Lab overview

NYCU Go Programming 2024

2024/09/03

TA's information

SQLAB @ EC547

蘇家弘

axelhowe.cs12@nycu.edu.tw

課程會使用到的連結

Google classroom

https://classroom.google.com/c/NjkxODE1OTkxMzA2?cjc=cvkubpv

Google meet

https://meet.google.com/zcw-mkjo-cqx

Line group

https://line.me/ti/g/6SdreMYoyg

Facebook group

https://www.facebook.com/groups/go.nycu/

Lab 0-1 (GitHub)

0. 建立GitHub帳號

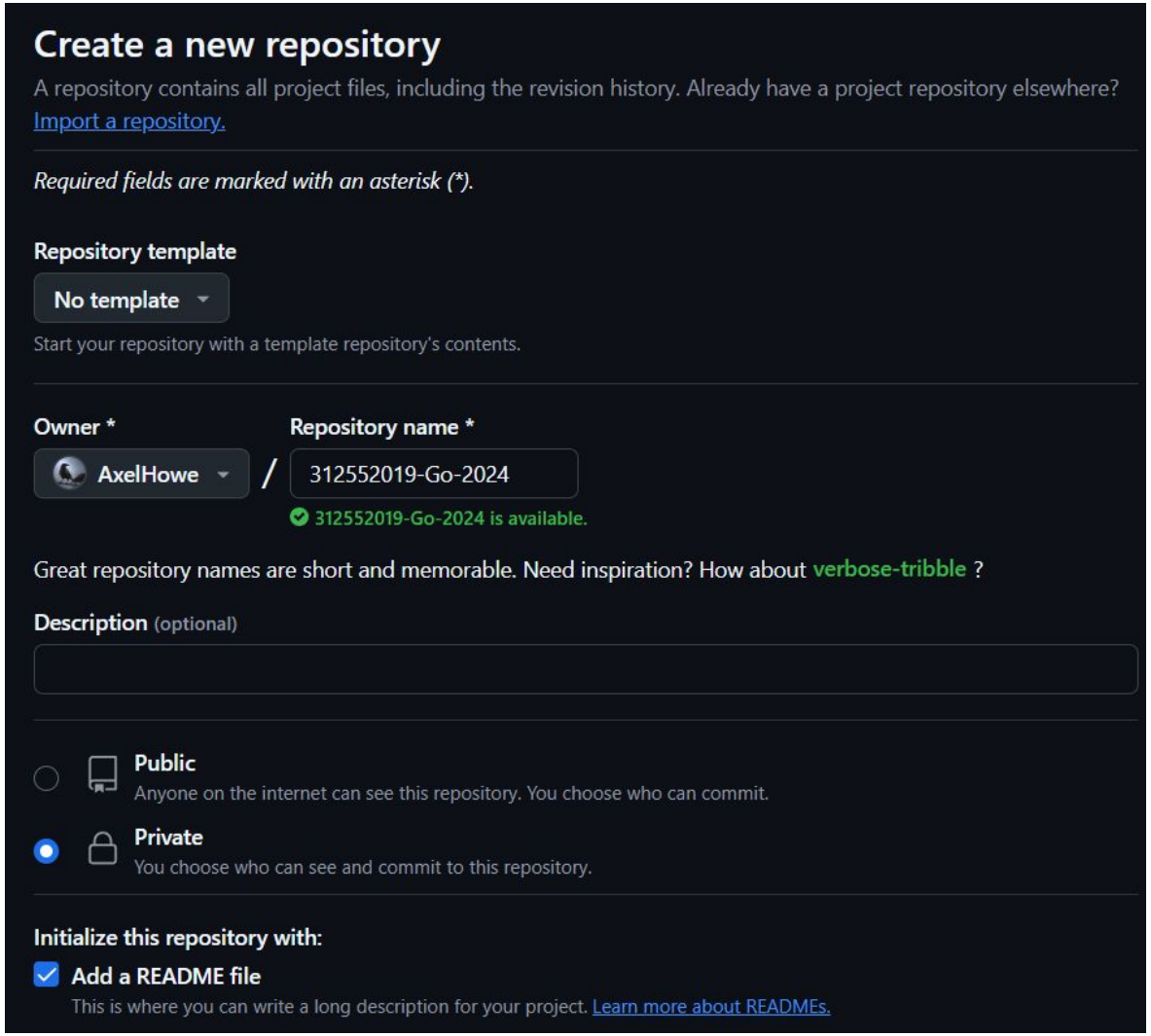
1. 建立一個 private 的 git repository, 名稱為 <student id>-Go-2024

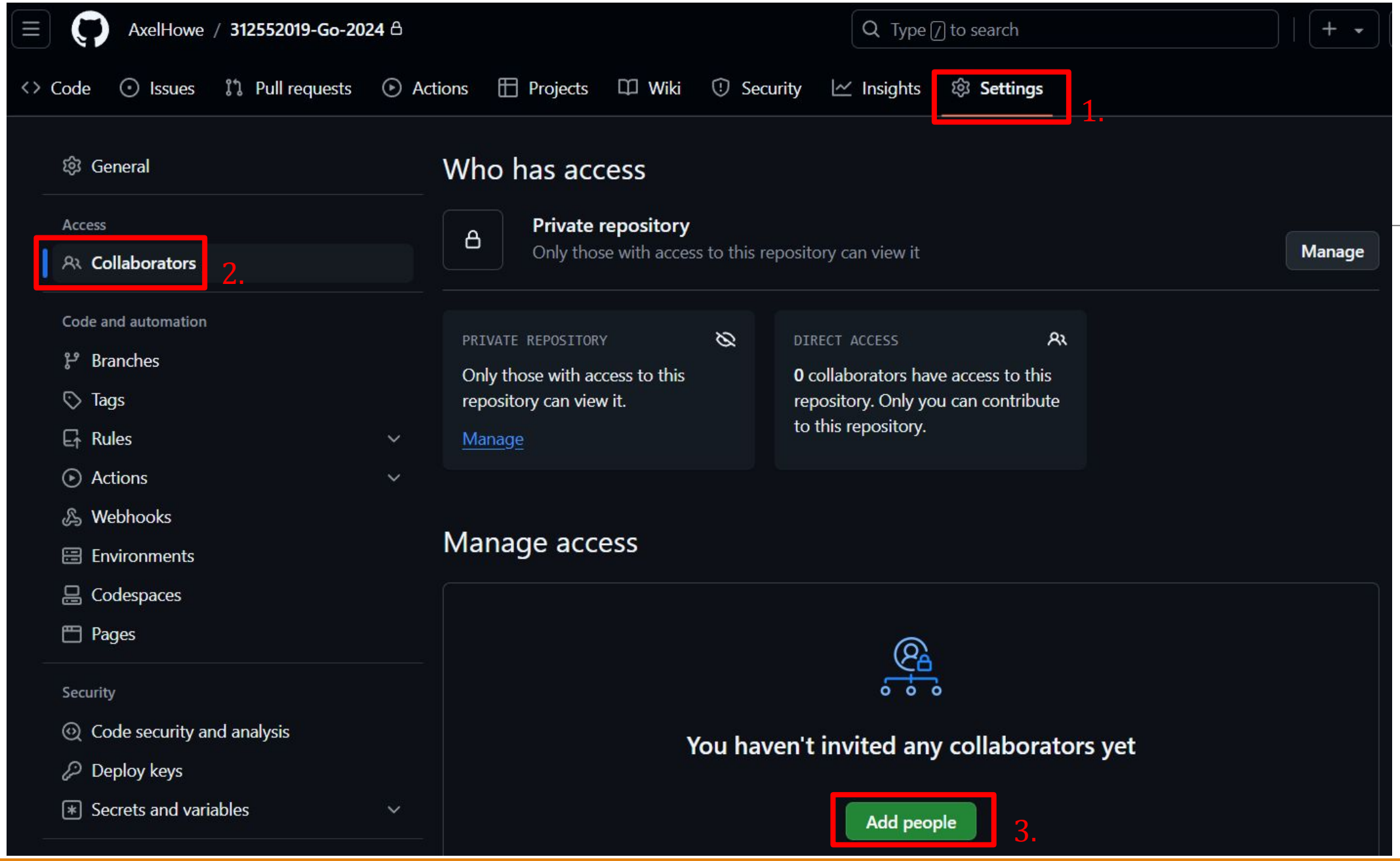
   進入 GitHub > New repository > 輸入 repository name + 選擇 private > Create repository

2. 將助教與老師加為 repository 的 collaborator

   進入Repo > Settings > Collaborators > Add people

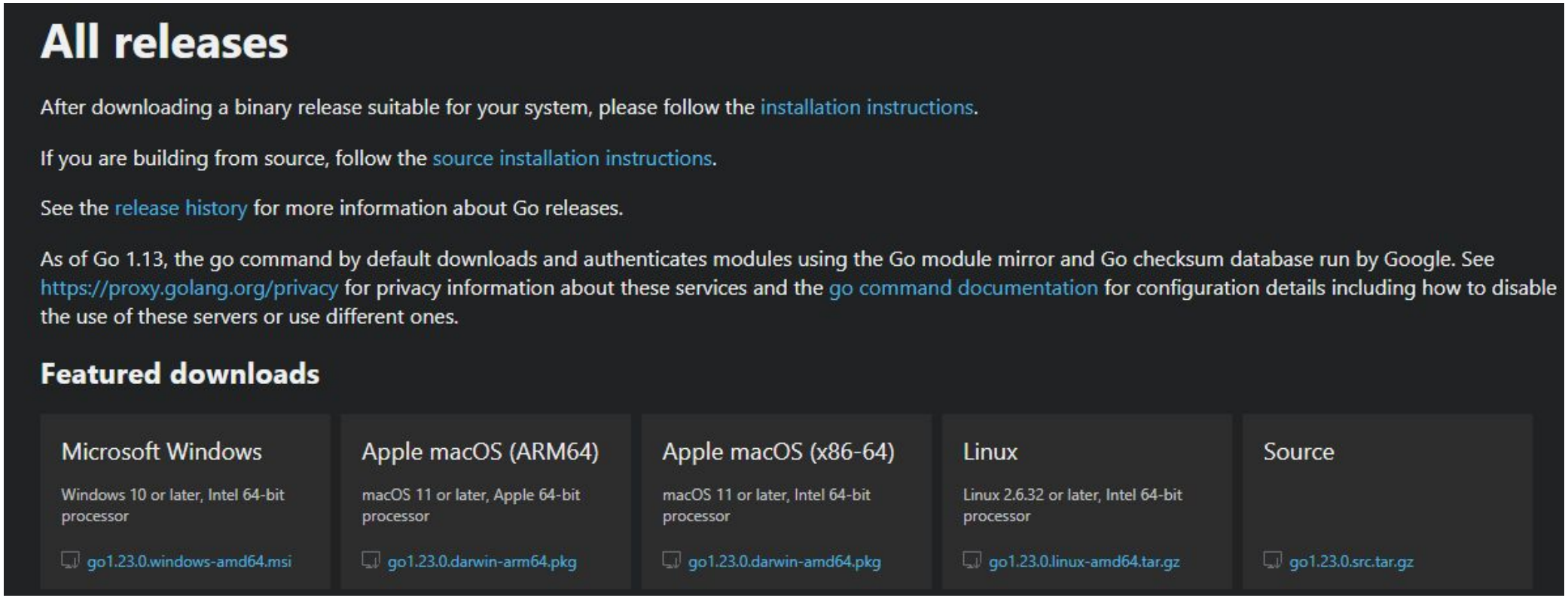
   TA GitHub's ID: **AxelHowe** , **skhuang**


Create a new repository
A repository contains all project files, including the revision history. Already have a project repository elsewhere?
Import a repository.
Required fields are marked with an asterisk (*).
Repository template
No template
Start your repository with a template repository's contents.
Owner *
AxelHowe
/
Repository name *
312552019-Go-2024
312552019-Go-2024 is available.
Great repository names are short and memorable. Need inspiration? How about verbose-tribble ?
Description (optional)
Public
Anyone on the internet can see this repository. You choose who can commit.
Private
You choose who can see and commit to this repository.
Initialize this repository with:
Add a README file
This is where you can write a long description for your project. Learn more about READMEs.


AxelHowe / 312552019-Go-2024
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
1.
General
Access
Collaborators
2.
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security and analysis
Deploy keys
Secrets and variables
Who has access
Private repository
Only those with access to this repository can view it
Manage
PRIVATE REPOSITORY
Only those with access to this repository can view it.
Manage
DIRECT ACCESS
0 collaborators have access to this repository. Only you can contribute to this repository.
Manage access
You haven't invited any collaborators yet
Add people
3.

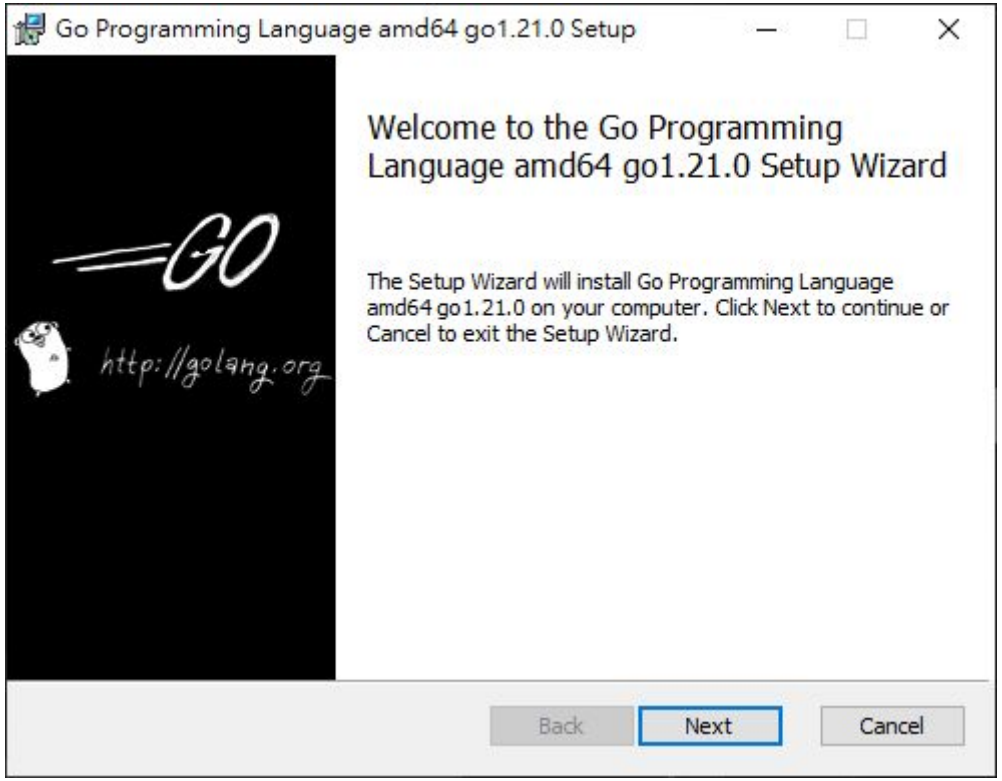
Lab 0-2 (環境安裝)

Go官方下載連結



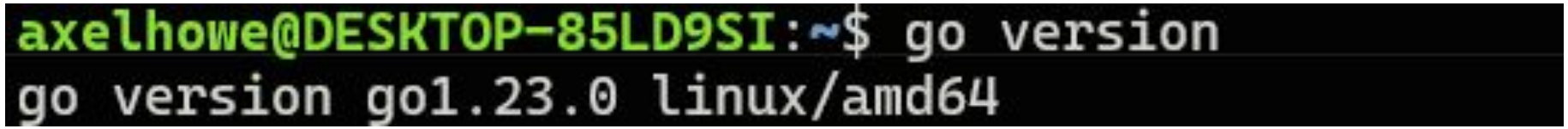
Lab 0-2

在 Windows 安裝, 基本上一直點擊 Next 就好了



Lab 0-2

驗證是否安裝成功 : go version



IDE

VS Code

GoLand

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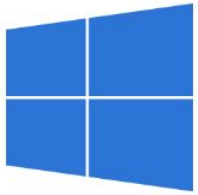
Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.

[VSCode 官方下載連結]



Windows
Windows 10, 11

User Installer	x64	x86	Arm64
System Installer	x64	x86	Arm64
.zip	x64	x86	Arm64
CLI	x64	x86	Arm64

.deb
Debian, Ubuntu

.rpm
Red Hat, Fedora, SUSE

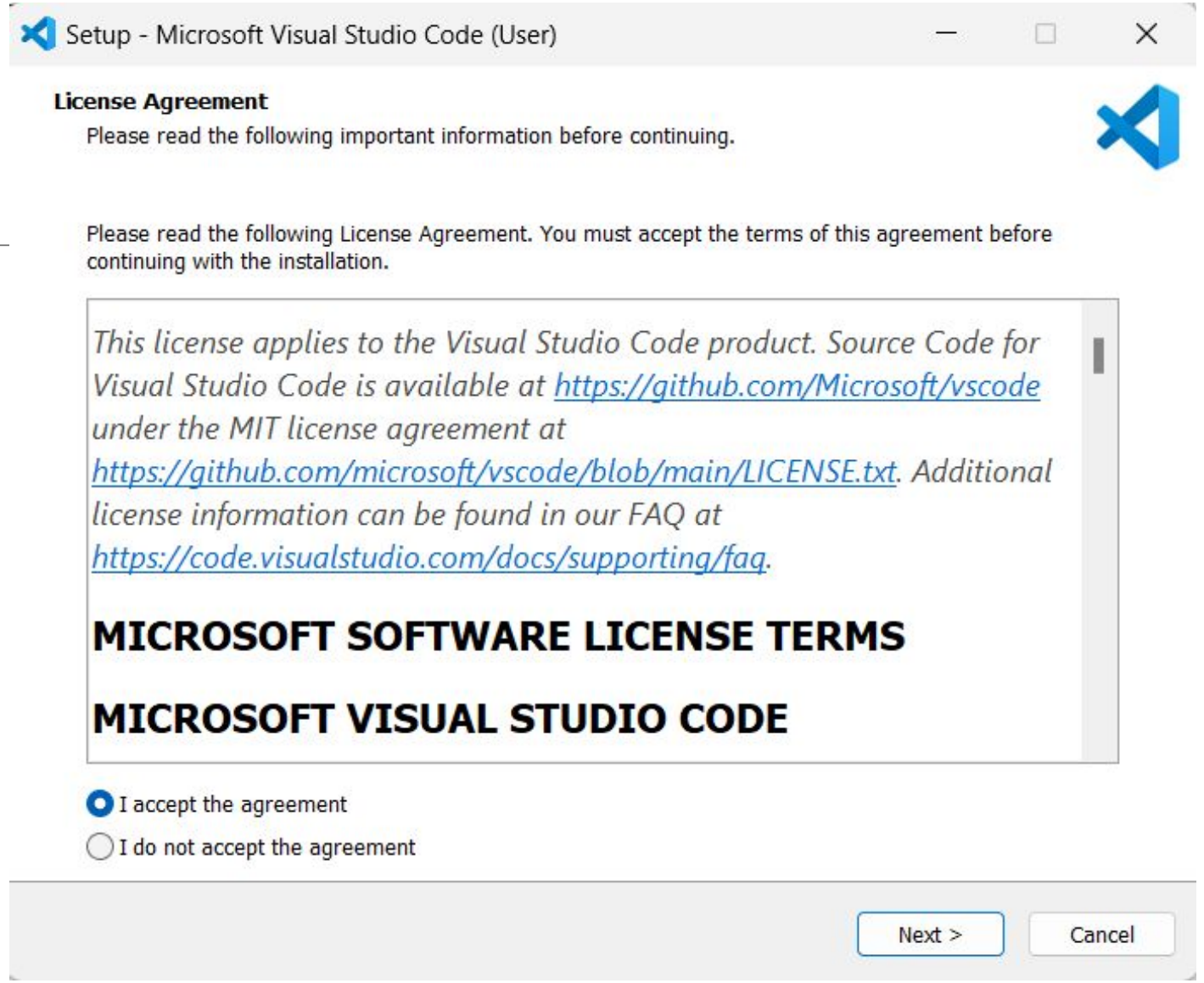
.deb	x64	Arm32	Arm64
.rpm	x64	Arm32	Arm64
.tar.gz	x64	Arm32	Arm64
Snap	Snap Store		
CLI	x64	Arm32	Arm64

Mac
macOS 10.11+

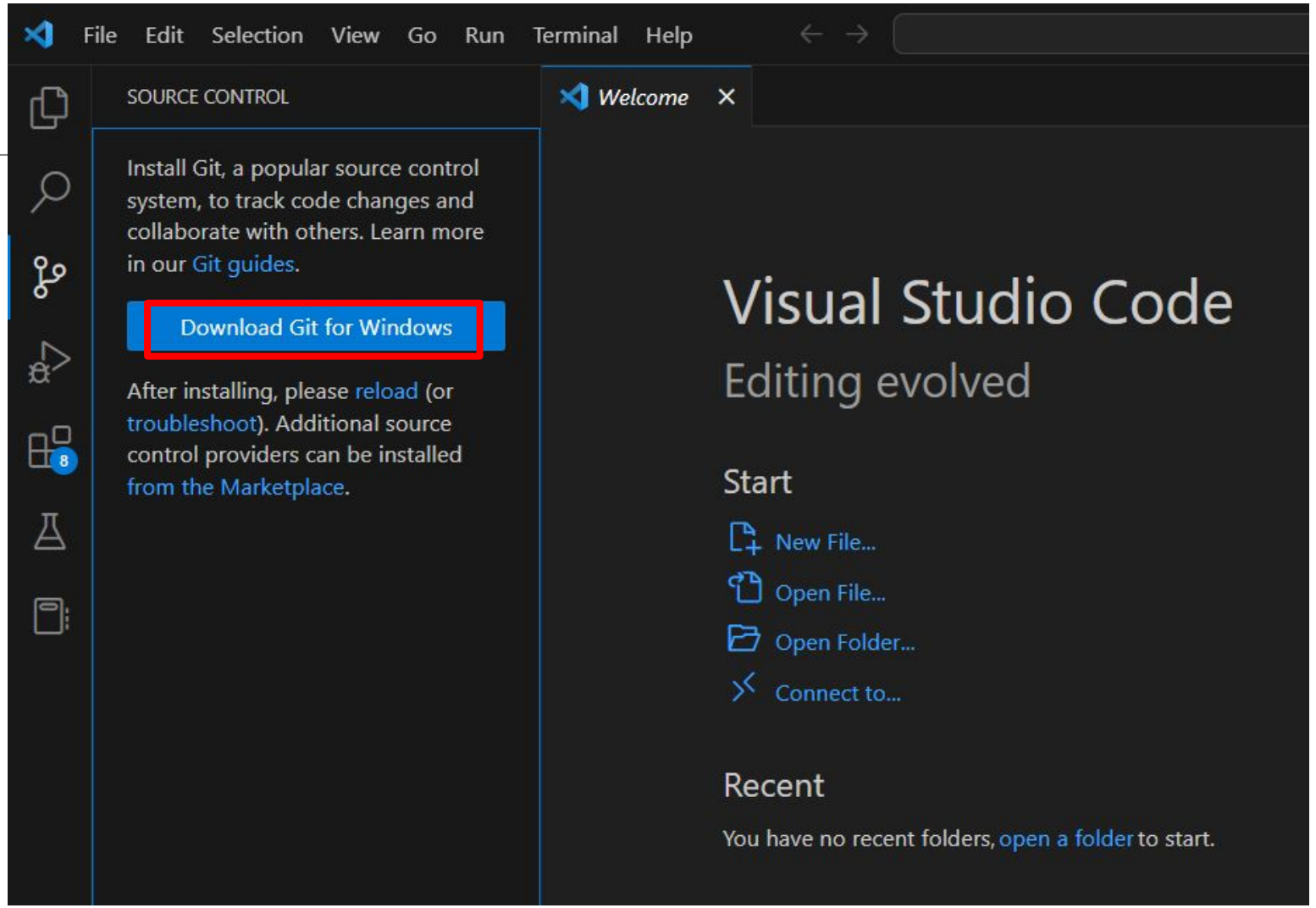
.zip	Intel chip	Apple silicon	Universal
CLI	Intel chip	Apple silicon	

在 Windows 安裝，基本上

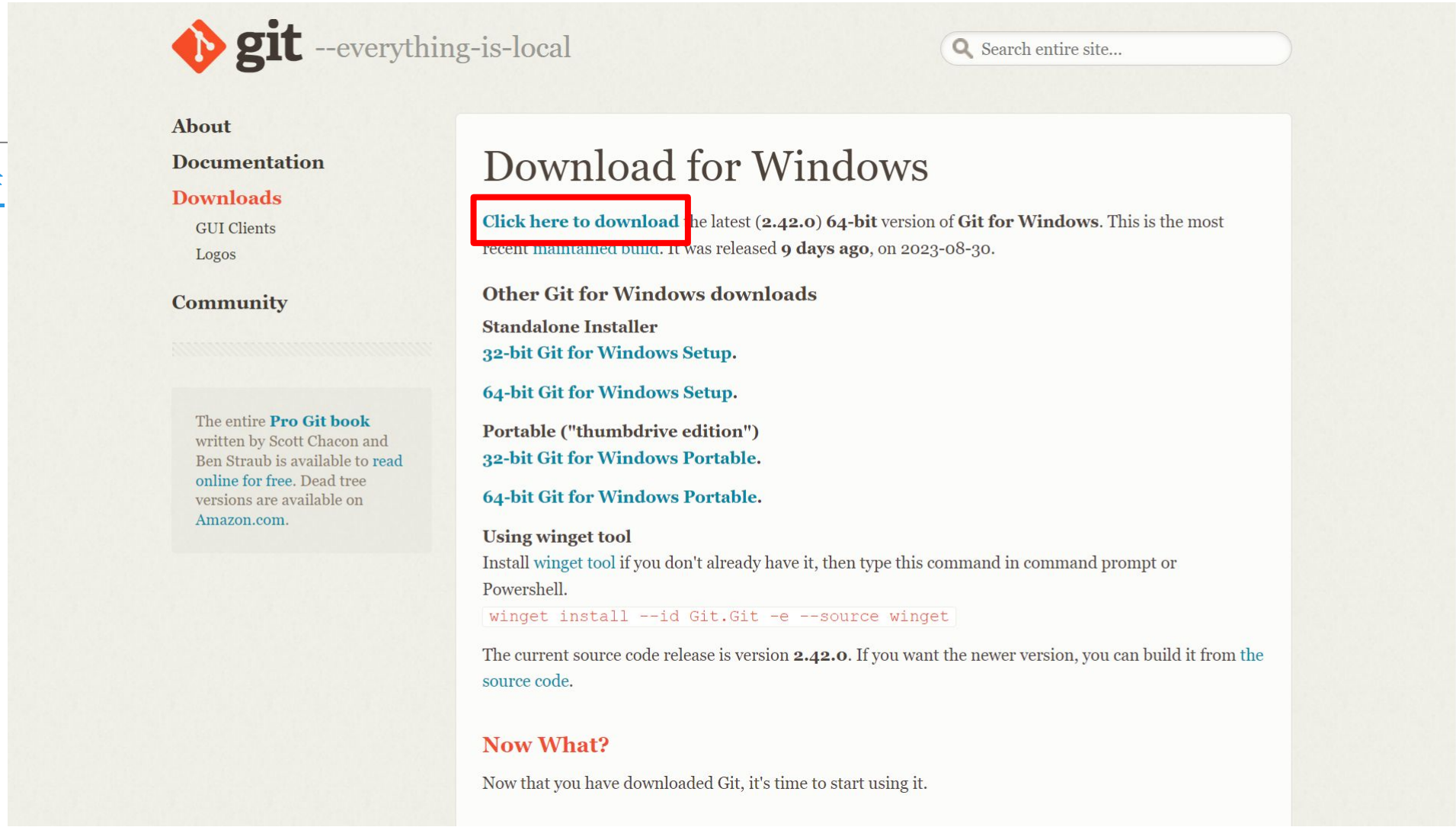
也是一直點擊 Next 就好了



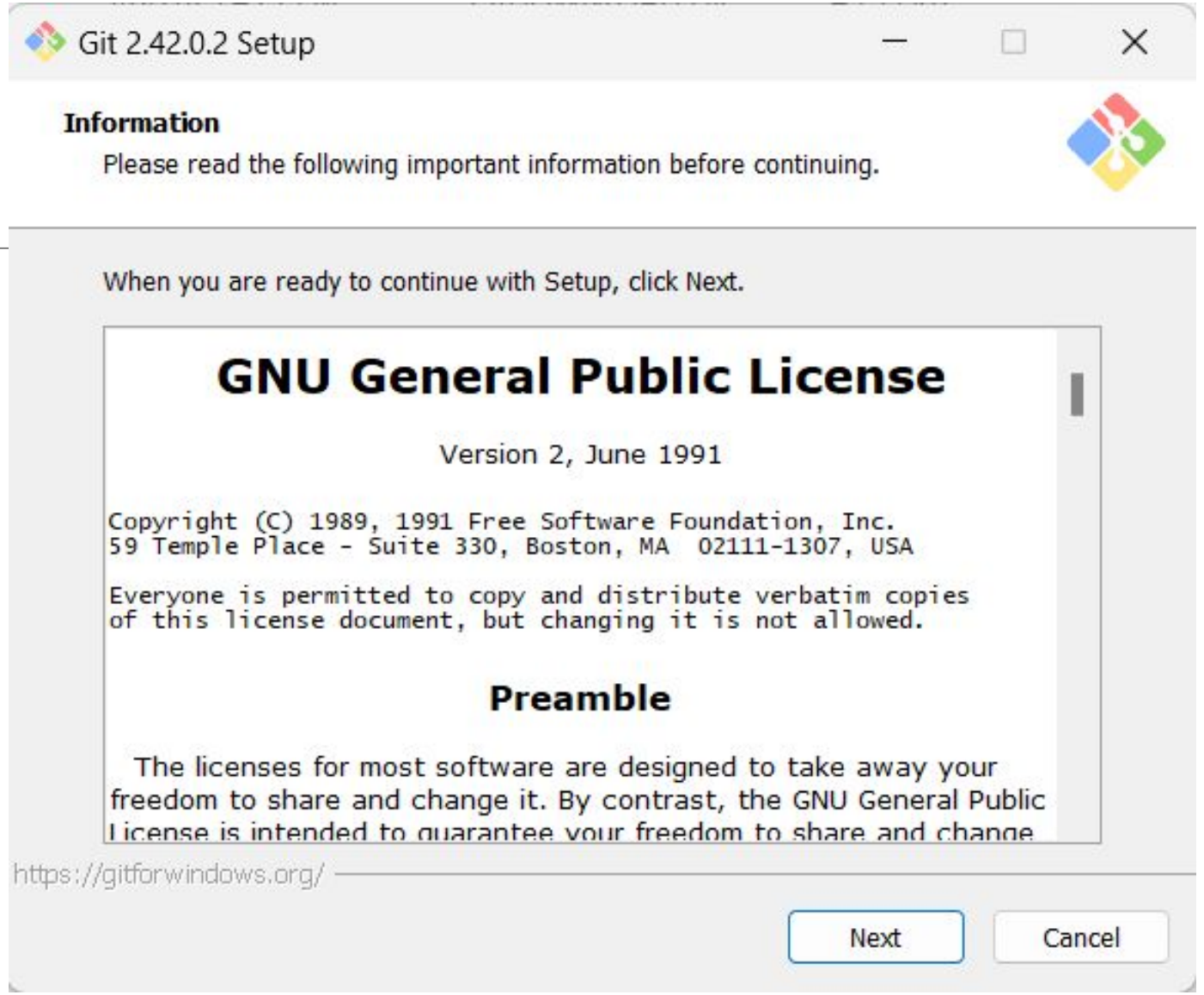
安裝 Git

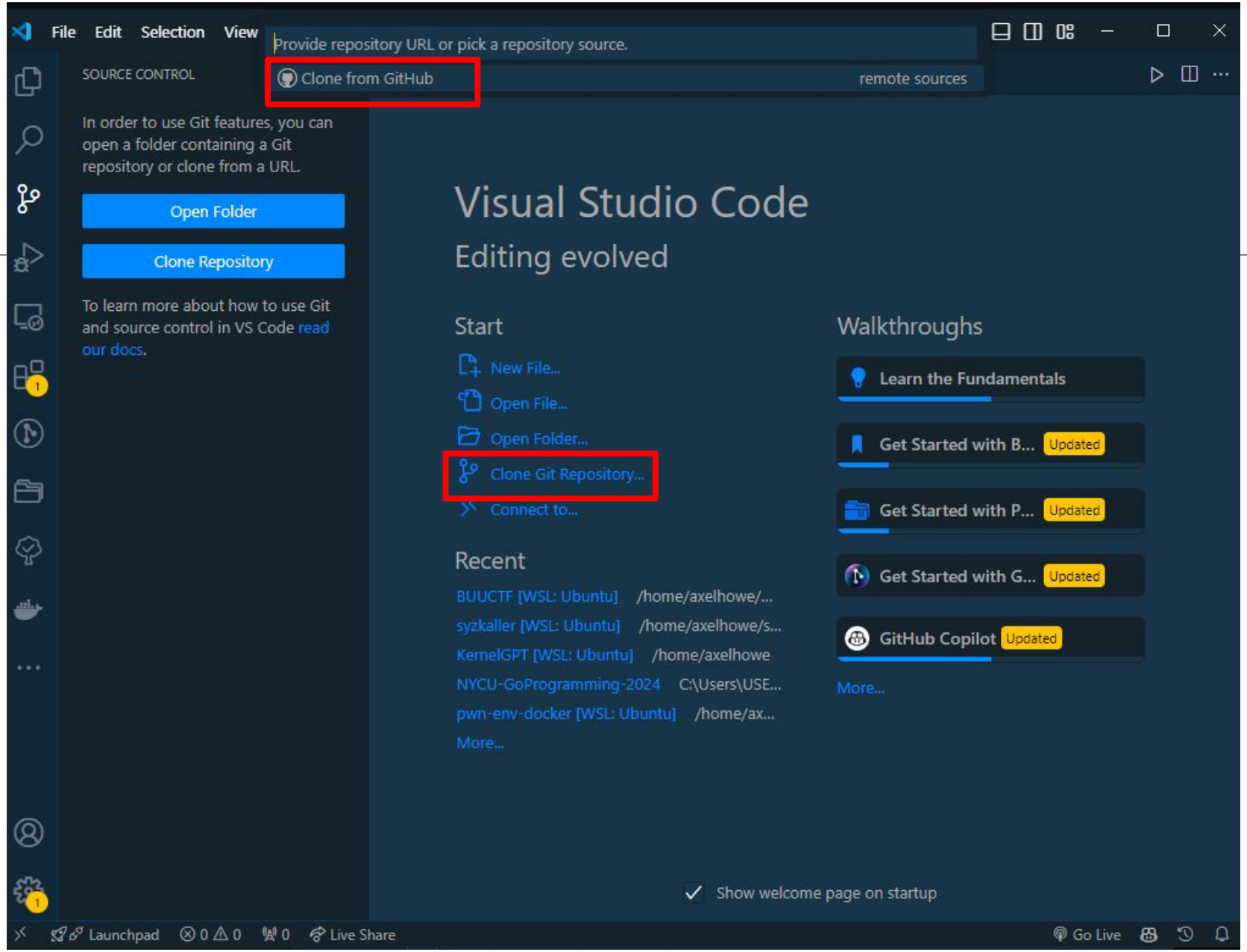

File Edit Selection View Go Run Terminal Help
SOURCE CONTROL
Install Git, a popular source control system, to track code changes and collaborate with others. Learn more in our Git guides.
Download Git for Windows
After installing, please reload (or troubleshoot). Additional source control providers can be installed from the Marketplace.
Welcome
Visual Studio Code
Editing evolved
Start
New File...
Open File...
Open Folder...
Connect to...
Recent
You have no recent folders, open a folder to start.

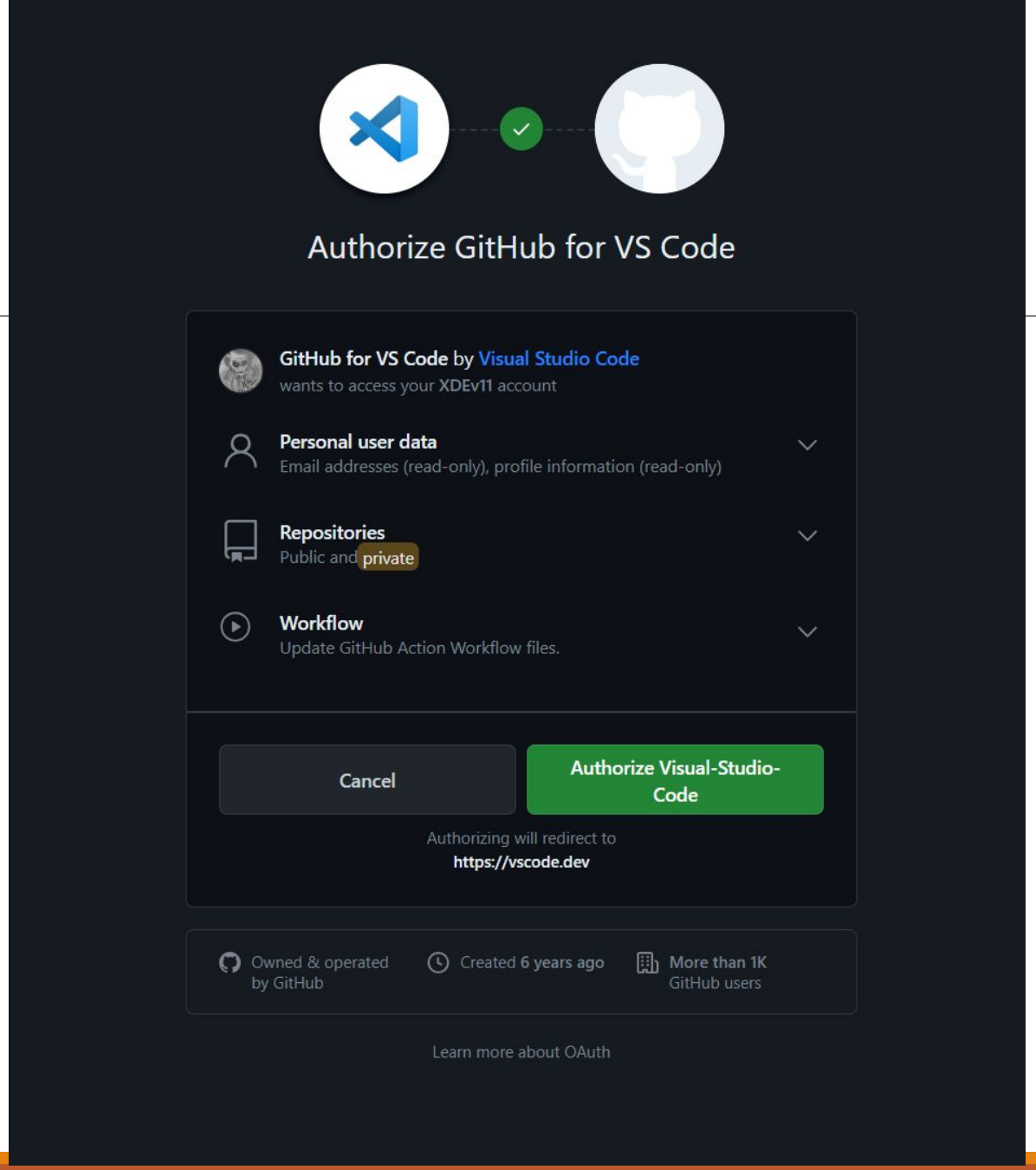
Git官方下載連結

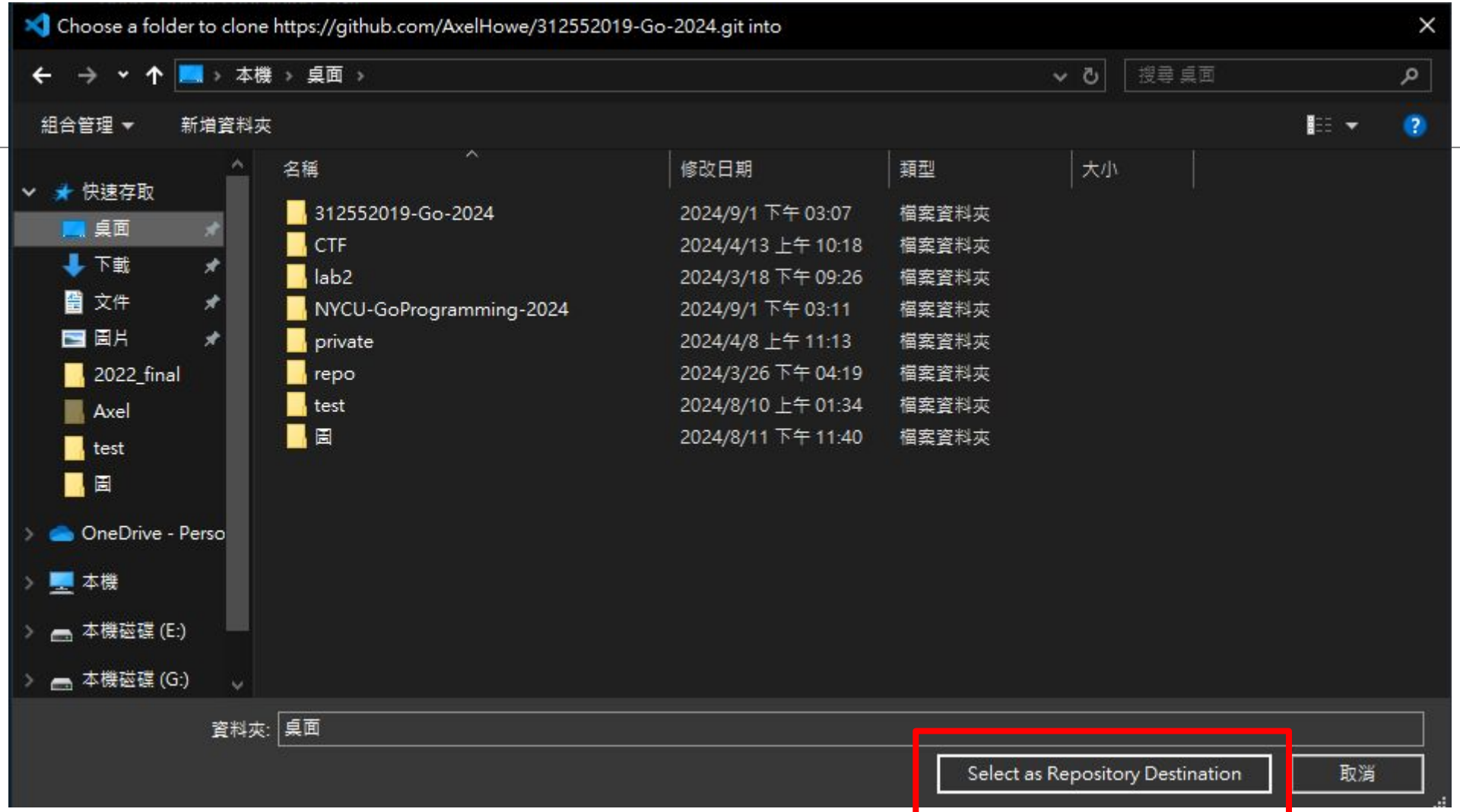

git --everything-is-local
Search entire site...
About
Documentation
Downloads
GUI Clients
Logos
Community
The entire Pro Git book written by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com.
Download for Windows
Click here to download the latest (2.42.0) 64-bit version of Git for Windows. This is the most recent maintained build. It was released 9 days ago, on 2023-08-30.
Other Git for Windows downloads
Standalone Installer
32-bit Git for Windows Setup.
64-bit Git for Windows Setup.
Portable ("thumbdrive edition")
32-bit Git for Windows Portable.
64-bit Git for Windows Portable.
Using winget tool
Install winget tool if you don't already have it, then type this command in command prompt or Powershell.
winget install --id Git.Git -e --source winget
The current source code release is version 2.42.0. If you want the newer version, you can build it from the source code.
Now What?
Now that you have downloaded Git, it's time to start using it.

再一次一直按 Next


Git 2.42.0.2 Setup
Information
Please read the following important information before continuing.
When you are ready to continue with Setup, click Next.
GNU General Public License
Version 2, June 1991
Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place - Suite 330, Boston, MA 02111-1307, USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.
Preamble
The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
License is intended to guarantee your freedom to share and change
https://gitforwindows.org/
Next
Cancel


File
Edit
Selection
View
Provide repository URL or pick a repository source.
SOURCE CONTROL
Clone from GitHub
remote sources
In order to use Git features, you can open a folder containing a Git repository or clone from a URL.
Open Folder
Clone Repository
To learn more about how to use Git and source control in VS Code read our docs.
Visual Studio Code
Editing evolved
Start
New File...
Open File...
Open Folder...
Clone Git Repository...
Connect to...
Recent
BUUCTF [WSL: Ubuntu] /home/axelhowe/...
syzkaller [WSL: Ubuntu] /home/axelhowe/s...
KernelGPT [WSL: Ubuntu] /home/axelhowe
NYCU-GoProgramming-2024 C:\Users\USE...
pwn-env-docker [WSL: Ubuntu] /home/ax...
More...
Walkthroughs
Learn the Fundamentals
Get Started with B... Updated
Get Started with P... Updated
Get Started with G... Updated
GitHub Copilot Updated
More...
Show welcome page on startup
Launchpad
0 0
0
Live Share
Go Live


Authorize GitHub for VS Code
GitHub for VS Code by Visual Studio Code
wants to access your XDEv11 account
Personal user data
Email addresses (read-only), profile information (read-only)
Repositories
Public and private
Workflow
Update GitHub Action Workflow files.
Cancel
Authorize Visual-Studio-Code
Authorizing will redirect to
https://vscode.dev
Owned & operated by GitHub
Created 6 years ago
More than 1K GitHub users
Learn more about OAuth

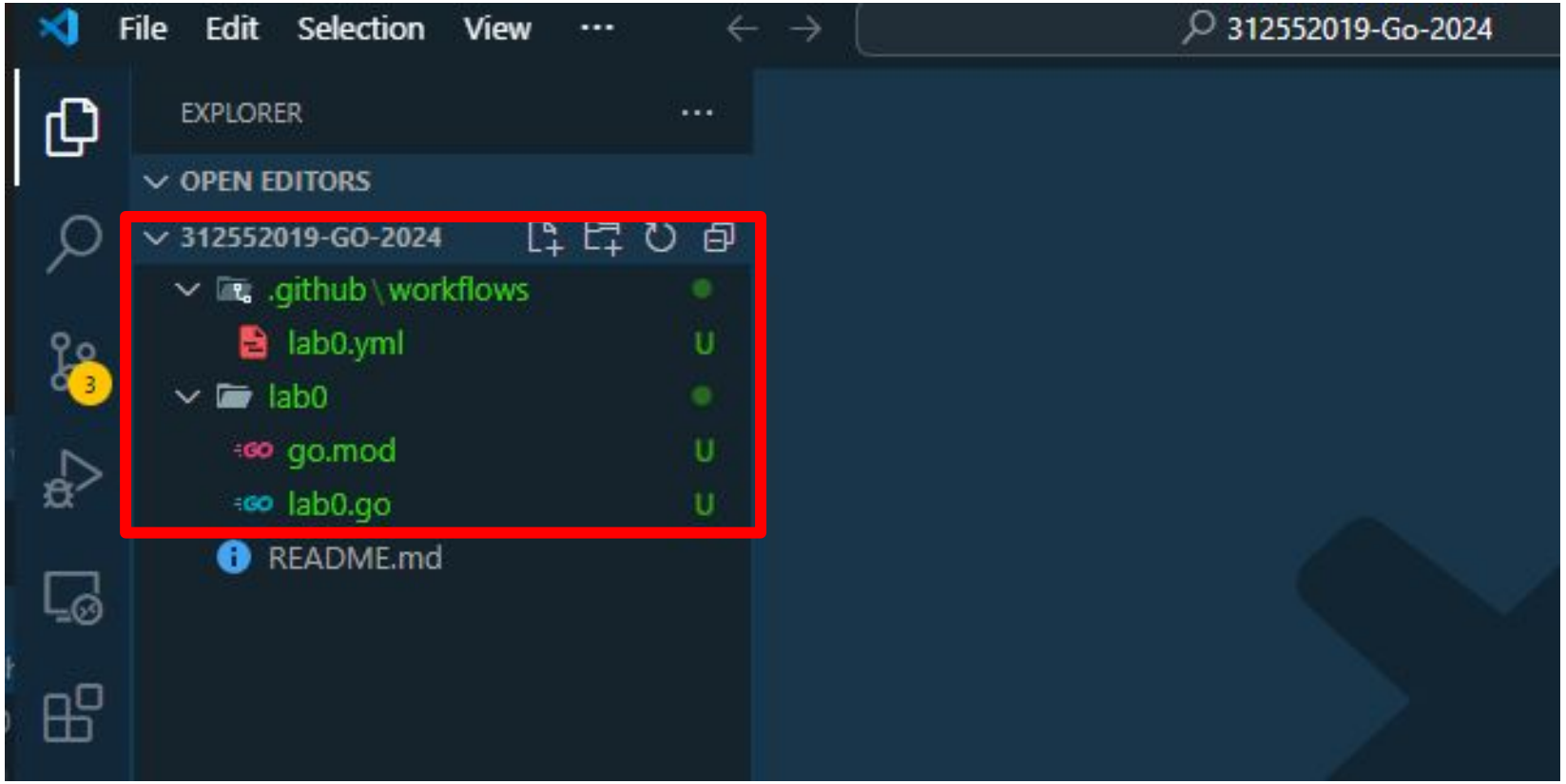

Choose a folder to clone https://github.com/AxelHowe/312552019-Go-2024.git into
本機 › 桌面 ›
搜尋 桌面
組合管理
新增資料夾
快速存取
桌面
下載
文件
圖片
2022_final
Axel
test
固
OneDrive - Perso
本機
本機磁碟 (E:)
本機磁碟 (G:)
名稱
修改日期
類型
大小
312552019-Go-2024 2024/9/1 下午 03:07 檔案資料夾
CTF 2024/4/13 上午 10:18 檔案資料夾
lab2 2024/3/18 下午 09:26 檔案資料夾
NYCU-GoProgramming-2024 2024/9/1 下午 03:11 檔案資料夾
private 2024/4/8 上午 11:13 檔案資料夾
repo 2024/3/26 下午 04:19 檔案資料夾
test 2024/8/10 上午 01:34 檔案資料夾
固 2024/8/11 下午 11:40 檔案資料夾
資料夾: 桌面
Select as Repository Destination
取消

Lab 0-3 (Hello World)

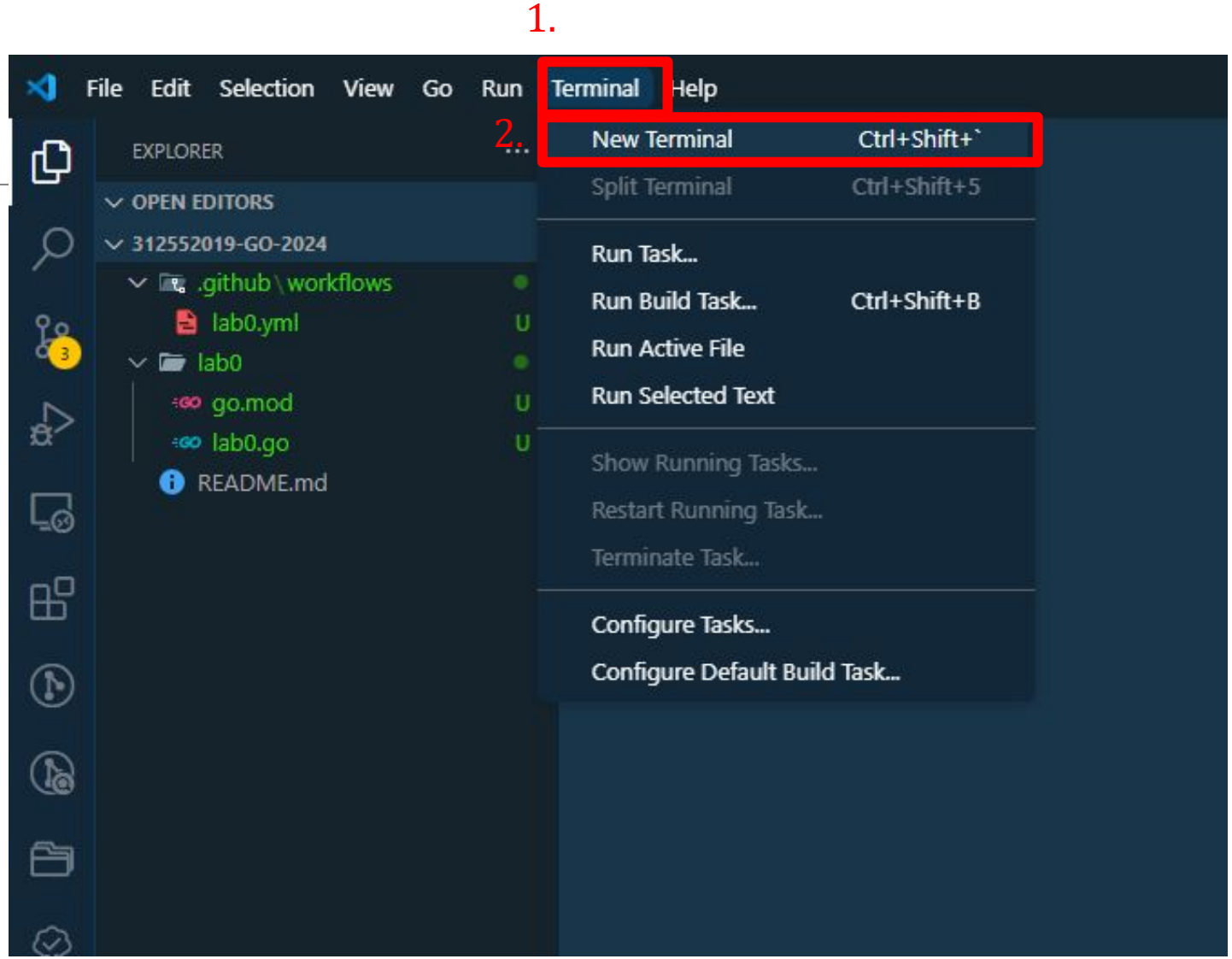
題目網址:

AxelHowe/NYCU-GoProgramming-2024 (github.com)

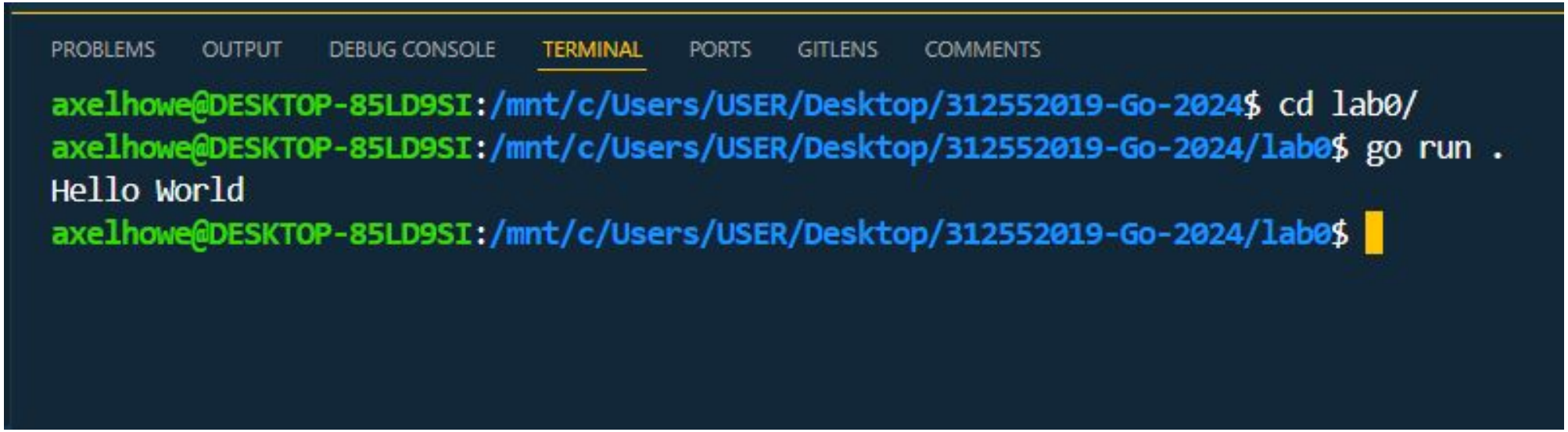
將檔案從題目複製到剛創好的資料夾裡面，資料夾結構如下(與題目一樣)



打開 Terminal


1.
File
Edit
Selection
View
Go
Run
Terminal
Help
2..
EXPLORER
OPEN EDITORS
312552019-GO-2024
.github \ workflows
lab0.yml
U
lab0
go.mod
U
lab0.go
U
README.md
New Terminal
Ctrl+Shift+`
Split Terminal
Ctrl+Shift+5
Run Task...
Run Build Task...
Ctrl+Shift+B
Run Active File
Run Selected Text
Show Running Tasks...
Restart Running Task...
Terminate Task...
Configure Tasks...
Configure Default Build Task...

執行看看, 有沒有顯示 Hello World 呢？

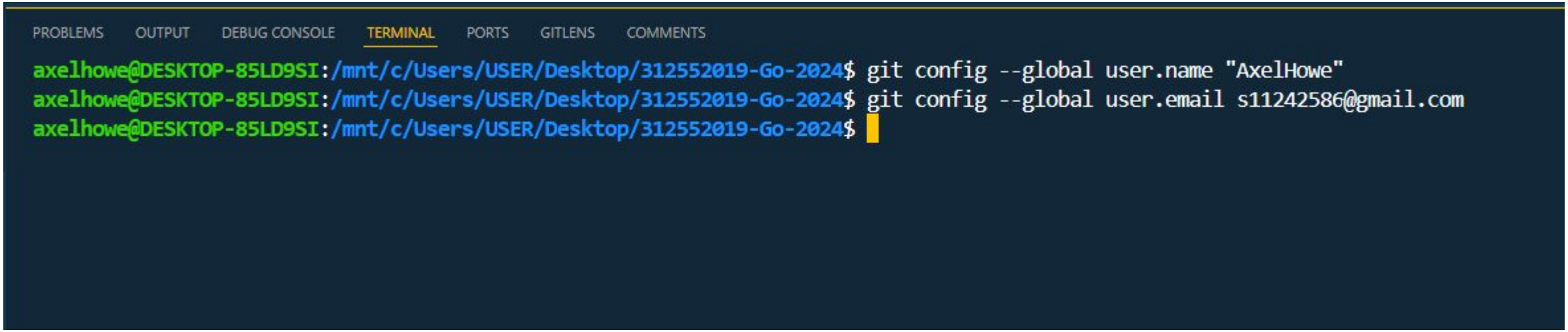


為 Git 設定識別資料, 你在每台電腦上只需設定一次

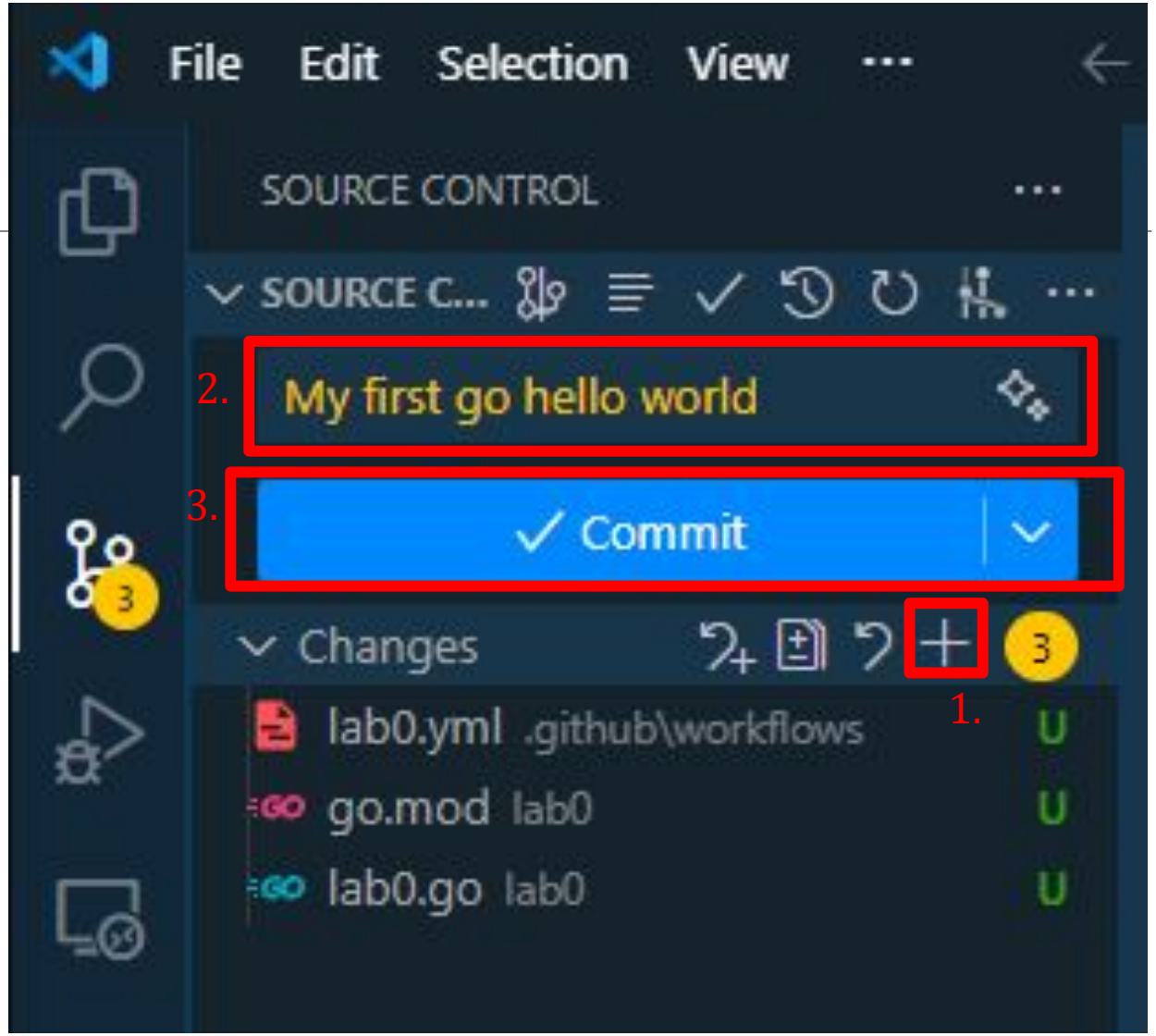
替換成自己的 username 跟 email

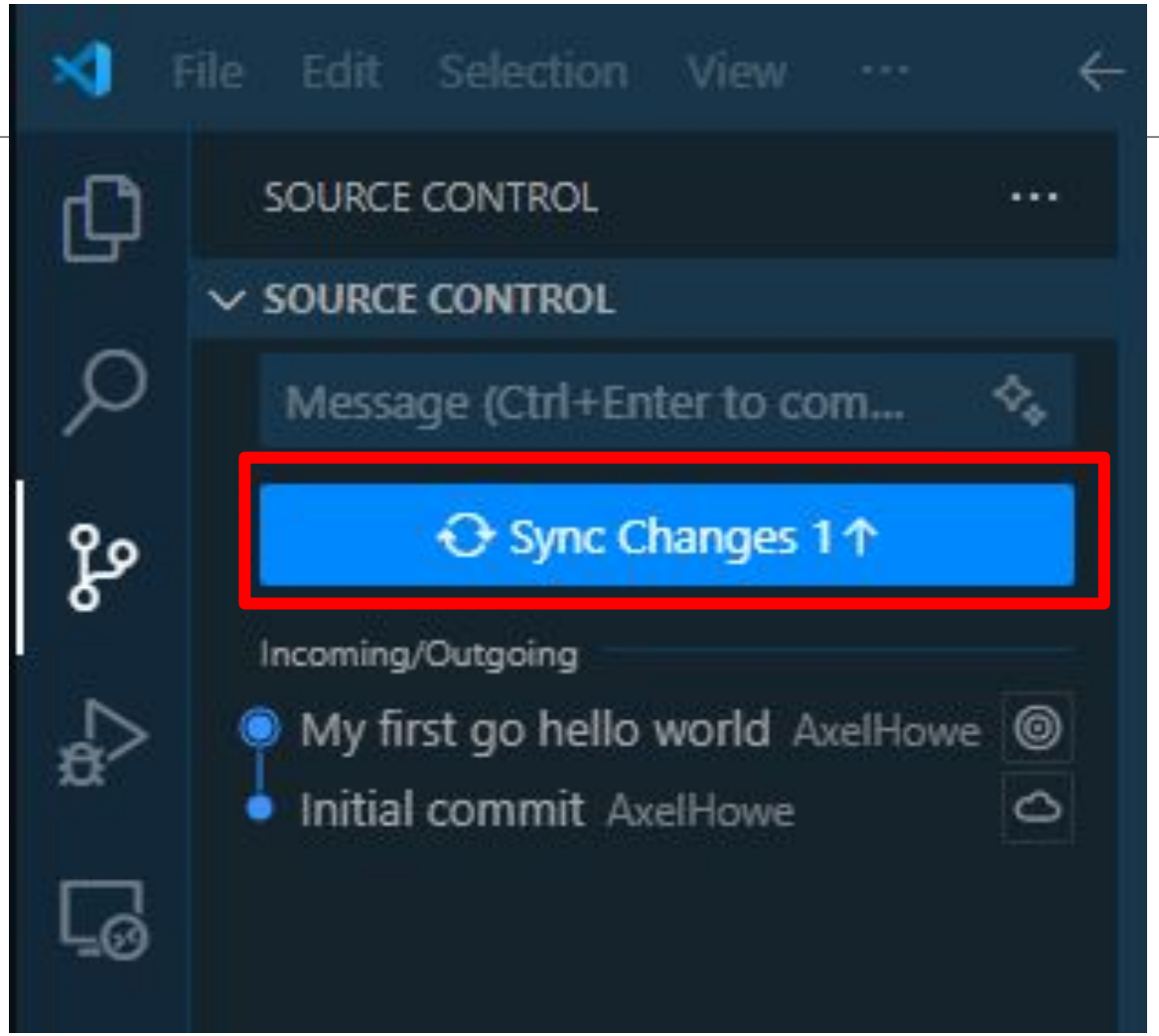
Reference : Git - 初次設定 Git (git-scm.com)

```
$ git config --global user.name "John Doe"
$ git config --global user.email johndoe@example.com
```

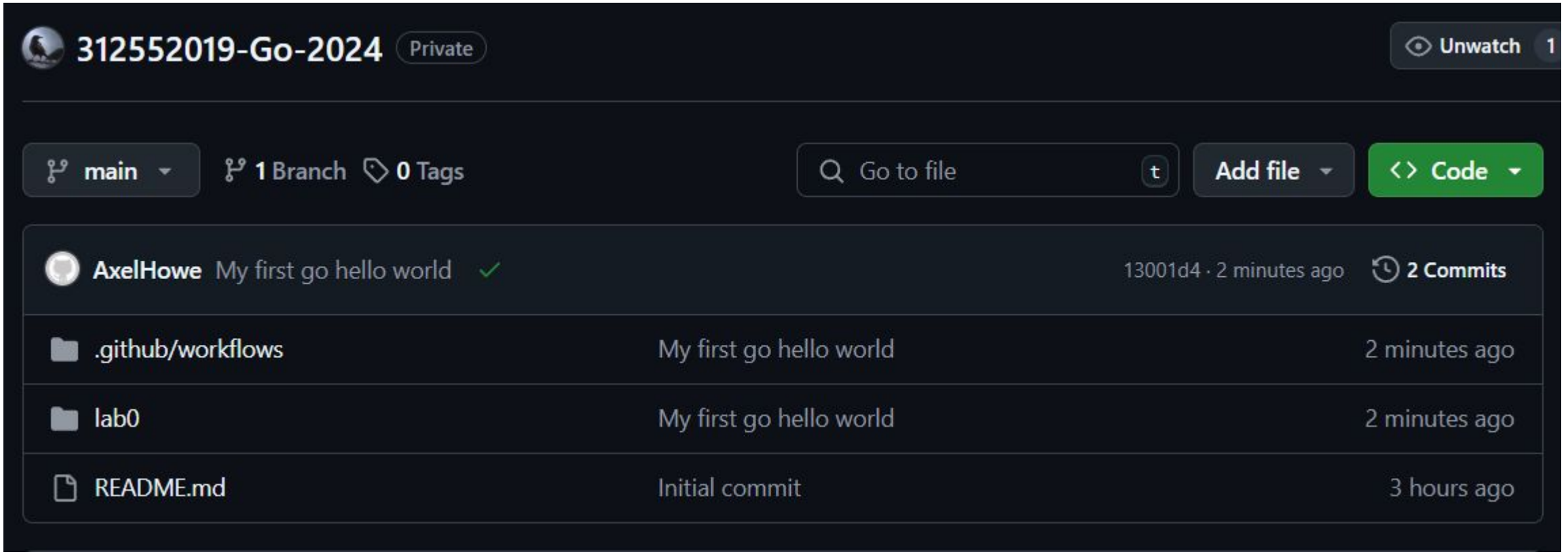


提交 commit


File
Edit
Selection
View
SOURCE CONTROL
SOURCE C...
2.
My first go hello world
3.
Commit
Changes
3
1.
lab0.yml .github\workflows
U
go.mod lab0
U
lab0.go lab0
U


File
Edit
Selection
View
SOURCE CONTROL
SOURCE CONTROL
Message (Ctrl+Enter to com...
Sync Changes 1↑
Incoming/Outgoing
My first go hello world AxelHowe
Initial commit AxelHowe

查看是否 push 到 GitHub 上了



繳交作業

要繳交的 commit 連結以及對應的 GitHub Actions 結果連結,

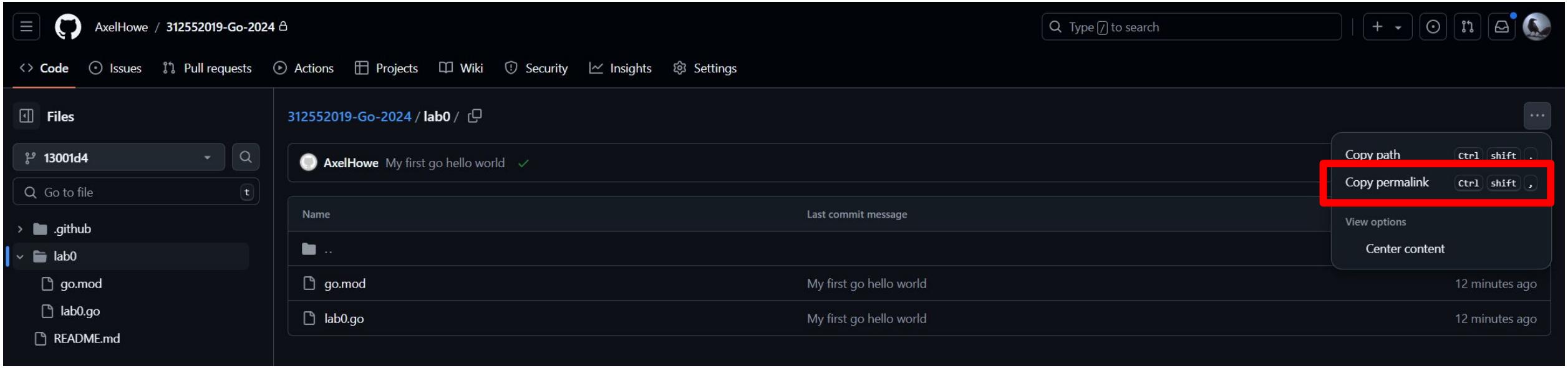
並請加上超連結。

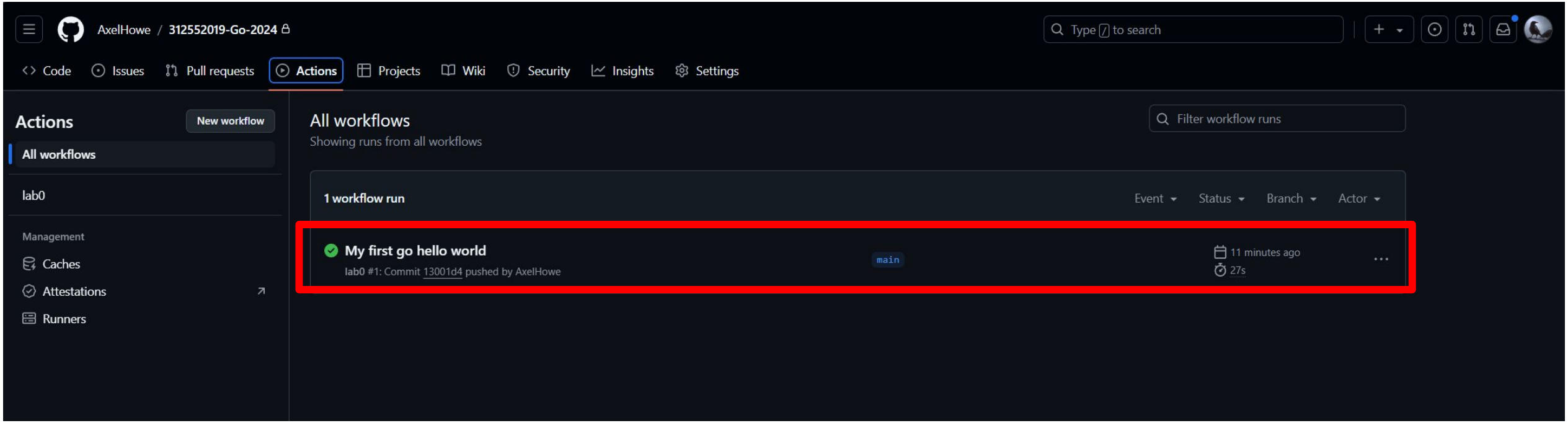
(交錯誤的連結格式將**視為沒繳交**)

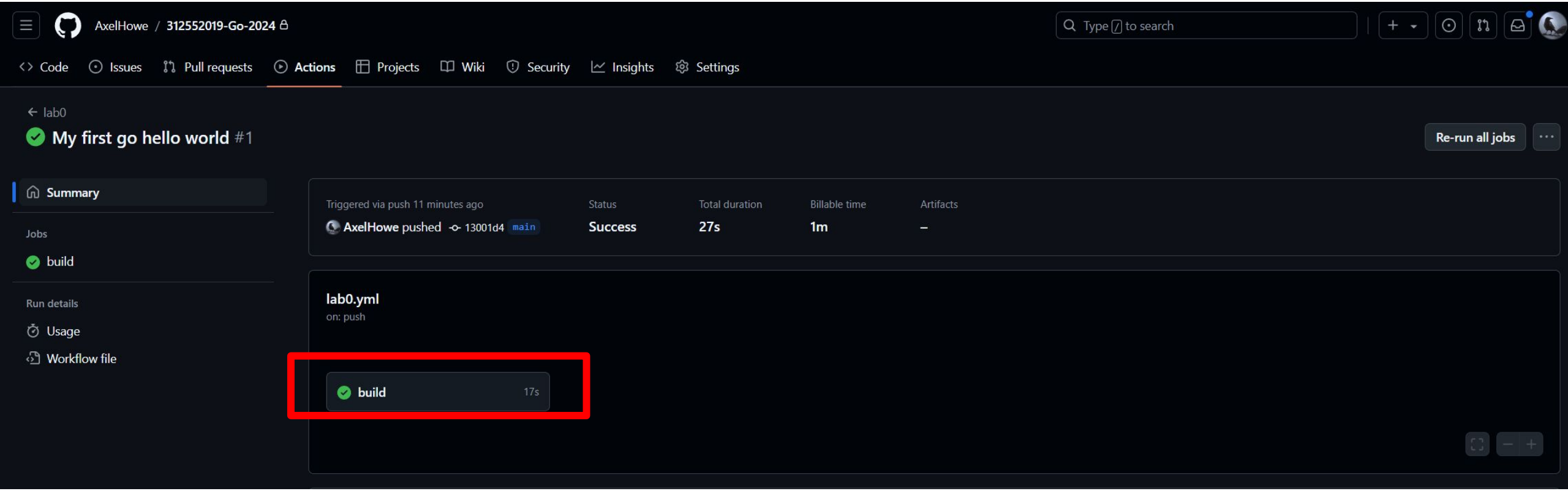
正確的連結範例:

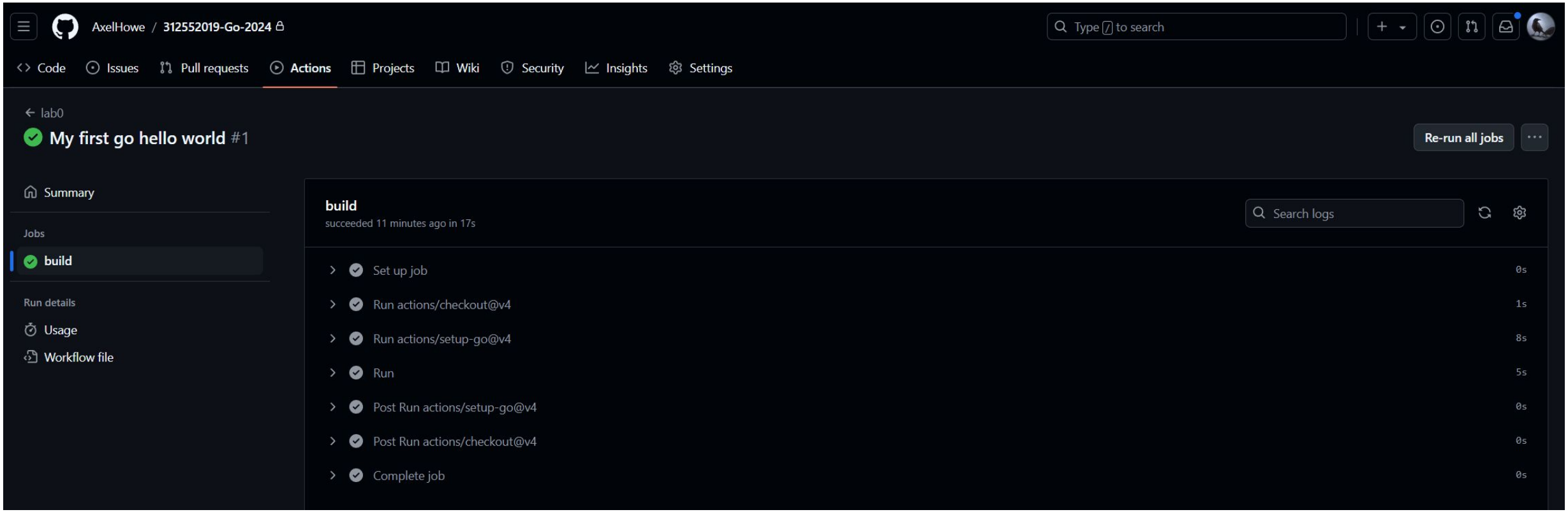
https://github.com/AxelHowe/NYCU-GoProgramming-2024/tree/38f466e3efb6ec89094f6c7cba753c20151fa7d4/lab0

https://github.com/AxelHowe/NYCU-GoProgramming-2024/actions/runs/10652078898/job/29525430173


AxelHowe / 312552019-Go-2024
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Files
13001d4
Go to file
t
.github
lab0
go.mod
lab0.go
README.md
312552019-Go-2024 / lab0 /
AxelHowe My first go hello world
Name
Last commit message
..
go.mod
My first go hello world
12 minutes ago
lab0.go
My first go hello world
12 minutes ago
Copy path
Ctrl shift ,
Copy permalink
Ctrl shift ,
View options
Center content


AxelHowe / 312552019-Go-2024
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Actions
New workflow
All workflows
lab0
Management
Caches
Attestations
Runners
All workflows
Showing runs from all workflows
Filter workflow runs
1 workflow run
Event
Status
Branch
Actor
My first go hello world
lab0 #1: Commit 13001d4 pushed by AxelHowe
main
11 minutes ago
27s


AxelHowe / 312552019-Go-2024
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
lab0
My first go hello world #1
Re-run all jobs
Summary
Jobs
build
Run details
Usage
Workflow file
Triggered via push 11 minutes ago
AxelHowe pushed 13001d4 main
Status
Success
Total duration
27s
Billable time
1m
Artifacts
–
lab0.yml
on: push
build
17s


AxelHowe / 312552019-Go-2024
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
lab0
My first go hello world #1
Re-run all jobs
Summary
Jobs
build
Run details
Usage
Workflow file
build
succeeded 11 minutes ago in 17s
Search logs
Set up job 0s
Run actions/checkout@v4 1s
Run actions/setup-go@v4 8s
Run 5s
Post Run actions/setup-go@v4 0s
Post Run actions/checkout@v4 0s
Complete job 0s

作業遲交規則

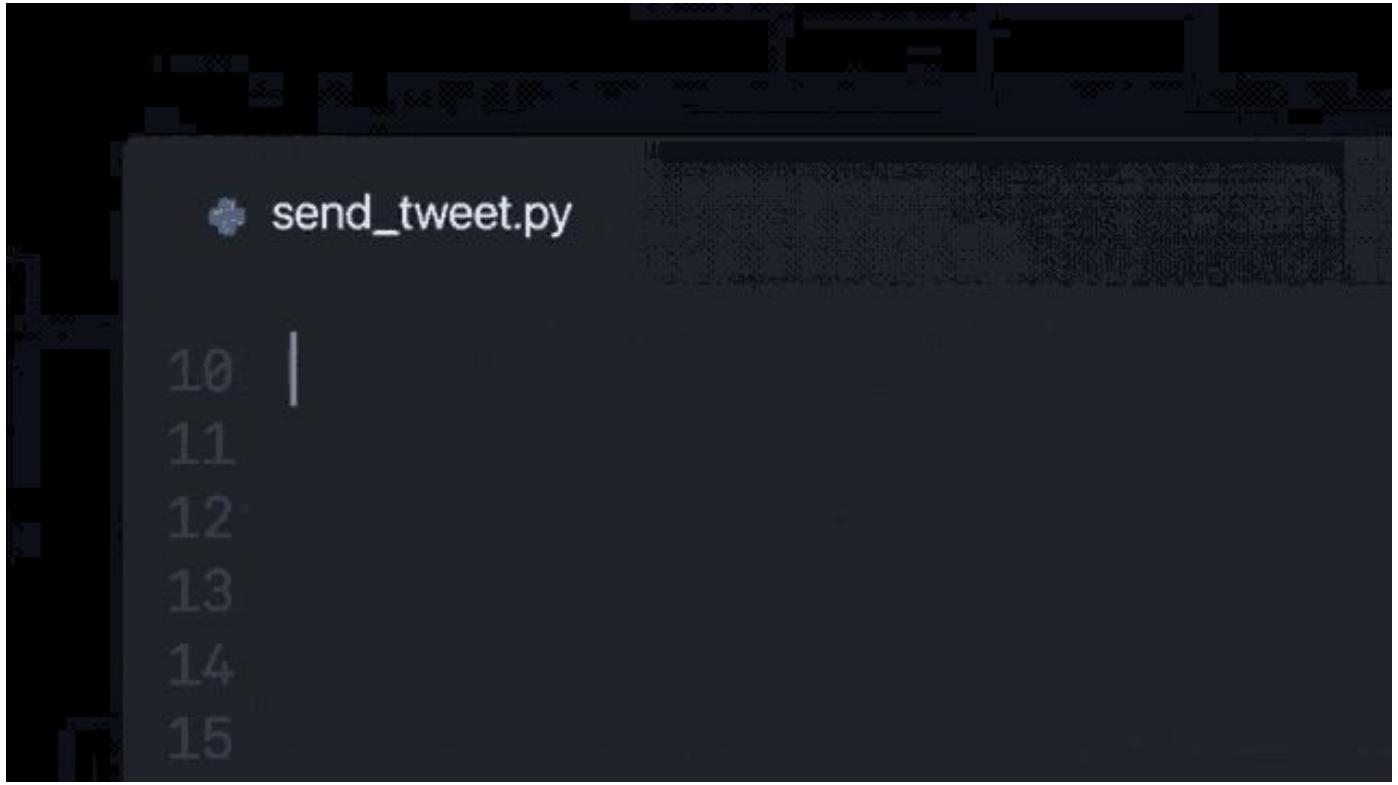
每遲交一週扣 10 分, 最多扣 50 分為上限, 學期成績結算前皆可補交。

好用的AI工具

GitHub Copilot

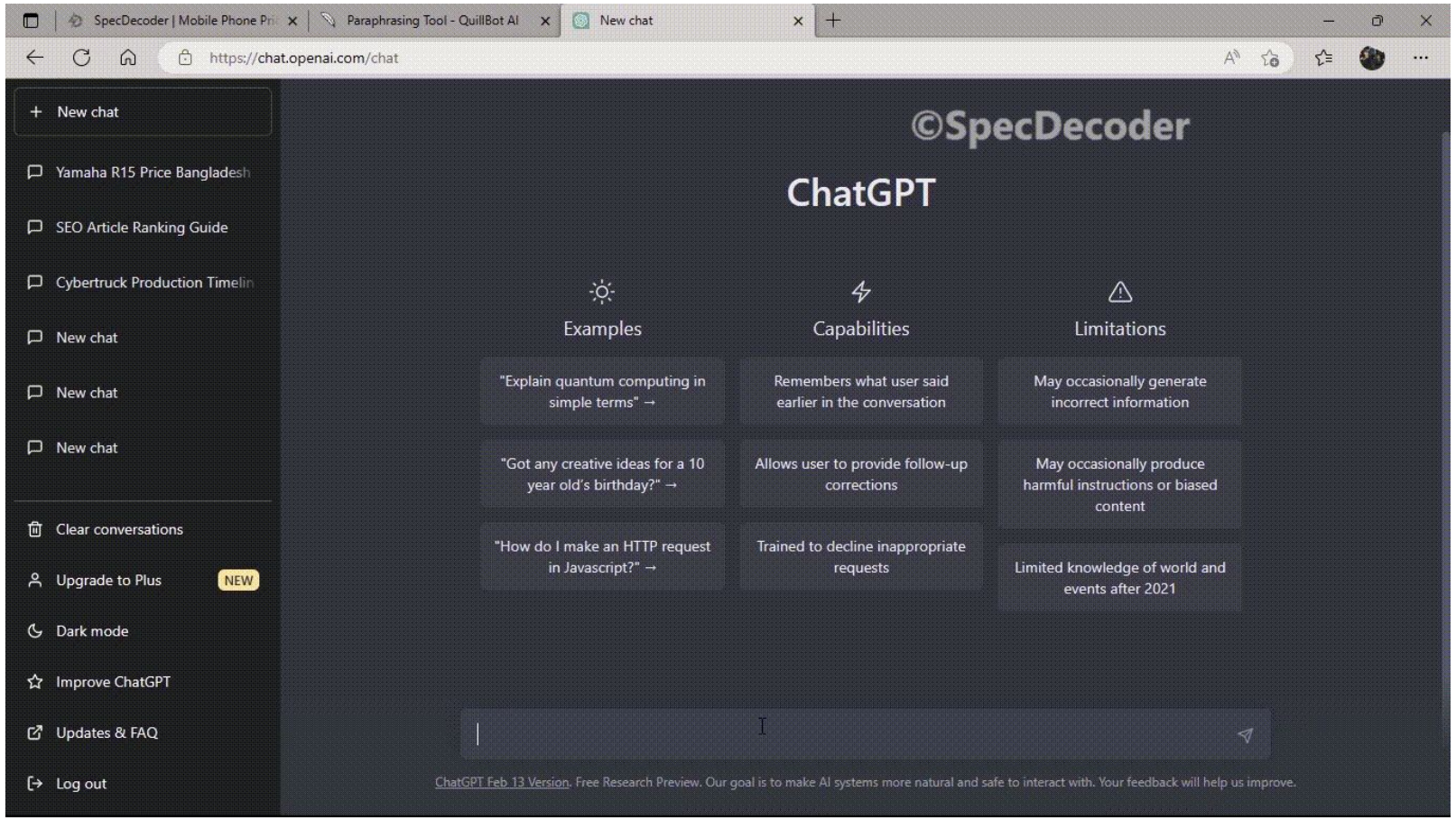
ChatGPT

GitHub Copilot



安裝教學

ChatGPT


SpecDecoder | Mobile Phone Pri
Paraphrasing Tool - QuillBot AI
New chat
https://chat.openai.com/chat
New chat
Yamaha R15 Price Bangladesh
SEO Article Ranking Guide
Cybertruck Production Timelin
New chat
New chat
New chat
Clear conversations
Upgrade to Plus
NEW
Dark mode
Improve ChatGPT
Updates & FAQ
Log out
©SpecDecoder
ChatGPT
Examples
"Explain quantum computing in simple terms" →
"Got any creative ideas for a 10 year old's birthday?" →
"How do I make an HTTP request in Javascript?" →
Capabilities
Remembers what user said earlier in the conversation
Allows user to provide follow-up corrections
Trained to decline inappropriate requests
Limitations
May occasionally generate incorrect information
May occasionally produce harmful instructions or biased content
Limited knowledge of world and events after 2021
ChatGPT Feb 13 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.