

CSE326: Web Application Development

Lab 0: Git & MAMP

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Git

What is VCS(Version Control System)?

- Database for "*Version*"
- A system for managing multiple revisions of the same unit of information
- Git, SVN, Mercurial, ...
- Why use VCS?
 - To collaborate with team.
 - To backup the version of project.
 - To track what changes are happened in source code.
 - To reduce side-effects when develop a new module.

Git

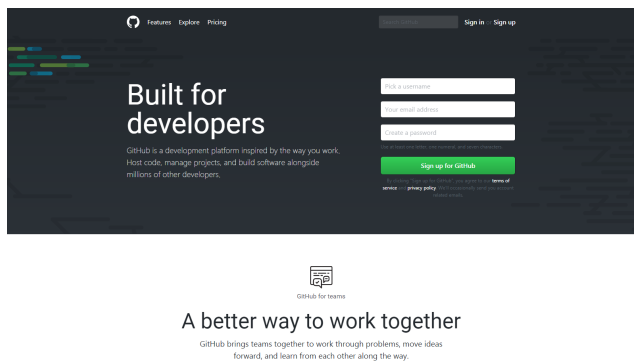
What is Git?



- The most commonly used VCS today.
- Git Tutorial: <https://rogerdudler.github.io/git-guide/index.ko.html>
- Download: <https://git-scm.com/>

Git

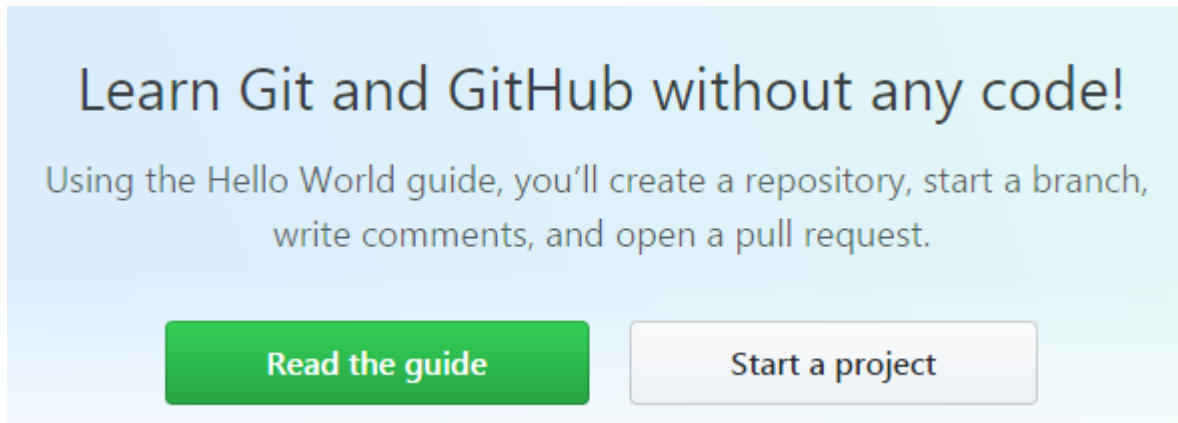
What is GitHub?



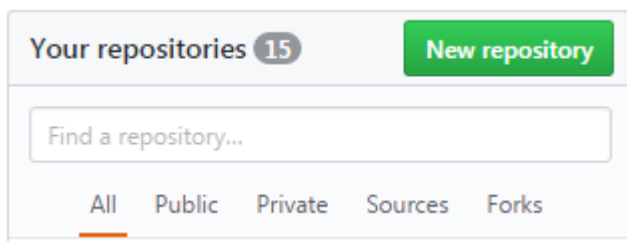
- Web based remote source code repository.
- It offers git repository hosting service.
- <https://github.com/>

Git

Create GitHub Remote Repository



- If you are new GitHub user, click "Start a project"



- If you are already registered in GitHub user, click "New repository"

Git

Create GitHub Remote Repository

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

Repository name

AhnYounGeun / WebApp ✓

Great repository names are short and memorable. Need inspiration? How about laughing-rotary-phone.

Description (optional)

2017 Web Application

☒ **Public**
Anyone can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

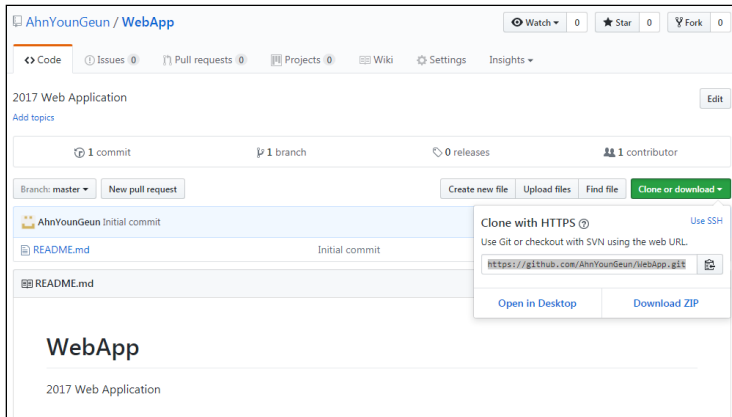
☒ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** Add a license: **None** ⓘ

Create repository

Git

Create GitHub Remote Repository



- Copy your repository URL for next step.

Git

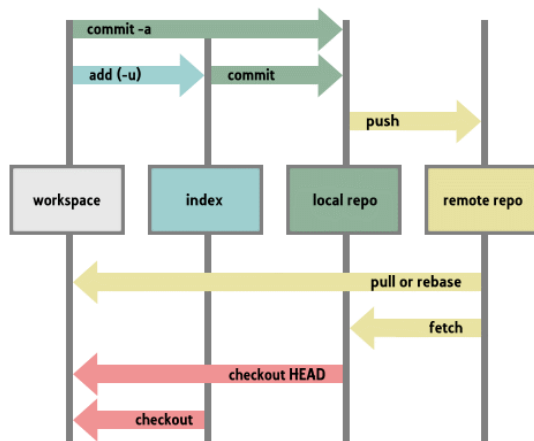
Git Initial Setting

Steps

1. Initialize Git *Workspace*: `git init`
2. User login:
 - `git config user.name "Your Name"`
 - `git config user.email yourGitEmail@abcde.def` (No double quotes!)
3. Naming your GitHub *Remote Repository*: `git remote add origin https://github.com/...`

Git

Git Basic Workflow

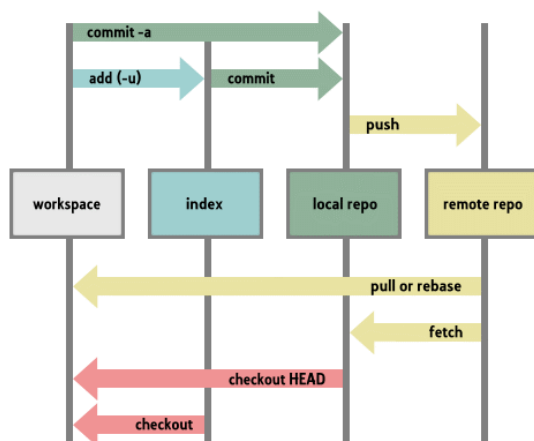


Steps

1. Pull your remote repository to *Local Repository and Workspace*
2. Coding, Coding, Coding ... in your *Workspace*
3. Add your changes to *Index*
4. Commit(Save) your changes to *Local Repository*
5. Pull your remote repository again
 - Conflict could be occurred when remote repository modified before push
6. Upload your works in *Local Repository to Remote Repository*

Git

Git Basic Workflow



Steps(Commands)

1. `git pull origin master`
2. Coding, Coding, Coding ... in your *Workspace*
3. `git add *`
4. `git commit -m "Describe what changes are happend..."`
5. `git pull origin master`
6. `git push origin master`

MAMP

What is MAMP?



- MAMP: Machintosh + Apache + MySQL + PHP
 - Apache: HTTP/HTTPS Server
 - MySQL: Open-source relational database management system(RDBMS)
 - PHP: Server-side scripting language.
- It setups local server environment.
- It supports Mac and Windows both.
- Download: <https://www.mamp.info/en/downloads/>

Lab 0. Git & MAMP

Exercise 1: Setup Git & Create GitHub Repository

1. Download *Git* and install it.
 - **Don't change any settings when you install Git.**
2. Create new GitHub Repository.
3. Open Terminal.
 - Windows: Win+R -> cmd
 - Mac: Open Spotlight -> Search '터미널' or 'Terminal'
4. Follow the Git Basic Workflow(slide 7-8).
 - Initialize ~ Pull -> *Create some file(anything is okay)* -> Add ~ Push
 - Type the commands in *Terminal or Git Bash*.
5. Show your GitHub repository to TA.

Lab 0. Git & MAMP

Exercise 2.1: Setup MAMP Environment(Apache)

1. Download *MAMP* and install it.
 - **Don't install *MAMP PRO*.**
2. Execute MAMP and click "Start Servers".
 - If you got error, restart MAMP, start server and stop server(for terminate services).
 - And start server again.
3. Open your Internet browser(IE, Chrome, Firefox, ...).
4. Type "localhost" or "127.0.0.1" in address.
5. Show your Internet Browser to TA.

Lab 0. Git & MAMP

Exercise 2.2: Setup MAMP Environment(MySQL)

After Exercise 2.1...

1. Type command Terminal: `mysql -uroot -proot`
2. Show your terminal to TA.