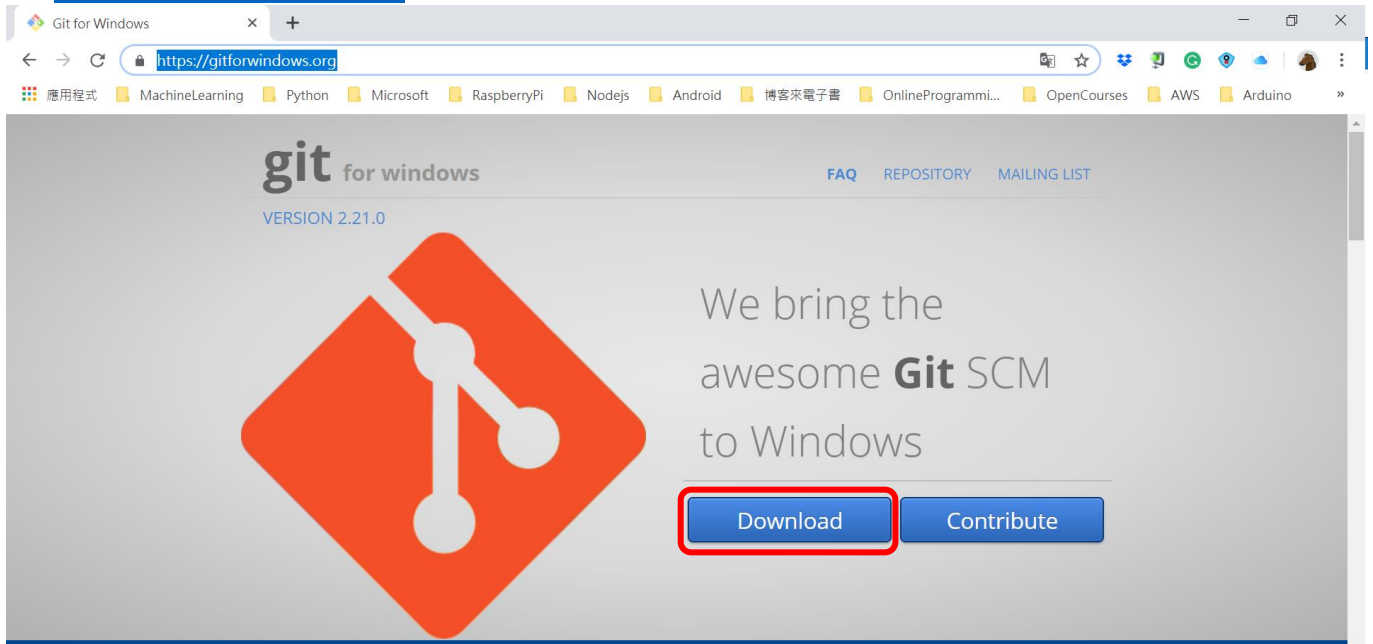


如何利用 Git+GitHub 進行 nodeprj-mathbmi 專案之版本管理

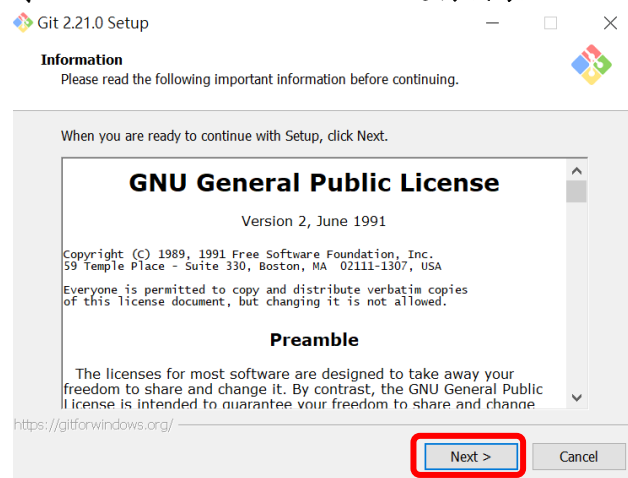
2019/3/3

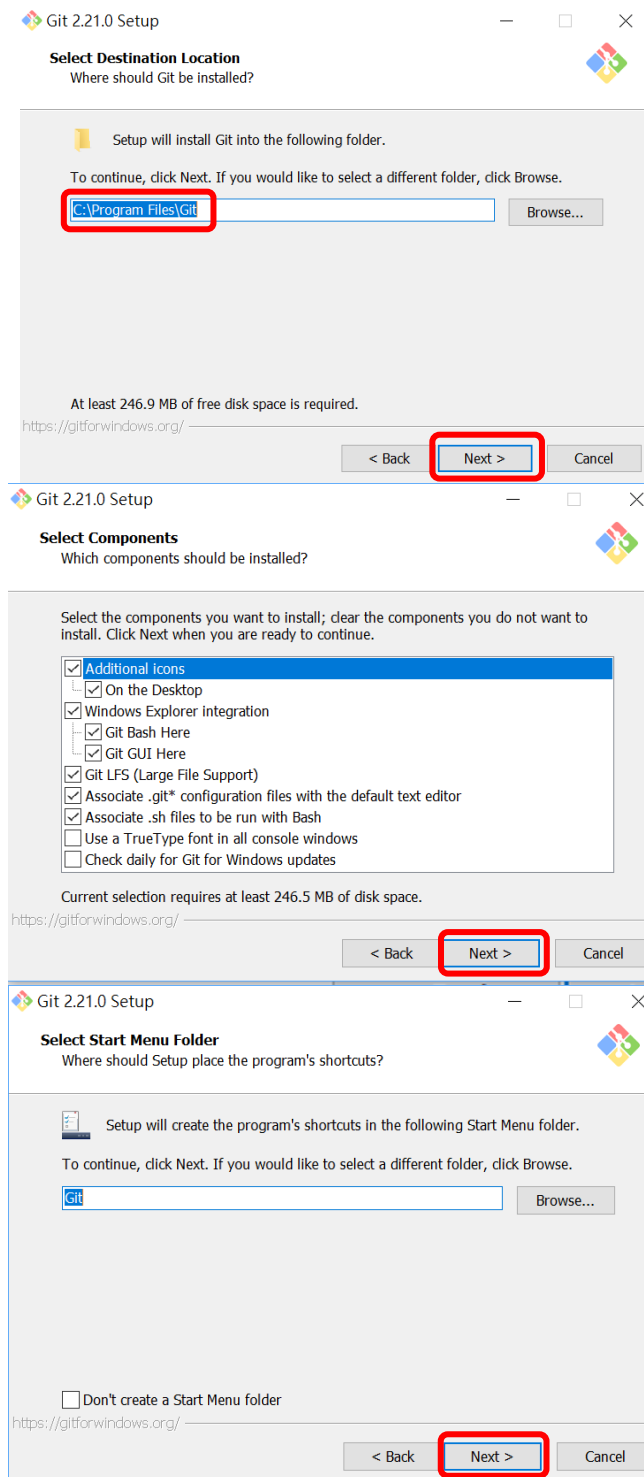
1. 從以下網址下載 Git for Windows (Git-2.21.0-64-bit.exe) :

<https://gitforwindows.org/>

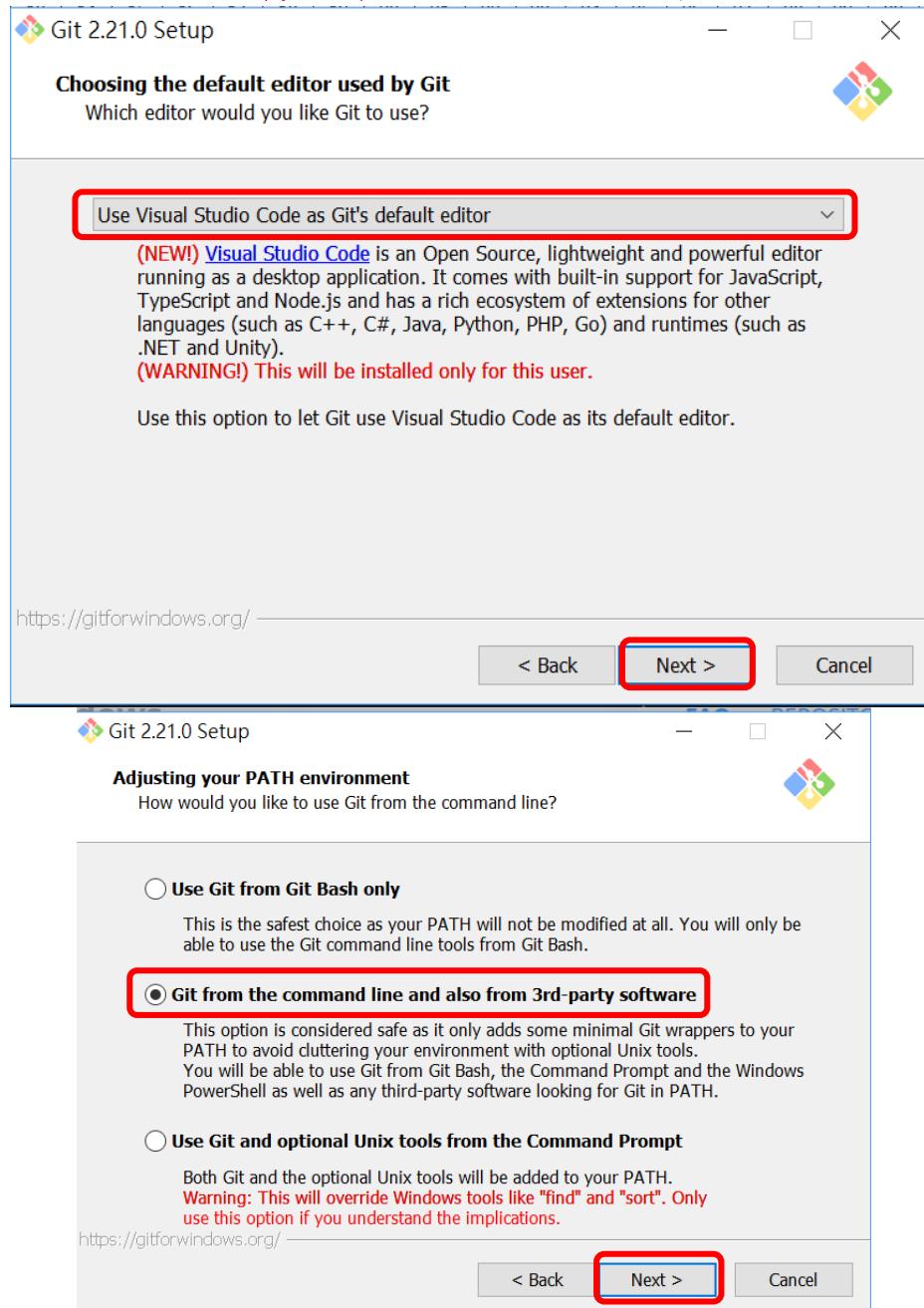


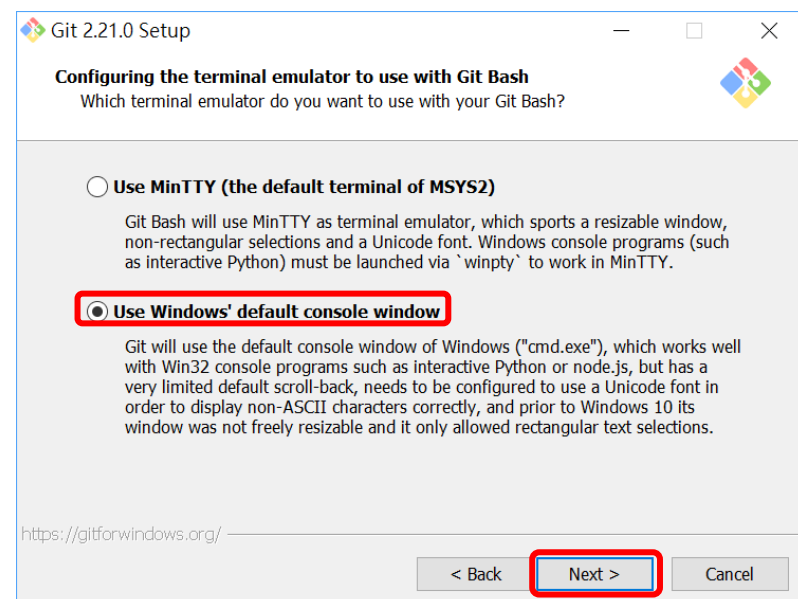
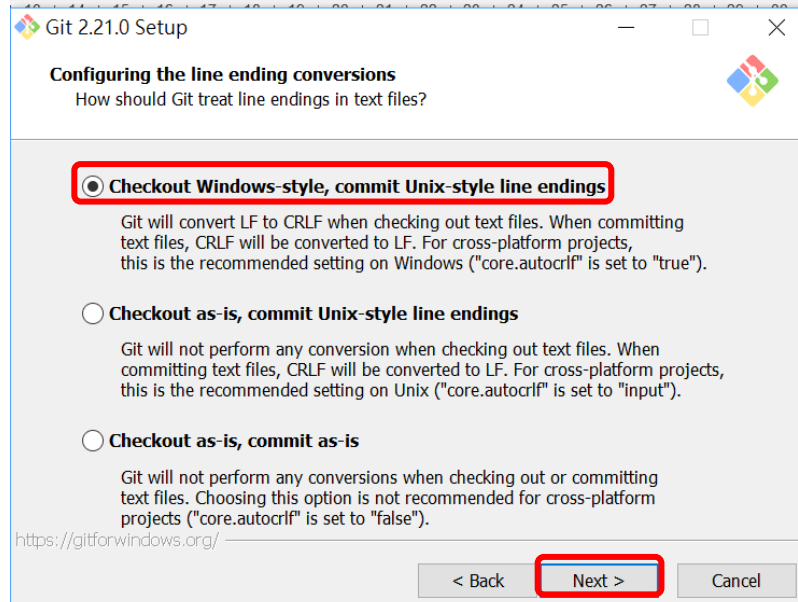
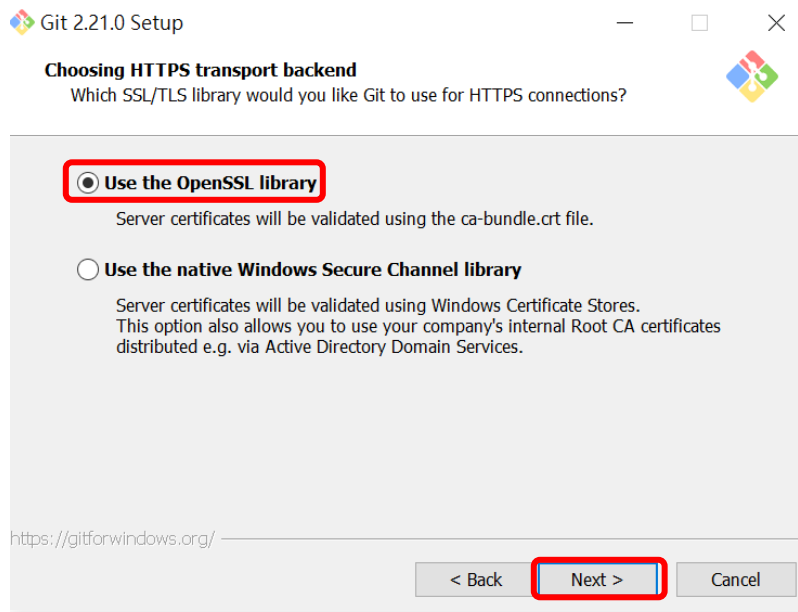
2. 從檔案總管中雙點擊 Git-2.21.0-64-bit.exe 進行安裝 :

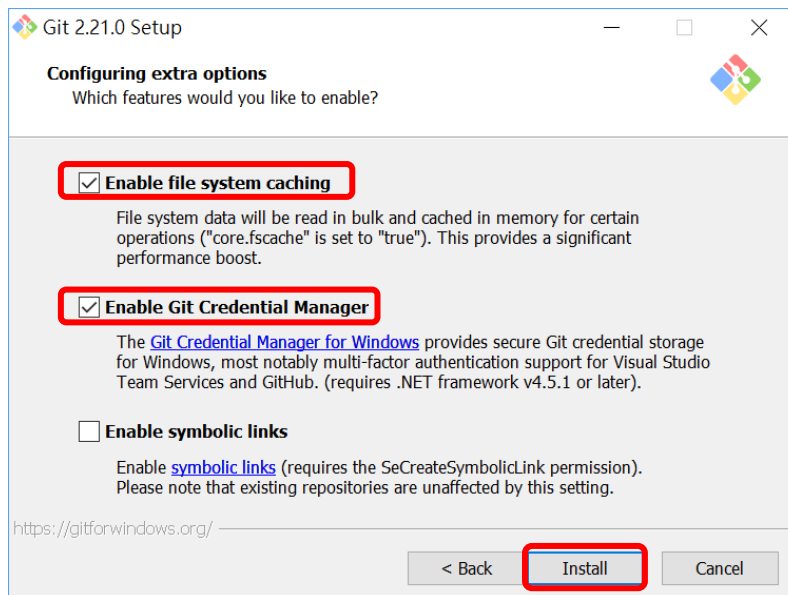




(請參考[Visual Studio Code 之下載、安裝、中文化與使用(20190406)]資料夾之說明，事先下載及安裝 Visual Studio Code)

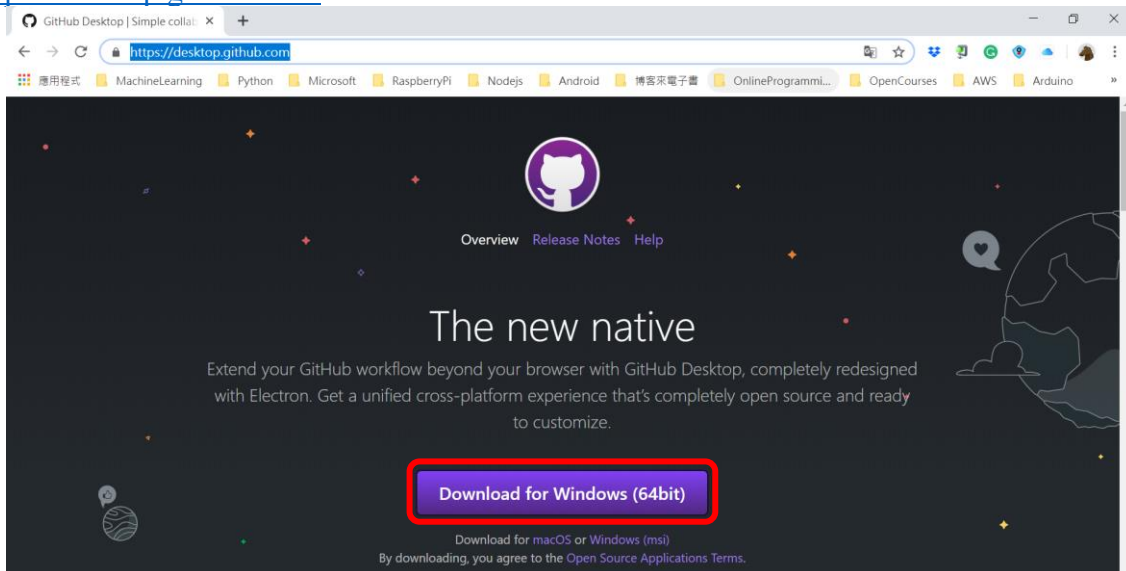




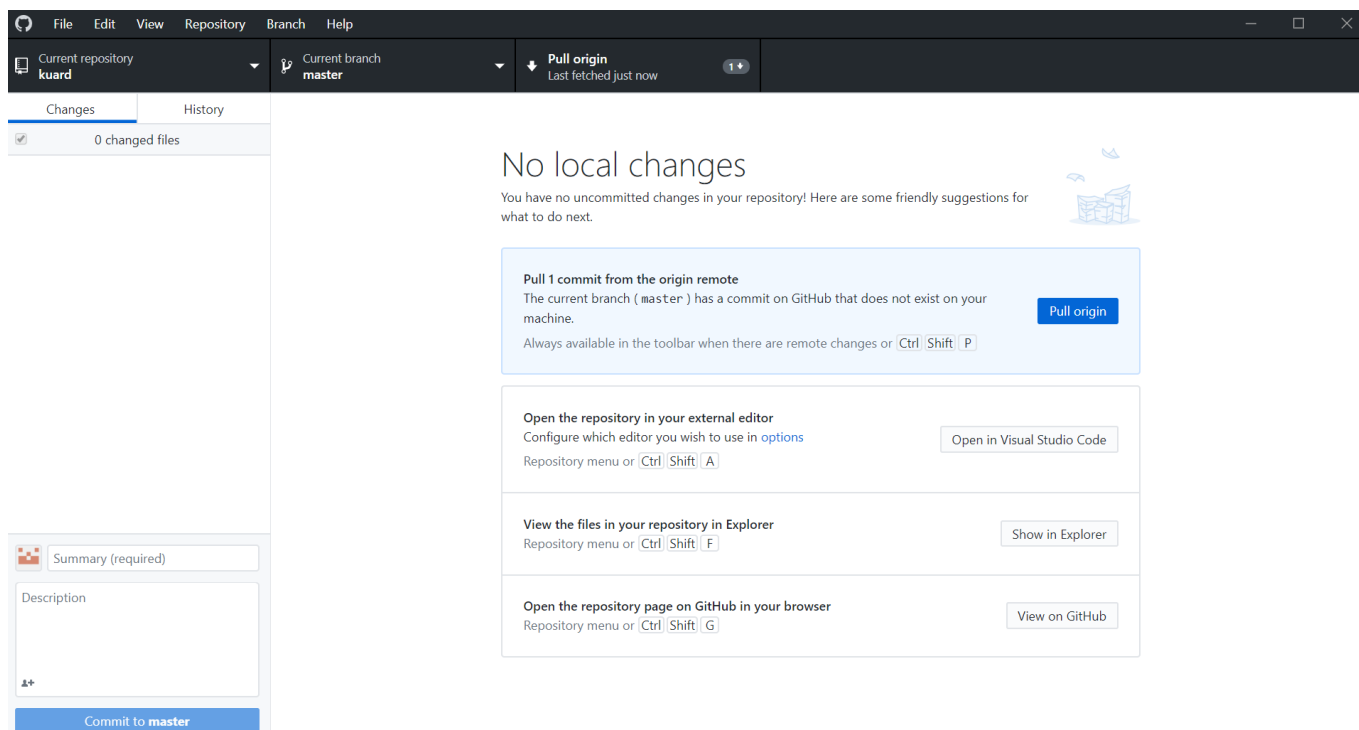


3. 從以下網址下載 GitHub Desktop for Windows (GitHubDesktopSetup.exe) :

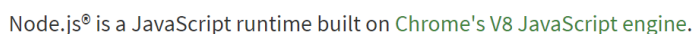
<https://desktop.github.com/>



4. 從檔案總管中雙點擊 GitHubDesktopSetup.exe 進行安裝：



<https://nodejs.org/en/> (若已經安裝，請略過此一步驟)



10.15.1 LTS

11.9.0 Current

[Other Downloads](#) | [Changelog](#) | [API Docs](#) [Other Downloads](#) | [Changelog](#) | [API Docs](#)

Sign up for [Node.js Everywhere](#), the official Node.js Monthly Newsletter.

The screenshot shows the '開啓資料夾' (Open Folder) dialog box in Visual Studio Code. The breadcrumb path is '0.Programming > NodejsWork > 1.如何將Node.js+Express專案利用Git+GitHub進行版本控制(20190303)'. The file list shows several folders, with 'nodeprj-mathbmi' selected and highlighted in blue. The '開啓資料夾' button in the bottom right corner is highlighted with a red box.

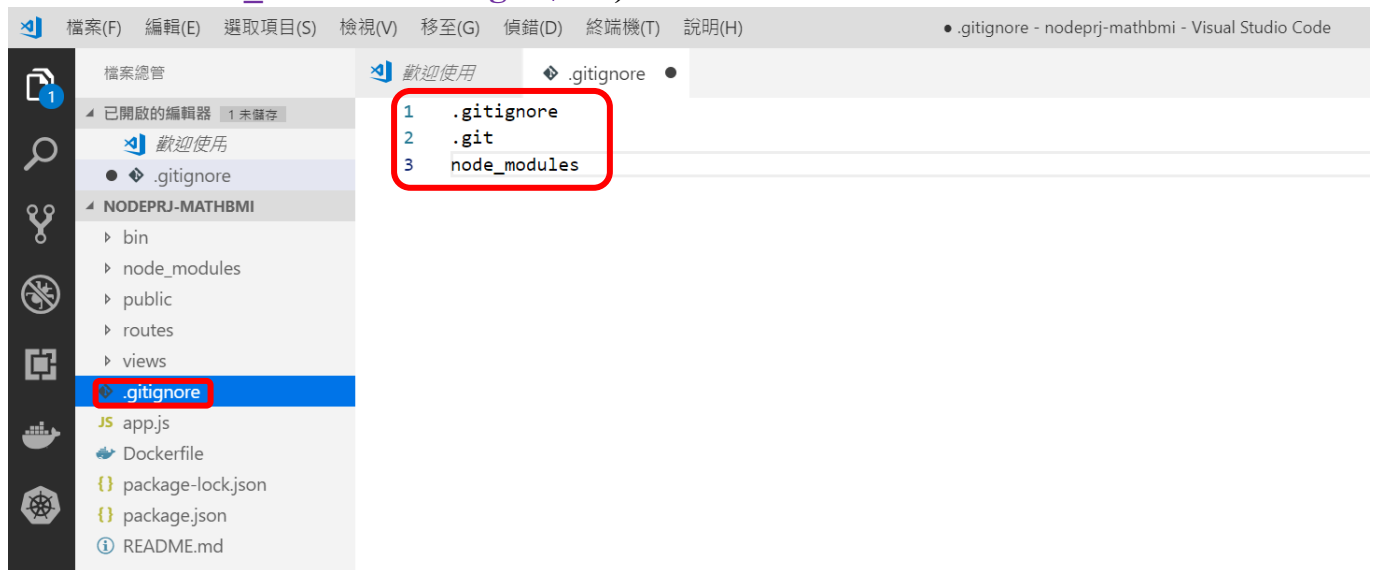
名稱	修改日期	類型	大小
nodeprj-mathbmi	2019/4/6 下午 05:21	檔案資料夾	
Visual Studio Code之下載、安裝、中文化...	2019/4/6 下午 04:56	檔案資料夾	

7. 在專案中新增.gitignore 檔案：

- 將滑鼠移到專案名稱上，然後按下右邊之新增檔案符號：

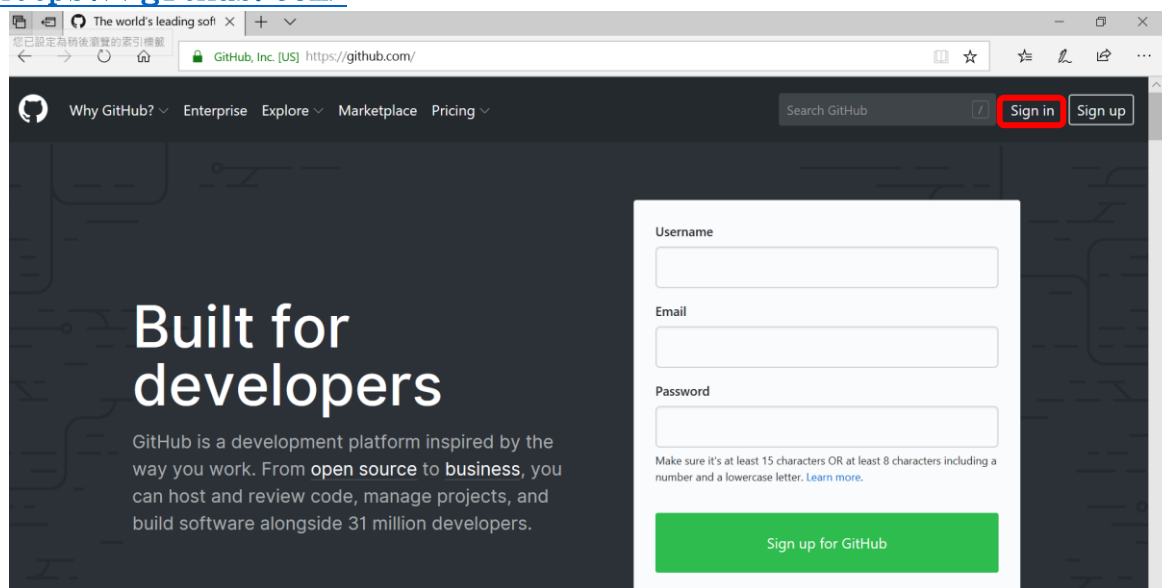


- 輸入檔名.gitignore，並輸入以下三行(表示不要將.gitignore 檔案、.git 資料夾及 node_modules 納入 git 管理)：

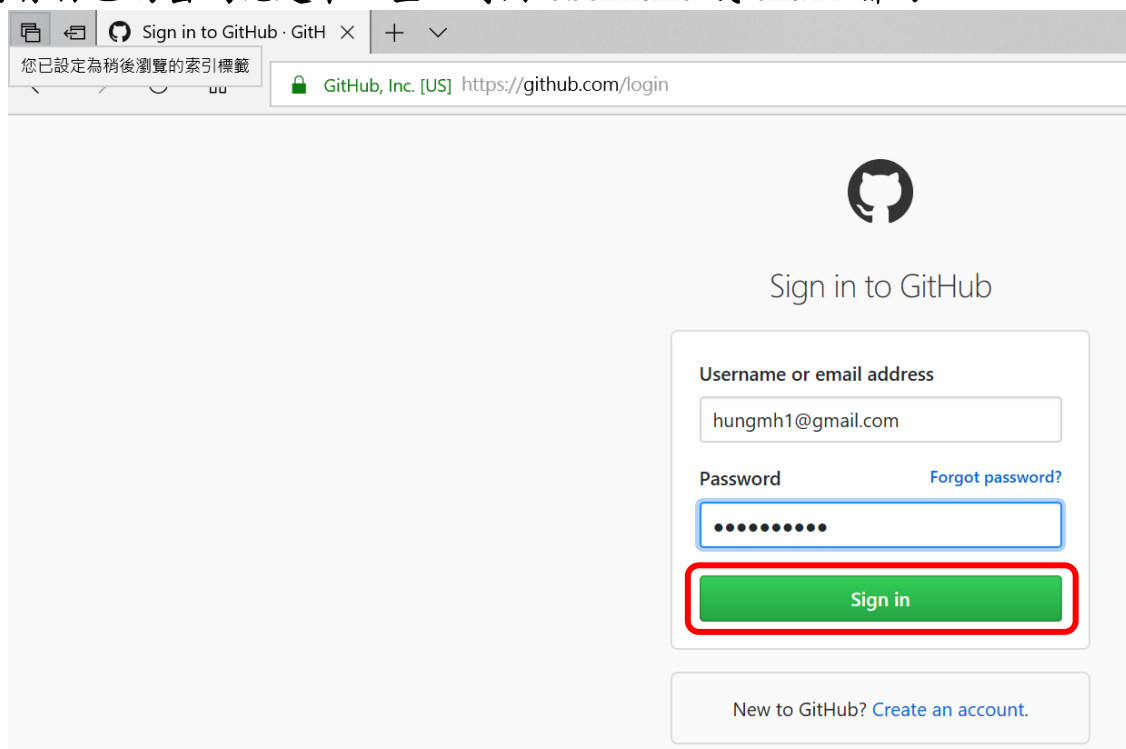


8. 打開瀏覽器，輸入 GitHub.com 網址：切換到專案目錄：

<https://github.com/>



9. 若還沒有帳號就註冊(Sign up)一個；若已經有了帳號，就登入(Sign in)：例如老師帳號的 Username 為 **hmx4**，Email 為 **hungmh1@gmail.com**，請將你自己的密碼記起來。登入時用 Username 或 email 都可以。



10. 打開 Windows 之命令控制台，輸入以下命令，讓你的電腦知道你的 GitHub 之 Username 及 Email：

>git config --global user.name "hmx4" (老師的 Username)

>git config --global user.email "hungmhl@gmail.com" (老師的 Email)

系統管理員: 命令提示字元

Microsoft Windows [版本 10.0.17134.648]

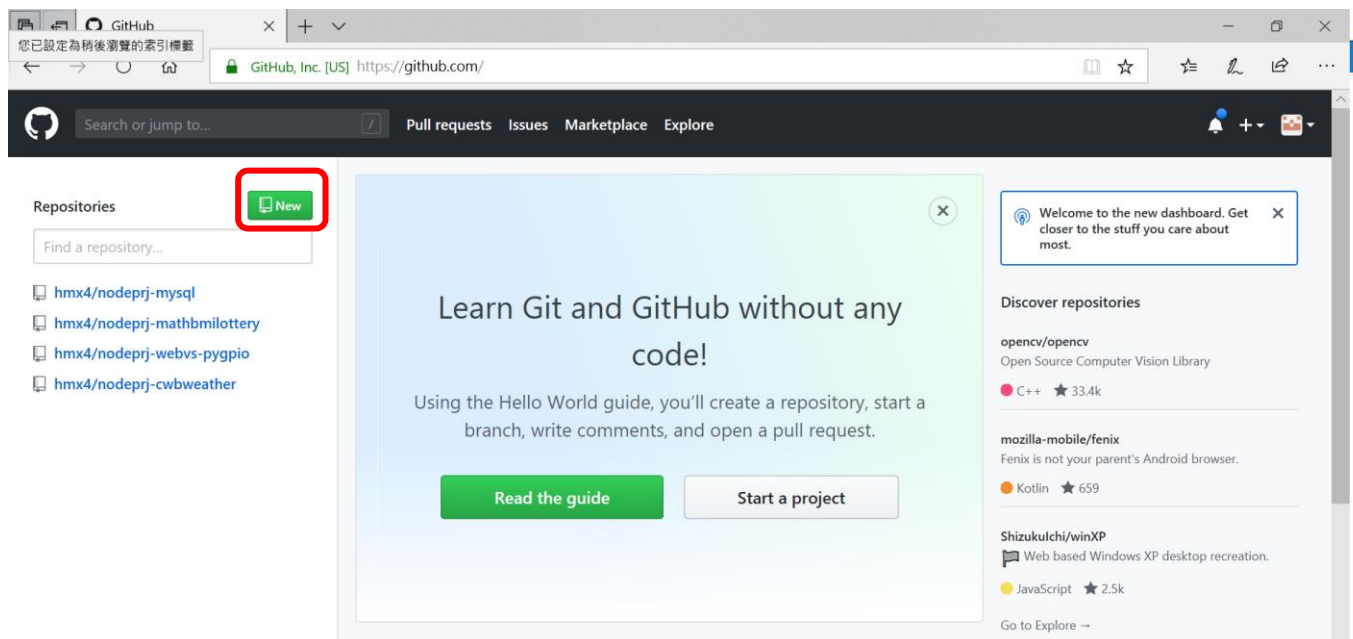
(c) 2018 Microsoft Corporation. 著作權所有，並保留一切權利。

C:\WINDOWS\system32>git config --global user.name "hmx4"

C:\WINDOWS\system32>git config --global user.email "hungmhl@gmail.com"

C:\WINDOWS\system32>

11. 點選左上方[New]，以便建立一個新的遠端檔案庫：



12. 輸入檔案庫名稱(請使用 Local 的專案目錄相同名稱：**nodeprj-mathbmi-o**)，選擇性描述，公開，然後點選[Create repository]：

Create a New Repository

GitHub, Inc. [US] | https://github.com/new

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Create a new repository

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

Owner: hmx4 / **Repository name *** **nodeprj-mathbmi-o** ✓

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

Description (optional): **test**

☒ **Public**
Anyone can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

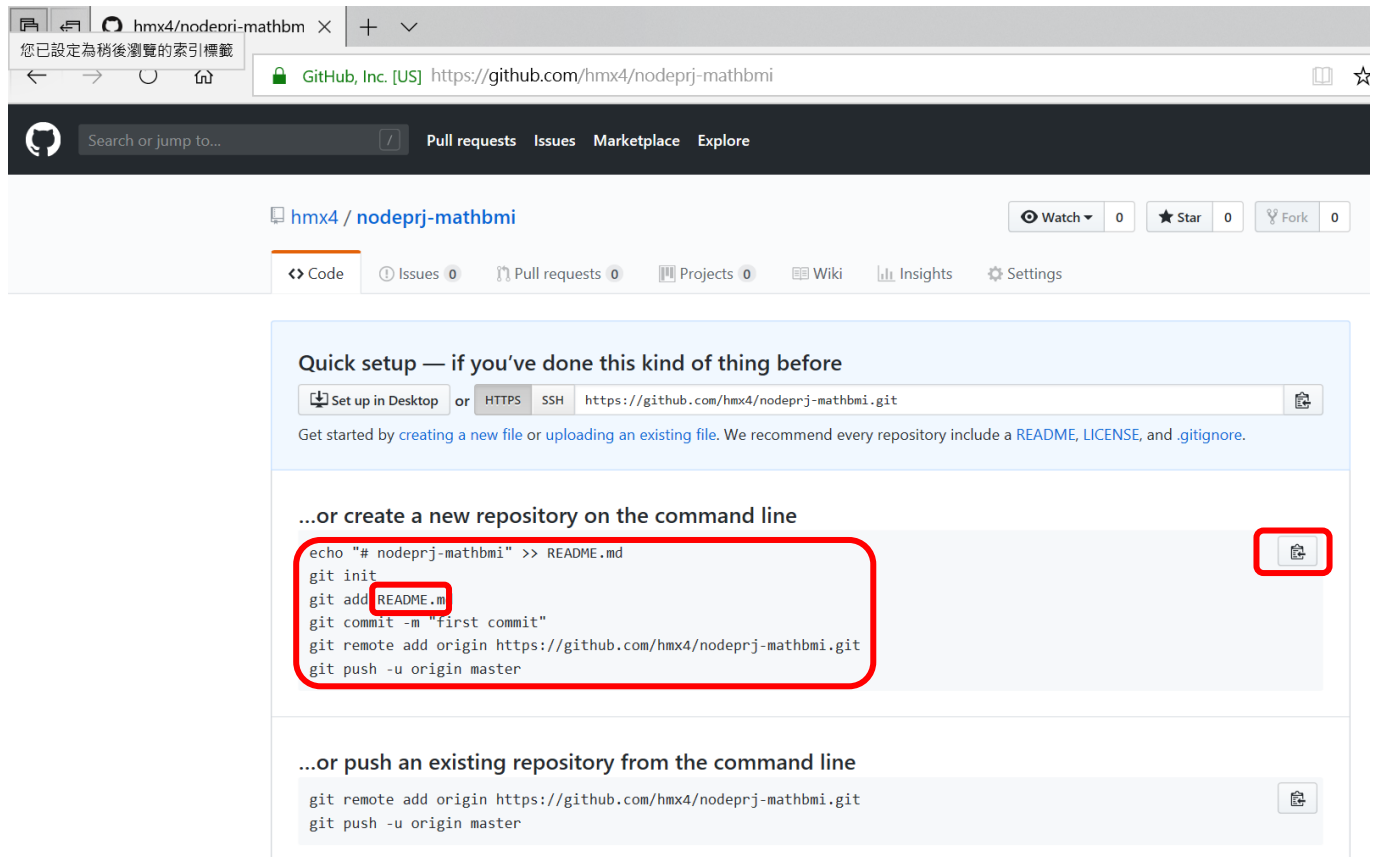
☐ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None Add a license: None ⓘ

Create repository

13. 複製建立一個新的檔案庫之命令，然後將 **git add README.md** 改為 **git add .**：

```
echo "# nodeprj-mathbmi-o" >> README.md
git init
git add .
git commit -m "first commit"
git remote add origin https://github.com/hmx4/nodeprj-mathbmi-o.git
git push -u origin master
```



14. 打開命令控制台，切換到 nodeprj-mathbmi-o 目錄，然後複製及貼上上述全部命令，以便建立一個與源自於 GitHub 遠端檔案庫之本地端檔案庫：

```
C:\WINDOWS\system32>cd C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>echo "# nodeprj-mathbmi-o" >> README.md

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>git init
Initialized empty Git repository in C:/Dropbox/00.Courses(1072)/2.e-Automation_G_202-204/第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409/nodeprj-mathbmi-o/.git/

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>git add .
warning: LF will be replaced by CRLF in app.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in bin/www.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in package-lock.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in package.json.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in public/javascripts/bootstrap.min.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in public/stylesheets/bootstrap.min.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in public/stylesheets/style.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in routes/index.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in routes/users.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in views/layout.ejs.
The file will have its original line endings in your working directory

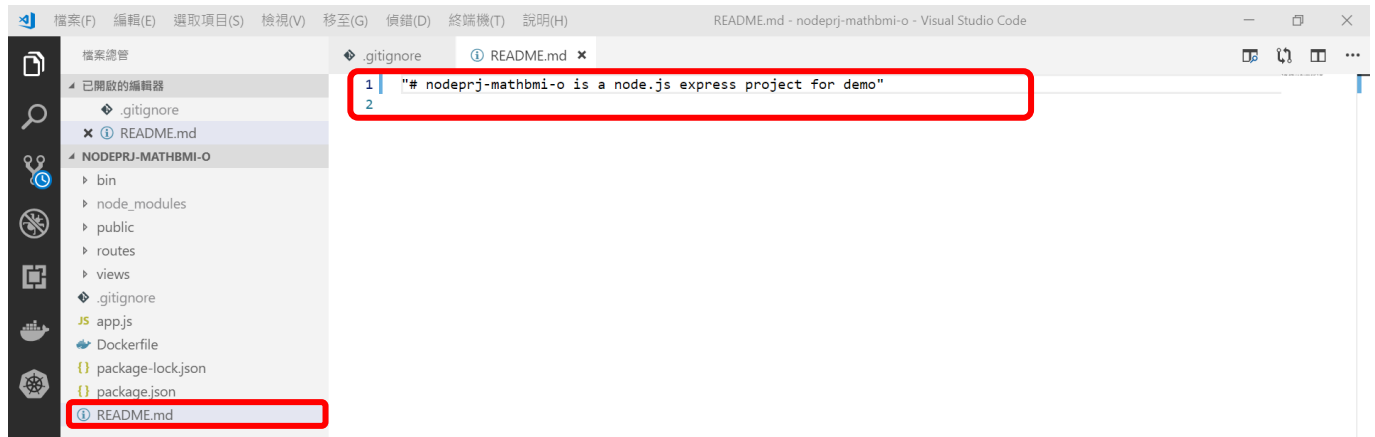
C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>git commit -m "first commit"
[master (root-commit) 52a631a] first commit
17 files changed, 1473 insertions(+)
create mode 100644 Dockerfile
create mode 100644 README.md
create mode 100644 app.js
create mode 100644 bin/www
create mode 100644 package-lock.json
create mode 100644 package.json
create mode 100644 public/favicon.ico
create mode 100644 public/javascripts/bootstrap.min.js
create mode 100644 public/stylesheets/bootstrap.min.css
create mode 100644 public/stylesheets/style.css
create mode 100644 routes/index.js
create mode 100644 routes/users.js
create mode 100644 views/bmi.ejs
create mode 100644 views/error.ejs
create mode 100644 views/index.ejs
create mode 100644 views/layout.ejs
create mode 100644 views/math.ejs

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>git remote add origin https://github.com/hmx4/nodeprj-mathbmi-o.git

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>git push -u origin master
Enumerating objects: 25, done.
Counting objects: 100% (25/25), done.
Delta compression using up to 4 threads
Compressing objects: 100% (21/21), done.
Writing objects: 100% (25/25), 47.90 KiB | 2.82 MiB/s, done.
Total 25 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/hmx4/nodeprj-mathbmi-o.git
* [new branch] master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.

C:\Dropbox\00.Courses(1072)\2.e-Automation_G_202-204\第8週之1_如何將Node.js+Express專案利用Git+GitHub進行版本控制_20190409\nodeprj-mathbmi-o>
```

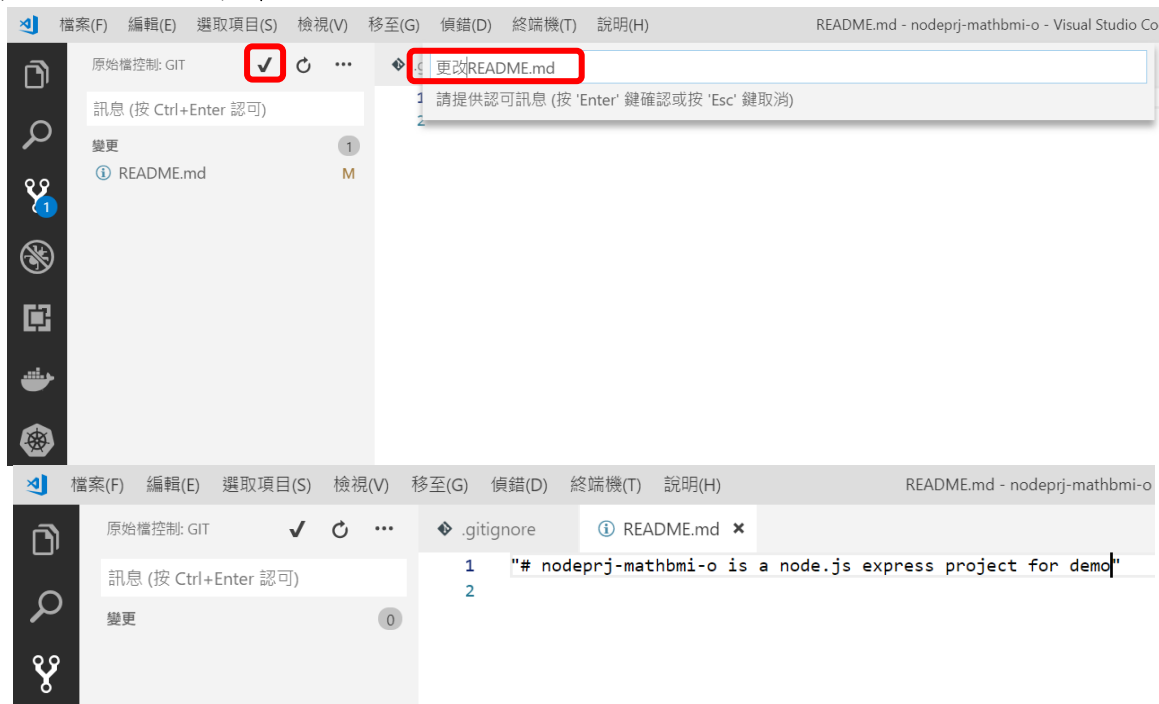
15. 切換到 VS Code，然後更改 README.md 之內容如下：



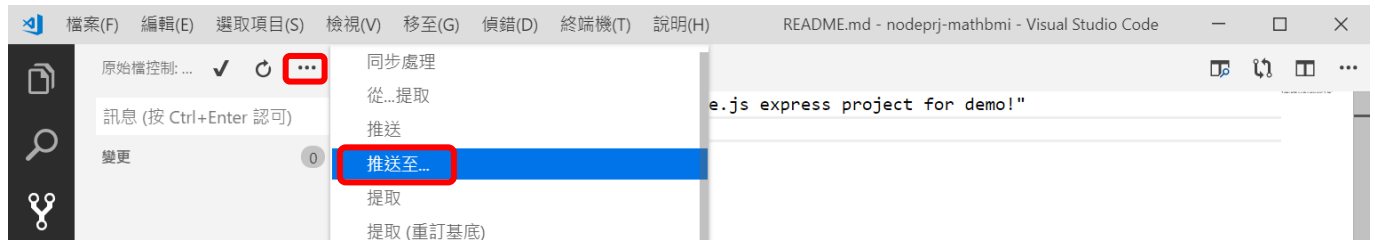
16. 點選[原始檔控制]符號，看到變更之下有內容，表示專案有變更：



17. 點選[認可符號](勾號)，然後輸入認可訊息，然後按下[Enter]，以便將變更存入 local 檔案庫：



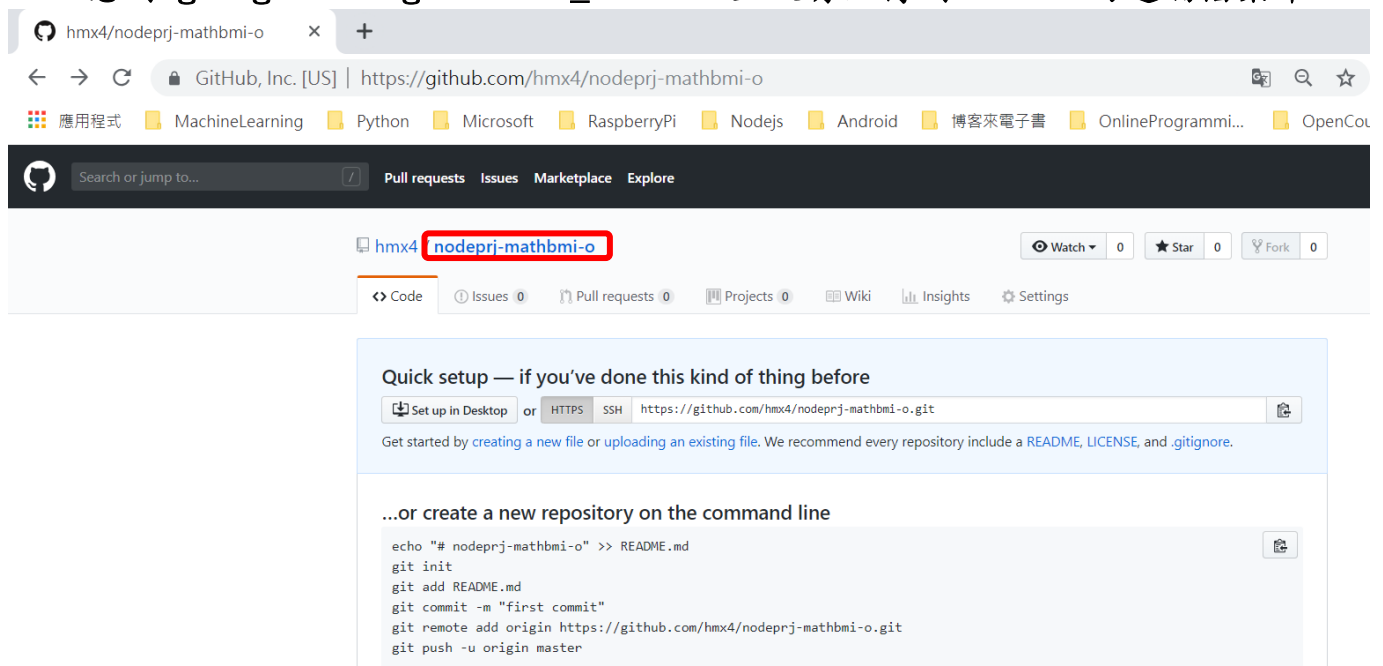
18. 點選[...]符號，選擇[推送至...]：



19. 用滑鼠點選[origin <https://github.com/hmx4/nodeprj-mathbmi-o>]，以便將最新之 local 檔案庫推送到相對應之 GitHub 遠端檔案庫：



20. 到 GitHub 網站打開 nodeprj-mathbmi-o 專案，便可看到剛剛的變更，同時注意到.gitignore、.git、node_modules 並沒有上傳到 GitHub 的遠端檔案庫：



hmx4/nodeprj-mathbmi-o: test x +

GitHub, Inc. [US] | https://github.com/hmx4/nodeprj-mathbmi-o

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hmx4 / nodeprj-mathbmi-o Watch 0 Star 0 Fork 0

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test Edit

Manage topics

2 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find File Clone or download

hmx4 更改README.md Latest commit b1d1233 4 minutes ago

bin	first commit	10 minutes ago
public	first commit	10 minutes ago
routes	first commit	10 minutes ago
views	first commit	10 minutes ago
Dockerfile	first commit	10 minutes ago
README.md	更改README.md	4 minutes ago
app.js	first commit	10 minutes ago
package-lock.json	first commit	10 minutes ago
package.json	first commit	10 minutes ago

README.md

21. 從 GitHub 下載並測試 nodeprj-mathbmi-o 專案：

- 打開 Windows 之命令視窗，切換到 C:\，然後輸入以下命令：

```
>cd c:\
```

```
>git clone https://github.com/hmx4/nodeprj-mathbmi-o.git
```

```
C:\WINDOWS\system32>cd c:\
```

```
c:\>git clone https://github.com/hmx4/nodeprj-mathbmi-o.git
Cloning into 'nodeprj-mathbmi-o'...
remote: Enumerating objects: 28, done.
remote: Counting objects: 100% (28/28), done.
remote: Compressing objects: 100% (21/21), done.
remote: Total 28 (delta 3), reused 28 (delta 3), pack-reused 0
Unpacking objects: 100% (28/28), done.
```

```
c:\>dir
```

```
磁碟區 C 中的磁碟是 Windows
磁碟區序號: FA82-371B
```

```
c:\ 的目錄
```

2018/09/11	下午 05:35	<DIR>	arduino-1.8.7
2019/04/08	下午 09:29	<DIR>	Dropbox
2019/02/09	下午 03:54	<DIR>	GoogleDrive
2018/08/12	下午 04:31	<DIR>	IdeaProjects
2019/02/13	下午 12:24	<DIR>	inetpub
2019/01/30	下午 02:20	<DIR>	Intel
2019/04/09	上午 11:03	<DIR>	nodeprj-mathbmi-o
2018/07/22	下午 10:45	<DIR>	PerfLogs
2019/04/06	下午 05:06	<DIR>	Program Files
2019/03/31	下午 04:06	<DIR>	Program Files (x86)
2019/03/31	下午 05:09	<DIR>	Python
2019/03/01	上午 10:09	<DIR>	SQL Server 2000 Sample Databases
2019/02/13	下午 10:57	<DIR>	SQLServer2017Media
2018/08/05	下午 10:11	<DIR>	SWSETUP
2019/04/08	下午 09:58	<DIR>	test
2019/02/13	下午 11:25	<DIR>	Users
2019/04/08	下午 06:03	<DIR>	Windows
2019/03/27	下午 05:58	<DIR>	xampp
	0 個檔案		0 位元組
	18 個目錄		11,806,339,072 位元組可用

```
c:\>
```

- 切換到 nodeprj-mathbmi-o 目錄，並檢視專案內容(注意：此時並沒有包含 node_modules 目錄)：

```
c:\>cd nodeprj-mathbmi-o
c:\nodeprj-mathbmi-o>dir
磁碟區 C 中的磁碟是 Windows
磁碟區序號： FA82-371B

c:\nodeprj-mathbmi-o 的目錄
2019/04/09 上午 11:03 <DIR> .
2019/04/09 上午 11:03 <DIR> ..
2019/04/09 上午 11:03      1,362 app.js
2019/04/09 上午 11:03 <DIR> bin
2019/04/09 上午 11:03      184 Dockerfile
2019/04/09 上午 11:03    32,103 package-lock.json
2019/04/09 上午 11:03      511 package.json
2019/04/09 上午 11:03 <DIR> public
2019/04/09 上午 11:03      62 README.md
2019/04/09 上午 11:03 <DIR> routes
2019/04/09 上午 11:03 <DIR> views
                5 個檔案      34,222 位元組
                6 個目錄    11,808,129,024 位元組可用

c:\nodeprj-mathbmi-o>
```

- 執行以下命令以根據 package.json 的內容安裝此專案需要之套件。然後再次檢視專案內容，這時候已經新增了 node_modules 目錄：

>npm install

```
c:\nodeprj-mathbmi-o>npm install
added 112 packages from 92 contributors and audited 251 packages in 4.079s
found 0 vulnerabilities
```

```
c:\nodeprj-mathbmi-o>dir
磁碟區 C 中的磁碟是 Windows
磁碟區序號： FA82-371B

c:\nodeprj-mathbmi-o 的目錄
2019/04/09 上午 11:09 <DIR> .
2019/04/09 上午 11:09 <DIR> ..
2019/04/09 上午 11:03      1,362 app.js
2019/04/09 上午 11:03 <DIR> bin
2019/04/09 上午 11:03      184 Dockerfile
2019/04/09 上午 11:09 <DIR> node_modules
2019/04/09 上午 11:03    32,103 package-lock.json
2019/04/09 上午 11:03      511 package.json
2019/04/09 上午 11:03 <DIR> public
2019/04/09 上午 11:03      62 README.md
2019/04/09 上午 11:03 <DIR> routes
2019/04/09 上午 11:03 <DIR> views
                5 個檔案      34,222 位元組
                7 個目錄    11,806,027,776 位元組可用
```

```
c:\nodeprj-mathbmi-o>
```

執行專案：

>node ./bin/www

```
c:\nodeprj-mathbmi-o>node ./bin/www
Server IP=172.28.231.113
```

22. 打開瀏覽器，輸入 PC 的網址或 localhost:3000 (port 為 3000)：



23. 操作介面截圖：



數學服務操作介面之截圖



計算 BMI 服務操作介面之截圖