git

Git 是一種分散式版本控制系統。

1. 安裝git
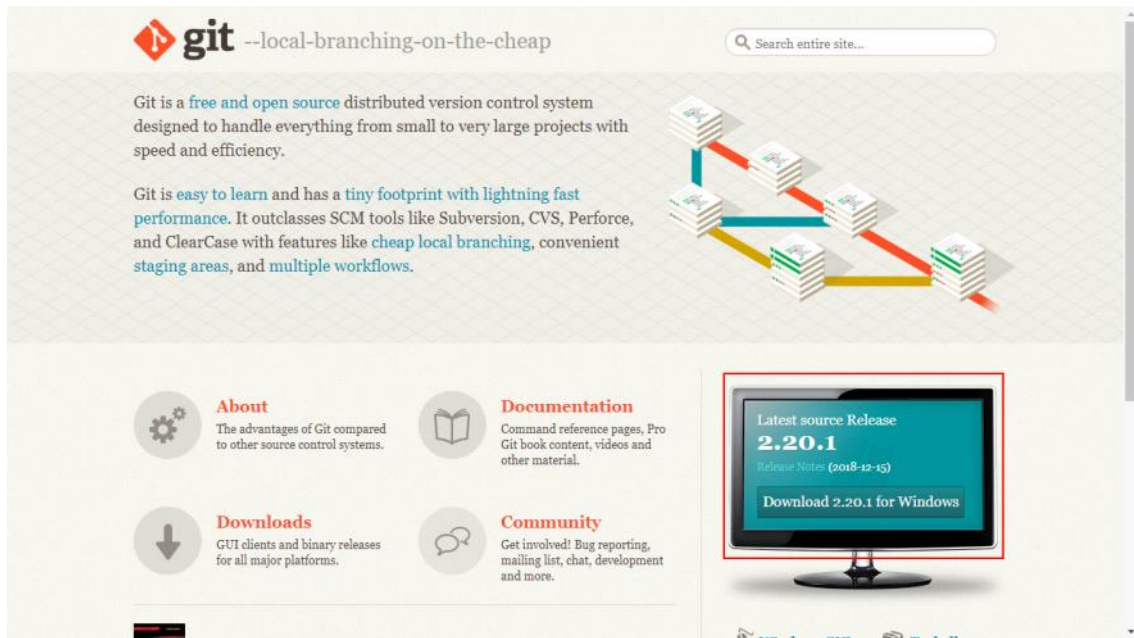
安裝完成後可於工具列發現程式列表
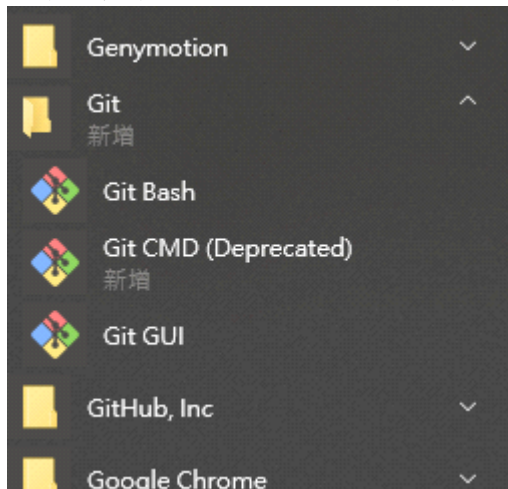
2. 使用Git Bash

指令與linux 雷同

git version　查詢版本已確認是否安裝成功

3. 開啟一個新專案

對照資料匣可以發現多一個檔案(隱藏檔)
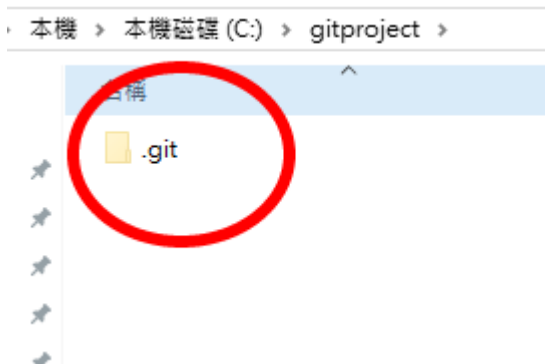
新增一個檔案 以git status 指令發現並沒有加入數據庫

利用 **git add .** 加入倒git 數據庫

```
            index1.html

nothing added to commit but untracked files present (use "git add" to t
rack)

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git add .

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index1.html


Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$
```

使用 git commit -m 'update index1.html' 增加註解說明


```
Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git add .

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index1.html


Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git commit -m 'uodate index1.html'
[master (root-commit) 78ec00d] uodate index1.html
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index1.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$
```

git log 觀察更新紀錄

```
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index1.html


Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git commit -m 'uodate index1.html'
[master (root-commit) 78ec00d] uodate index1.html
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index1.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ git log
commit 78ec00db141af0e85cc6c02b3ee194bf533f4cf2 (HEAD -> master)
Author: minghong <minghong2233@gmail.com>
Date:   Fri Feb 1 11:01:52 2019 +0800

    uodate index1.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject (master)
$ |
```
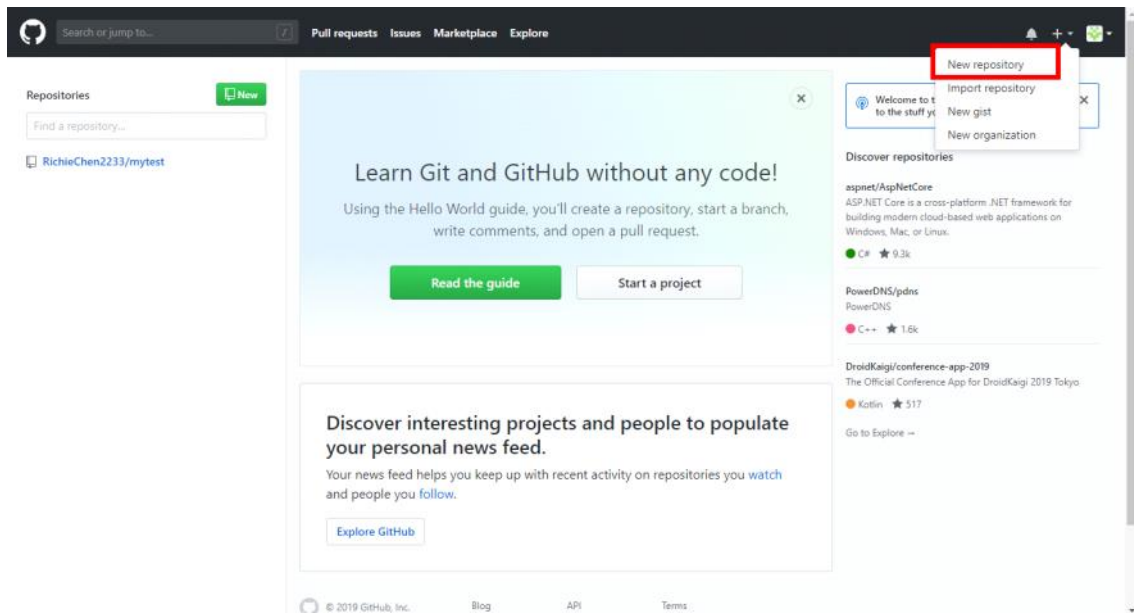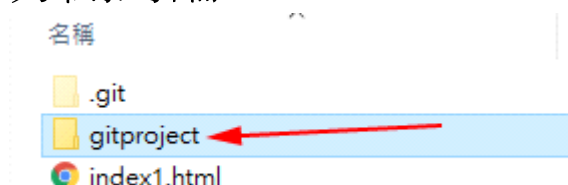
4. 上傳至 github.com
新增一個數據庫

複製數據庫至本地端

在本地端資料匣會發現相對應的檔案
此專案跟原本的上述練習是不一樣的數據庫必須
分開討論

新增檔案並將檔案同步到github

```
Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ touch index002.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        index002.html

nothing added to commit but untracked files present (use "git add" to t
rack)

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git add .

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git commit -m 'update index002.html'
[master (root-commit) e555731] update index002.html
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index002.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$
```

```
MINGW64:/c/gitproject/gitproject                                    —  □  ×
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        index002.html

nothing added to commit but untracked files present (use "git add" to t
rack)

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git add .

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git commit -m 'update index002.html'
[master (root-commit) e555731] update index002.html
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index002.html

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 220 bytes | 73.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/RichieChen2233/gitproject.git
 * [new branch]      master -> master

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$
```

從github可以發現同步成功
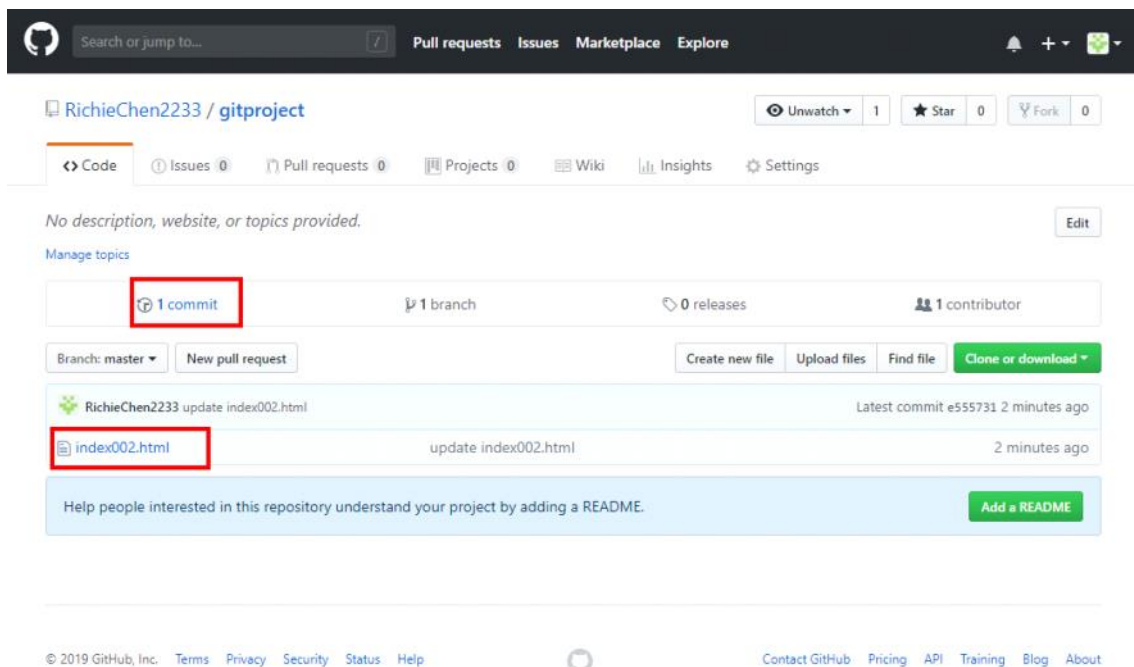
在測試更新另一個檔案(修改index002.html)
從status 可發現檔案被修改但沒未加入commit


```
Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 220 bytes | 73.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/RichieChen2233/gitproject.git
 * [new branch]      master -> master

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working direct
ory)

        modified:   index002.html

no changes added to commit (use "git add" and/or "git commit -a")

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$ git add .

Richie@DESKTOP-4IDC14U MINGW64 /c/gitproject/gitproject (master)
$
```
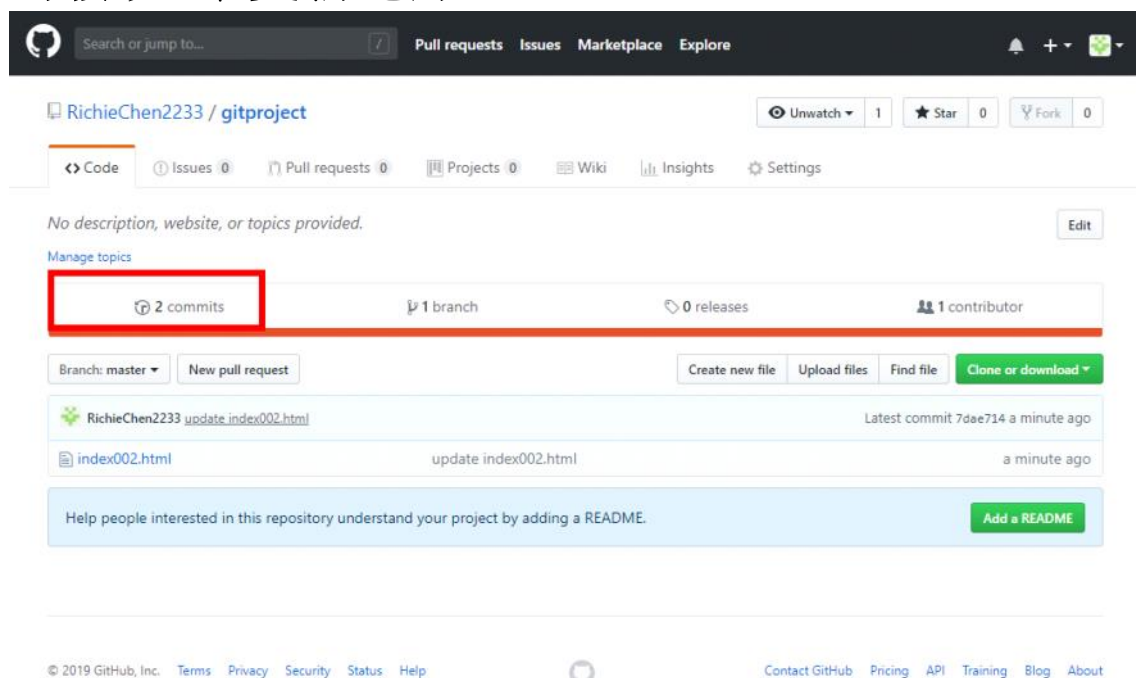
加入 commit 並發布到github

可發現2筆更新紀錄

5. 常用指令
基礎設定
查詢版本
git version

查詢設定列表
git config --list

輸入姓名
git config --global user.name "你的名字"

輸入email
git config --global user.email "你的email"

新增本地/遠端數據庫

在本地資料夾新增數據庫
git init

複製遠端數據庫
git clone 遠端數據庫網址

增加/刪除檔案

增加檔案進入索引
git add 檔案名稱

增加全部檔案進入索引
git add .

查詢狀態
git status

顯示歷史紀錄
git log

將索引提交到數據庫
git commit -m '更新訊息'

還原指令

還原工作目錄與索引，會跟最後一次 commit 保持一樣
git reset --hard

全部檔案取消索引
git reset HEAD

單一檔案取消索引
git reset HEAD 檔案名稱

恢復單一檔案到最新 commit 狀態
git checkout 檔案名稱

刪除最近一次 commit
git reset --hard "HEAD^"

上面語法如果刪除錯了可以再用此語法還原
git reset --hard ORIG_HEAD

刪除最近一次 commit，但保留異動內容

git reset --soft "HEAD^"

commit 後發現有幾個檔案忘了加入進去,想要補內容進去時
git commit --amend

分支

顯示所有本地分支
git branch

新增分支
git branch 分支名稱

切換分支
git checkout 分支名稱

合併指定分支到目前的分支
git merge 分支名稱

刪除分支
git branch -d 分支名稱

遠端數據庫操作

複製遠端數據庫
git clone 遠端數據庫網址

查詢遠端數據庫
git remote

將本地分支推送到遠端分支
git push 遠端數據庫名稱 遠端分支名稱

將遠端分支拉下來與本地分支進行合併
git pull

標籤

查詢標籤
git tag

查詢詳細標籤
git tag -n

刪除標籤
git tag -d 標籤名稱

新增輕量標籤
git tag 標籤名稱

新增標示標籤

git tag -am "備註內容" 標籤名稱

暫存

暫時儲存當前目錄
git stash

瀏覽 stash 列表
git stash list

還原暫存
git stash pop

清除最新暫存
git stash drop

清除全部暫存
git stash clear

暫時儲存當前目錄
git stash