Prep. for PA

Prerequisite

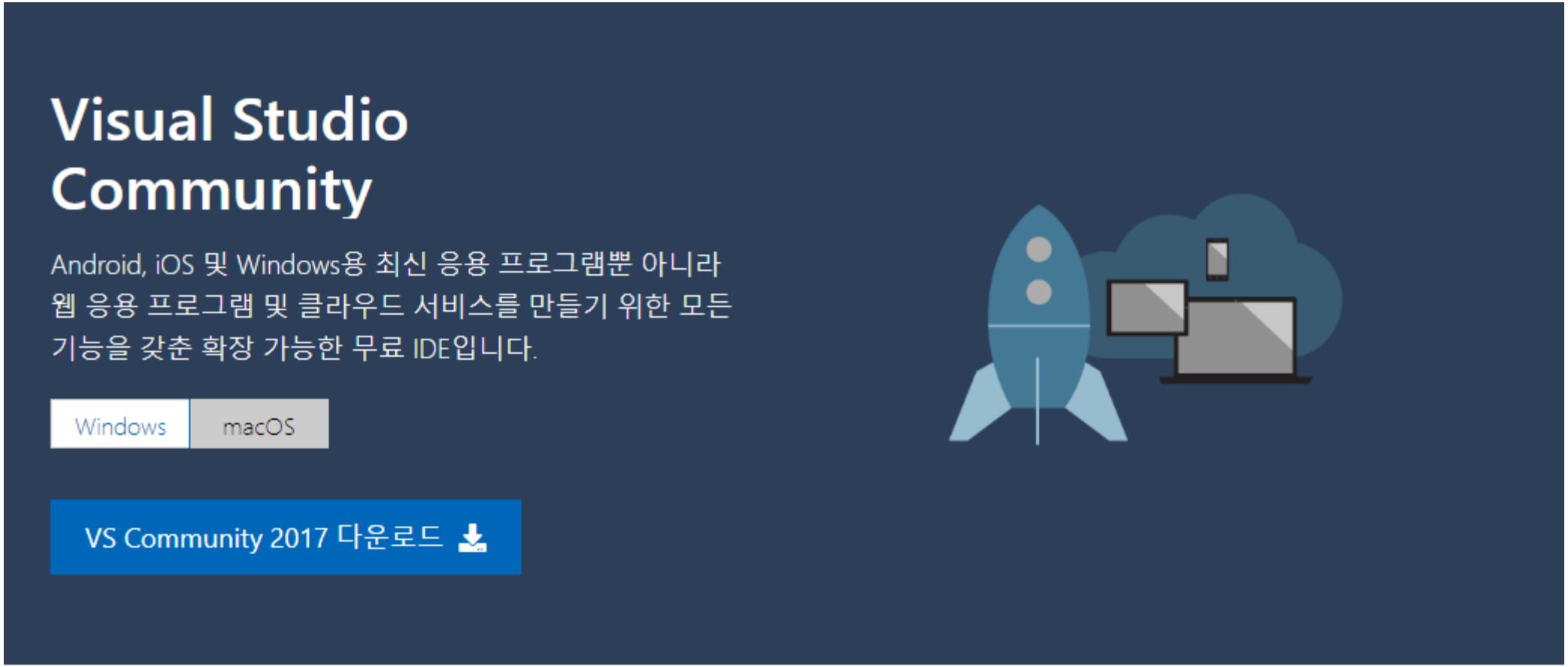
Prerequsite

You need to install five ingredients

1. Visual Studio (or your favorite ide/editor)
2. Cmake
3. Git
4. Github account
5. GitKraken

Installation of Visual Studio

https://visualstudio.microsoft.com/ko/vs/community/



Installation of CMake

https://cmake.org/download/

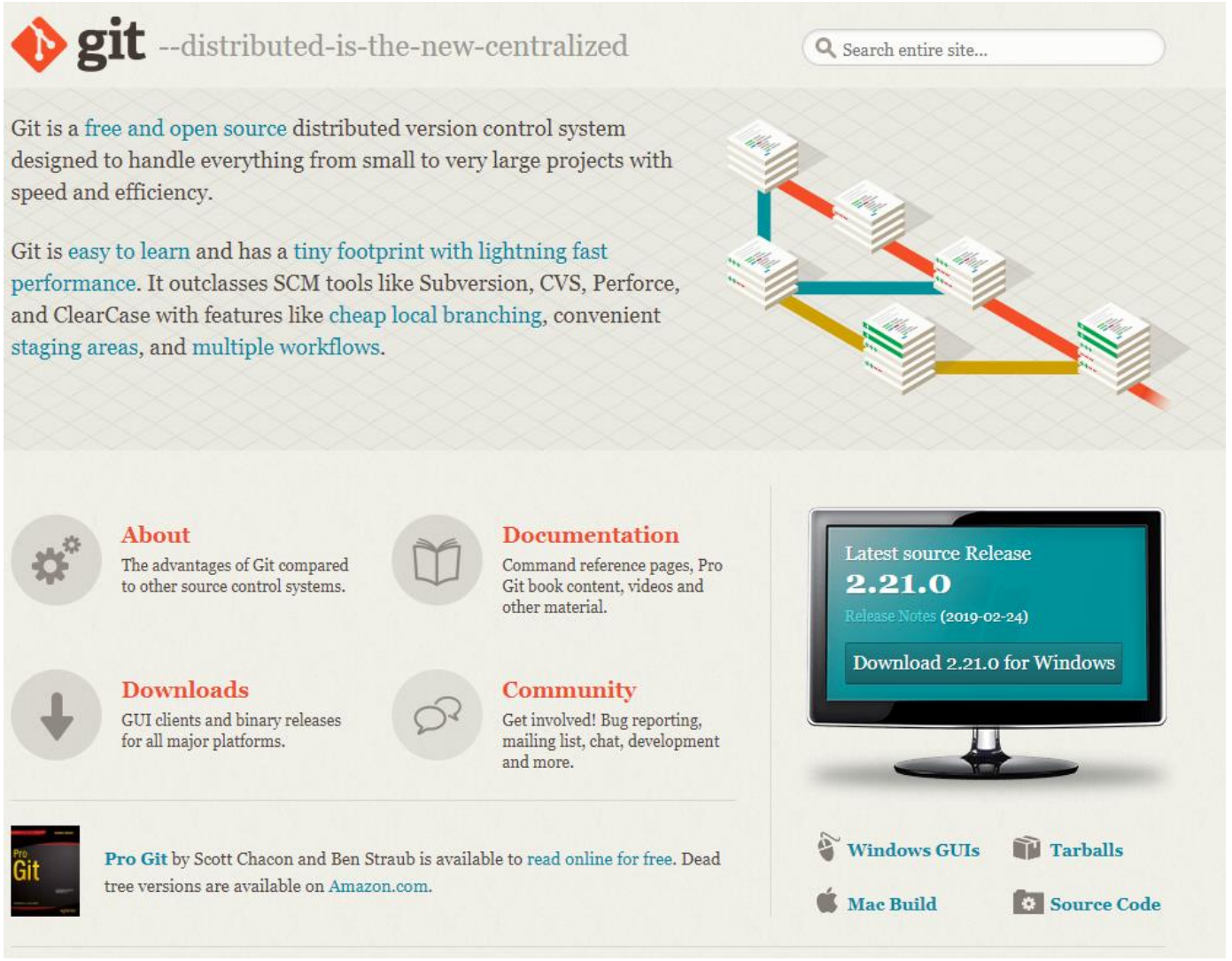
Scripting build process

Binary distributions:

Platform	Files
Windows win64-x64 Installer: **Installer tool has changed. Uninstall CMake 3.4 or lower first!**	cmake-3.14.0-rc3-win64-x64.msi
Windows win64-x64 ZIP	cmake-3.14.0-rc3-win64-x64.zip
Windows win32-x86 Installer: **Installer tool has changed. Uninstall CMake 3.4 or lower first!**	cmake-3.14.0-rc3-win32-x86.msi
Windows win32-x86 ZIP	cmake-3.14.0-rc3-win32-x86.zip
Mac OS X 10.7 or later	cmake-3.14.0-rc3-Darwin-x86_64.dmg
	cmake-3.14.0-rc3-Darwin-x86_64.tar.gz
Linux x86_64	cmake-3.14.0-rc3-Linux-x86_64.sh
	cmake-3.14.0-rc3-Linux-x86_64.tar.gz

Installation of Git

https://git-scm.com/



Installation of GitKraken

https://www.gitkraken.com/

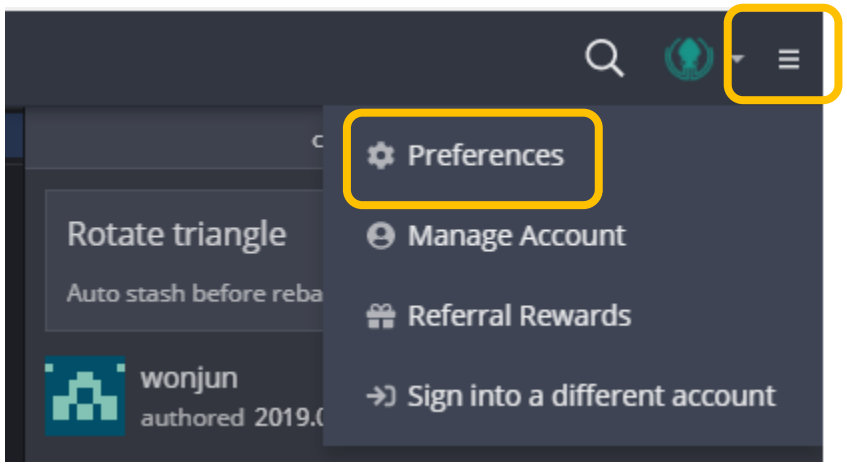
Easy Git GUI client. If you want to use other things, go ahead

Make sure that you connect your github id with git kraken

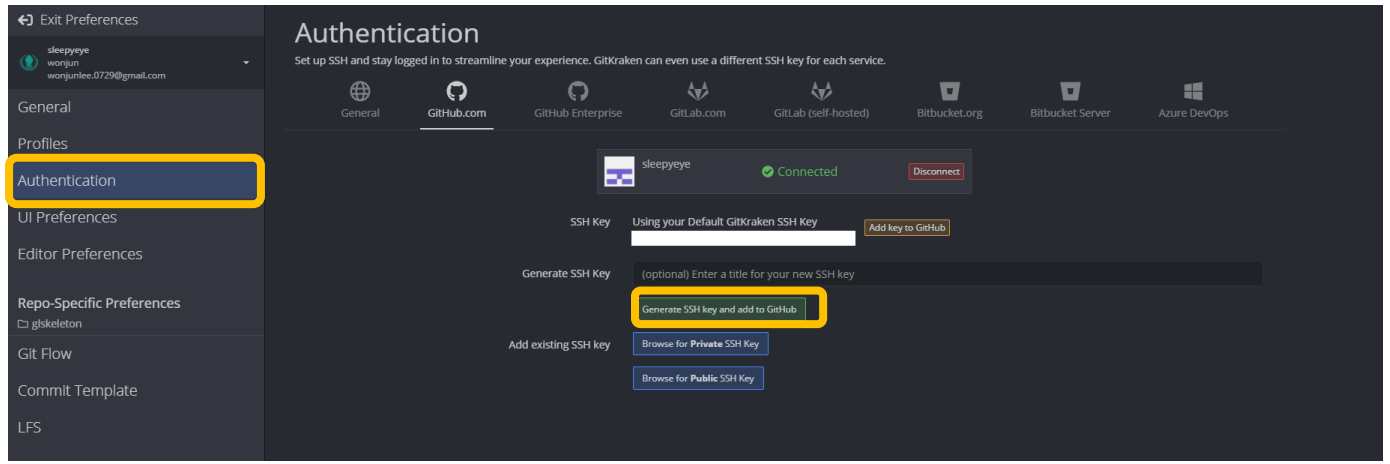
Set SSH for Git Kraken

If you don’t do this, you cannot push your commit.

1. Go to preference
2. Go to authentication
3. Generate SSH key and add to github



Step 1



Step 2

Clone the Skeleton

Clone The Skeleton Project

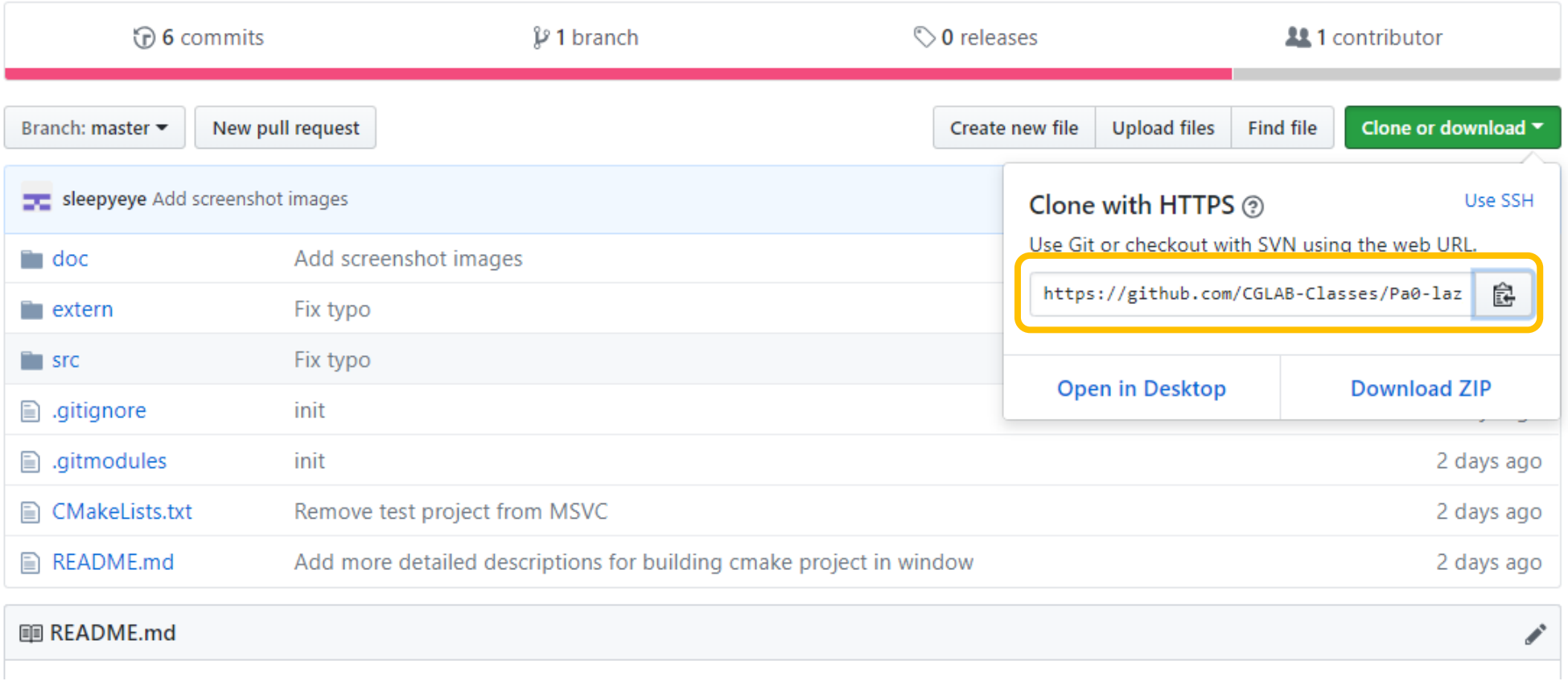
If you have programming background

- Skip this and read README.md in skeleton project
- That is much more simple and easy to follow if you have some experiences

If you DON'T have programming background

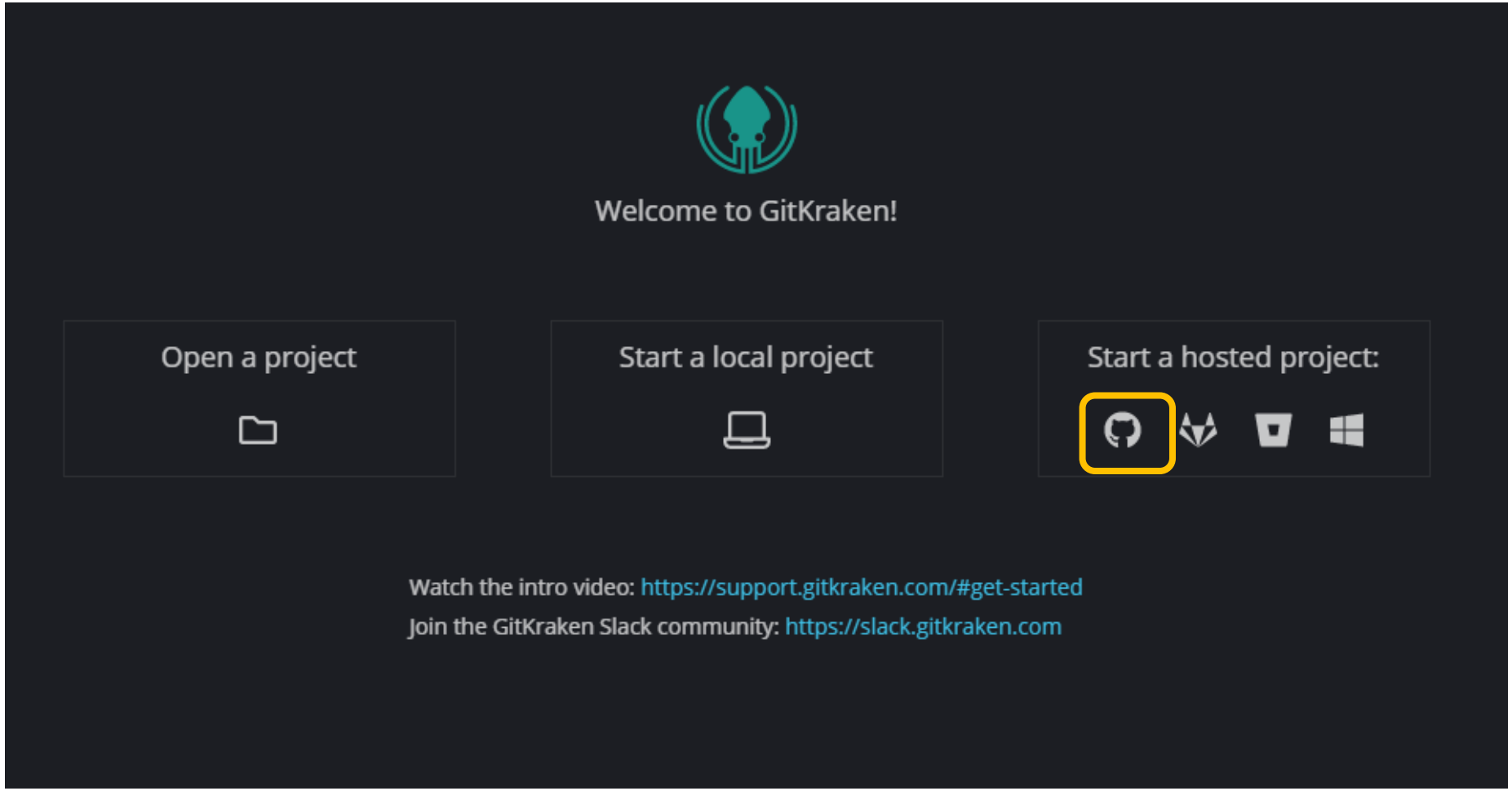
- Follow instructions in following pages
- Instructions assumed that you are using git kraken

Clone The Skeleton - 1



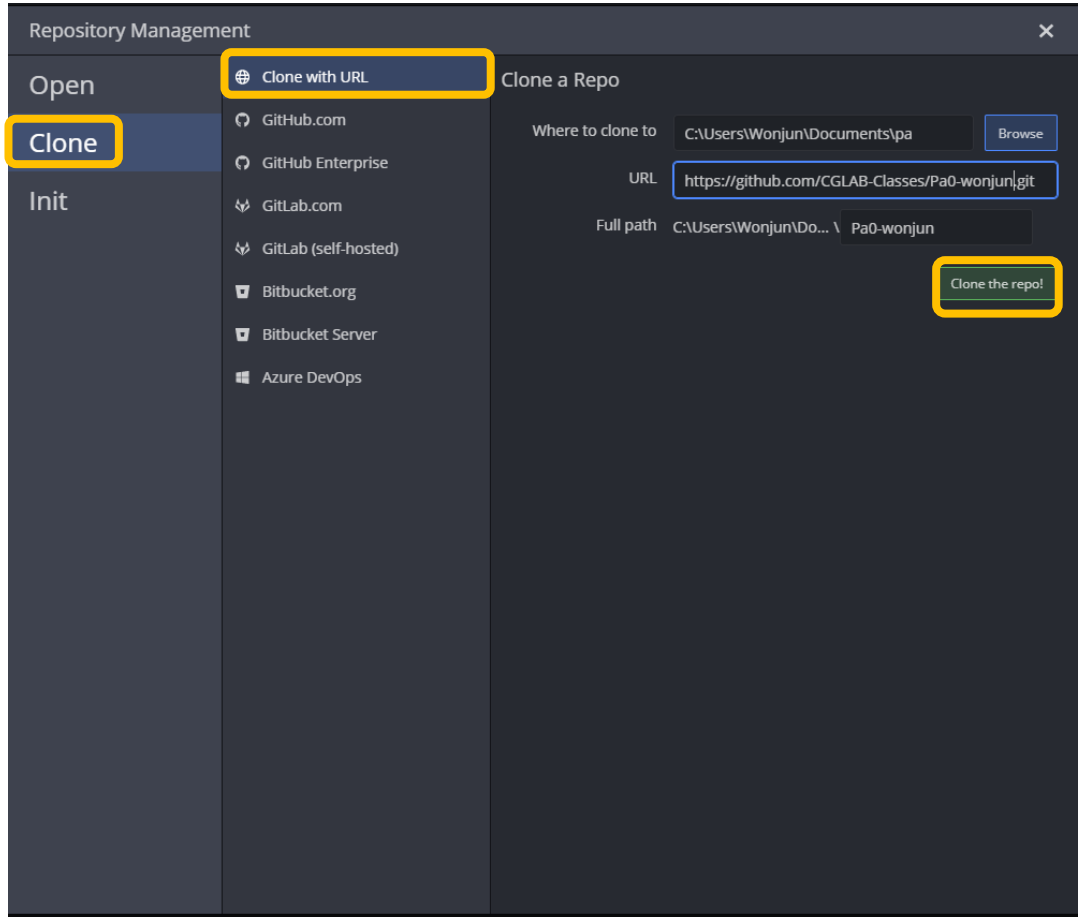
Copy

Clone The Skeleton - 2



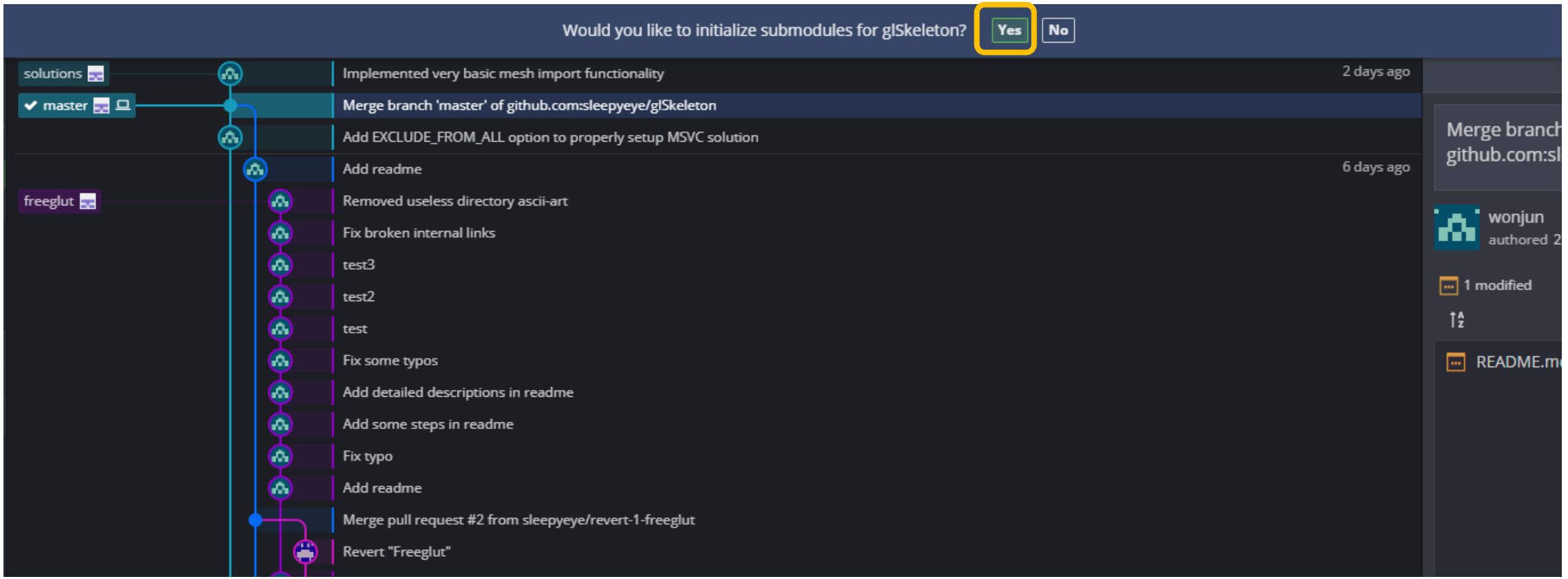
Clone The Skeleton - 3

1. Set your local folder
2. Copy and paste the repo url
3. Clone it!



Clone The Skeleton - 4

Git Kraken will automatically ask that you want to initialize submodules – **CLICK YES**



How to Build

How to Build? – Short Version

For windows user

- https://github.com/CGLAB-Classes/glskeleton#for-windows-user

For linux user

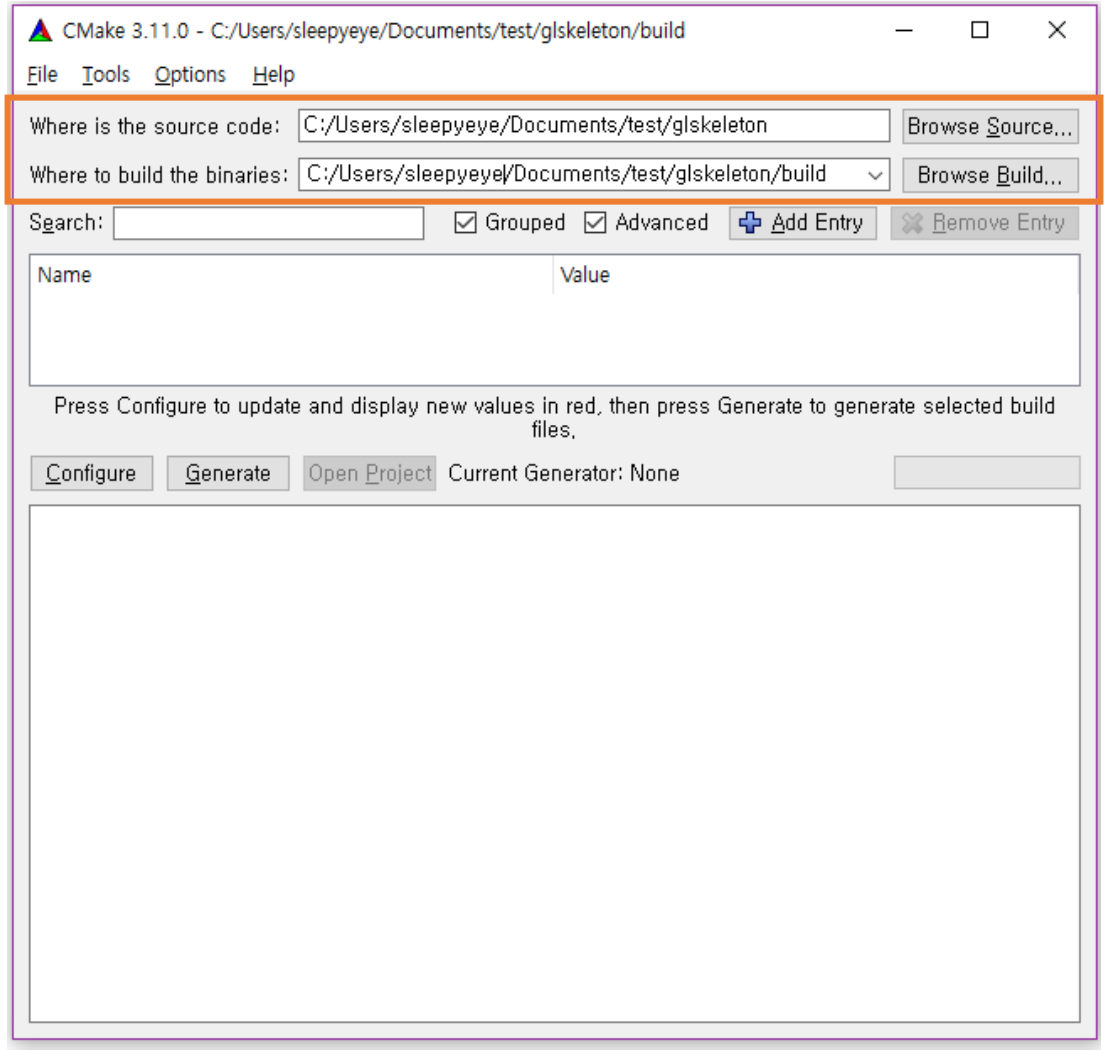
- https://github.com/CGLAB-Classes/glskeleton#for-linux-user

For mac user

- Currently mac is not supported

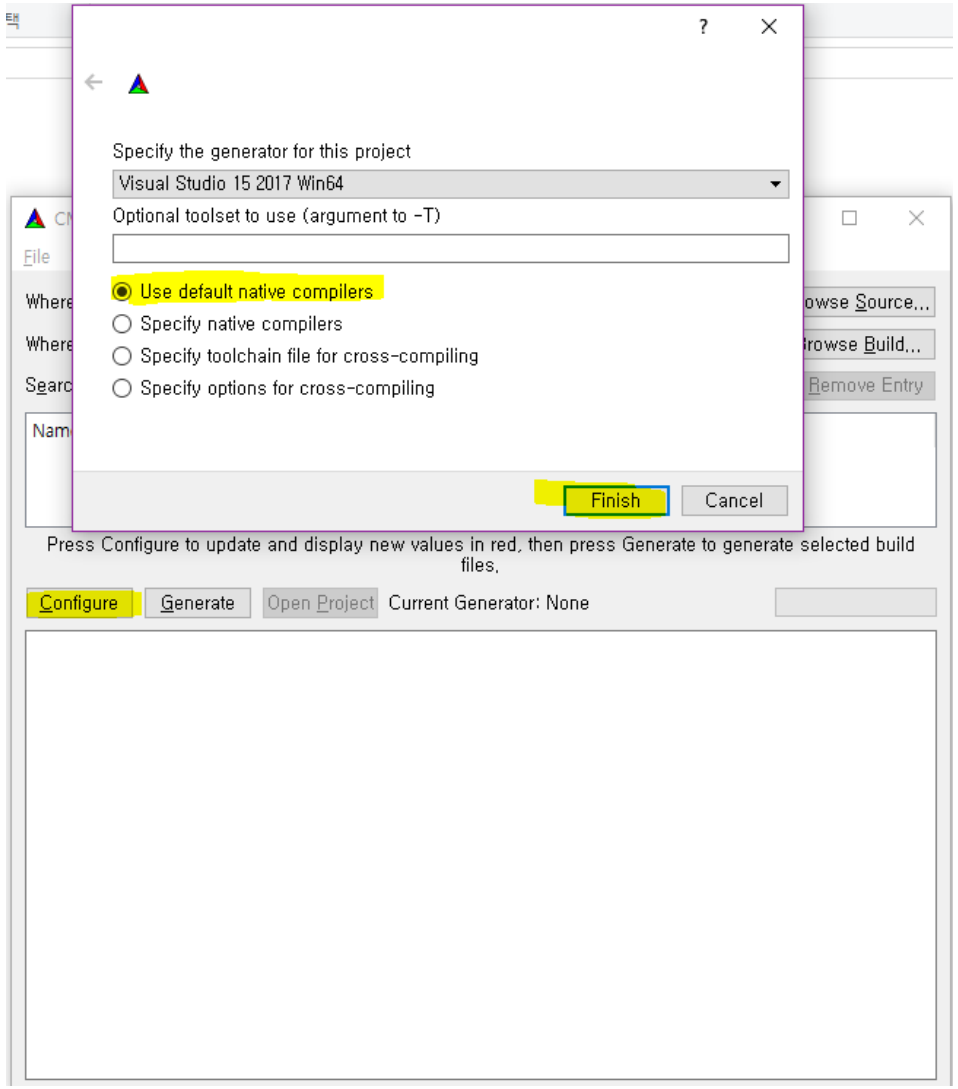
Run CMake

- Run Cmake gui program
- Set source directory (root folder of your cloned repository)
- Set build directory (Create build folder in project root, name should be build!)



Run CMake

Configure the project



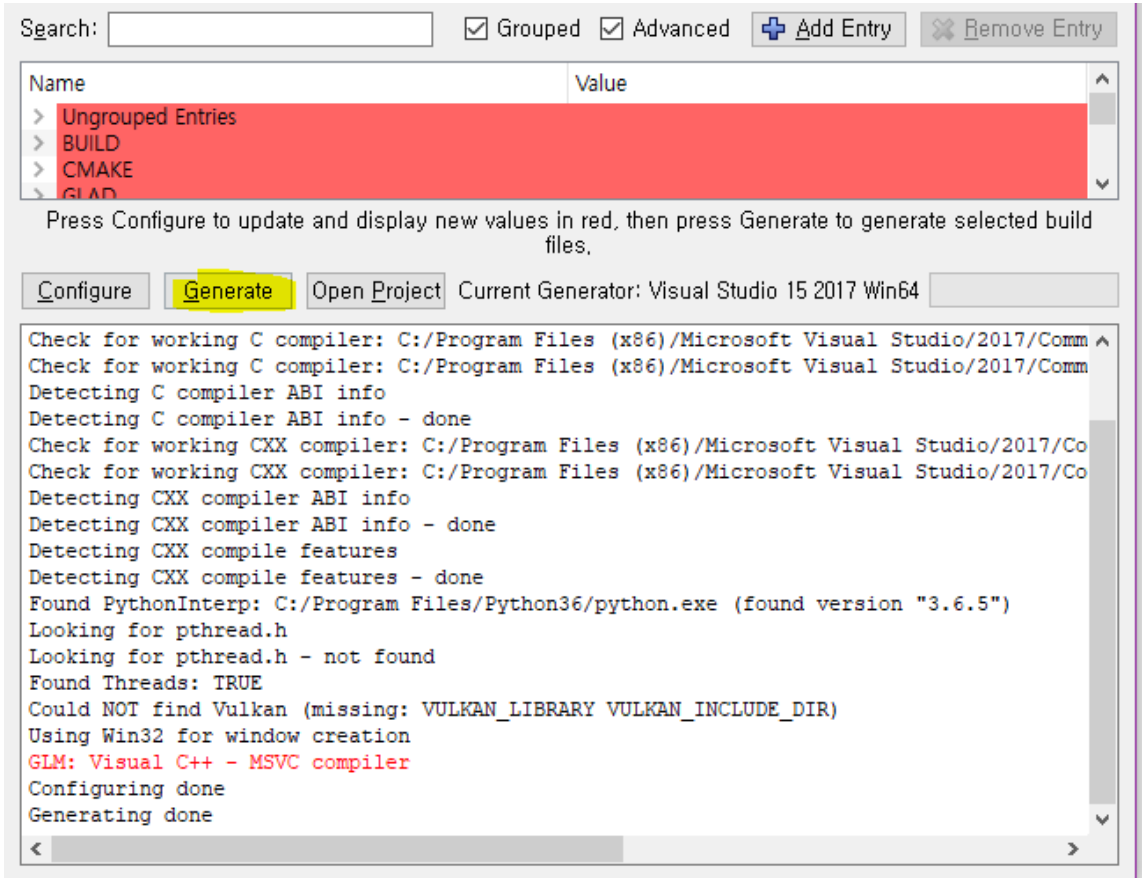
Run CMake

Generate the project.

Click “Open Project”

or

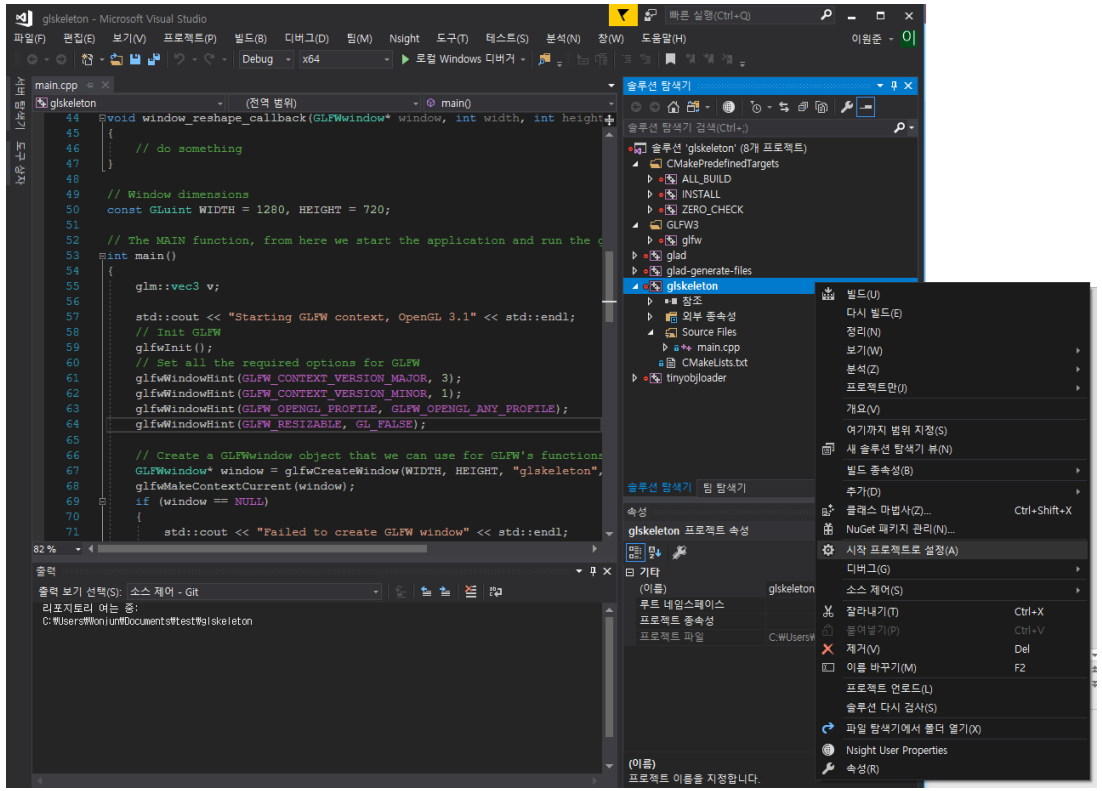
open *glSkeleton.sln* in build directory

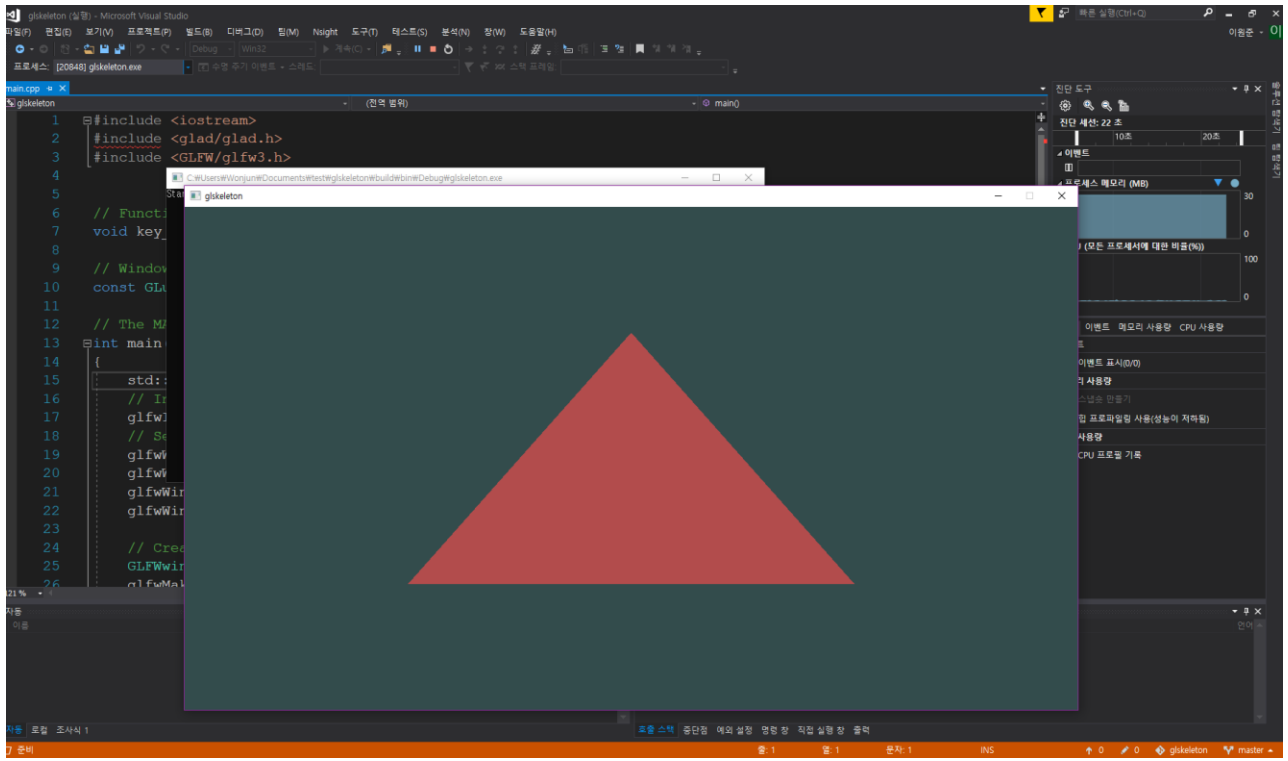


Set Startup Project

Set glskeleton as startup project

After that, hit *F5* then you will see the triangle!





The Directory Structure

```
.
├── build
│   ├── CMakeFiles
│   ├── bin                                  # you can find your executable here
│   ├── extern
│   ├── lib                                  # you can find your static libraries
│   ├── src
│   └── glskeleton.sln                       # your project file
├── extern                                   # external projects
│   ├── CMakeLists.txt                       # DO NOT TOUCH THIS
│   ├── glad
│   ├── glm
│   └── tinyobjloader
├── doc                                      # your report/report template
└── src                                      # your source code
    └── CMakeLists.txt
└── CMakeLists.txt                             # in this file
12 directories
```

Github Classroom

Accepting the Assignment

1. Log in to your GitHub account. (You must log in with your github account)
2. Open the link starting with https://classroom.github.com/a/... that I send it to you.
3. Accept permission required by GitHub Classroom, then click the accept button
4. Now you have base code in your private repo. Use it for PA.

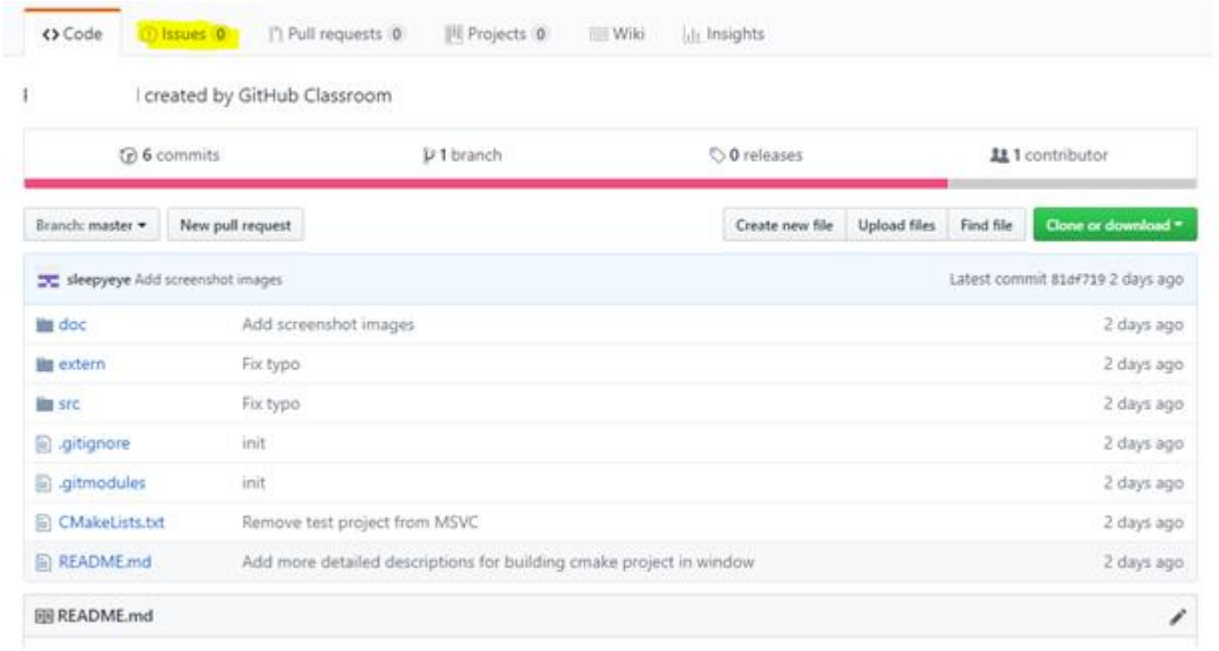
Github Classroom

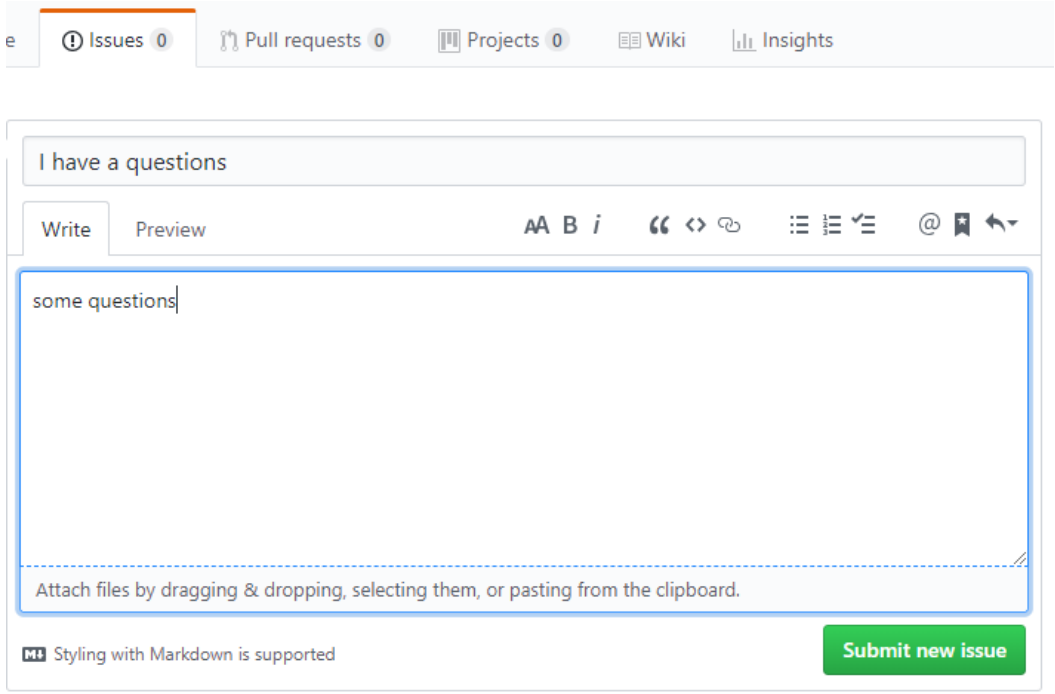
- Email submission will not be accepted.
- The submission deadline will be controlled by github classroom. System **CANNOT** accept your PA after the deadline.
- You should not commit/push binaries or other build related files.
- Every PA you should write small report in markdown.
  - Only your name, student id, result image.
- Do not make your repository public.

Github Classroom

Do you have a question?

- Do not send email related to PA. Use issue tab instead.





DEMO

Useful Material

Git/Markdown

- GitKraken tutorials and tips
  - https://www.youtube.com/playlist?list=PLe6EXFvnTV78WqGmGSq8JPnafR3lAa55n
  - https://www.youtube.com/playlist?list=PLe6EXFvnTV7_8z5gjobbe9sMjEHNw8_GE
  - https://www.youtube.com/playlist?list=PLe6EXFvnTV7-_41SpakZoTlYCgX4aMTdU
- Git/github cheat sheet
  - https://education.github.com/git-cheat-sheet-education.pdf
  - https://services.github.com/on-demand/downloads/github-git-cheat-sheet.pdf
- Github flavored Markdown cheat sheet
  - https://enterprise.github.com/downloads/en/markdown-cheatsheet.pdf

OpenGL and Grpahics

- The Graphics Codex
  - https://graphicscodex.com/
- Scratch pixel
  - https://www.scratchapixel.com/
- GLM (Math library manual)
  - https://github.com/g-truc/glm/blob/master/manual.md
- GLFW API docs
  - https://www.glfw.org/docs/latest/intro_guide.html
- OpenGL reference page
  - https://www.khronos.org/registry/OpenGL-Refpages/gl4/
- Some nice OpenGL tutorials (but most of them are targeting modern opengl, we are going to stick with legacy api)
  - http://www.songho.ca/opengl/
  - https://learnopengl.com/