Github的使用

Github是什麼?

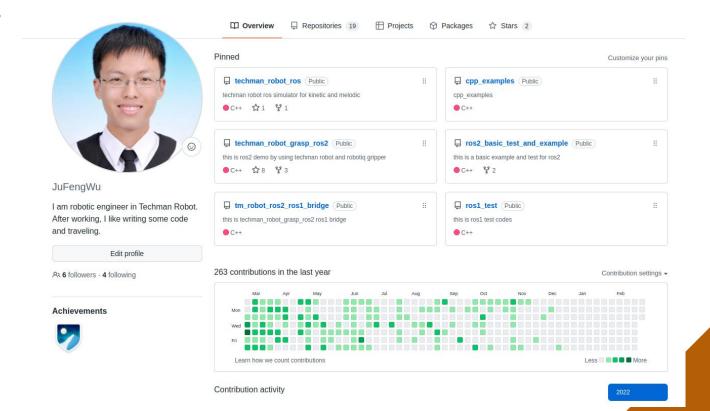
各位有聽過Github嘛? 覺得Github是什麼?

Github是什麼?

Github 可以放程式的地方

Github是什麼?

放程式的地方



為什麼要把程式給大家看?

老闆想要錄取的人

- 1. 來自名校 = 聰明 + 學的很快
- 2. 本科出生 = 即戰力 + 可以快速上手 + 不用再花時間學

那如果不是上述兩種人怎麼辦?

證明自己很便宜? -> 薪水低

證明自己很強? -> 說的天花亂墜 -> 我們要找工程師不是業務

用你的作品說話

A: 我會python、影像處理、爬蟲、數莓派

B: 下面是我的作品,我在數莓派上利用影像處理找出貓咪、再用爬蟲找資料庫,最後做出貓咪心情的作品,所有Python程式都放在github上

你會錄取誰?

想要高薪水+增加錄取率

老闆要可以一打多+快速上手的人 Github是可以展現自己實力的地方

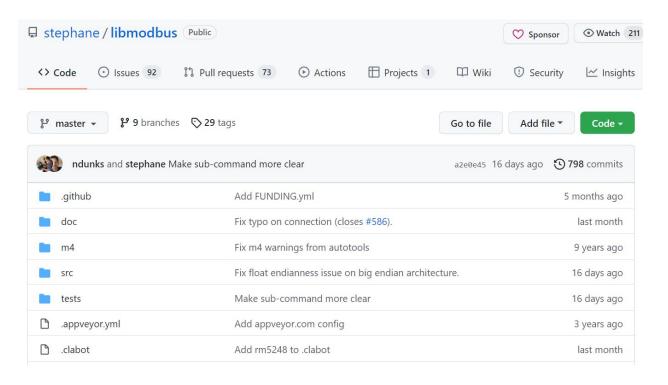
下載別人的東西

既然是放程式碼的地方, 那我要怎麼取?

下載方式有兩個:

- 1. 下載ZIP
- 2. 直接用git抓取

下載別人的程式 - 以libmodbus為例

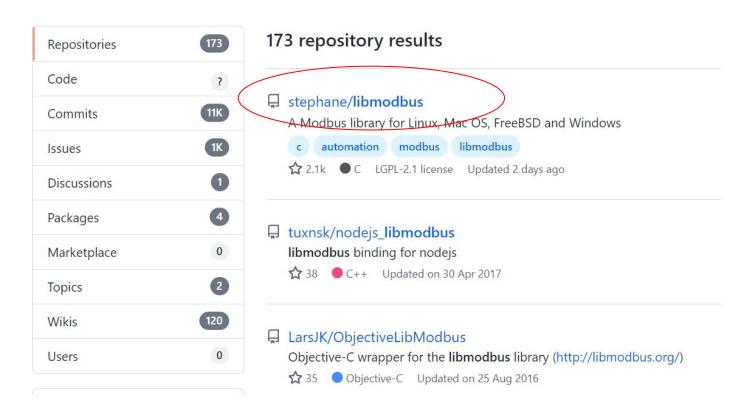


libmodbus是自動控制用的程式碼

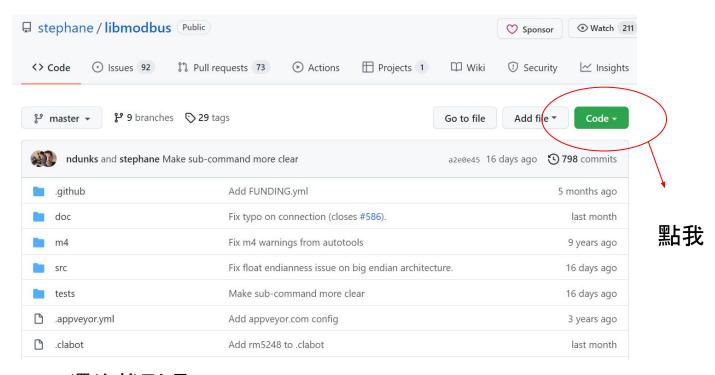
要如何找到想要的內容?



要如何找到想要的內容?



下載別人的程式 - 以libmodbus為例



還沒找到嗎?

https://github.com/stephane/libmodbus

下載別人的程式 - 以Zip下載

	Go to file	Add file ▼	Code -
≥ Clone			?
HTTPS SSH	GitHub CLI		
https://	github.com/stepha	ane/libmodbus.gi	t C
Use Git or ch	neckout with SVN usi	ng the web URL.	
∰ Open v	with GitHub Desk	top	
Downl	oad ZIP		

下載成ZIP好簡單

下載後的位置



下載後的檔案在這裡

點擊"下載"

★ 快速存取

- 桌面
- ➡ 下載
- 量 文件
- 圖片
- 24二改
- 20220823三改
- 20220824改中文
-] git
- OneDrive Personal
- ▶本機
 - 🔰 3D 物件
- → 下載

把檔案從zip取出來



狀況題 mac要怎麼解壓縮zip

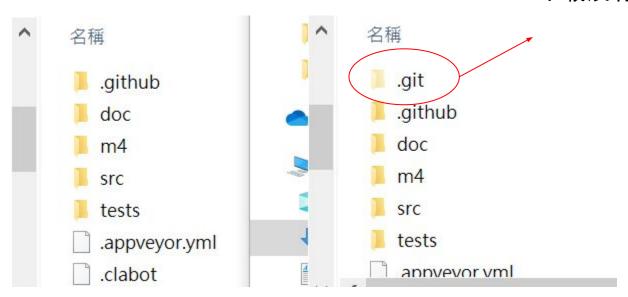


windows 直接點兩下, 把檔案搬出來就可以了

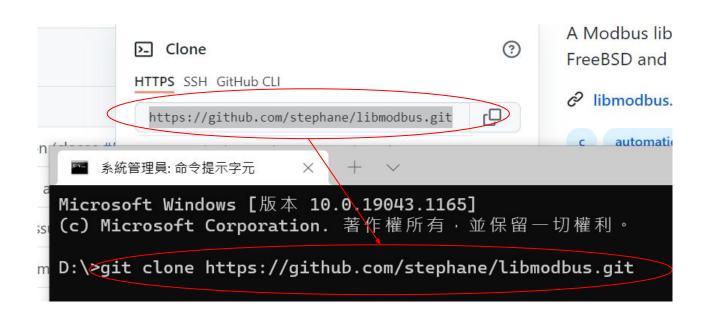
但是, 不建議使用ZIP下載

因為沒有版本資訊

ZIP下載沒有這一個



所以,我們還是乖乖用git下載吧



用git下載

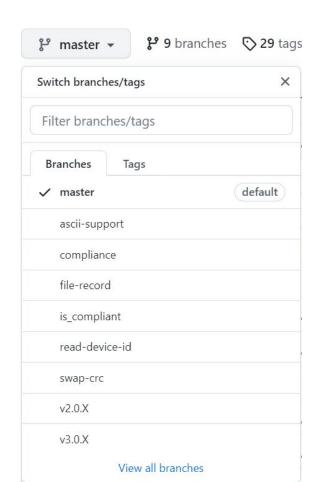
```
D:\>git clone https://github.com/stephane/libmodbus.git
Cloning into 'libmodbus'...
remote: Enumerating objects: 4744, done.
remote: Counting objects: 100% (142/142), done.
remote: Compressing objects: 100% (91/91), done.
remote: Total 4744 (delta 78), reused 99 (delta 49), pack-reused 4602
Receiving objects: 100% (4744/4744), 1.59 MiB | 5.58 MiB/s, done.
Resolving deltas: 100% (3208/3208), done.
```

用git下載

會出現.git資料夾



切換遠端分支



少了很多分支

 \longleftrightarrow

D:\>cd ./libmodbus

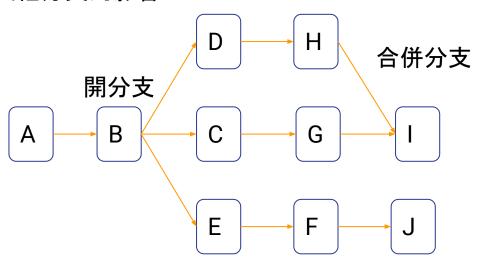
D:\libmodbus>git branch

* master

還記得分支是甚麼嗎?

git 分支複習

- 1. 修改記錄的流程分開儲存
- 2. 分開的分支不受其他分支的影響



git 分支複習 - 指令

建立分支 -> git branch <branch_name>

切換分支 -> git checkout <branch_name>

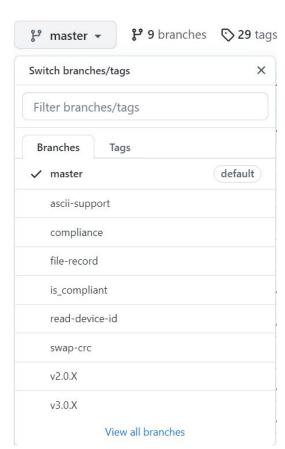
合併分支 -> git merge <branch_name>

刪除分支 -> git branch -d <branch_name>

應該喚起大家的記憶了吧?

首先, 我們先看看遠端有哪一些分支

你可以從github網站上看



如果自己架設git server的話

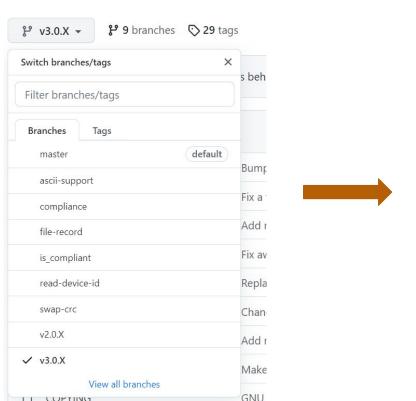
你可以用指令來看

```
$ git branch -a
* master
remotes/origin/HEAD -> origin/master
remotes/origin/ascii-support
remotes/origin/compliance
remotes/origin/file-record
remotes/origin/is_compliant
remotes/origin/master
remotes/origin/read-device-id
remotes/origin/swap-crc
remotes/origin/v2.0.X
remotes/origin/v3.0.X
```

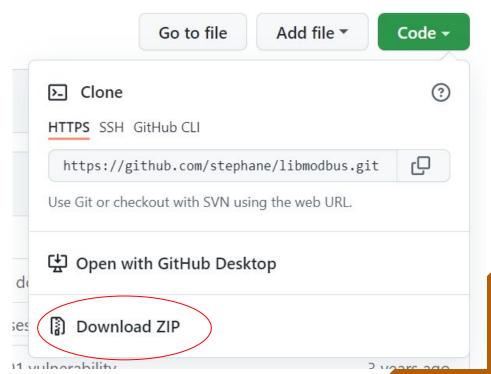
分支名稱

下載遠端分支 - GUI

選擇要下載的分支



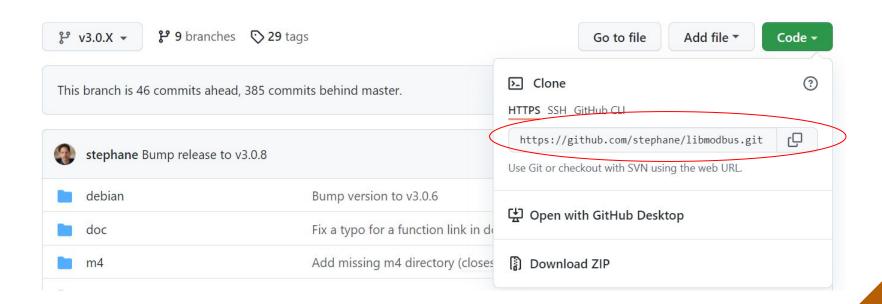
按下download zip



等等 download ZIP不是比較不佳?

下載遠端分支 - GUI

用指令的下載位置都一樣



切換遠端分支 - 用指令

git checkout origin/<branch_name>

```
$ git checkout origin/v3.0.X
Note: switching to 'origin/v3.0.X'.
You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.
If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:
 git switch -c <new-branch-name>
Or undo this operation with:
 git switch -
Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at 64a0ba2 Bump release to v3.0.8
```

切換遠端分支 - 用指令

這時來看一下分支

```
$ git branch
* (HEAD detached at origin/v3.0.X)
master
```

git origin意義

- 1. origin表示遠端
- 2. 這時自己的分支內有master和遠端的v3.0.x這一支分支
- 3. HEAD表示現在在哪一個branch上

```
$ git branch
* (HEAD detached at origin/v3.0.X)
master
```

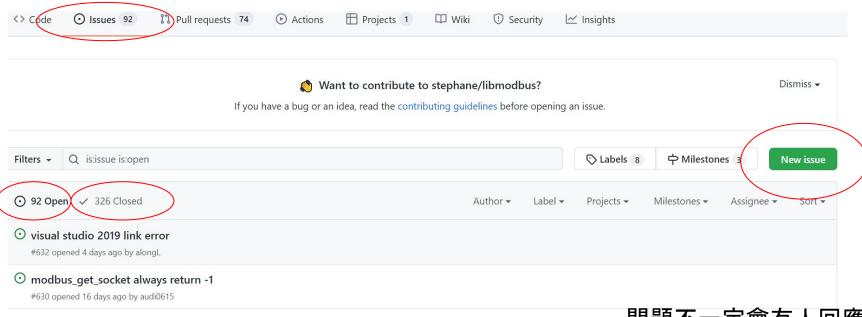
再切換到遠端的分支

會看到我們在v2.0.x的分支上

```
$ git checkout origin/v2.0.X
Previous HEAD position was 64a0ba2 Bump release to v3.0.8
HEAD is now at 5881e70 Bump version to 2.0.4
```

```
$ git branch
* (HEAD detached at origin/v2.0.X)
master
```

如果對這一個專案有問題



問題不一定會有人回應

你可以進去issue裡面問or爬文

小補充-提問的智慧

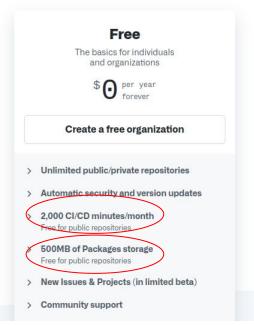
- 1. 先看過說明or爬文再問問題
- 2. 請清楚地問描述的你的問題 救我、很急、幫我 ->所以那個問題勒?
- 3. 請用正確文法 所以¿¿? 那個, , , 請問。。。。->你在寫什麼?
- 4. 同上,除非你很有把握,使用英文可以善用文法檢查工具
- 5. 不要翻拍螢幕,用螢幕截圖,也善用github or gist (等一下會教)

https://github.com/ryanhanwu/How-To-Ask-Questions-The-Smart-Way

在創立自己的帳號之前

先看看免費版本限制

2000次CI/CD 一個倉庫500MB



https://github.com/pricing

CI/CD?

已經很夠使用了

CI/CD?

持續整合(Continuous Integration)持續發布(Continuous Delivery)的縮寫

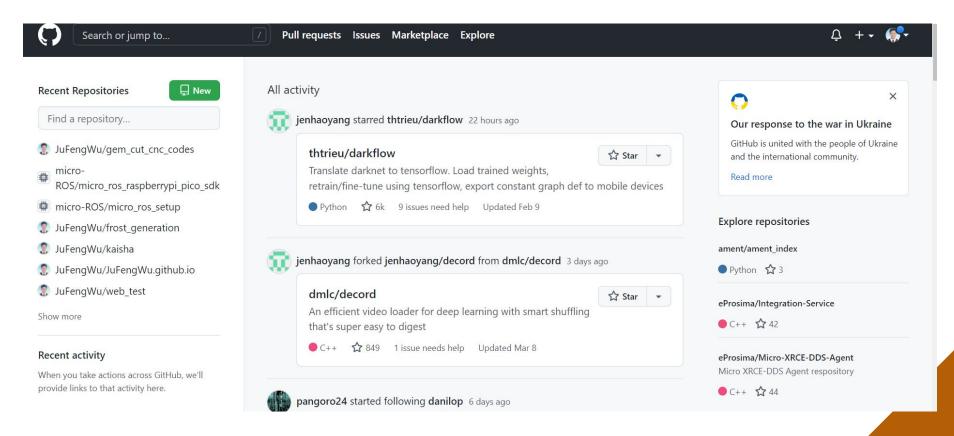
持續交付 ->上傳程式之後就會自動幫你檢查錯誤

持續整合->上傳程式之後就會自動幫你整合

開始建立自己的Github帳號吧



終於創建好自己的帳號了



進入自己的帳號

Overview Repositories 19 Projects	Packages 🏠 Stars 2
Pinned	Customize your pins
## techman_robot_ros Public ## techman robot ros simulator for kinetic and melodic C++ ☆ 1 ♀ 1	cpp_examples Public :: cpp_examples C++
☐ techman_robot_grasp_ros2 Public this is ros2 demo by using techman robot and robotiq gripper C++ ☆ 8 🐕 3	☐ ros2_basic_test_and_example Public ## this is a basic example and test for ros2 C++
tm_robot_ros2_ros1_bridge Public this is techman_robot_grasp_ros2 ros1 bridge C++	ros1_test Public this is ros1 test codes C++

帳號的貢獻



Contribution settings ▼



Contribution activity

March 2022

2021

JuFengWu has no activity yet for this period.

2019

2020

Show more activity

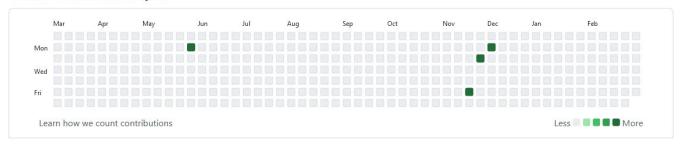
2018

Seeing something unexpected? Take a look at the GitHub profile guide.

帳號的貢獻

4 contributions in the last year

外面看



241 contributions in the last year

Contribution settings ▼

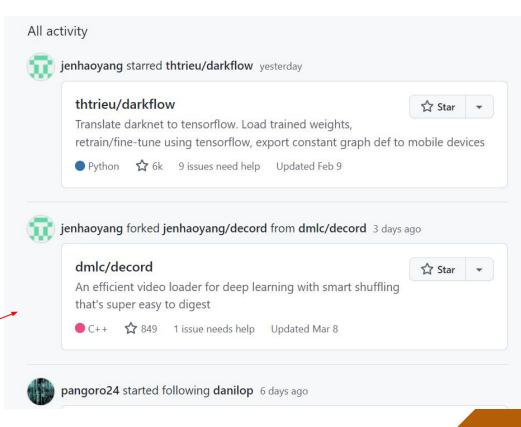
自己看



follow 其他人

就像FB加朋友





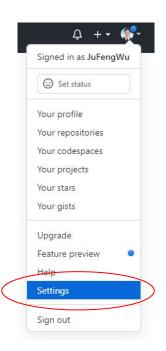
Token

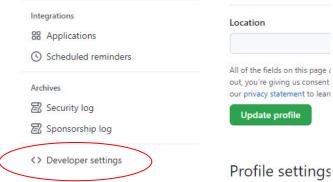
token是一組密碼 可以讓拿到這一組密碼的人特殊權限

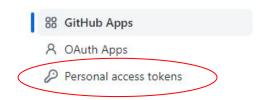
小王: 可以上傳資料, 不能刪除檔案

我: 最高管理人, 都可以做

產生Github的token





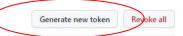


Profile settings

產生Github的token

Personal access tokens

☐ public_repo



Tokens you have generated that can be used to access the GitHub API.

New personal access token Personal access tokens function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication. Note What's this token for? xpiration * The token will never expire! GitHub strongly recommends that you set an expiration date for your token to help keep your information secure. Select scopes Scopes define the access for personal tokens. Read more about OAuth scopes. □ repo Full control of private repositories repo:status Access commit status repo_deployment Access deployment status

Access public repositories

成功產生Token

ersonal access tokens	Generat	e new token	Revoke all
okens you have generated that can be used to access the GitHub API.			
for_test — admin:enterprise, admin:gpg_key, admin:org, admin:org_hook, admin:public_	key,	Never used	Delete
admin:repo_hook, delete:packages, delete_repo, gist, notifications, repo, user, workflow, w	rite:discussion, wi	ite:packages	

不小心洩漏可以刪除

Token不要給別人知道

gitignore

github內一個專案只有500mb 一些不需要的東西就不要放了

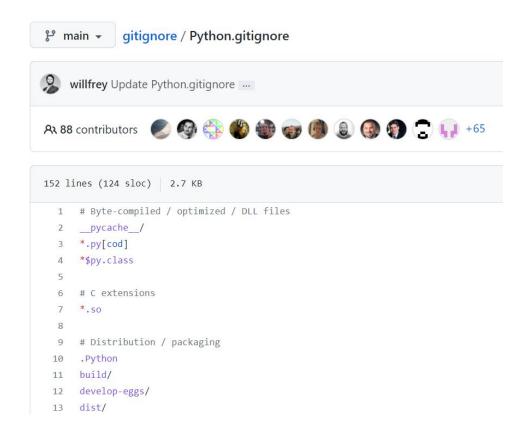


這時gitignore就是你的好朋友

建立gitignore檔案

rc Fix float endianness issue on big en	dian archi
tests Make sub-command more clear	
appveyor.yml Add appveyor.com config	
Clabot Add rm5248 to .clabot	
editorconfig Replace .dir-locals.el (Emacs) by .edi	torconfig
.gitignore Add .vscode/ to .gitignore	

天下文章一大抄



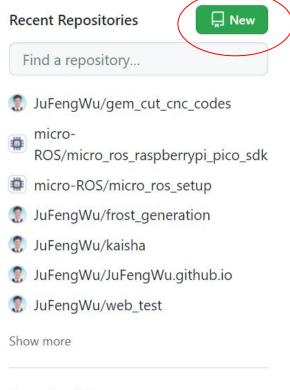
會有哪一些東西不要放在github上

- 1. 編譯產生出來的執行檔
- 2. 電腦內的連結(.dll .so .lib .a .o)
- 3. Visual studio自動產生出來的東西

這一些東西的特色->檔案很大, 每次編譯都會不一樣

上傳自己的程式

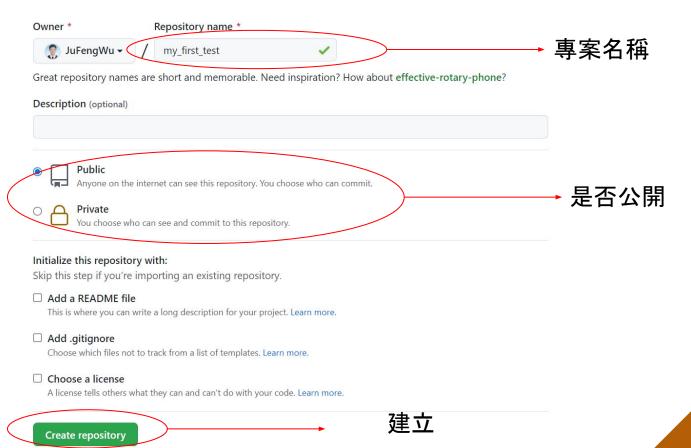
來放自己的程式吧



Recent activity

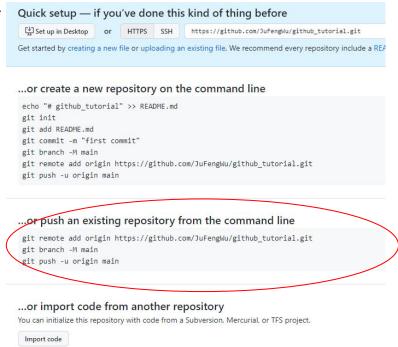
When you take actions across GitHub, we'll

上傳自己的程式



上傳已經有的專案

基本上按照這一個步驟 但是可以不用政治正確

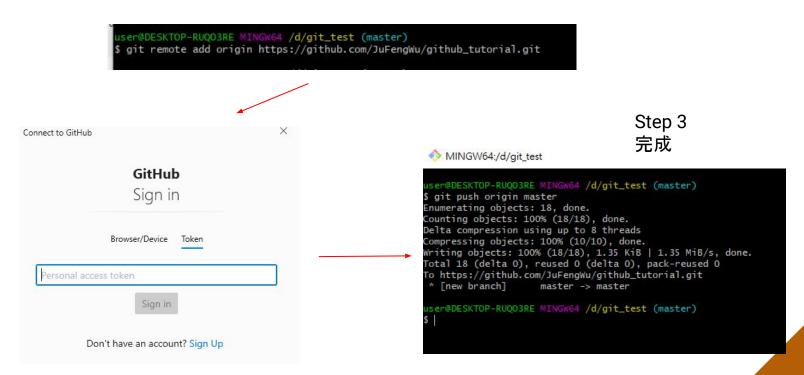


上傳已經有的專案

Step 1

Step 2

輸入token



輸入token視同你就是github上的這一個人

放上專案了

☐ JuFeng	Wu/githul	o_tutorial Public								⊙ Unwatch 1 🕶
<> Code	⊙ Issues	17 Pull requests	Actions	☐ Wiki ① Security	∠ Insights	Settings				
				© 0 tags second com sixth commi	mit t		Go to file 3753fd7 4	Add file Code Add file Add a README	About No description, website, or to ☆ 0 stars ◇ 1 watching ♀ 0 forks Releases No releases published Create a new release	ঞ্চি pics provided.
									No packages published Publish your first package	

終於成功了!

問題 如果是Win7和Win8.1的話怎麼辦?

在push之前,開啟隱藏資料夾.git 用記事本打開裡面的config, 在URL的前面加入<TOKEN>和@

packed-refs

```
[core]
logs
                           repositoryformatversion = 0
                           filemode = false
objects
                           bare = false
                           logallrefupdates = true
refs
                           ignorecase = true
                        [remote "origin"]
COMMIT_EDITMSG
                           url = https://《你的TOKEN>@github.com/JuFengWu/test tutorial.git
                           fetch = +refs/heads/*:refs/remotes/origin/*
config
                       [branch "master"]
description
                           remote = origin
                           merge = refs/heads/master
gitk.cache
HEAD
index
                         https://blog.csdn.net/m0 50487958/article/details/120634517?fbclid=lwAR2Kx
                         PNdg6iLOjfu8ed BLQ XIIcCfluBXsa3RsTVuXb8sJCsS-jX9-RQTo
```

問題 我是公用電腦怎麼辦?

windows 會自動記錄token,要如何刪除?





讓專案變漂亮 - readme

你可以在readme上寫一些說明和放文件

A groovy modbus library

build passing

Overview

libmodbus is a free software library to send/receive data with a device which respects the Modbus protocol. This library can use a serial port or an Ethernet connection.

The functions included in the library have been derived from the Modicon Modbus Protocol Reference Guide which can be obtained from www.modbus.org.

The license of libmodbus is LGPL v2.1 or later.

The documentation is available as manual pages (man libmodbus to read general description and list of available functions) or Web pages www.libmodbus.org/documentation/. The documentation is licensed under the Creative Commons Attribution-ShareAlike License 3.0 (Unported) (http://creativecommons.org/licenses/by-sa/3.0/).

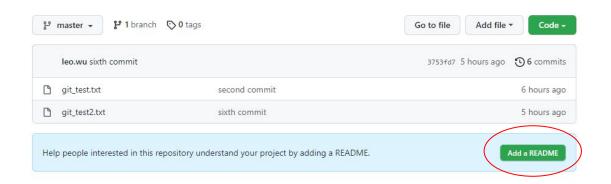
Github的readme是markdown格式

什麼是markdown?

純文字的標記 word一樣的排版和效果

加入readme的兩個方法

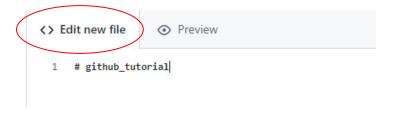
- 1. 在上傳檔案的時候直接加入readme.md
- 2. 上傳檔案之後新增readme.md

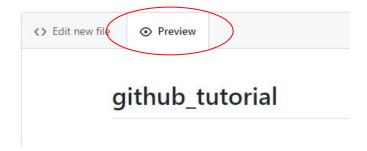


按下去就對了

readme的撰寫

在github中, 有撰寫模式跟預覽模式





Readme的標題

- 1. # + 空格 + 文字 = 標題
- 2. 越多#文字越小
- 3. 內容的換行不會真的換行

```
1
2 # AA
3 ## BB
4 ### CC
5 #### DD
6 ##### EE
7 ##### FF
8
9 AAA
10 BBB
11 CCC
```

AA BB CC DD EE FF AAA BBB CCC

Readme的使用

其他的使用技巧

<> Edit new file	
Т	his is tittle
	• AAA
ВІ	ВВ
	<pre>print("aaa") a = b+c</pre>

Readme的使甲

以下是程式碼

```
## 以下是程式碼

print("aaa")
a = b + c

*這是斜線* <br/>
_ 這是強調__ <br/>
![圖片介紹] (https://avatars.githubusercontent.com
```

print("aaa")
a = b + c

這是斜線 **這是強調**



Readme的使用

以下是表格

Ī	First	Second	Third
1		::	:
	aaa	bbb	ccc
1	ddd	eee	fff

以下是標記成灰色底

灰底區在右邊 `我是灰底區 ` 灰底區在左邊

文字的連結在左邊 [我是連結](http://yahoo.com.tw "我是滑鼠移向連結會秀出的文字") 文字連結在右邊

以下是表格

First	Second	Third
aaa	bbb	ccc
ddd	eee	fff

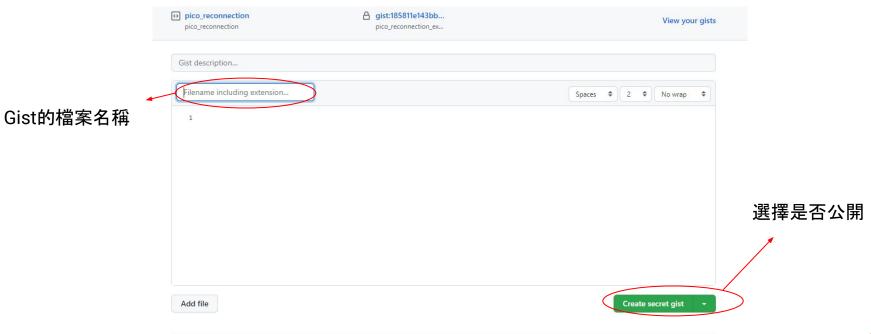
以下是標記成灰色底

灰底區在右邊 我是灰底區 灰底區在左邊

文字的連結在左邊 我是連結 文字連結在右邊

Gist的使用

進入Gist的首頁



為什麼要用Gist?

- 想要分享部分程式給別人
- 想要作一些筆記
- 內嵌程式碼到網站中

Gist當文件使用

只要gist上加上md附檔名 就可以當文件使用



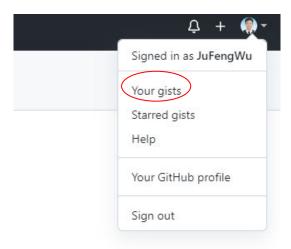


Gist純程式碼

一樣可以放副檔名產生程式的顏色

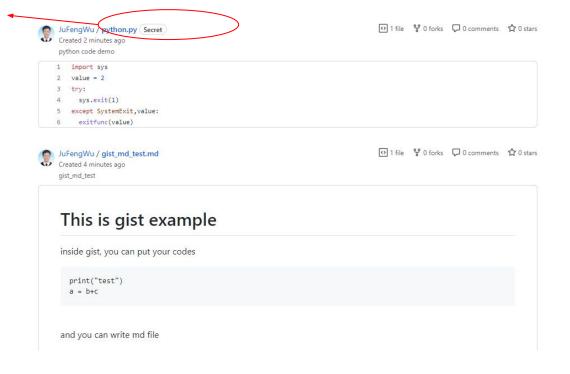
1	import sys	
	value = 2	
	try:	
4	sys.exit(1)	
5	except SystemExit, value:	
6	exitfunc(value)	

看之前的gist



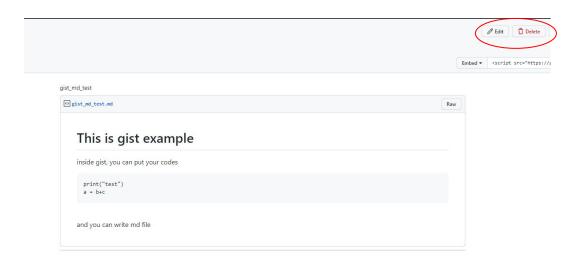
所有的Gist

不公開的Gist



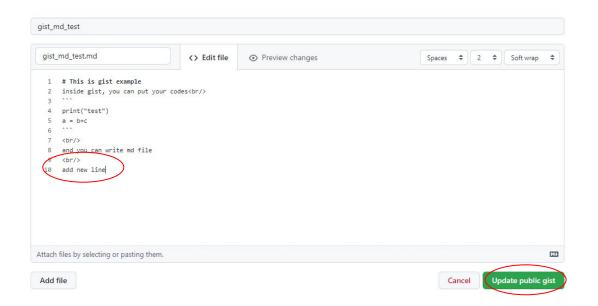
修改和刪除

你可以針對每一個Gist進行修改和刪除



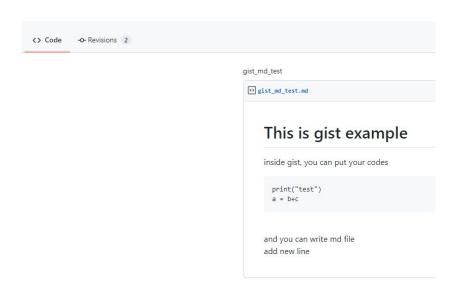
修改Gist

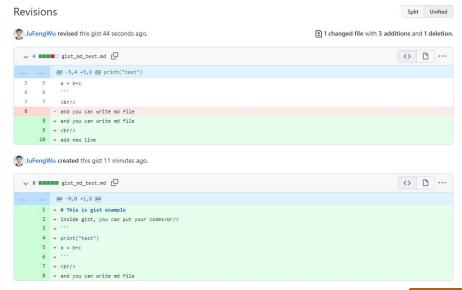
你可以增加一些內容



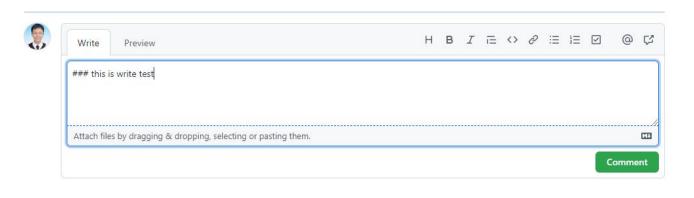
看所有修改的內容

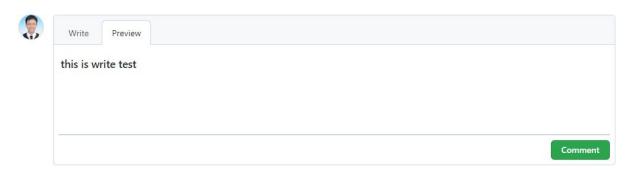
你可以從Revisions看之前修改的內容



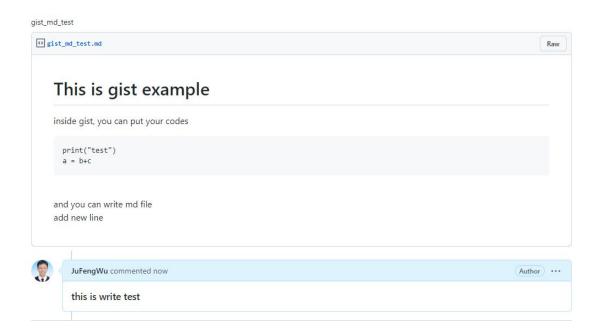


你也可以給人家一些評論



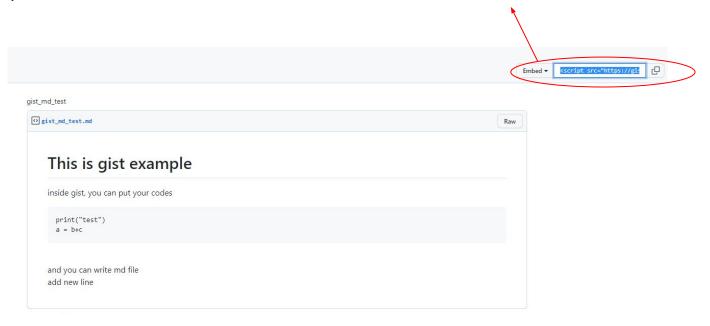


完成評論

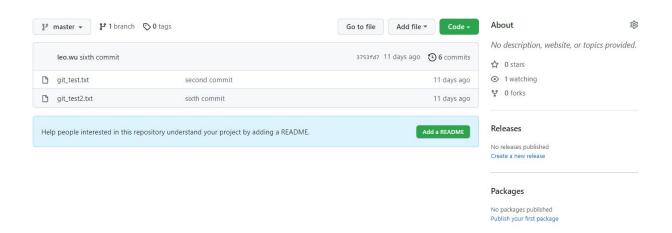


鑲嵌到網站上

<script src="https://gist.github.com/JuFengWu/1934f66a1899b9baebcb25d4024de653.js">
</script>



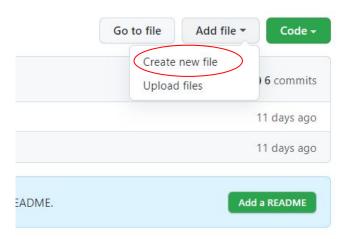
Github上加入license



沒有license的標記, 其他人不知道能不能商用

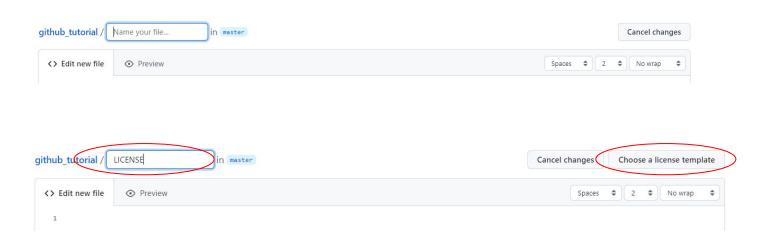
新增license檔案

按下新增檔案 Add file ->Create new file



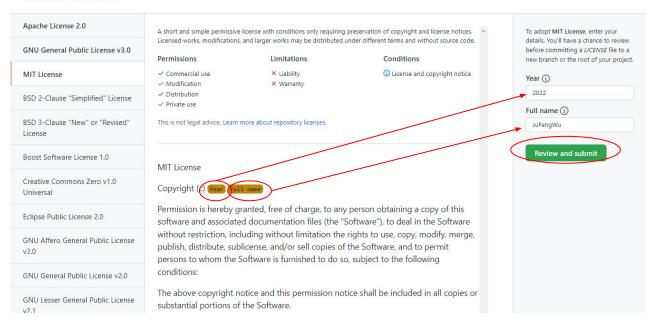
新增license檔案

輸入license會出現 choose a license template



license的選擇

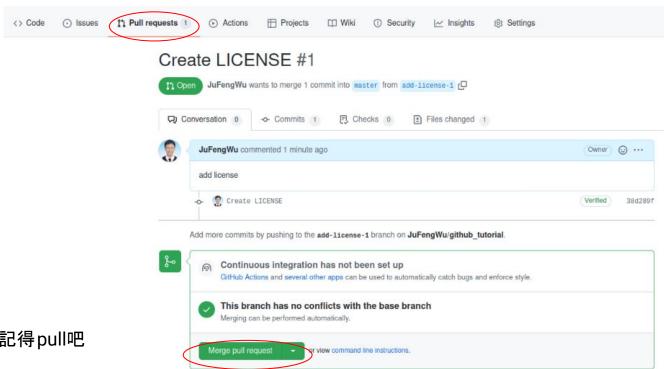
Add a license to your project



自動匯入license的檔案

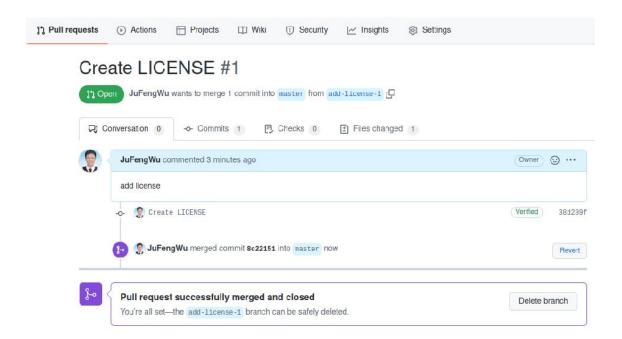
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會出現pull request



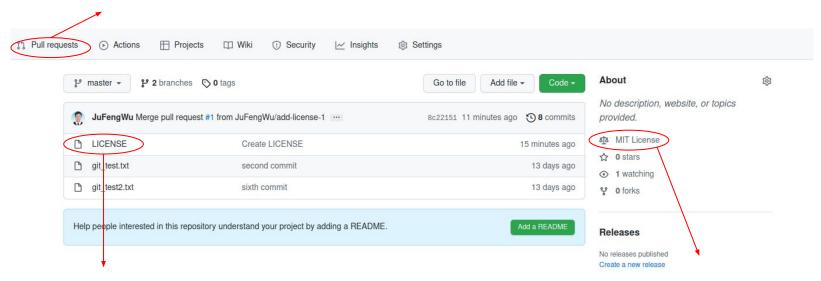
各位還記得pull吧

完成了



回到主頁面

沒有open的pull request



多了LICENSE的檔案

顯示這一個專案的license

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