Introduction to Git

Agenda

- Git
- GitHub
- Git CLI
- Git GUI

Git

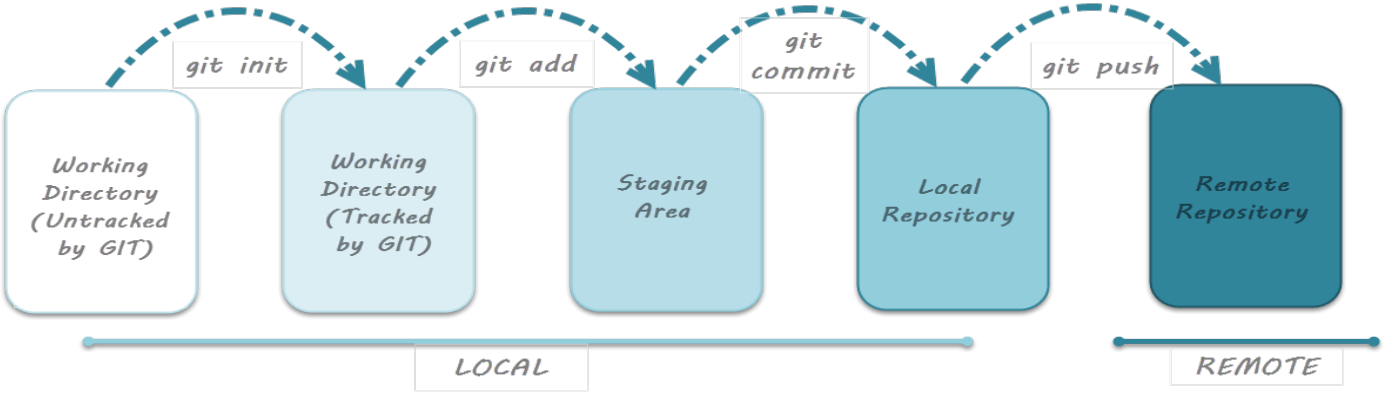
- What is Git?
  - Version Control System

Git

- Why use Git?
  - Source Code Tracking
  - Team Work Development

Git

- Git State
  - Untracked
  - Working Directory
  - Staged
  - Local Repository
  - Remote Repository

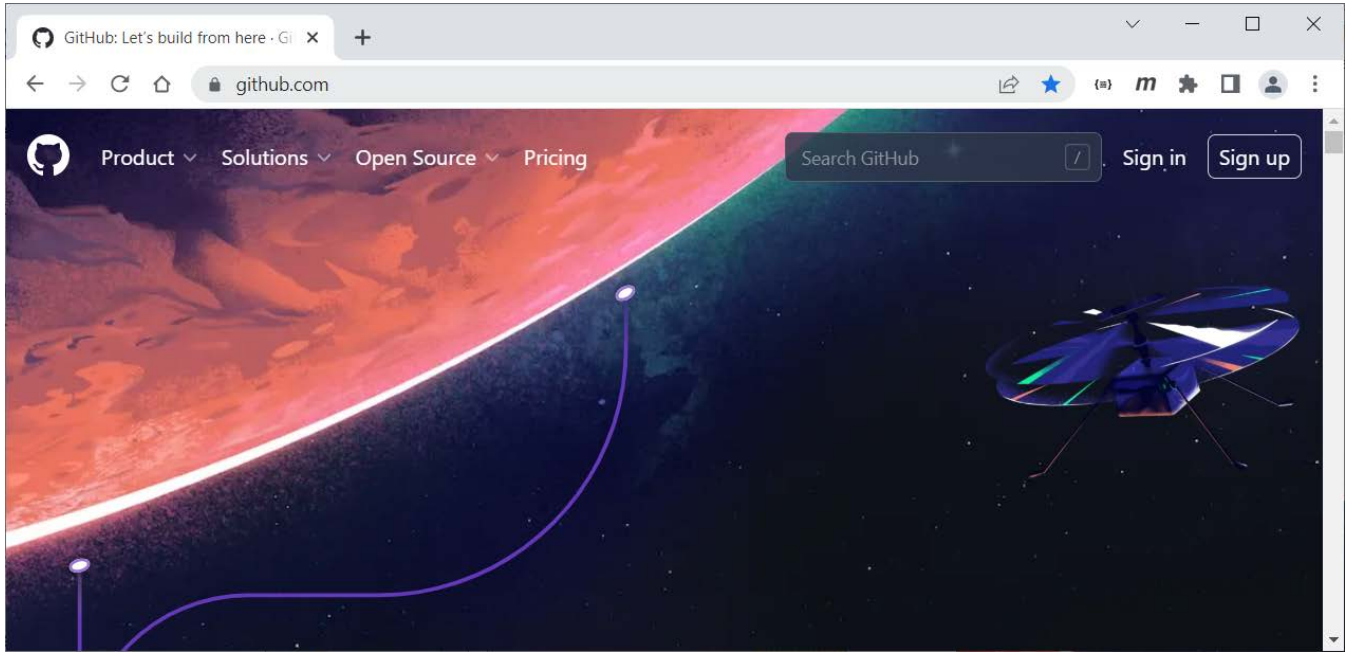


GitHub

- What is GitHub?
  - Web site for Git
  - Control version repository

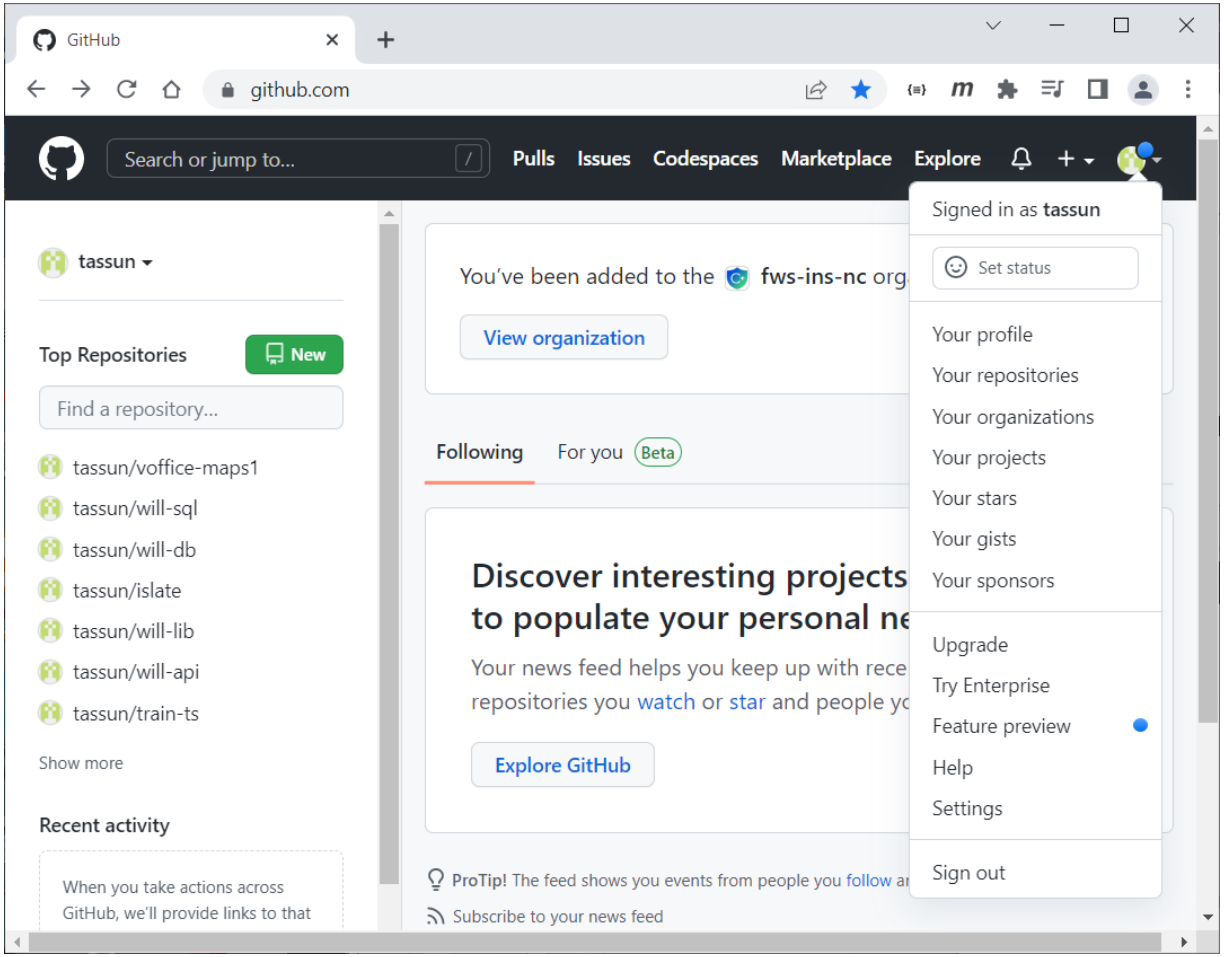
GitHub

- How to use GitHub?
  - Go to https://github.com
  - Create account (Sign up)



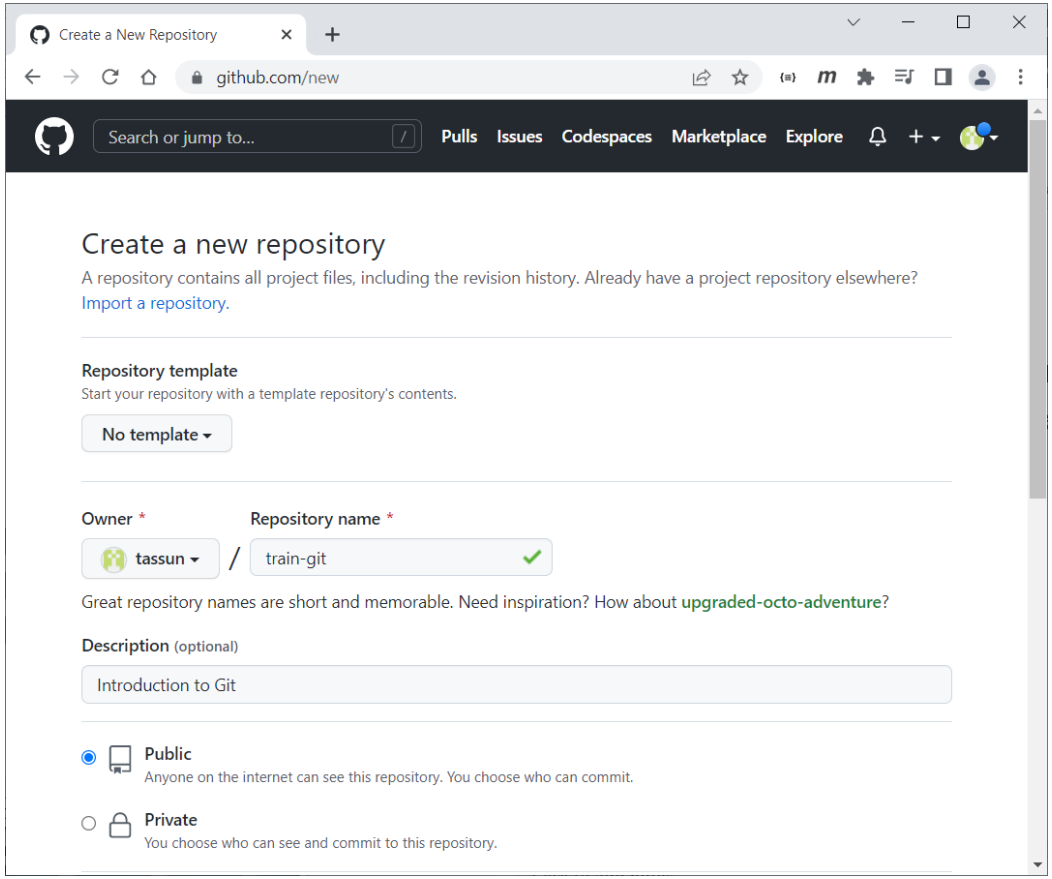
GitHub

- How to use GitHub?



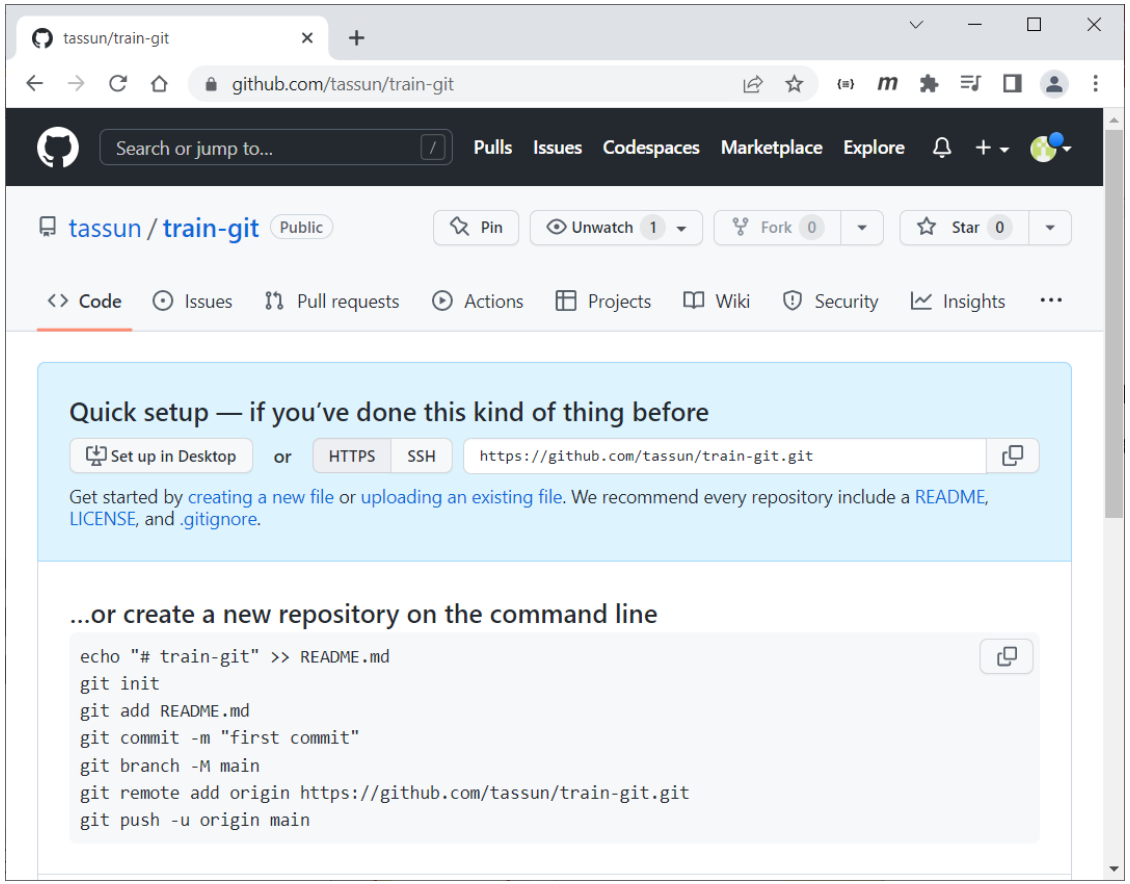
GitHub

- How to use GitHub?
  - Create repository



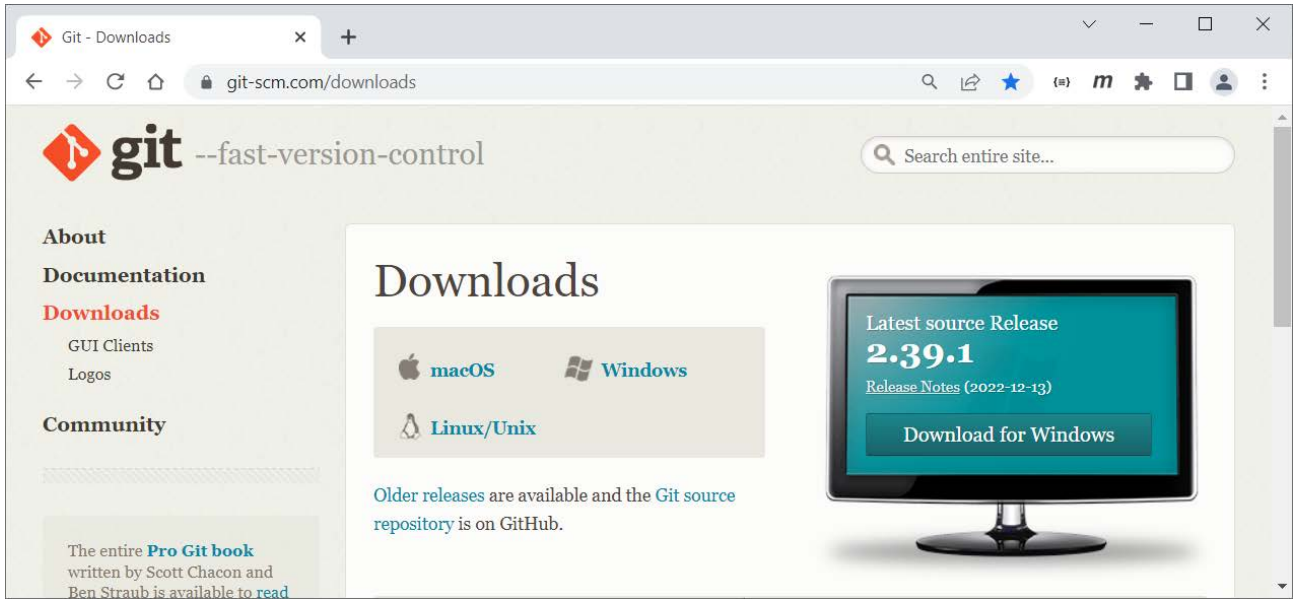
GitHub

- How to use GitHub?
  - Create repository



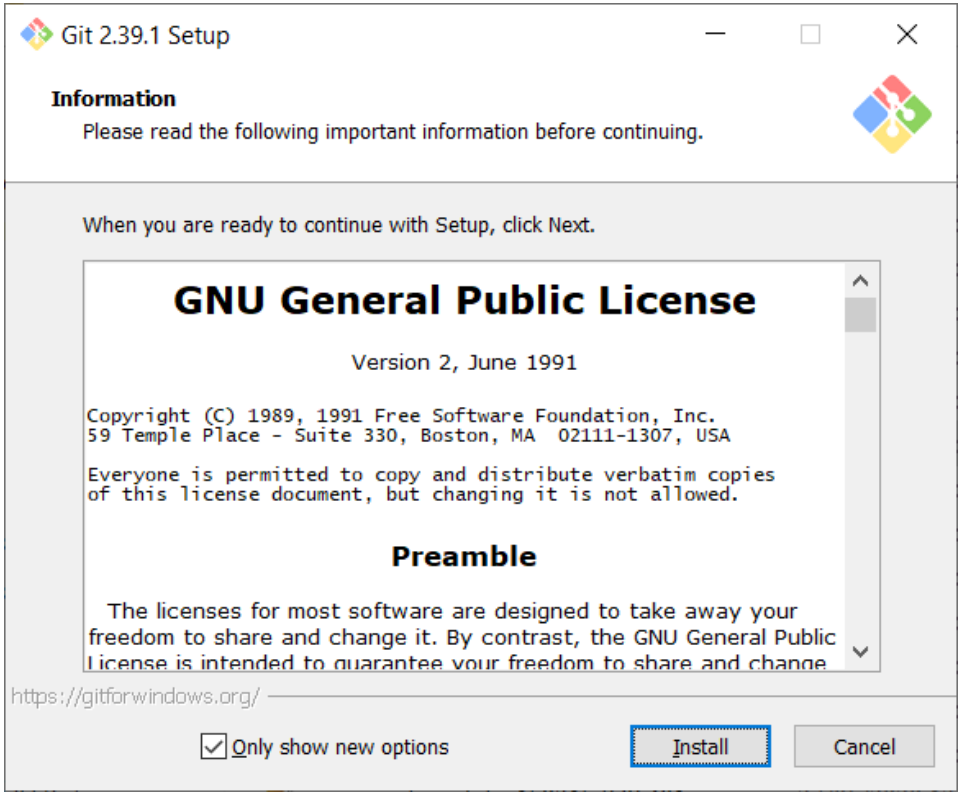
Git CLI

- How to use Git?
  - Go to https://git-scm.com/
  - Download & Install
    - https://git-scm.com/downloads



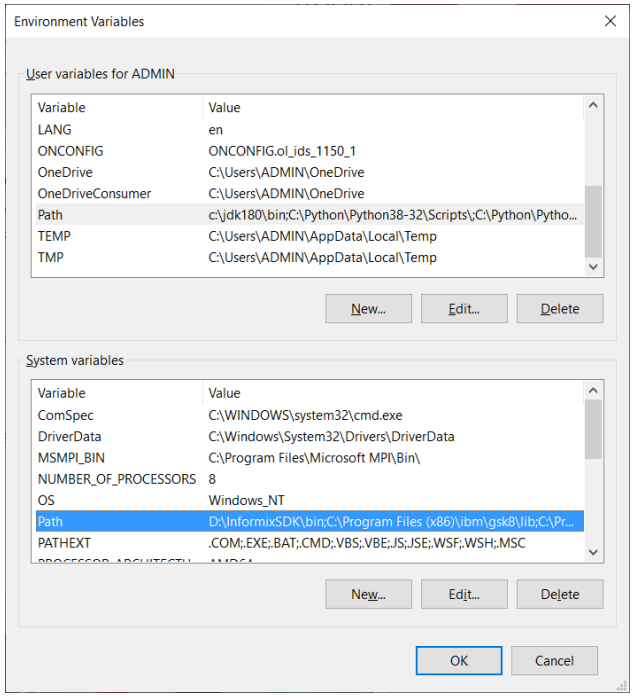
Git CLI

- Git Installation
  - windows



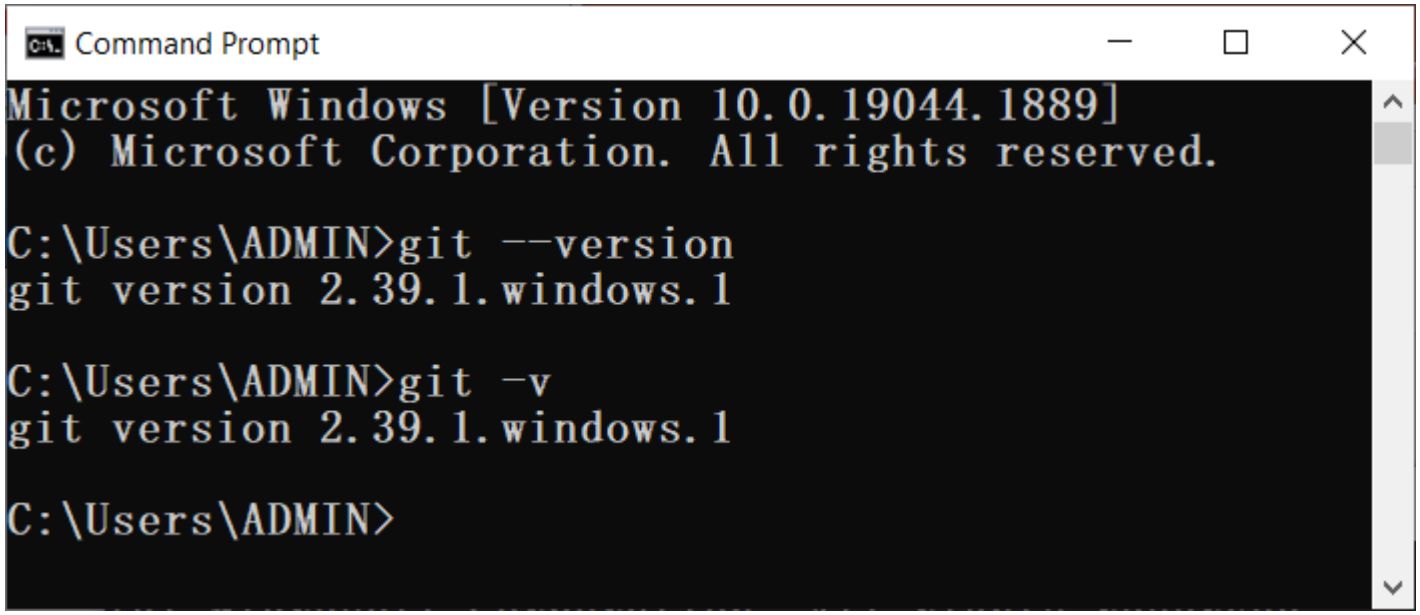
Git CLI

- Git Installation
  - windows portable
    - Settings -> Advanced system settings
      - System Properties -> Advanced -> Environment Variables
        - set PATH



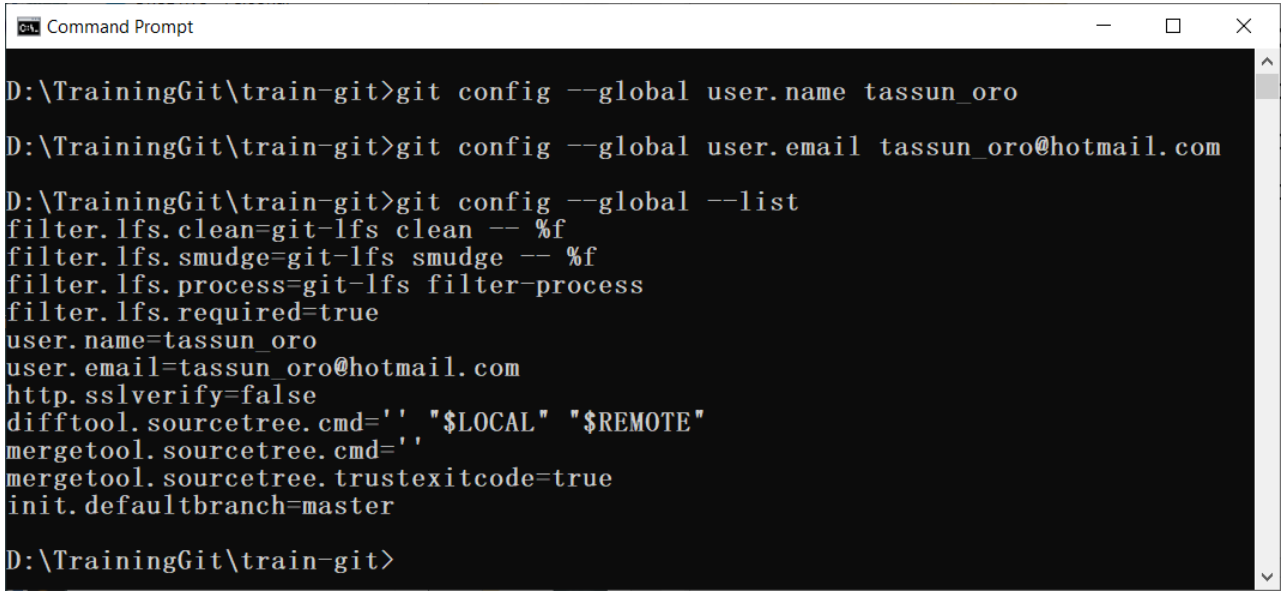
Git CLI

- Git Command
  - git --version or git -v
  - git help , git help <command>



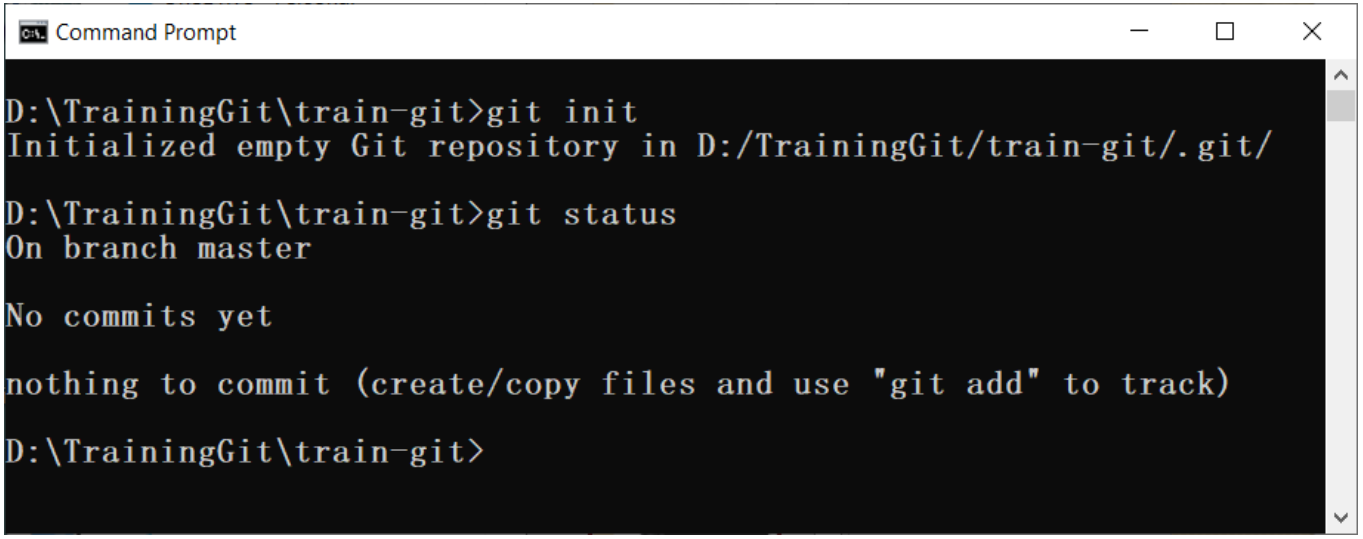
Git CLI

- Git Command
  - git config
    - git config --global user.name your-name
    - git config --global user.email your-email
    - git config --global --list



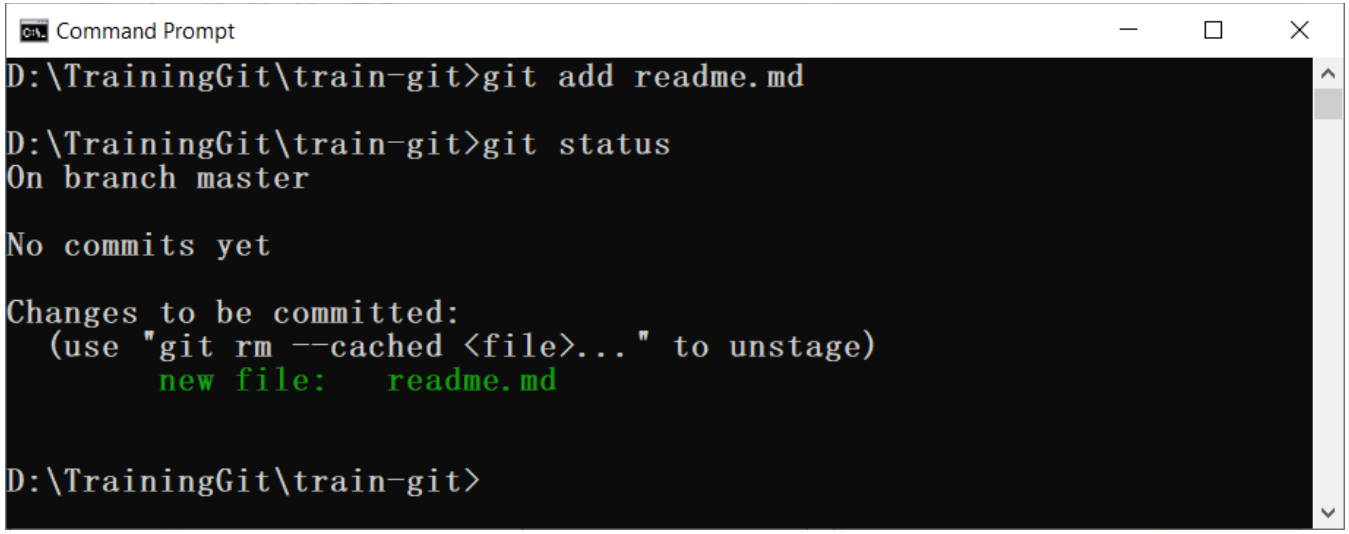
Git CLI

- Git Command
  - git init
    - create .git folder store local changed
  - git status



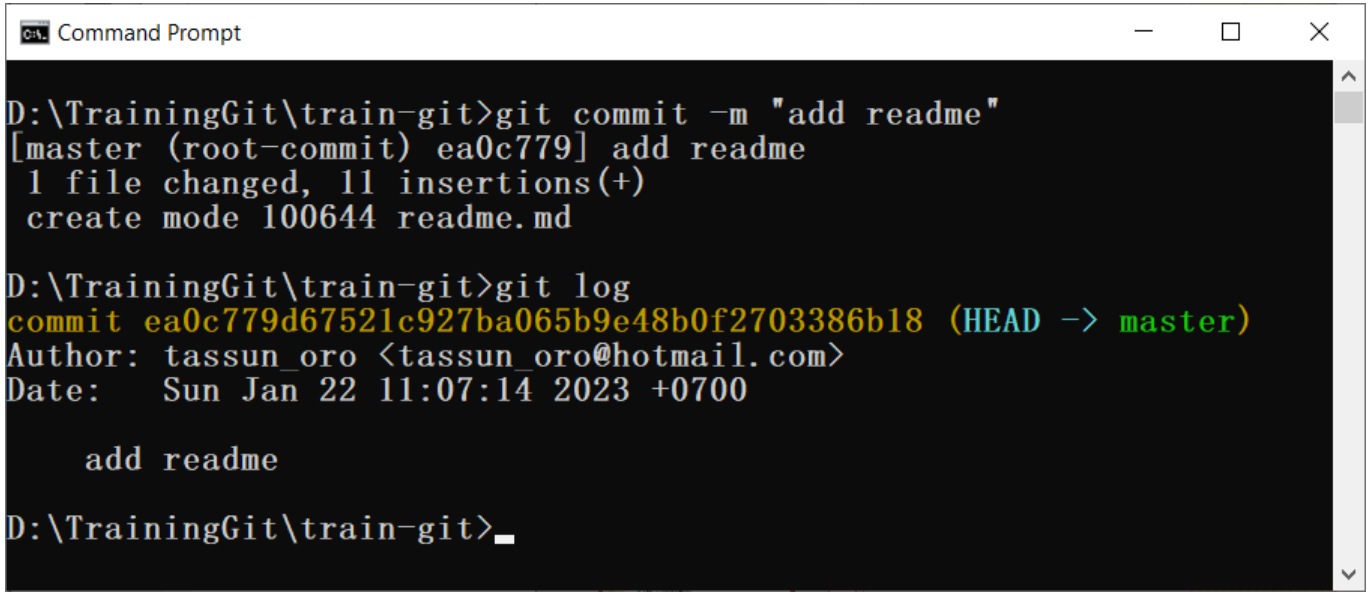
Git CLI

- Git Command
  - git add
    - git add file-name
    - git add . or git add *.txt
  - git status



Git CLI

- Git Command
  - git commit
    - git commit –m your-messages
  - git log

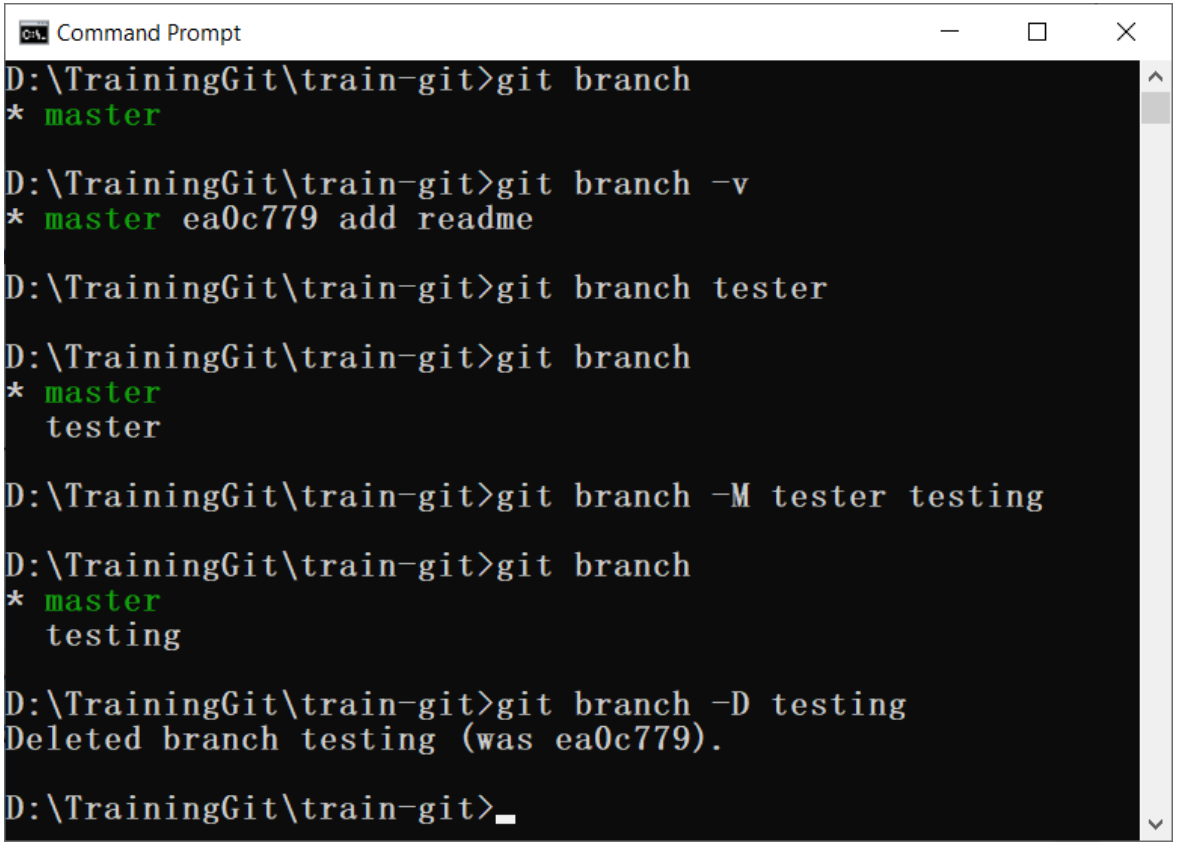


Git CLI

- Git Command
  - git branch
    - create
      - git branch branch-name
    - move/rename
      - git branch –M new-branch-name
    - delete
      - git branch –D branch-name
    - switch/change
      - git checkout branch-name

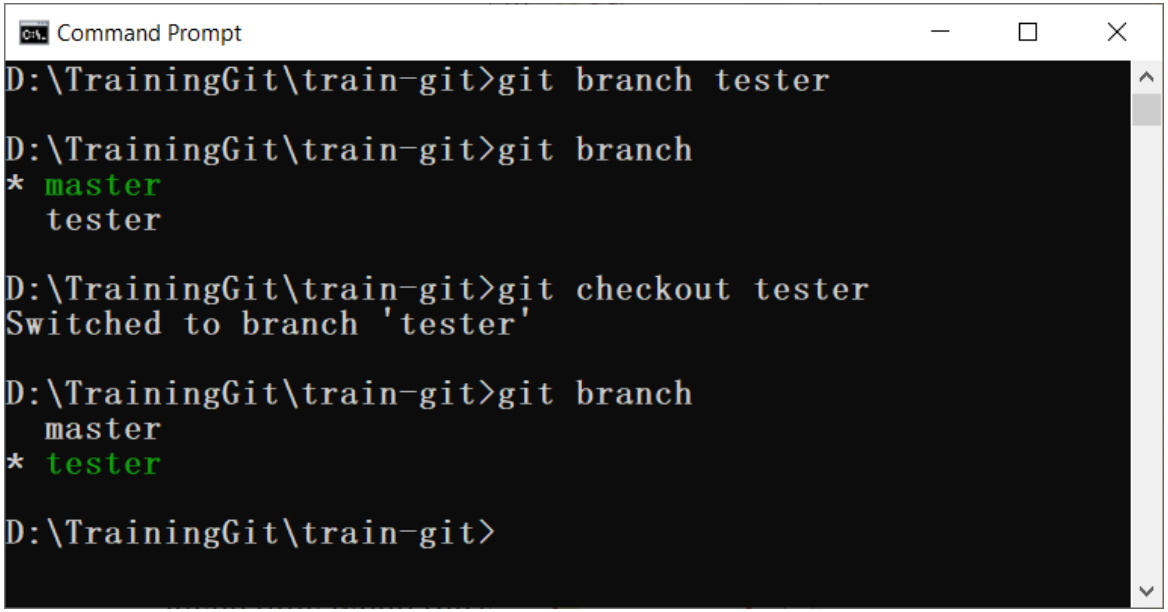
Git CLI

- Git Command
  - git branch



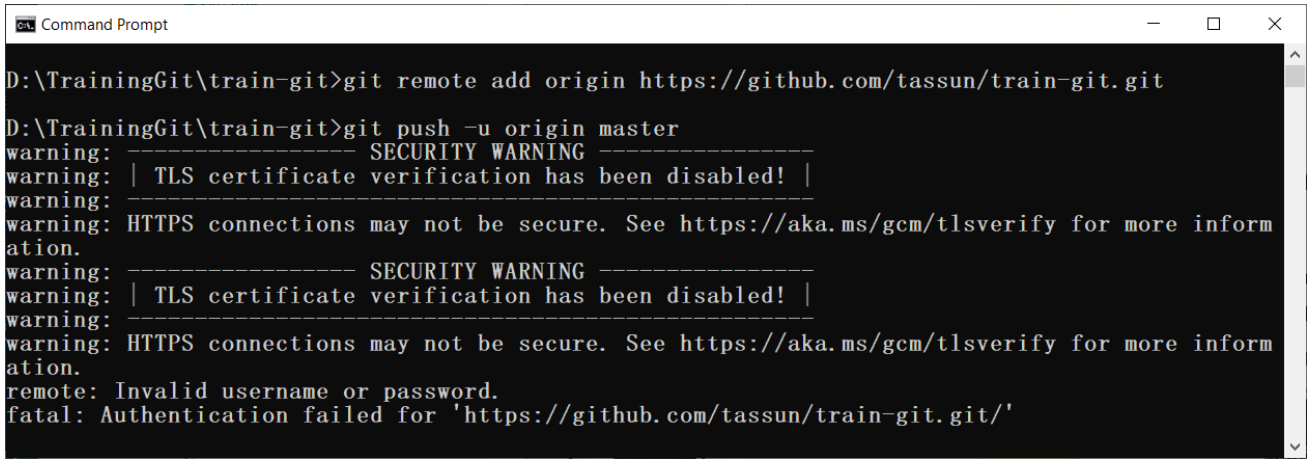
Git CLI

- Git Command
  - git branch



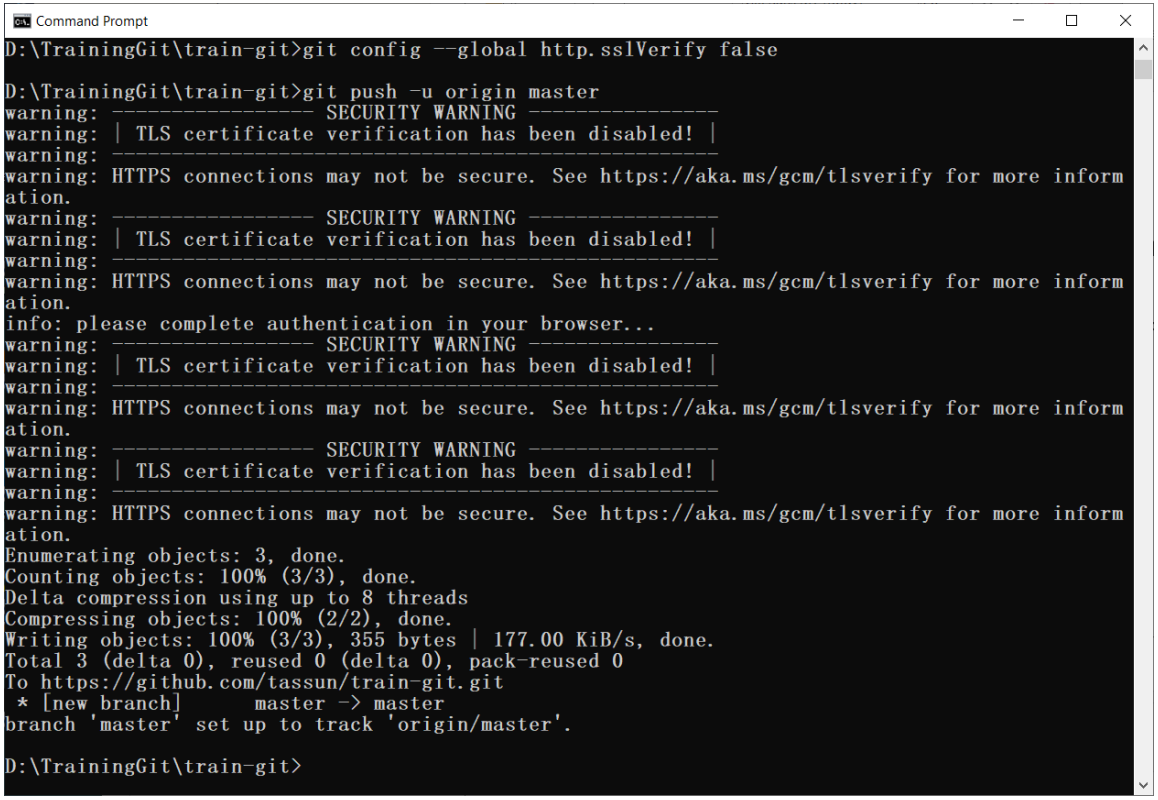
Git CLI

- Git Command
  - git push
    - git remote add origin https://github.com/user-name/repo-name.git
    - git push -u origin master



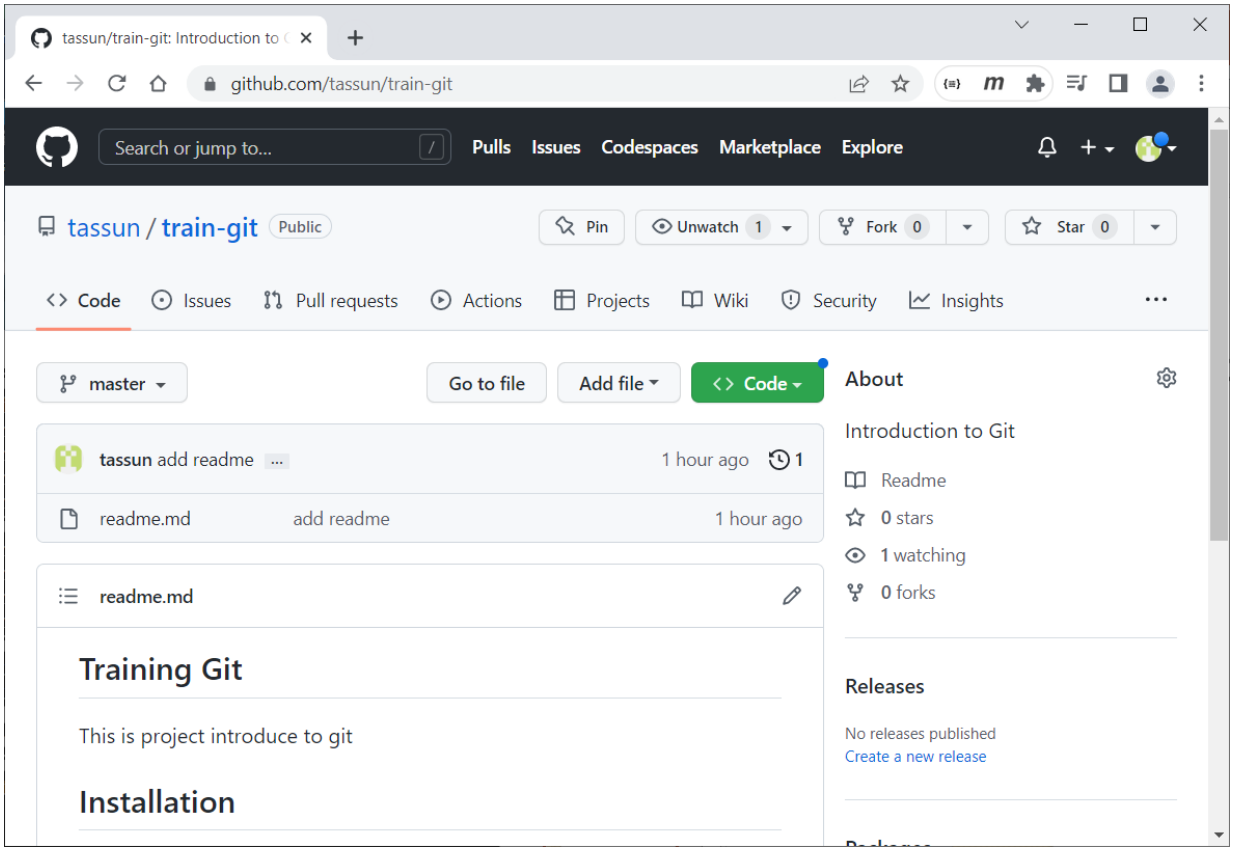
Git CLI

- Git Command
  - git push
    - git config --global http.sslVerify false



Git CLI

- Git Command
  - git push

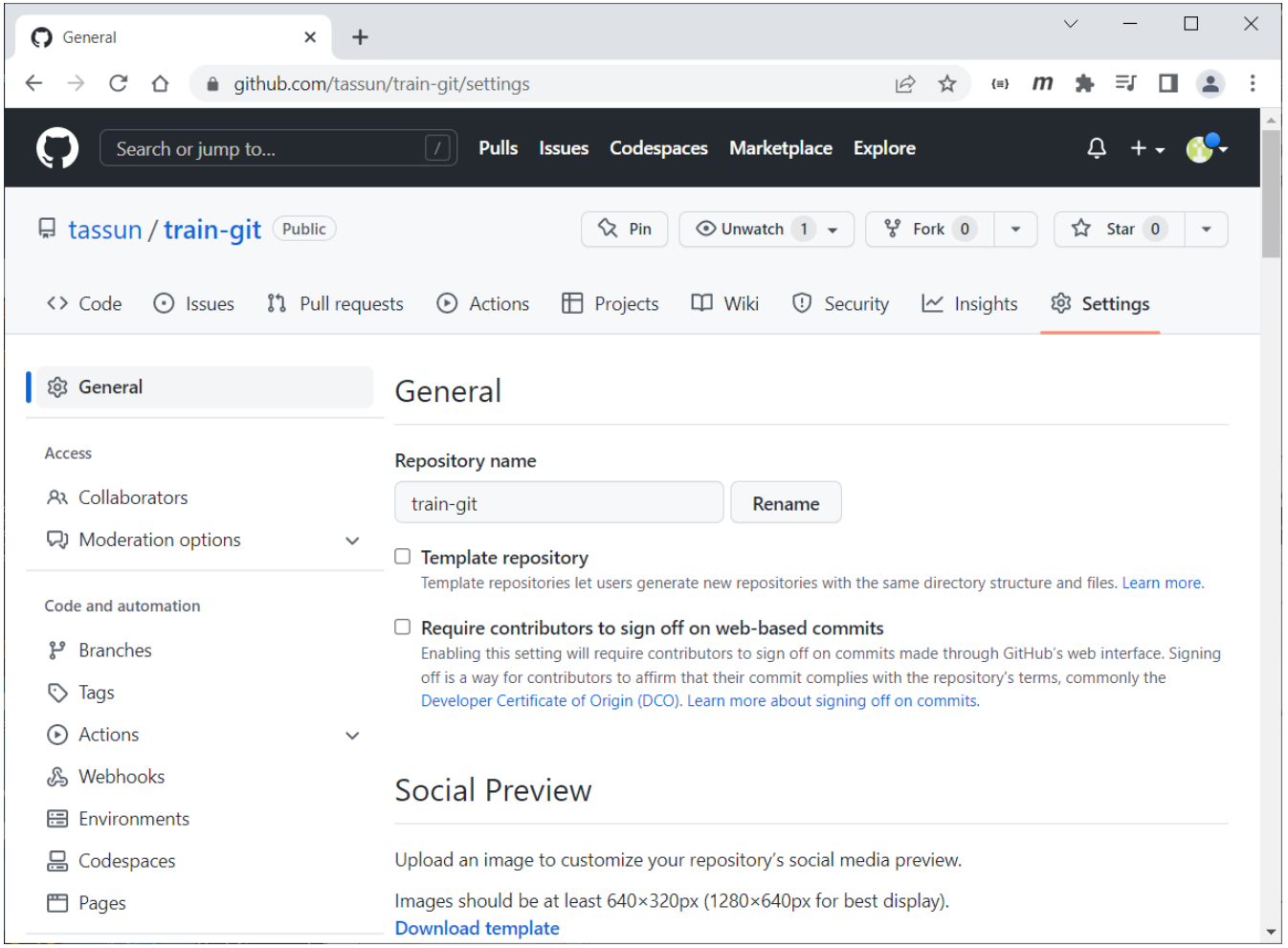


Git CLI

- Git Command
  - git clone
    - git clone https://github.com/user-name/repo-name.git

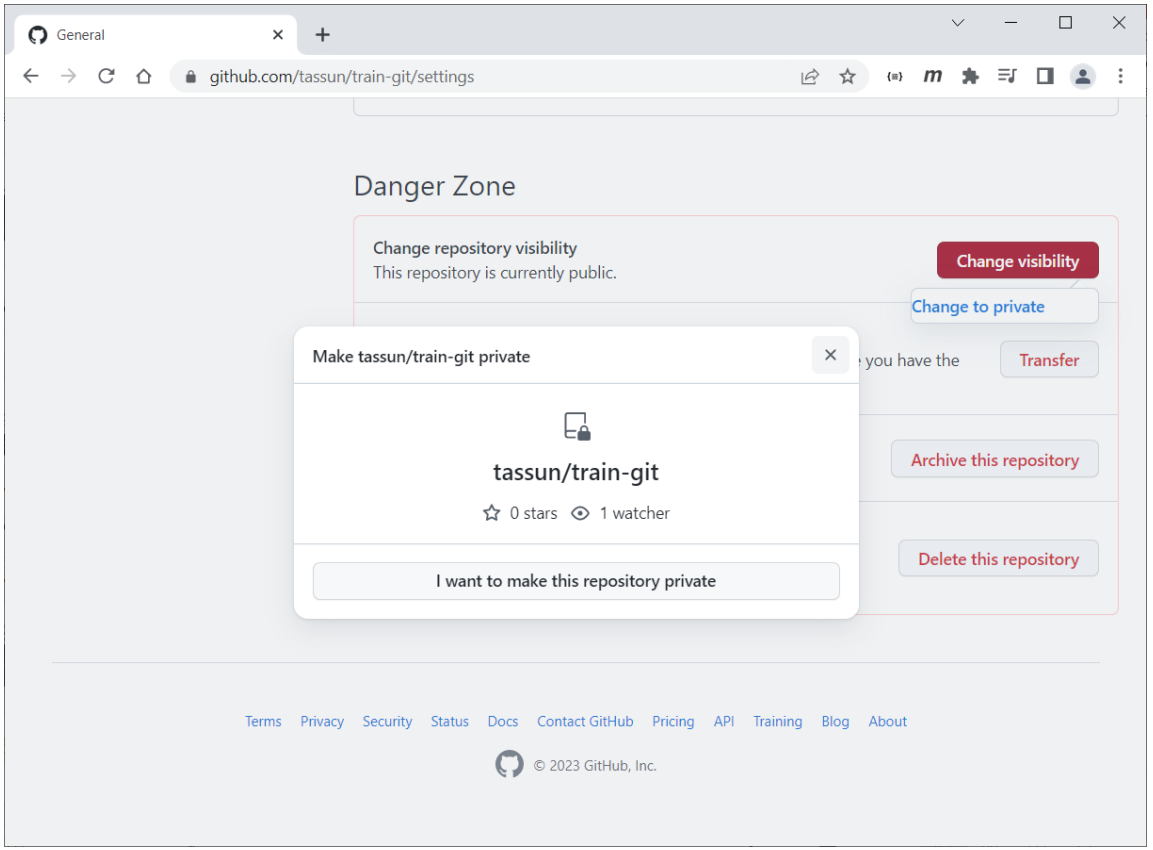
Git CLI

- GitHub Setting



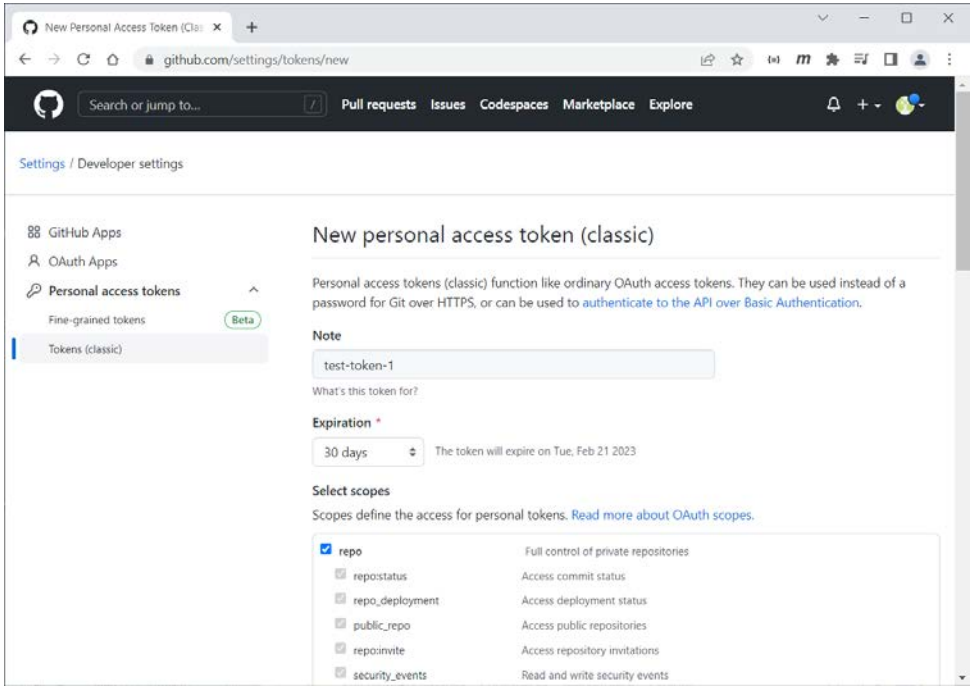
Git CLI

- GitHub Setting
  - try to change repository private/public



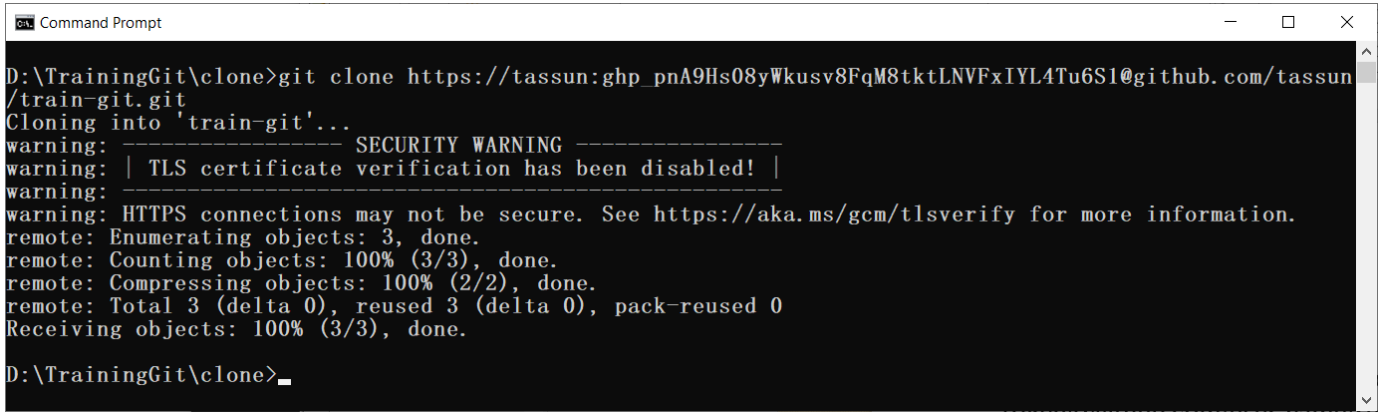
Git CLI

- Create Personal Access Token on GitHub
  - Settings -> Developer Settings
    - Person access tokens -> Tokens (classic)
      - Generate new token



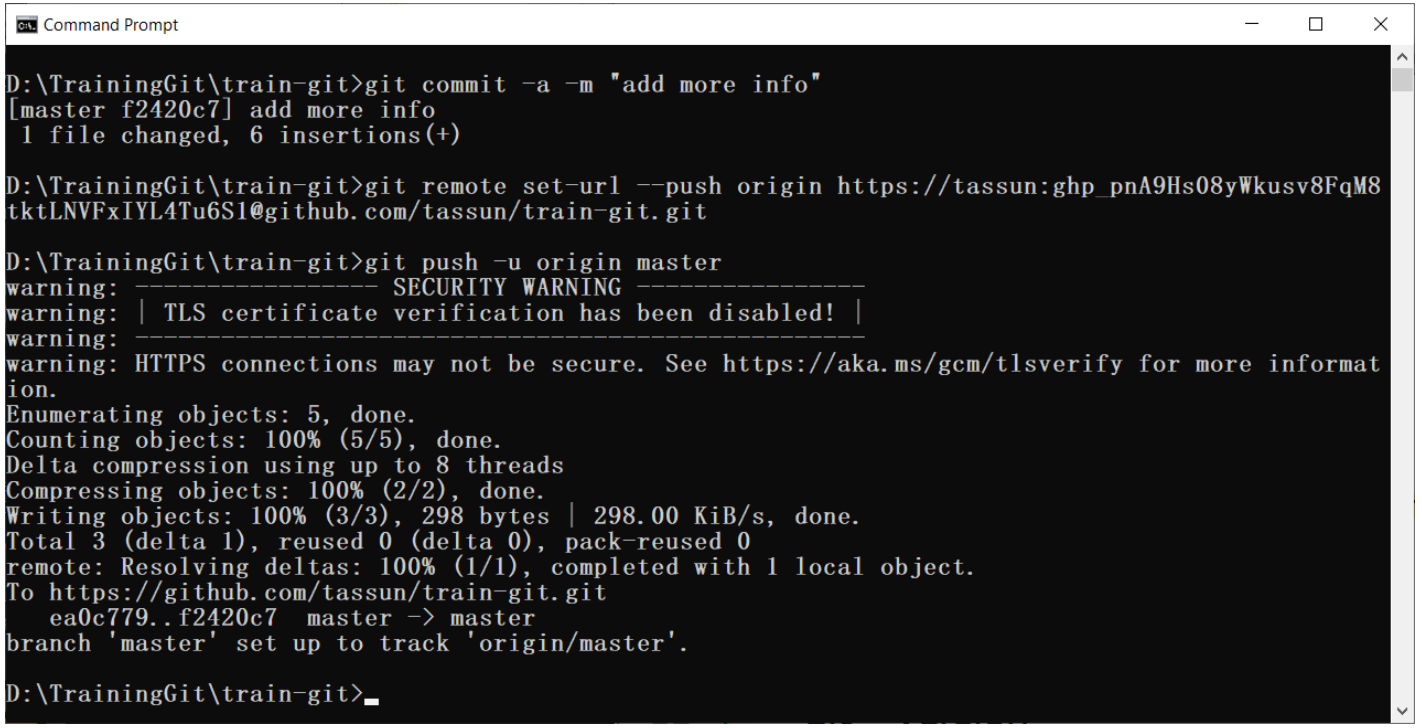
Git CLI

- Git Command
  - git hub token
    - git clone https://user-name:github-token@github.com/user-name/repo-name.git



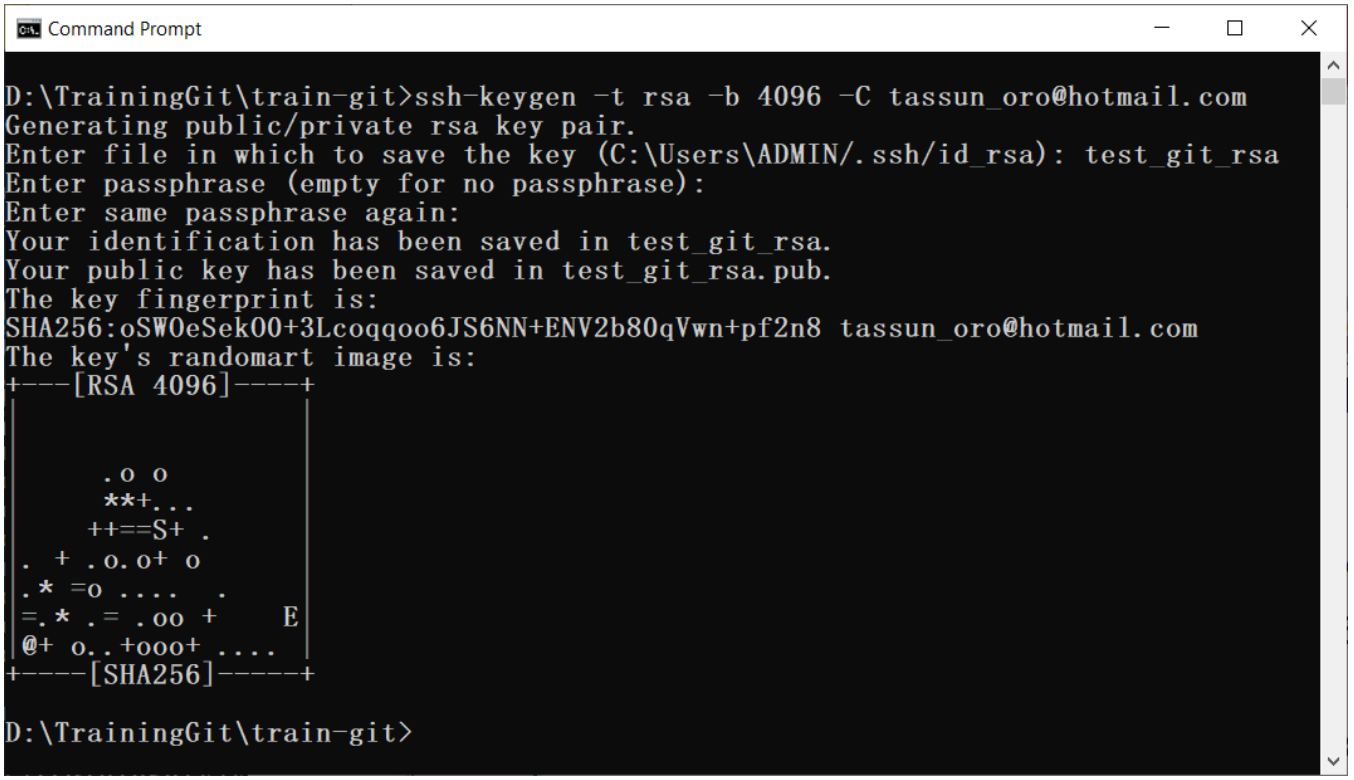
Git CLI

- Git Command
  - git hub token
    - try to edit readme.md then commit & push changed



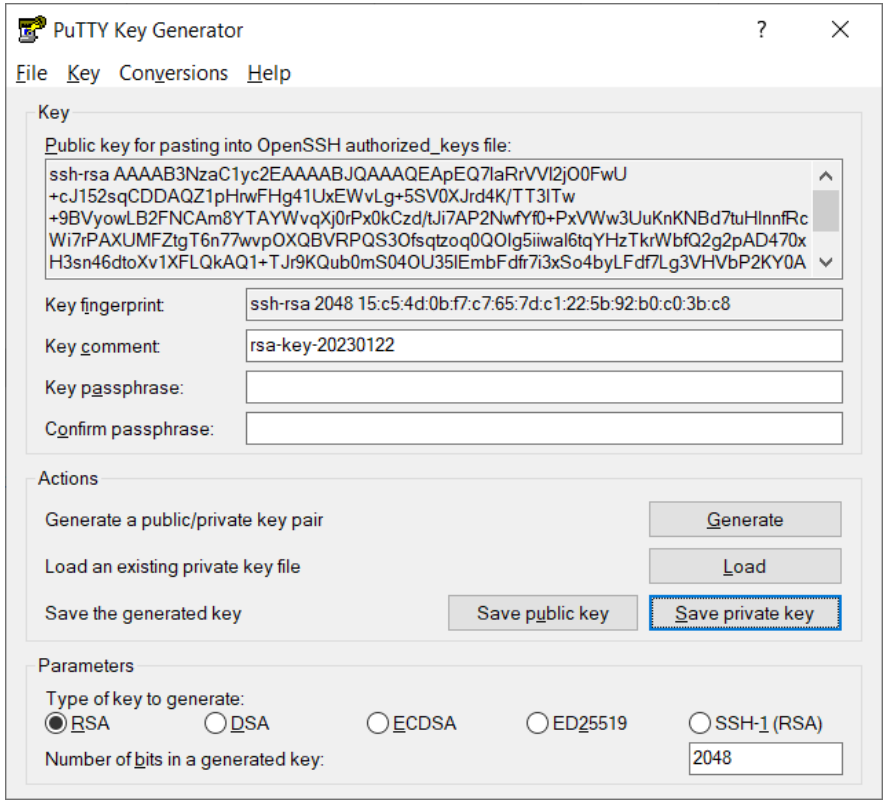
Git CLI

- Git Command
  - git ssh key
    - ssh-keygen -t rsa -b 4096 -C "email@example.com"



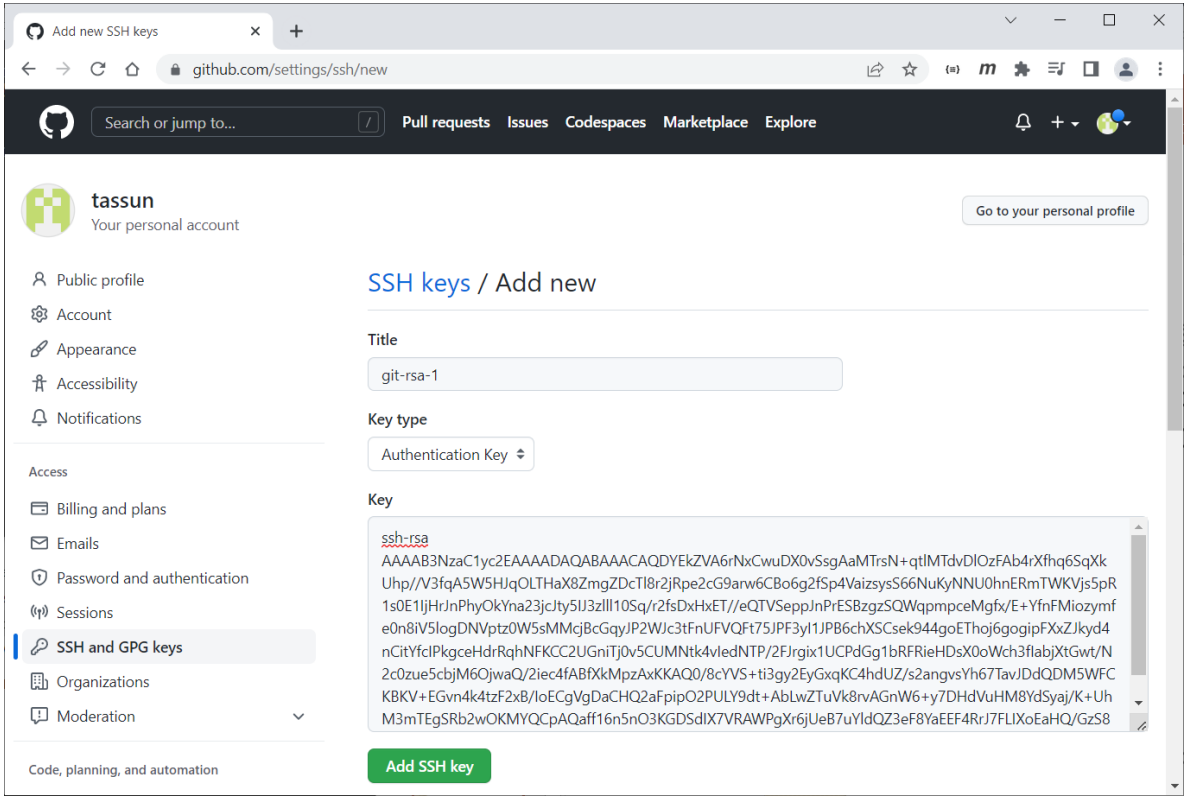
Git CLI

- Git Command
  - git ssh key
    - putty key generator



Git CLI

- Add new SSH keys on GitHub
  - Settings -> SSH and GPG keys
    - SSH keys -> New SSH key

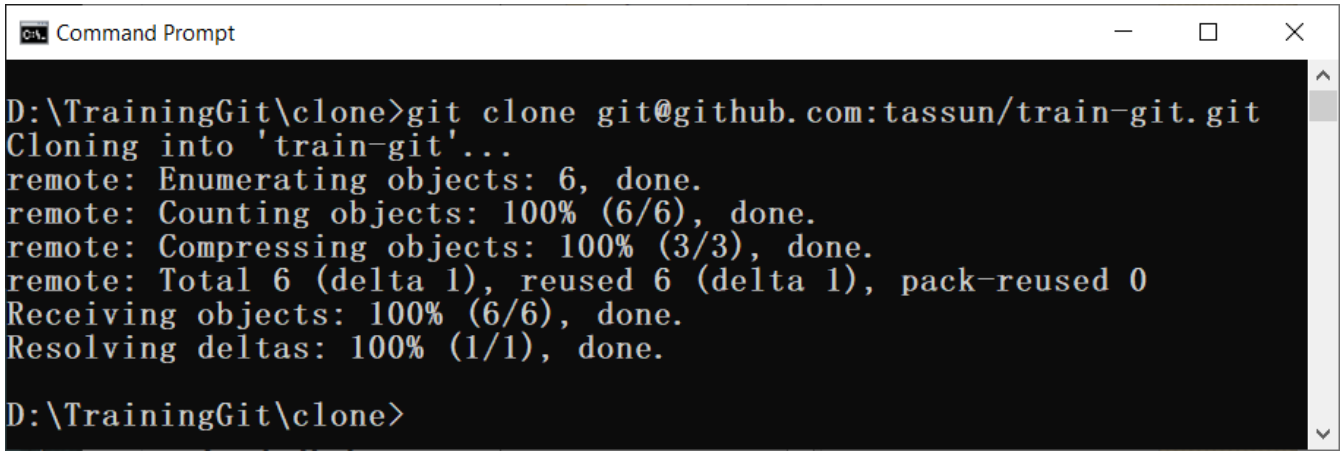


Git CLI

- Git Command
  - git ssh key testing

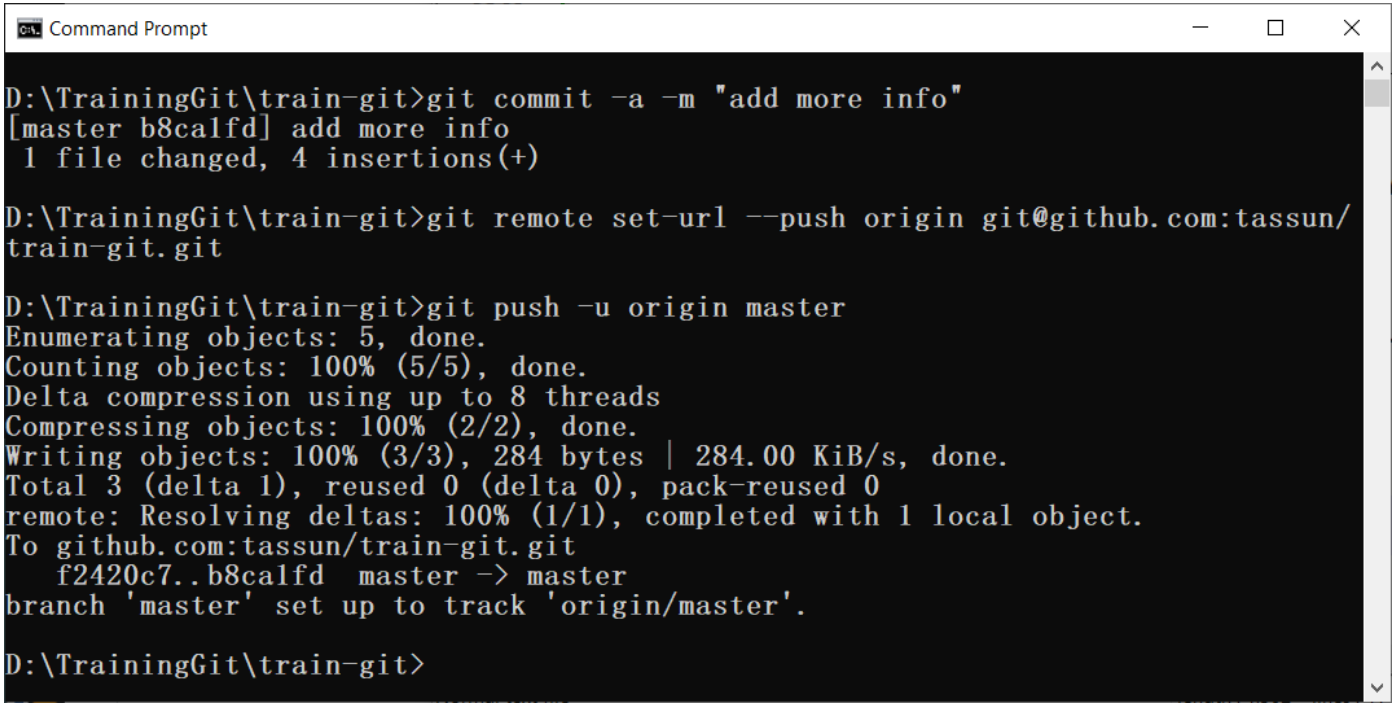
Git CLI

- Git Command
  - git ssh key
    - try to clone with ssh



Git CLI

- Git Command
  - git ssh key
    - try to edit readme.md then commit & push changed

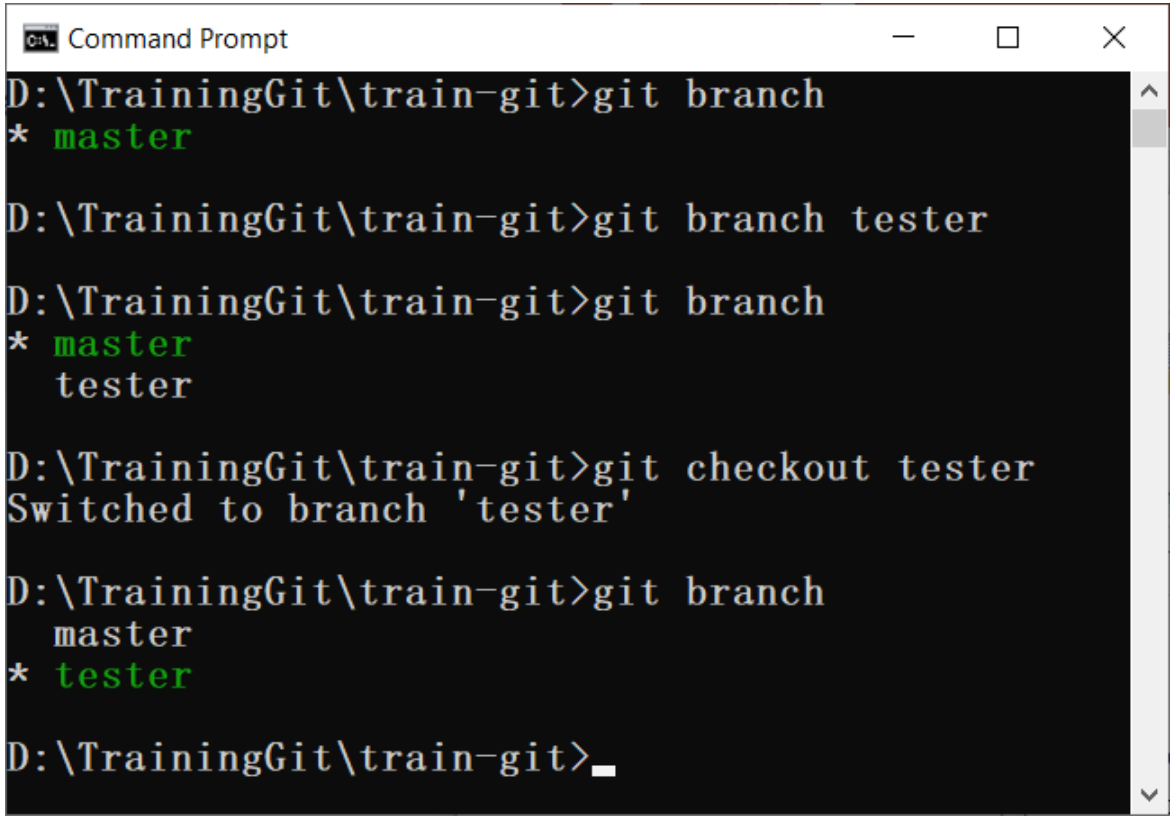


Git CLI

- Git Command
  - git fetch

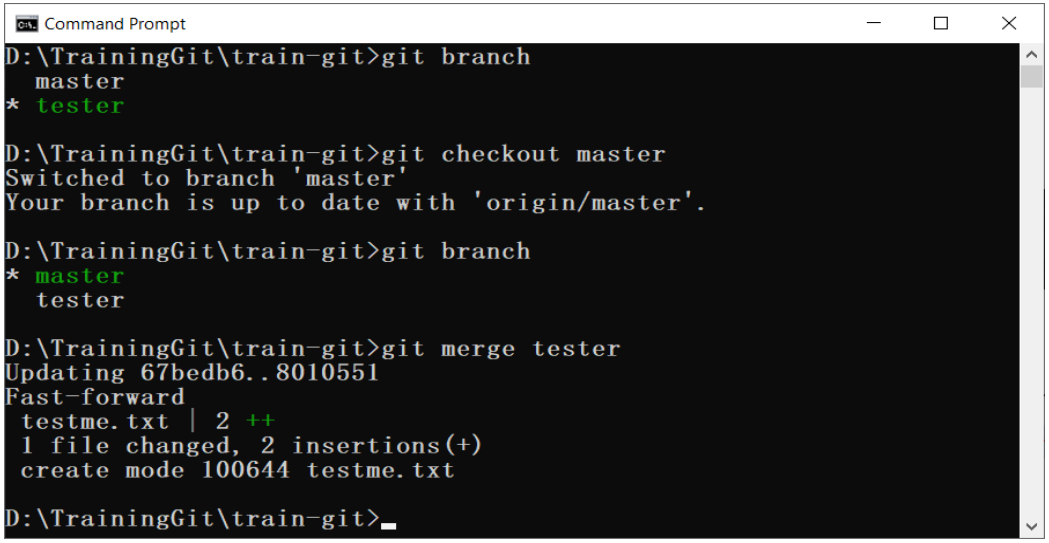
Git CLI

- Git Command
  - git merge



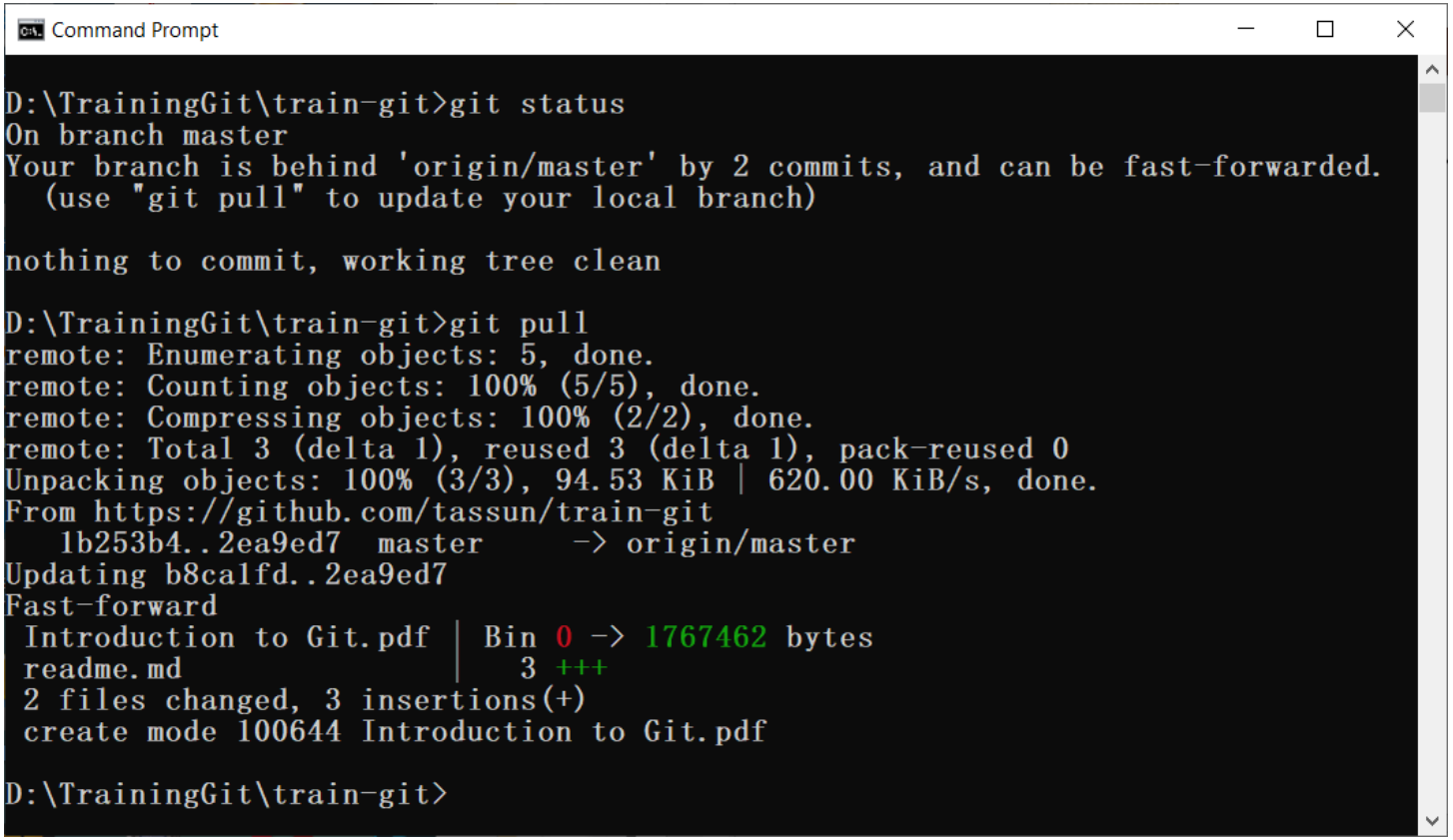
Git CLI

- Git Command
  - git merge



Git CLI

- Git Command
  - git pull (fetch + merge)

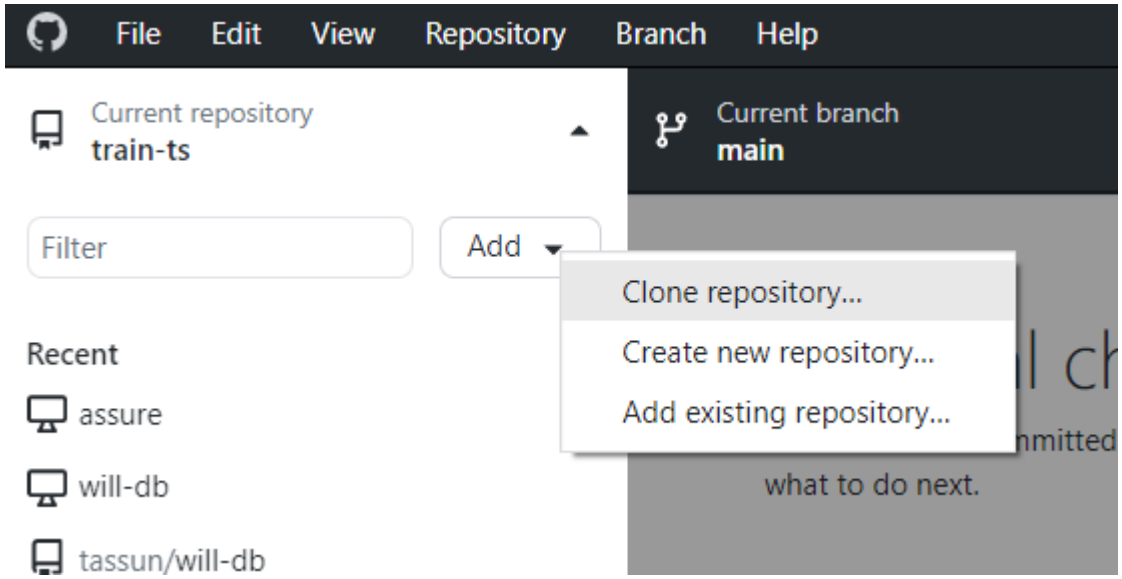


Git GUI

- Git Desktop
  - Go to https://desktop.github.com/
  - Download & Install

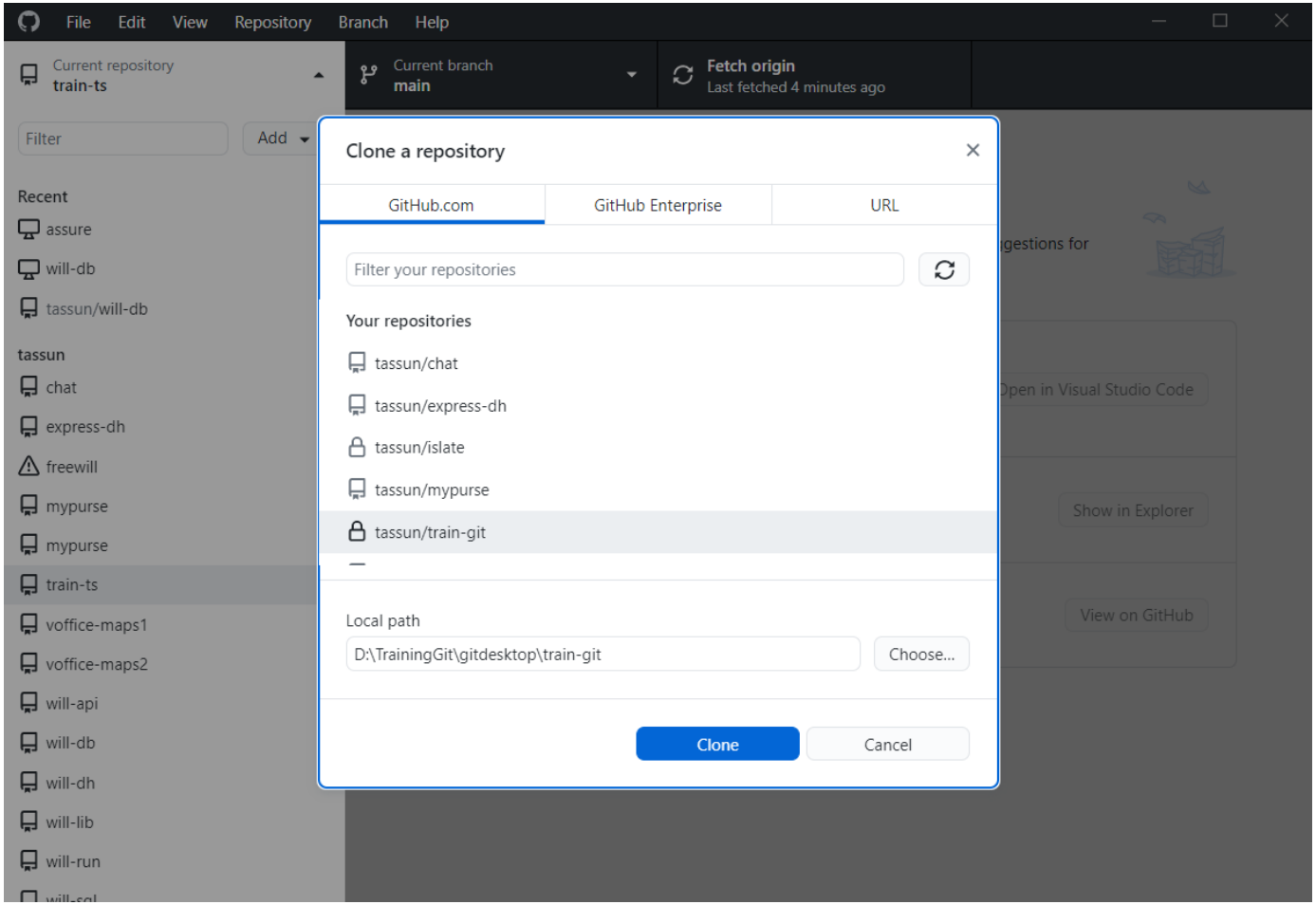
Git GUI

- Git Desktop



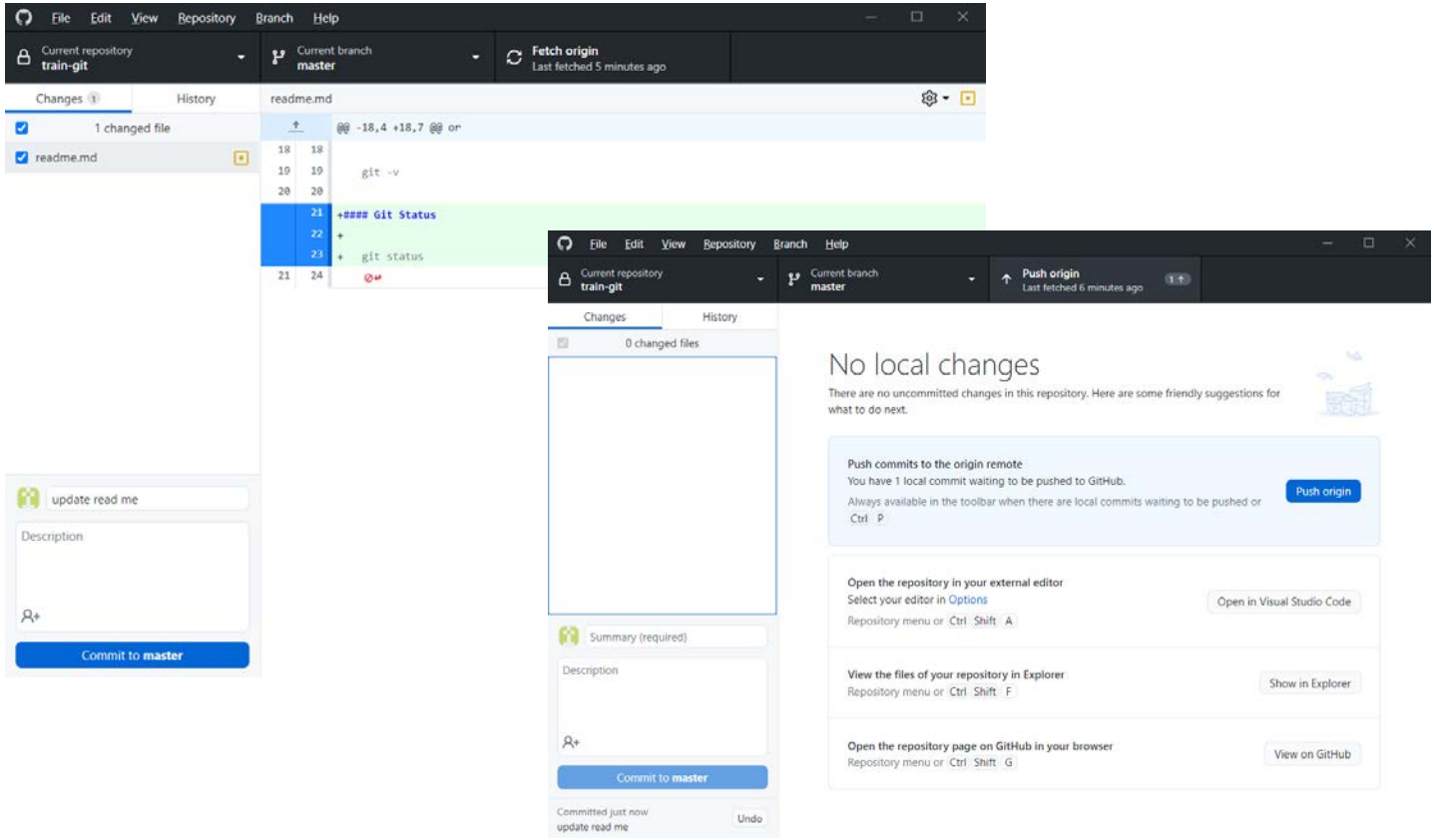
Git GUI

- Git Desktop



Git GUI

- Git Desktop
  - try to edit readme.md then commit & push



Reference

- https://devahoy.com/blog/2015/08/introduction-to-git-and-github
- https://km.cc.swu.ac.th/archives/3606
- https://saixiii.com/what-is-github/
- https://devahoy.com/blog/2017/12/how-to-show-verify-sign-with-gpg
- https://docs.github.com/en/authentication/connecting-to-github-with-ssh

Q & A