- `git checkout xyq` switch to another branch
- `git branch -d xyq` delete branch
- `git merge` merge the branches