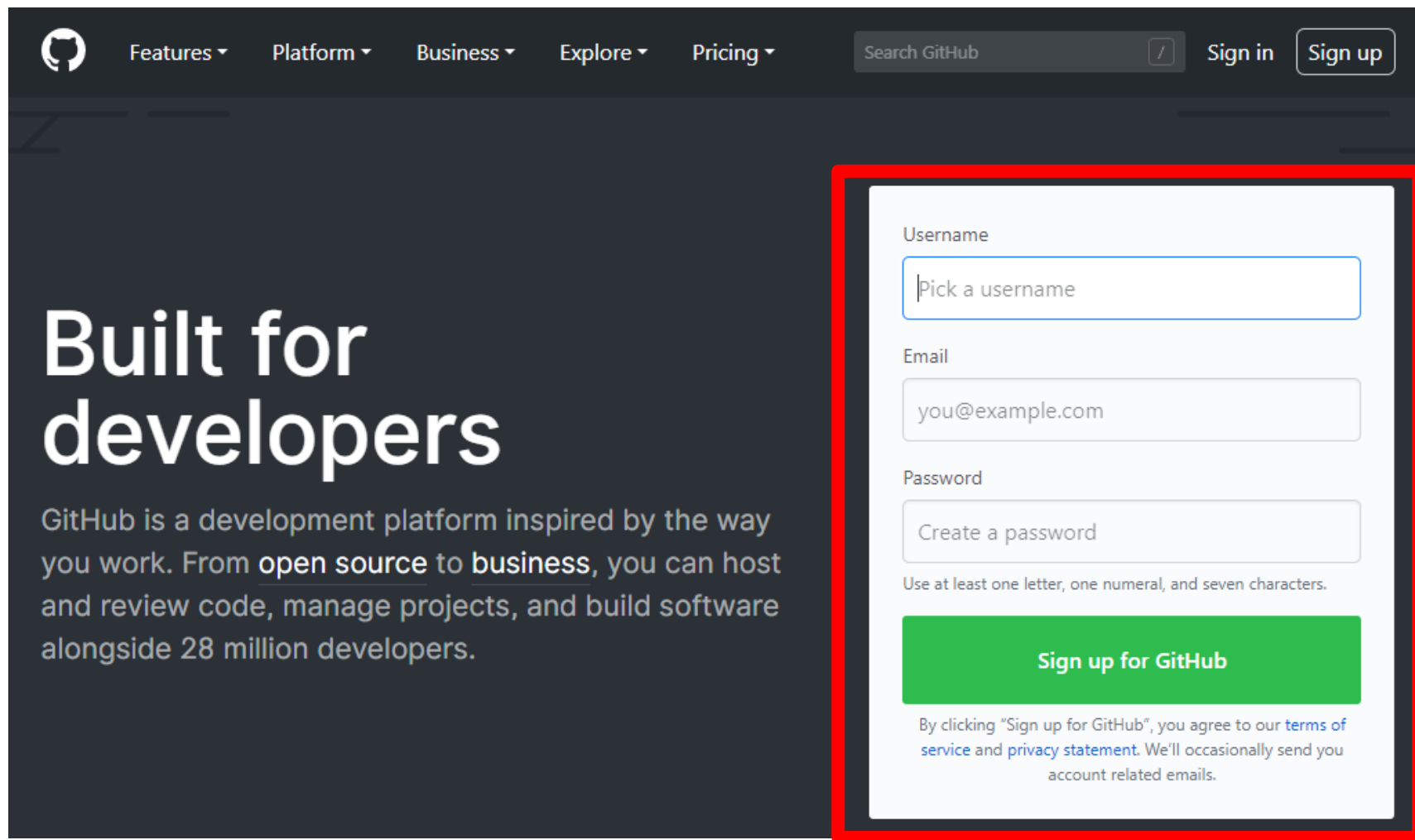


如何使用Github

◆ 先去<https://github.com/>註冊



The image shows the GitHub website's sign-up page. On the left, there's a large heading "Built for developers" and a paragraph describing GitHub as a development platform. On the right, a white sign-up form is highlighted with a red border. The form includes fields for Username, Email, and Password, each with a placeholder text. Below the password field is a note about password requirements. A green "Sign up for GitHub" button is at the bottom of the form, followed by a disclaimer about agreeing to terms of service and privacy statement.

Username

Pick a username

Email

you@example.com

Password

Create a password

Use at least one letter, one numeral, and seven characters.

[Sign up for GitHub](#)

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy statement](#). We'll occasionally send you account related emails.

如何使用Github

◆ 登入後到首頁創建一個專案來上傳程式碼

Join GitHub

The best way to design, build, and ship software.

Step 1:
Create personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

Verify account

✔

You'll love GitHub

Unlimited collaborators
Unlimited public repositories

✔ Great communication
✔ Frictionless development
✔ Open source community

Create an account

Welcome to GitHub

You've taken your first step into a larger world, @mp5162.

✔ Completed
Set up a personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

Choose your personal plan

☒ Unlimited public repositories for free.

☐ Unlimited private repositories for \$7/month. [\(view in TWD\)](#)

Don't worry, you can cancel or upgrade at any time.

☐ **Help me set up an organization next**
Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees. [Learn more about organizations](#)

☒ **Send me updates on GitHub news, offers, and events**
Unsubscribe anytime in your email preferences. [Learn more](#)

Continue

Welcome to GitHub

You'll find endless opportunities to learn, code, and create, @mp5162.

✔ Completed
Set up a personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

How would you describe your level of programming experience?

☐ Totally new to programming ☒ Somewhat experienced ☐ Very experienced

What do you plan to use GitHub for? (check all that apply)

☐ Development
☐ School projects

☐ Research
☐ Design

☒ Project Management
☐ Other (please specify)

Which is closest to how you would describe yourself?

☒ I'm a hobbyist ☐ I'm a professional ☐ I'm a student

☐ Other (please specify)

What are you interested in?

*e.g. tutorials, android, ruby, web-development, machine-learning, open-source

Submit

[skip this step](#)

如何使用Github

- ◆ 登入後到首頁創建一個專案來上傳程式碼

Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#)[Start a project](#)

Our new Terms of Service and Privacy Statement are in effect.

Repositories

New repository

You don't have any repositories yet!

Browse activity

Discover repositories

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)



Please verify your email address

Before you can contribute on GitHub, we need you to verify your email address. An email containing verification instructions was sent to **mp5162@ms26.hinet.net**.


Didn't get the email? [Resend verification email](#) or [change your email settings](#).

如何使用Github

- ◆ 登入後到首頁創建一個專案來上傳程式碼

Create a new repository


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

Owner:  mp5162 ▾ / Repository name: ✓

Great repository names are short and memorable. Need inspiration? How about **musical-octo-goggles**.

Description (optional)

☒  **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** ▾ ⓘ

1. 你的專案名稱

2. 記得把這打勾

3. 點選創建

如何使用Github

◆ 送出後會到這頁面

The screenshot shows the GitHub interface for a repository named 'mp5162 / test'. At the top, there are buttons for 'Watch', 'Star', and 'Fork', each with a count of 0. Below these are tabs for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Insights', and 'Settings'. The 'Code' tab is selected. The main content area shows 'No description, website, or topics provided.' and 'Manage topics'. Below this, there are statistics: '1 commit', '1 branch', '0 releases', and '1 contributor'. A green button labeled 'Clone or download' is highlighted with a red box. Below this button, the 'Clone with HTTPS' option is selected, and the URL 'https://github.com/mp5162/test.git' is displayed in a text box, also highlighted with a red box. A red arrow points from the text '按綠色這個' to the 'Clone or download' button, and another red arrow points from the text '把網址複製下來' to the URL text box. The repository name 'mp5162 / test' is visible at the top left of the page.

按綠色這個

把網址複製下來

mp5162 / test

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

No description, website, or topics provided. Edit

Manage topics

1 commit 1 branch 0 releases 1 contributor

Branch: master New pull request

Create new file Upload files Find file Clone or download

Clone with HTTPS Use SSH

https://github.com/mp5162/test.git

Open in Desktop Download ZIP

test

如何使用Github

- ◆ 在cmd模式下執行git 指令，未安裝git時會出現如下訊息。



```
C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\um>git
'git' 不是內部或外部命令、可執行的程式或批次檔。

C:\Users\um>
```

沒有安裝git

Git簡介

- ◆ 在任何專案下，保存文件、程式等檔案都是很重要的工作。在保存檔案當下，檔案之間的演進過程及歷史紀錄都會記錄下來，作為專案進行的參考指標。因此會對專案下的檔案都會做版本控制的動作。
- ◆ 版本控制系統是一個能夠記錄一個或一組檔案在某一段時間的變更，使得讀者以後能取回特定版本的系統。而做版本控制的工具有很多種。
- ◆ 目前市面上最常見的為 **GIT**、**CVS** (Concurrent Versions System)、**SVN** (Subversion)等，以下會針對 **GIT** 作簡單的介紹以及使用說明。



版本控制介紹Git

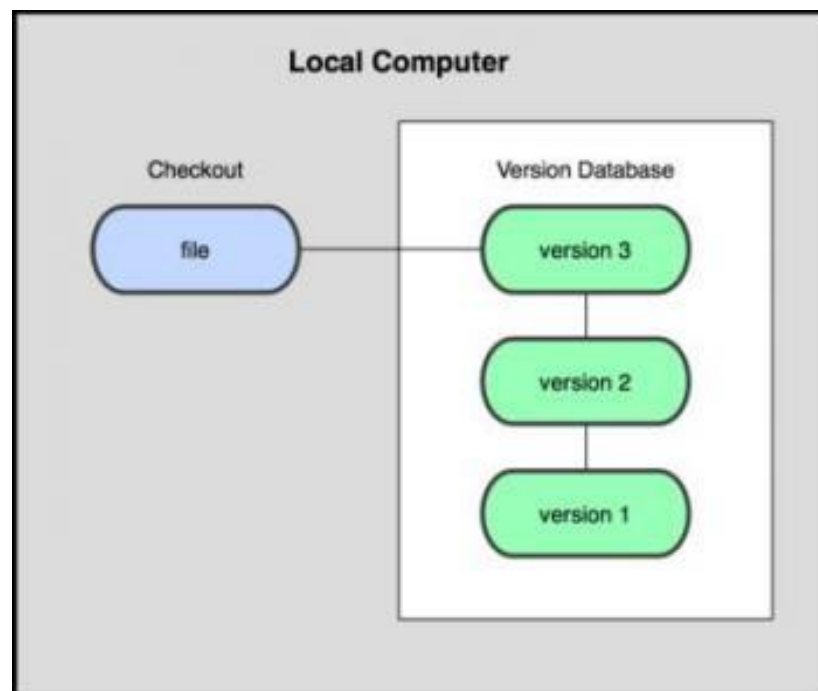
- ◆ 版本控制(Revision control) 是記錄專案內模組變動歷程，藉此可以追蹤專案誕生初始化至專案定案過程。版本控制也在軟體工程內扮演重要的角色，可確保由不同人所編輯的同一程式檔案都得到同步。
- ◆ 而版本控制的類型分成三類：
 - 本地版本控制系統(Local Version Control Systems)
 - 集中化版本控制系統(Centralized Version Control Systems)
 - 分散式版本控制系統



本地版本控制系統(Local Version Control Systems)

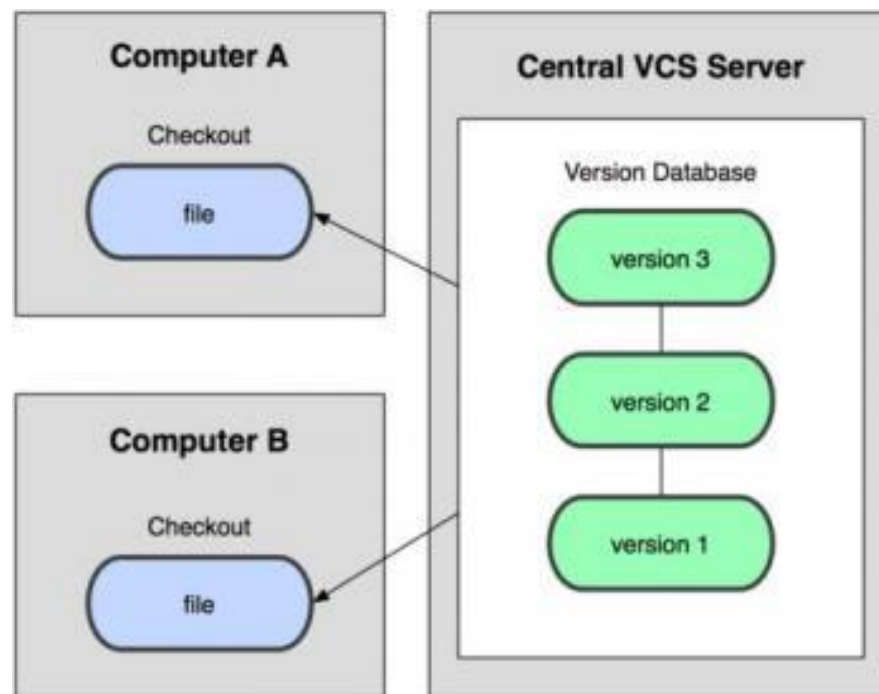
- ◆ 使用者將檔案複製到本機端其他目錄下，方法很簡單，但也很容易出現人為操作錯誤而發生問題
- ◆ 使用者容易忘記複製哪個目錄，或者寫入錯誤的檔案內。
- ◆ 為了解決這問題，設式設計師在很久以前開發了本地端的版本控制系統，具備簡單的資料庫，用來記載檔案的所有變更記錄

本地版本控制系統架構示意圖



集中化版本控制系統(Centralized Version Control Systems)

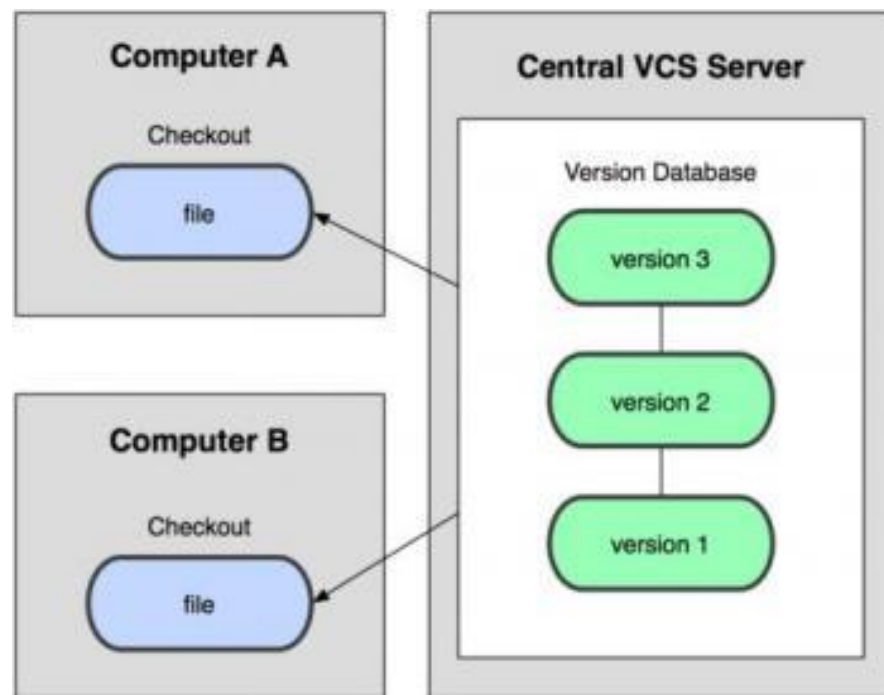
- ◆ 許多大型專案，都需要多人共同協作開發編輯。為了解決此問題，出現了集中化版本控制系統。此類型最常見的系統為 CVS、SVN。
- ◆ 此類型版控系統皆具有一個單一伺服器，記錄所有檔案變動過程。而專案成員或者客戶也可以至伺服器端取得檔案。



集中化版本控制系統架構示意圖

集中化版本控制系統(Centralized Version Control Systems)

- ◆ 這種版本控制系統比本地版控系統多出許多優點，此類種板控可以讓所有專案相關人員知道檔案所有異動過程，對專案做何種修改有相對程度的了解。
- ◆ 管理者也可以針對所有使用者設定權限，限定各個成員能執行的動作。管理者維護集中化的檔案也比維護散落各地檔案的版本容易許多。

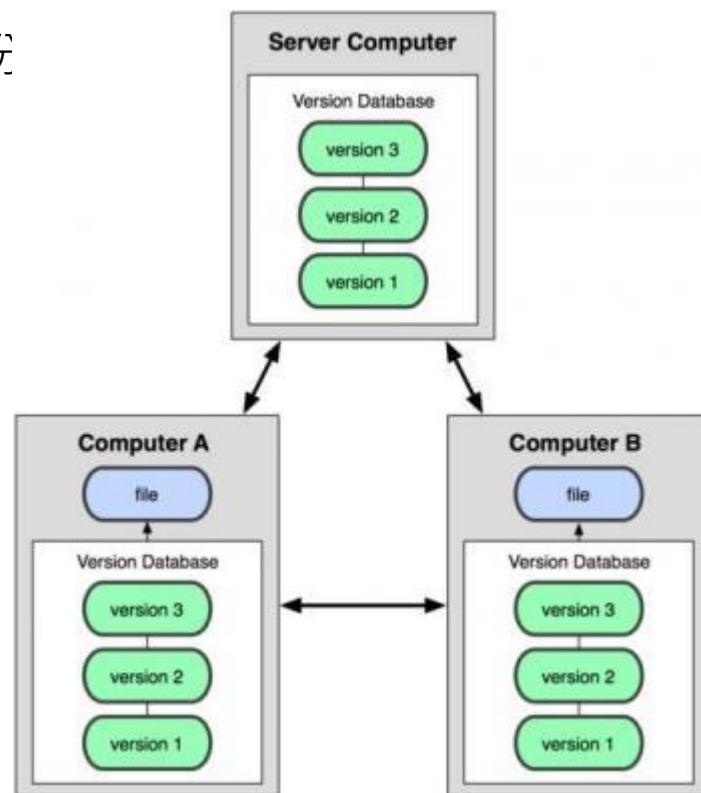


集中化版本控制系統架構示意圖

集中化版本控制系統(Centralized Version Control Systems)

- ◆ 目前常見的分散式版本控制系統有 Git、Mercurial、Bazaar、Darcs。
- ◆ 使用者端不僅是最新的版本，並且使用者端會複製整個資料庫內容。
- ◆ 即使開發者常用的電腦損壞，皆可將任何一位使用者先前的內容複製還原。每一次取得變動檔案資料，就是將所有資料庫內容複製一份

分散式版本控制系統架構示意圖



版本控制介紹Git

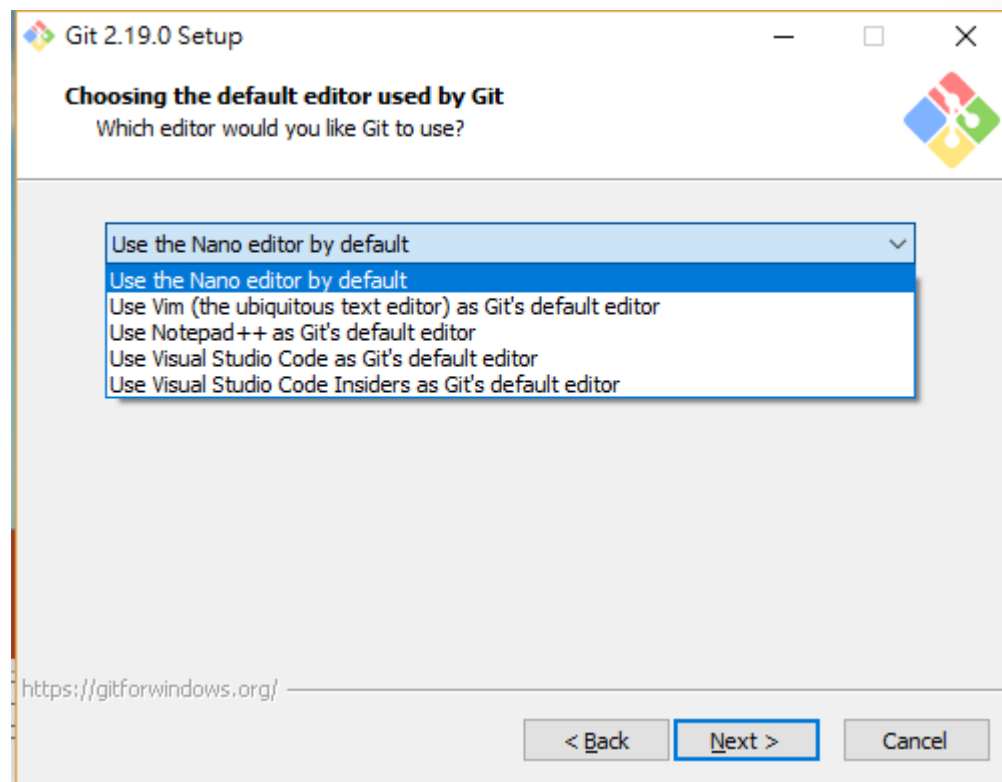
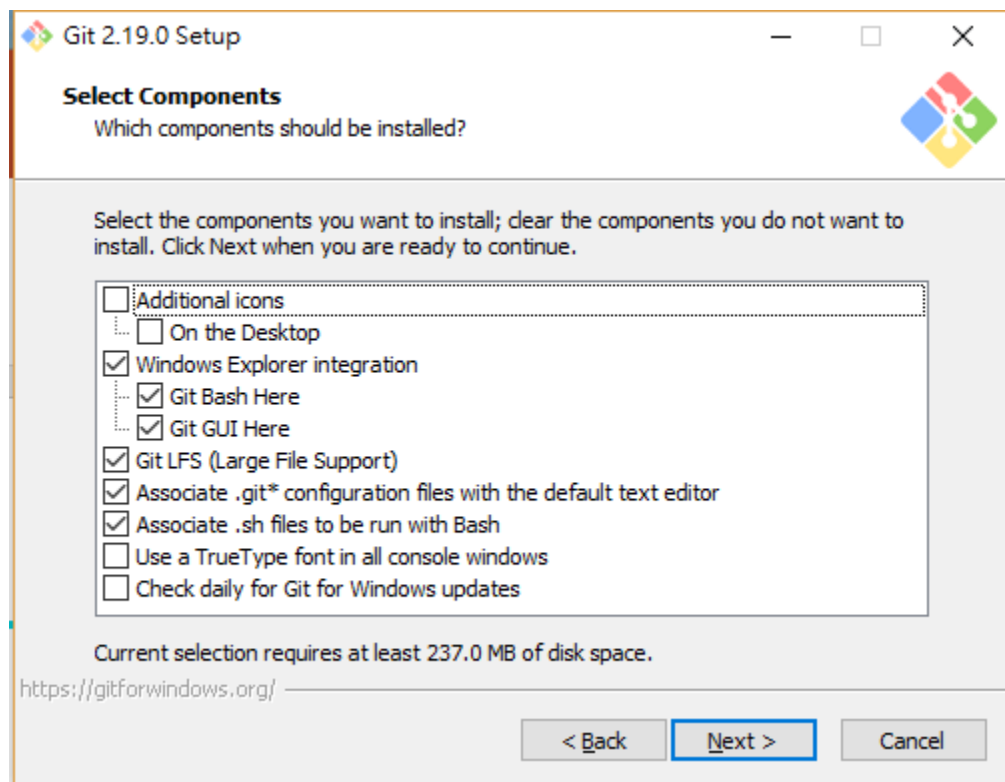
- ◆ 版本控制(Revision control) 是記錄專案內模組變動歷程，藉此可以追蹤專案誕生初始化至專案定案過程。版本控制也在軟體工程內扮演重要的角色，可確保由不同人所編輯的同一程式檔案都得到同步。
- ◆ 而版本控制的類型分成三類：
 - 本地版本控制系統(Local Version Control Systems)
 - 使用者將檔案複製到本機端其他目錄下，方法很簡單，但也很容易出現人為操作錯誤而發生問題。使用者容易忘記複製哪個目錄，或者寫入錯誤的檔案內。為了解決這問題，設式設計師在很久以前開發了本地端的版本控制系統，具備簡單的資料庫，用來記載檔案的所有變更記錄（請參照圖一）

安裝 Git

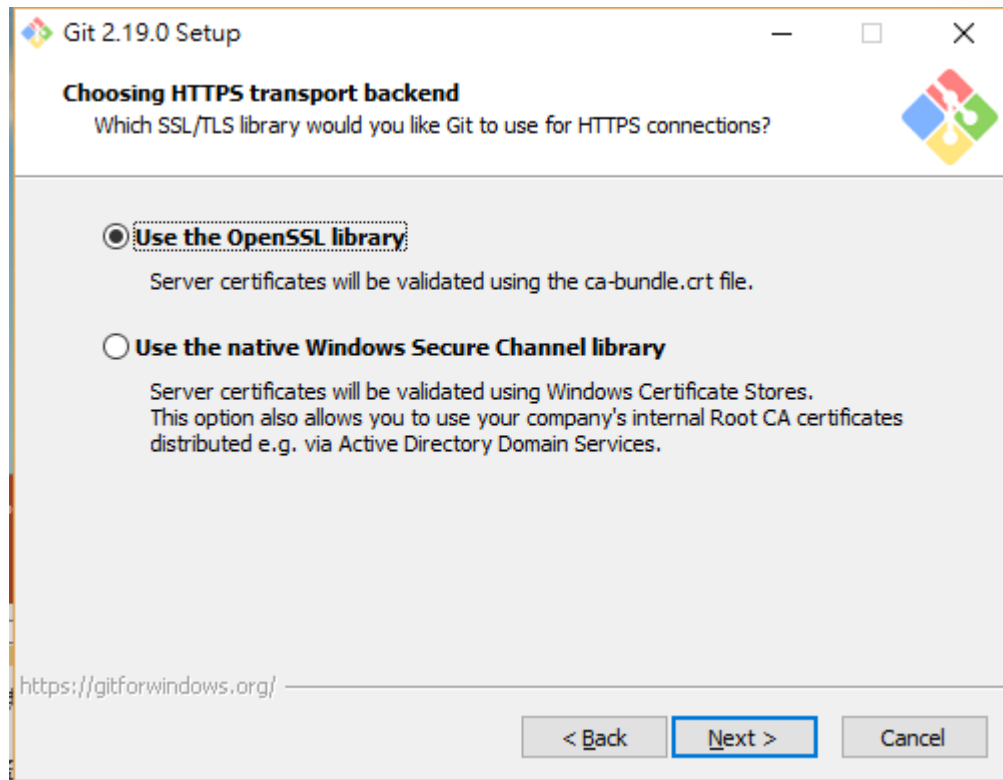
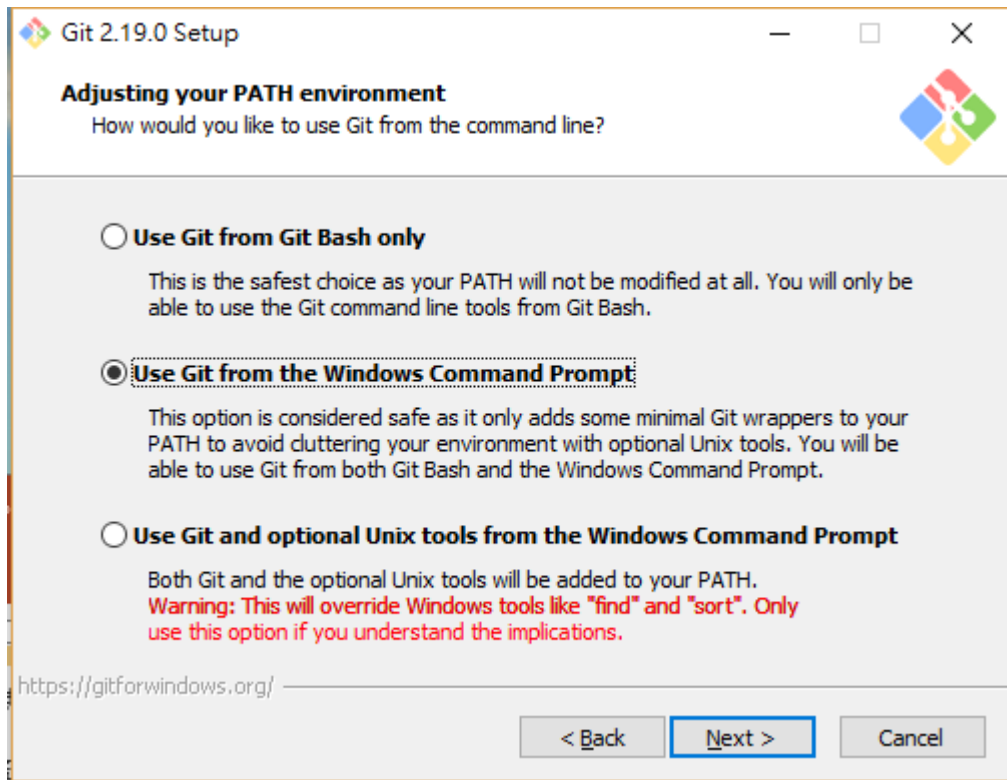
- ◆ 安裝流程很長，基本上一直接下一步即可安裝完成，有幾個選項有點調整，跟著選就ok。



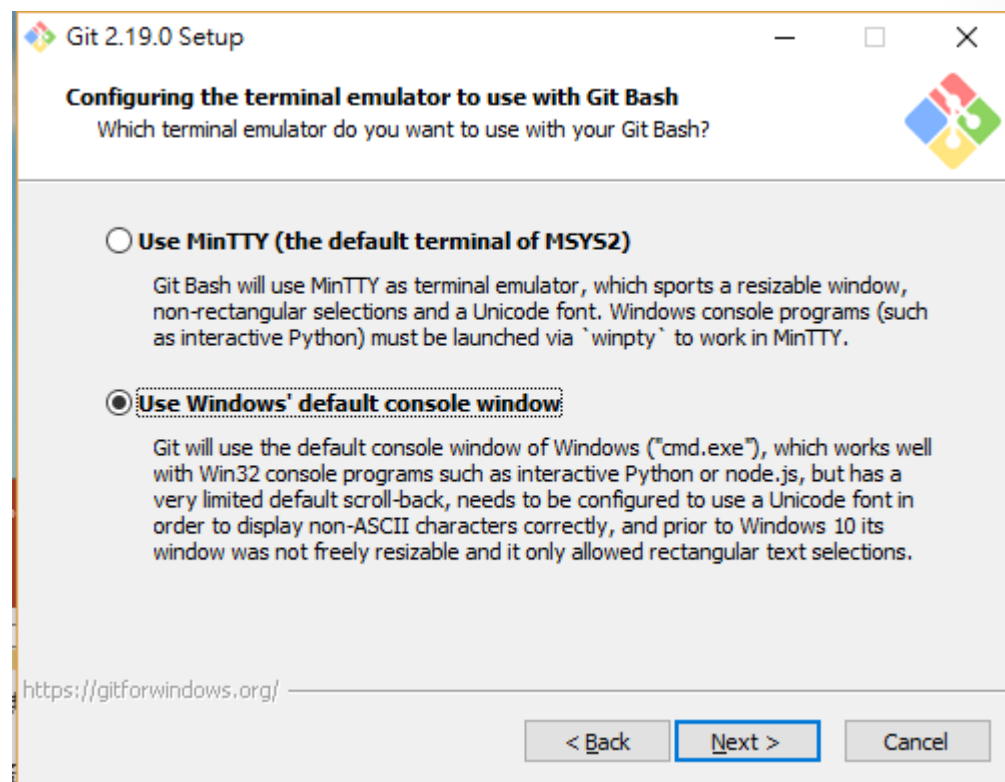
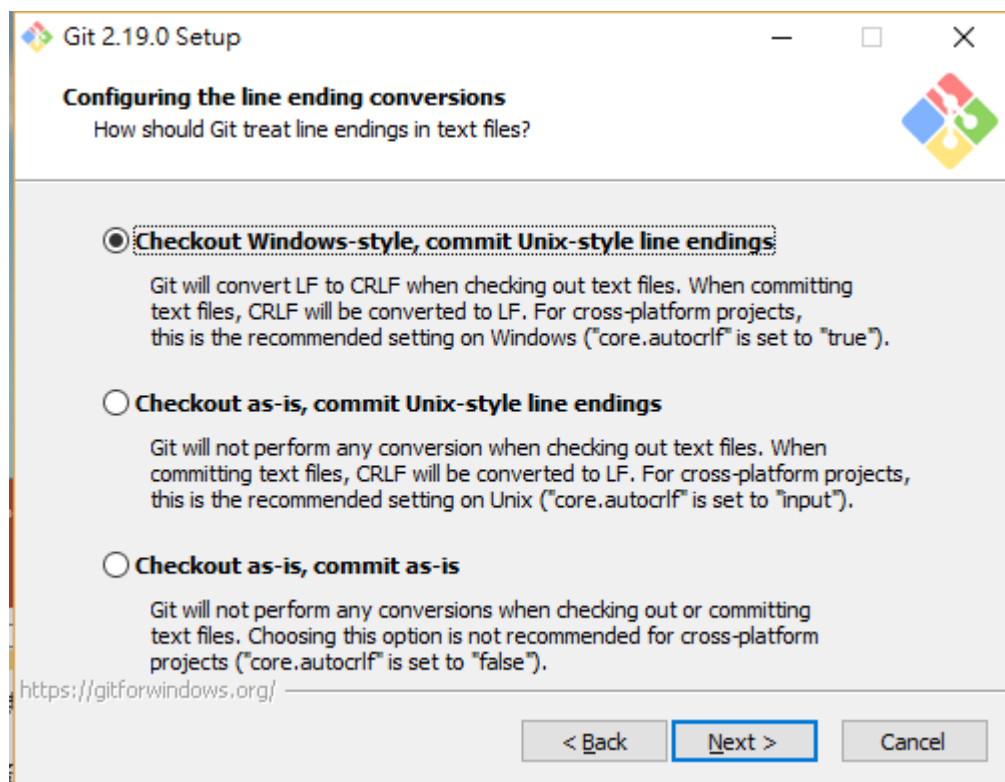
安裝 Git



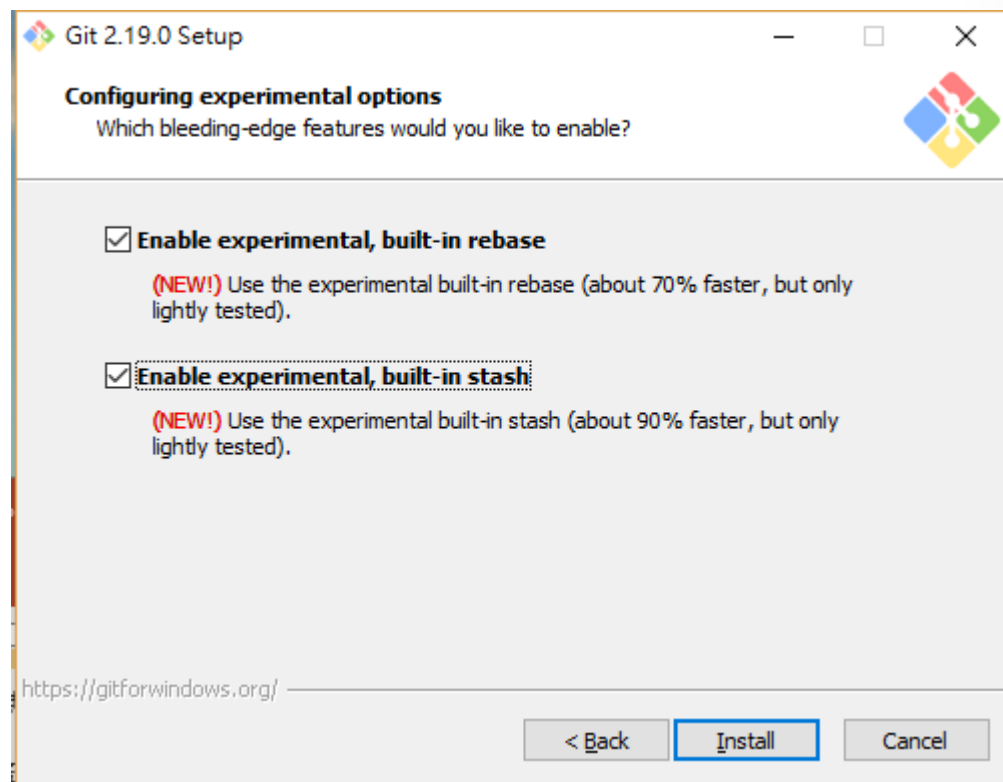
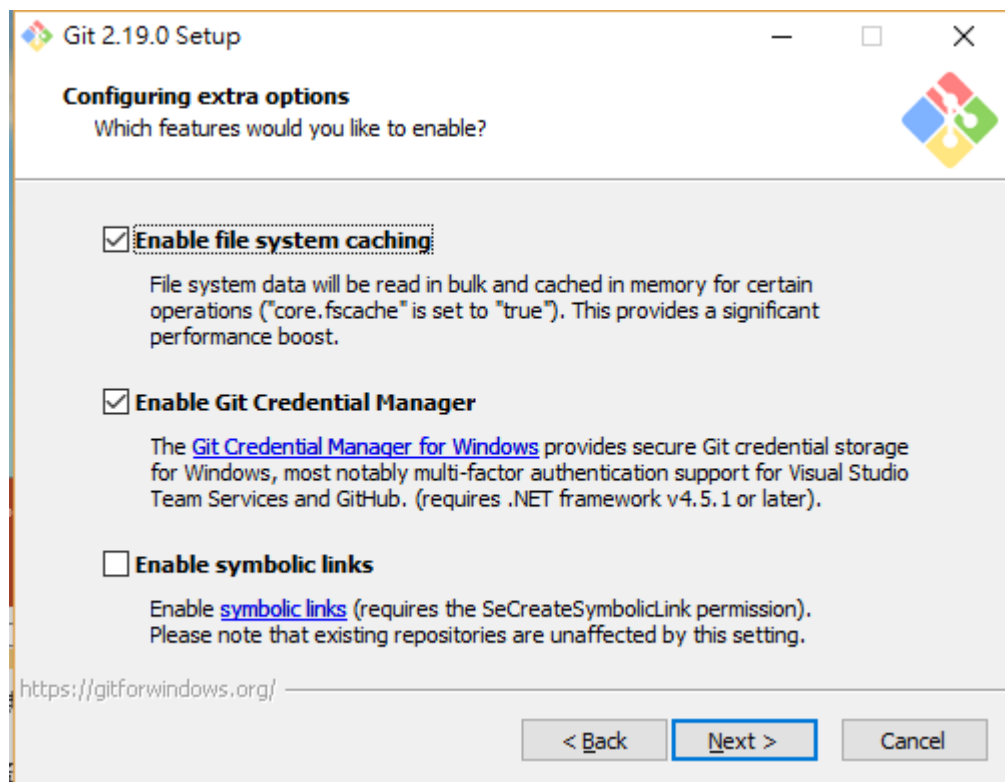
安裝 Git



安裝 Git

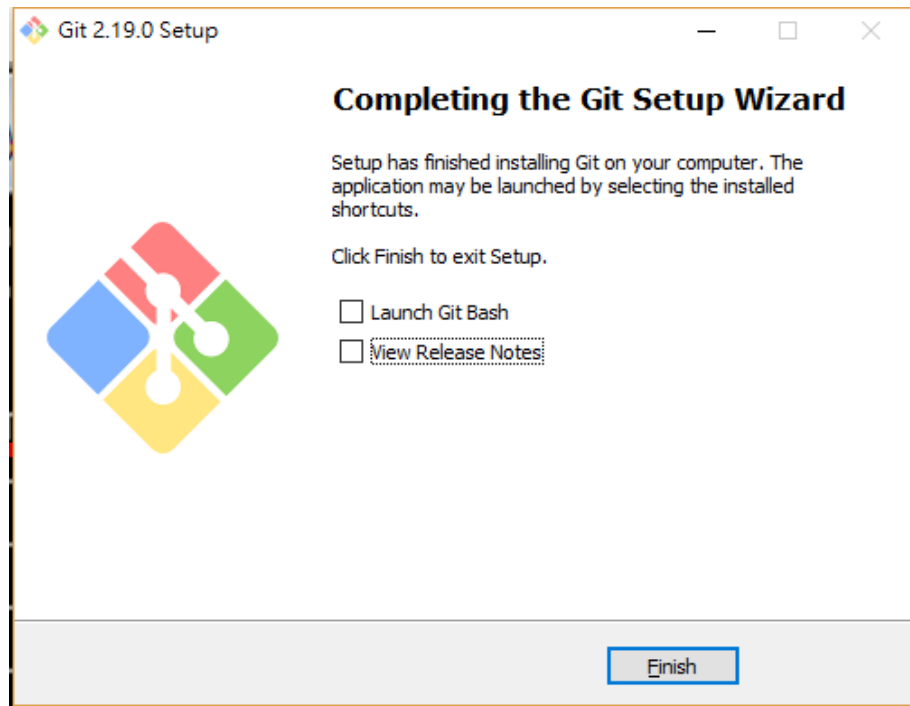


安裝 Git



安裝 Git

◆ 一直按下一步即可安裝完成



試用 Git

- ◆ 安裝完後執行cmd，在 command line 打上 git 看看成功了沒。
- ◆ 若有以下圖示，代表 git 安裝完成了。
- ◆ 如果你沒有看到上面的畫面，那表示你可能在安裝的過程中遭遇到一些問題

 選取 C:\WINDOWS\system32\cmd.exe

```
Microsoft Windows [版本 10.0.17134.285]  
(c) 2018 Microsoft Corporation. 著作權所有，並保留一切權利。
```

```
C:\Users\Alex>git  
usage: git [--version] [--help] [-C <path>] [-c <name>=<value>]  
        [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]  
        [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]  
        [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]  
        <command> [<args>]
```

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)

clone Clone a repository into a new directory

init Create an empty Git repository or reinitialize an existing one

設定 git 作者資訊

- ◆ git 是一套支援多人協作的軟體，因此他需要紀錄每次存檔的作者資訊。
- ◆ 設定作者名稱的方法是在小黑框裡輸入以下指令：

```
git config --global user.name "etrex kuo"
```

其中 etrex kuo 把他改成你的名字。

```
git config --global user.email "kamigo.service@gmail.com"
```

信箱的方法是在小黑框裡輸入以下指令：

專案的 git 初始設定

- ◆ 我們會使用小黑框來上傳程式，先開一個在專案目錄下的小黑框，然後輸入 `git init`。
- ◆ 你可能會看到以下兩個圖都沒關係，是正常現象

```
C:\AlexTest>git init
Initialized empty Git repository in C:/AlexTest/.git/

C:\AlexTest>git init
Reinitialized existing Git repository in C:/AlexTest/.git/

C:\AlexTest>_
```

進階測試 Git

- ◆ 再來我們來將剛剛在github網頁上建立好的專案下載下來，之後加入一個程式碼再上傳回去進行測試。
- ◆ 輸入：「git clone 剛複製的網址」，成功的話當前目錄就會出現剛下載下來的專案資料夾。

```
C:\Users\Alex>
C:\Users\Alex>git clone https://github.com/mp5162/test.git
Cloning into 'test'...
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
C:\Users\Alex>_
```

名稱	修改日期	類型
.jupyter	2018/3/10 下午 0...	檔案資料夾
.LINE	2018/3/30 下午 1...	檔案資料夾
.matplotlib	2018/5/26 下午 0...	檔案資料夾
.omnisharp	2018/3/19 下午 0...	檔案資料夾
.p2	2018/8/13 上午 0...	檔案資料夾
.plotly	2018/4/21 下午 1...	檔案資料夾
.QtWebEngineProcess	2018/3/30 下午 1...	檔案資料夾
.spyder-py3	2018/9/13 上午 0...	檔案資料夾
.tooling	2018/3/5 上午 09	檔案資料夾
.VirtualBox	2018/4/18 下午 0...	檔案資料夾
.vscode	2018/3/10 下午 0...	檔案資料夾
3D 物件	2018/8/16 下午 0...	檔案資料夾
Anaconda3	2018/5/26 下午 0...	檔案資料夾
AppData	2018/7/1 上午 07	檔案資料夾
Canopy	2018/3/10 下午 0...	檔案資料夾
Intel	2018/3/4 下午 10	檔案資料夾
MicrosoftEdgeBackups	2018/2/21 下午 0...	檔案資料夾
Nox_share	2018/3/15 下午 0...	檔案資料夾
seaborn-data	2018/4/21 下午 1...	檔案資料夾
test	2018/9/17 上午 0...	檔案資料夾
ultracopier	2018/3/15 下午 0...	檔案資料夾
vmlogs	2018/8/1 上午 07	檔案資料夾

進階測試 Git

- ◆ 再來把code 丟進去資料夾 這邊丟了一個叫test. txt 的資料

名稱	修改日期	類型	大小
.git	2018/9/17 上午 0...	檔案資料夾	
README.md	2018/9/17 上午 0...	MD 檔案	1 KB
test	2018/9/17 上午 0...	文字文件	0 KB

- ◆ 然後用 cd 指令把「當前目錄」 切換到剛下載資料夾裡面

- ◆ 輸入以下指令 git add -A

- ◆ git commit -m "上傳測試"然後他會顯示要輸入帳號的提示

```
選擇 C:\WINDOWS\system32\cmd.exe
C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.
fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>_
```


進階測試 Git

◆ 依照提示打完 並執行

選擇 C:\WINDOWS\system32\cmd.exe

```
C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.
fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>_
```

選擇 C:\WINDOWS\system32\cmd.exe

```
C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.
fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>git config --global user.email "mp5162@gmail.com"
C:\Users\Alex\test>git config --global user.name "Alex"
C:\Users\Alex\test>
```

進階測試 Git

◆ 再次輸入以下指令

➤ git add -A

➤ git commit -m "上傳測試"

◆ 會發現沒有要求輸入帳號了

```
CA. 選取 C:\WINDOWS\system32\cmd.exe

C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>git config --global user.email "mp5162@gmail.com"
C:\Users\Alex\test>git config --global user.name "Alex"
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
[master cf4eb6d] 上傳測試
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 test.txt
C:\Users\Alex\test>_
```

進階測試 Git

- ◆ 剩下一行指令 執行 `git push`，他會跳出一個視窗把帳密登入就可以了

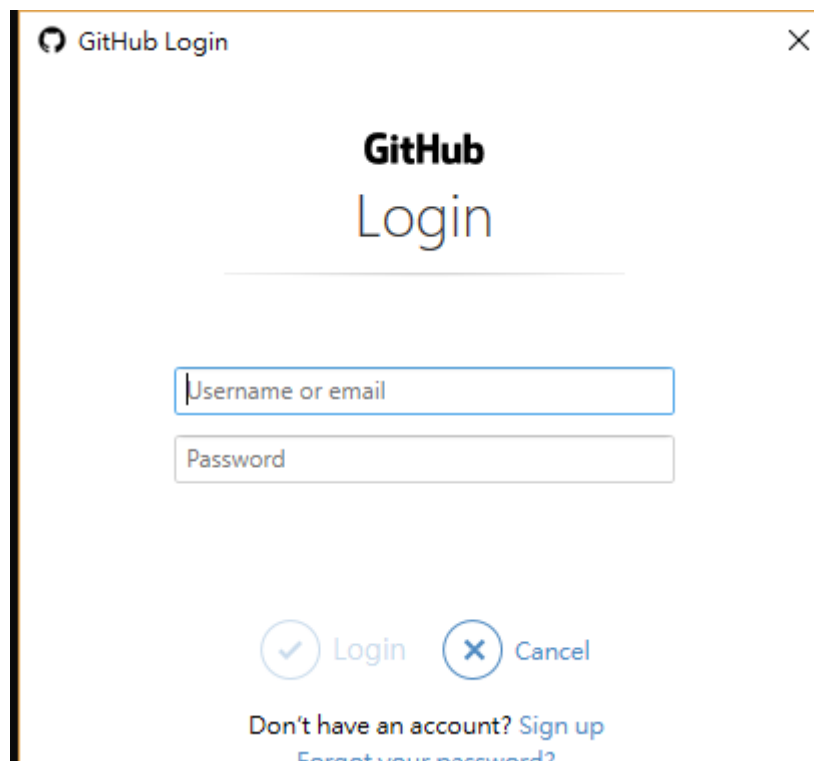
```
C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>git config --global user.email "mp5162@gmail.com"
C:\Users\Alex\test>git config --global user.name "Alex"
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
[master cf4eb6d] 上傳測試
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
C:\Users\Alex\test>git push
```

A screenshot of the GitHub Login window. The window has a title bar with the GitHub logo and the text "GitHub Login". The main content area displays the "GitHub Login" text in a large, bold font. Below this, there are two input fields: "Username or email" and "Password". At the bottom of the window, there are two buttons: "Login" (with a checkmark icon) and "Cancel" (with an 'X' icon). Below the buttons, there is a link that says "Don't have an account? Sign up" and another link that says "Forgot your password?".

GitHub Login

GitHub
Login

Username or email

Password

Login Cancel

Don't have an account? Sign up
Forgot your password?

進階測試 Git

◆ 上傳成功!!!!!!!再來回到網頁看看

```
cmd 選取 C:\WINDOWS\system32\cmd.exe
C:\Users\Alex>cd test
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.
fatal: unable to auto-detect email address (got 'Alex@Alex.(none)')
C:\Users\Alex\test>git config --global user.email "mp5162@gmail.com"
C:\Users\Alex\test>git config --global user.name "Alex"
C:\Users\Alex\test>git add -A
C:\Users\Alex\test>git commit -m "上傳測試"
[master cf4eb6d] 上傳測試
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
C:\Users\Alex\test>git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 283 bytes | 283.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/mp5162/test.git
 1335783..cf4eb6d master -> master
C:\Users\Alex\test>git push_
```

mp5162 / test

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mp5162 上傳測試	Latest commit cf4eb6d 6 minutes ago
README.md	Initial commit 32 minutes ago
test.txt	上傳測試 6 minutes ago
README.md	

資料上去了

總結

- ◆ `git clone` 專案 <-把專案載下來
- ◆ `cd` 專案資料夾 <-跳到專案資料夾裡面
- ◆ 把程式碼丟進去資料夾 <-放入一些新的程式碼
- ◆ `git add -A`
- ◆ `git commit -m "這次編輯的註解"` <-版本描述
- ◆ `git push`