

Python 安裝方法

請安裝2.7版本

方法

- 有兩種建置python開發環境的方法
 - 安裝python並設定環境變數
 - 安裝**Anaconda**
- 可擇一選擇，亦可兩種環境都建置（建議使用**Anaconda**）
- 本教學範例系統：Windows 10 64 bit
- 請根據你的作業系統選擇合適的版本
- Mac OSX 請點此：<http://koko.ntex.tw/wordpress/pythonmac-install-python-on-mac-homebrew/>
- <https://stringpiggy.hpd.io/mac-osx-python3-dual-install/>

下載Python

- <https://www.python.org/downloads/release/python-2712/>
- 注意版本（2.7 & 64bit）

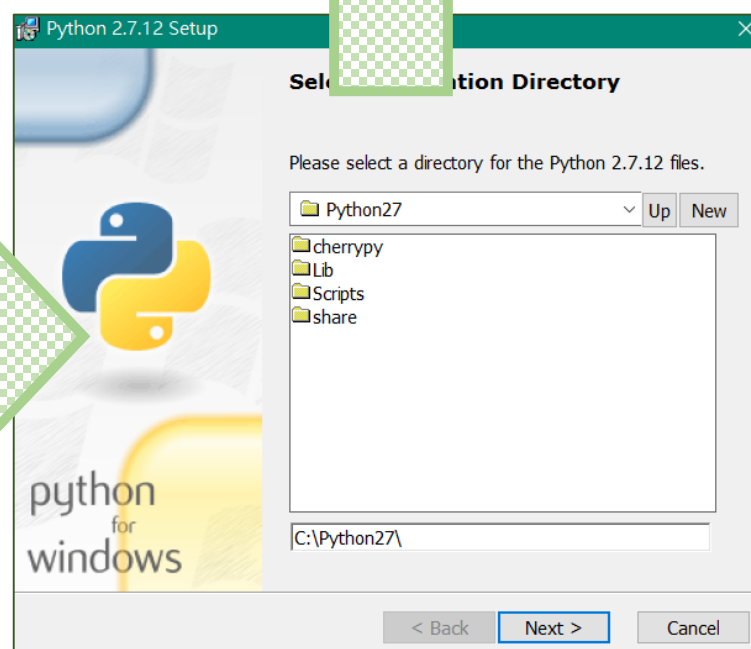
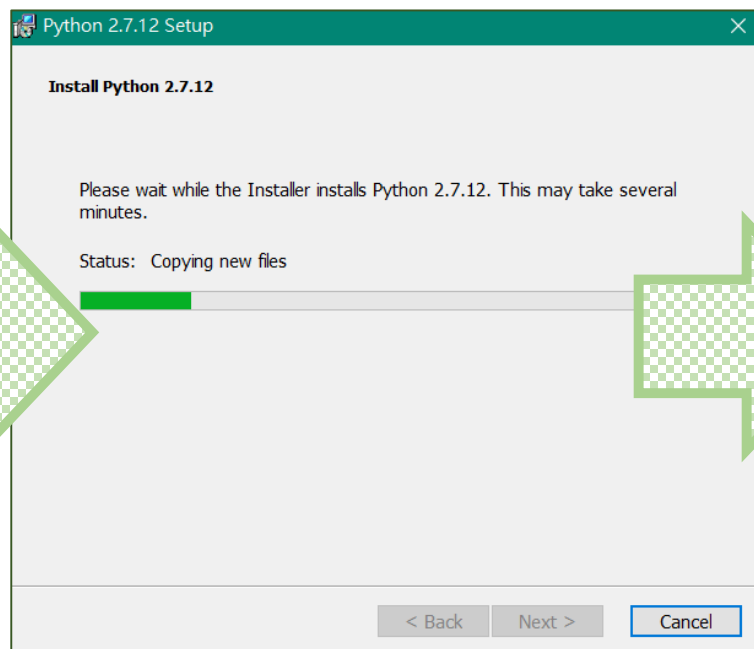
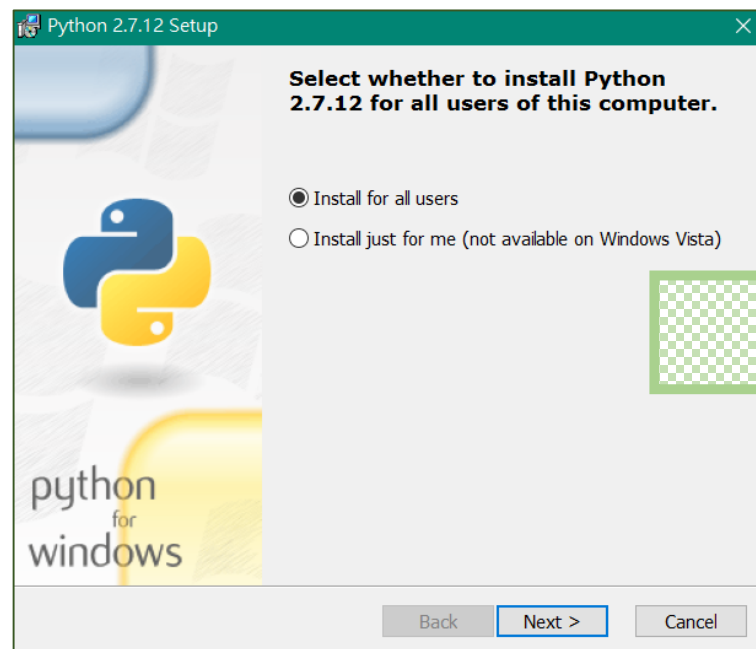
Files

Version	Operating System	Description
Gzipped source tarball	Source release	
XZ compressed source tarball	Source release	
Mac OS X 32-bit i386/PPC installer	Mac OS X	for Mac OS X 10.5 and later
Mac OS X 64-bit/32-bit installer	Mac OS X	for Mac OS X 10.6 and later
Windows debug information files	Windows	
Windows debug information files for 64-bit binaries	Windows	
Windows help file	Windows	
Windows x86-64 MSI installer	Windows	for AMD64/EM64T/x64, not Itanium processors
Windows x86 MSI installer	Windows	

安裝Python

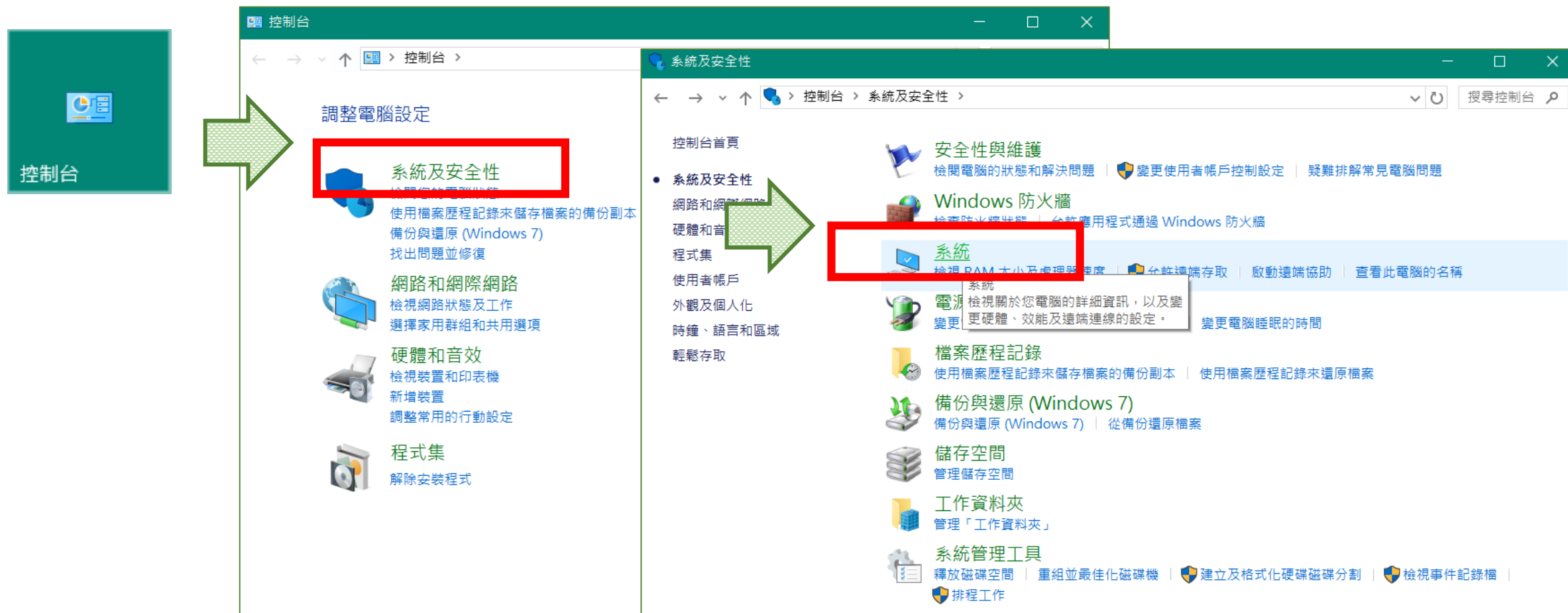


- 點擊Python2.7安裝檔，一直按Next即可。



設定環境變數

- Windows位置：控制台>系統及安全性>系統



設定環境變數－續

- 或是 直接在本機（我的電腦）上點右鍵內容



設定環境變數－續

- 點擊進階系統設定



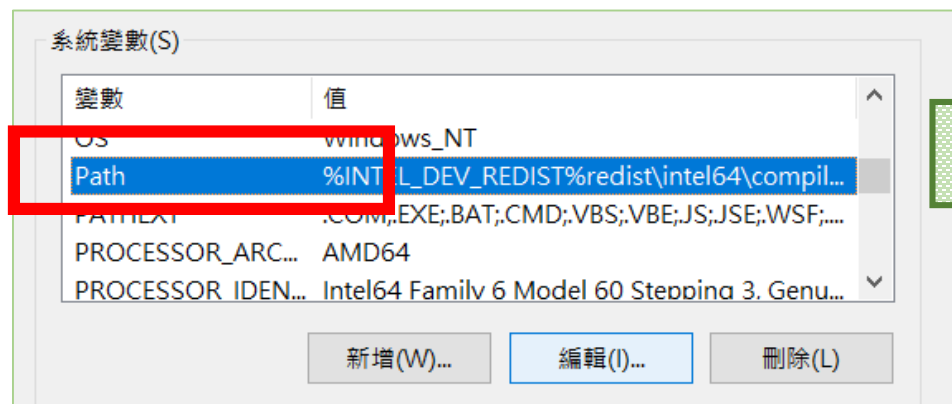
設定環境變數－續

- 點擊 環境變數

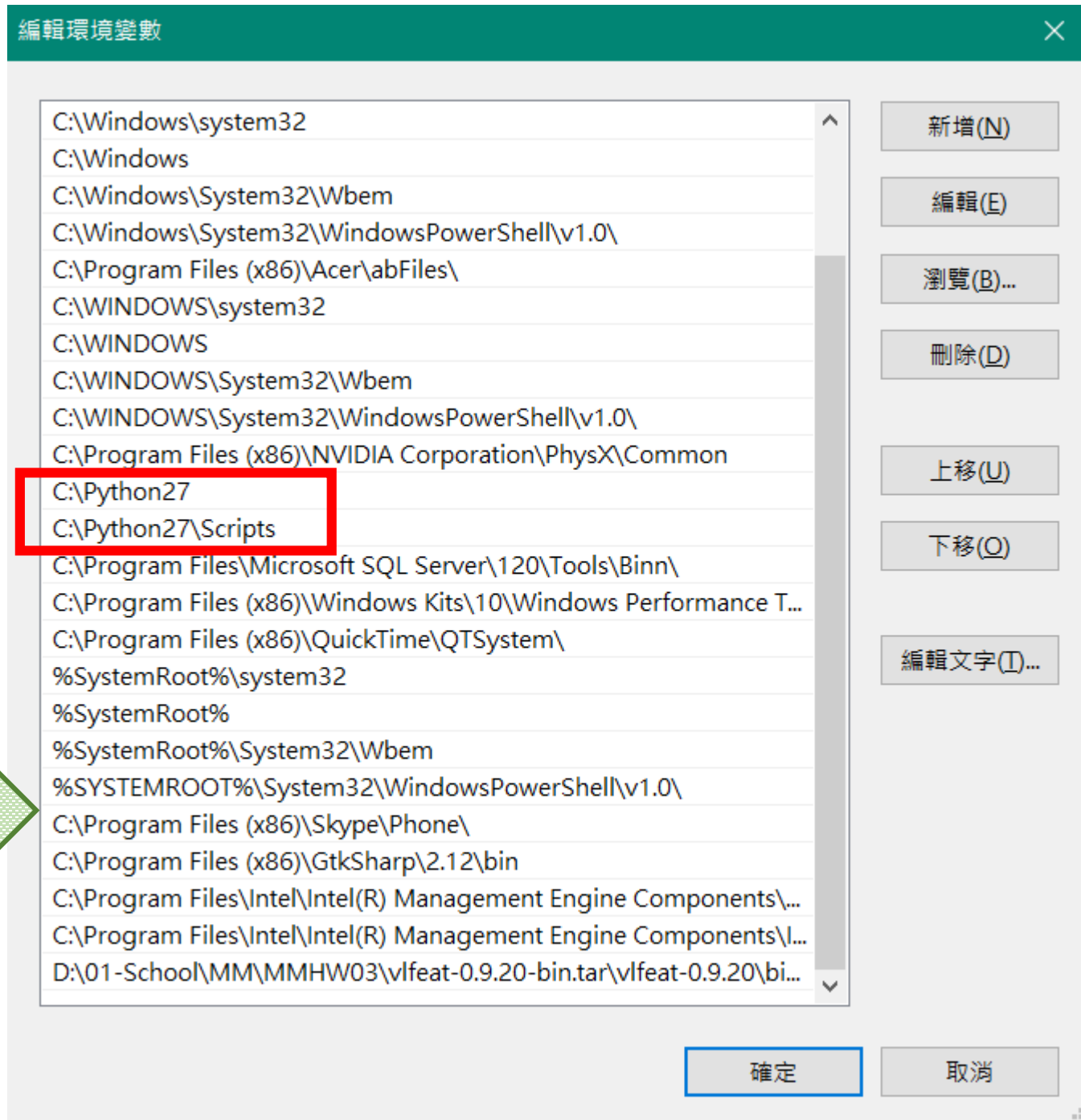


設定環境變數 - 續

- 找出系統變數Path按編輯
- 加入python路徑
- C:\python27\ 與
- C:\python27\Script



若不是Windows10，就在變數值最後面加入：
;C:\Python27;C:\Python27\Scripts

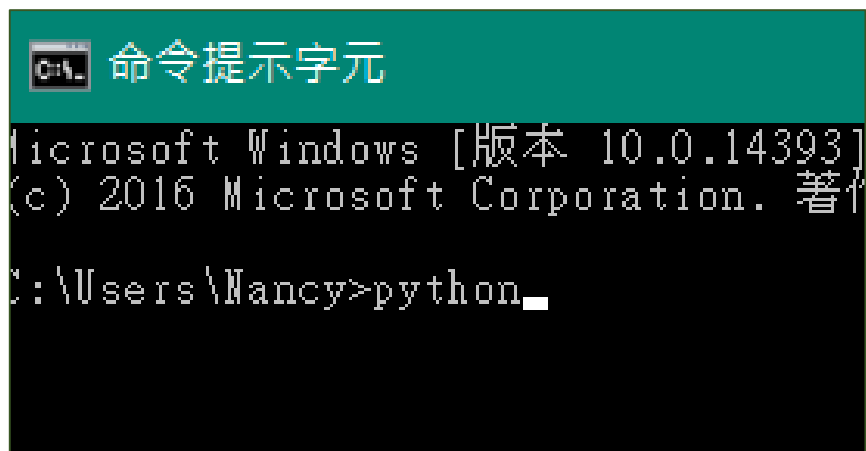


測試

- 打開cmd
- 輸入python
- 有顯示版本即成功（請注意不要裝錯）



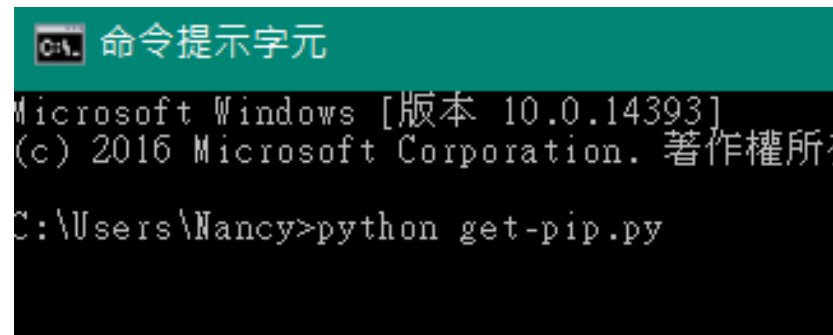
```
命令提示字元 - python
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 著作權所有，並保留一切權利。
C:\Users\Nancy>python
Python 2.7.11 (v2.7.11:6d1b6a68f775, Dec 5 2015, 20:40:30) [MSC v.1500 64 bit (AMD64)] on win32
Type "help()" "copyright()" "credits()" or "license()" for more information
>>>
```



```
命令提示字元
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 著作權所有，並保留一切權利。
C:\Users\Nancy>python_
```

get pip

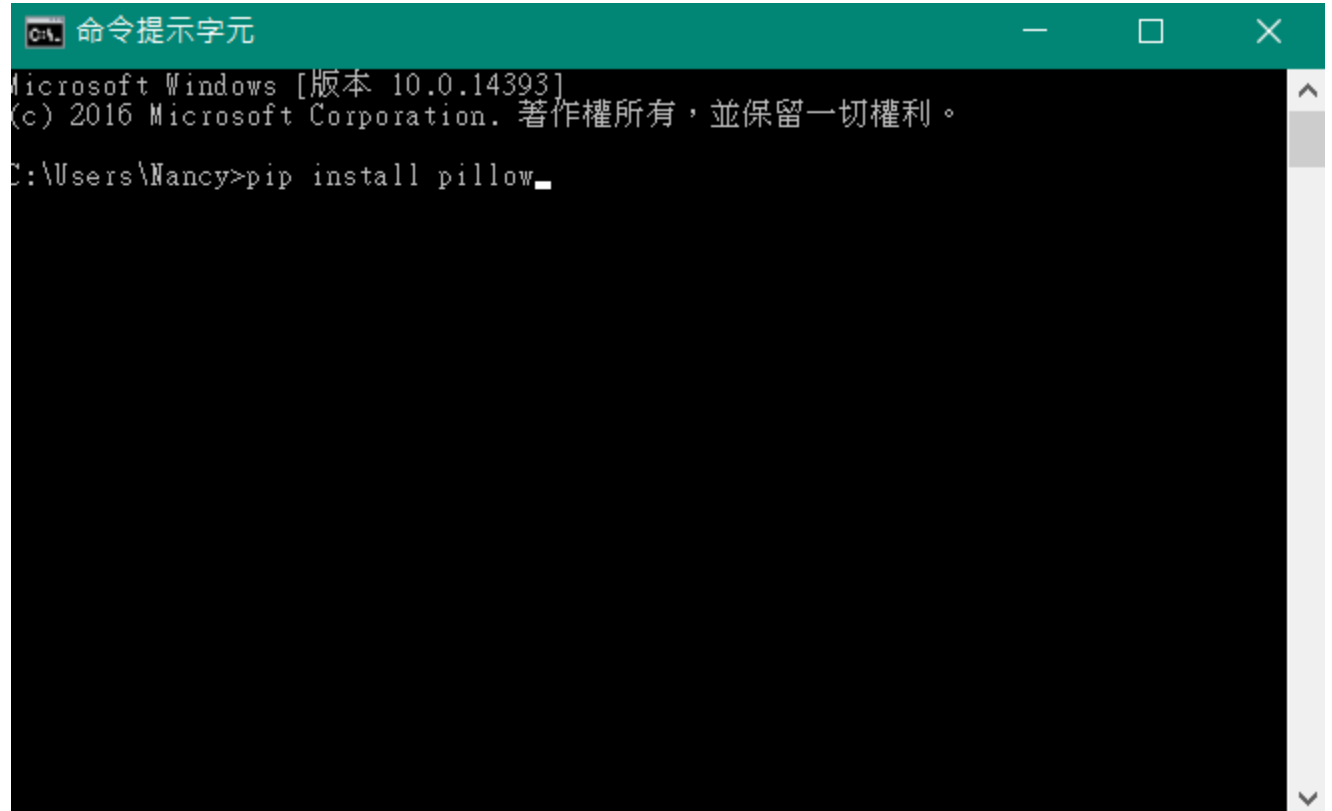
- pip 是 python 的程式管理套件
- 先下載 get-pip.py 檔：下方連結
- <https://pip.pypa.io/en/stable/installing/>
- cmd 指令：（注意資料夾及檔案位置）
- python get-pip.py



```
命令提示字元
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 著作權所有。
C:\Users\Nancy>python get-pip.py
```

install pillow

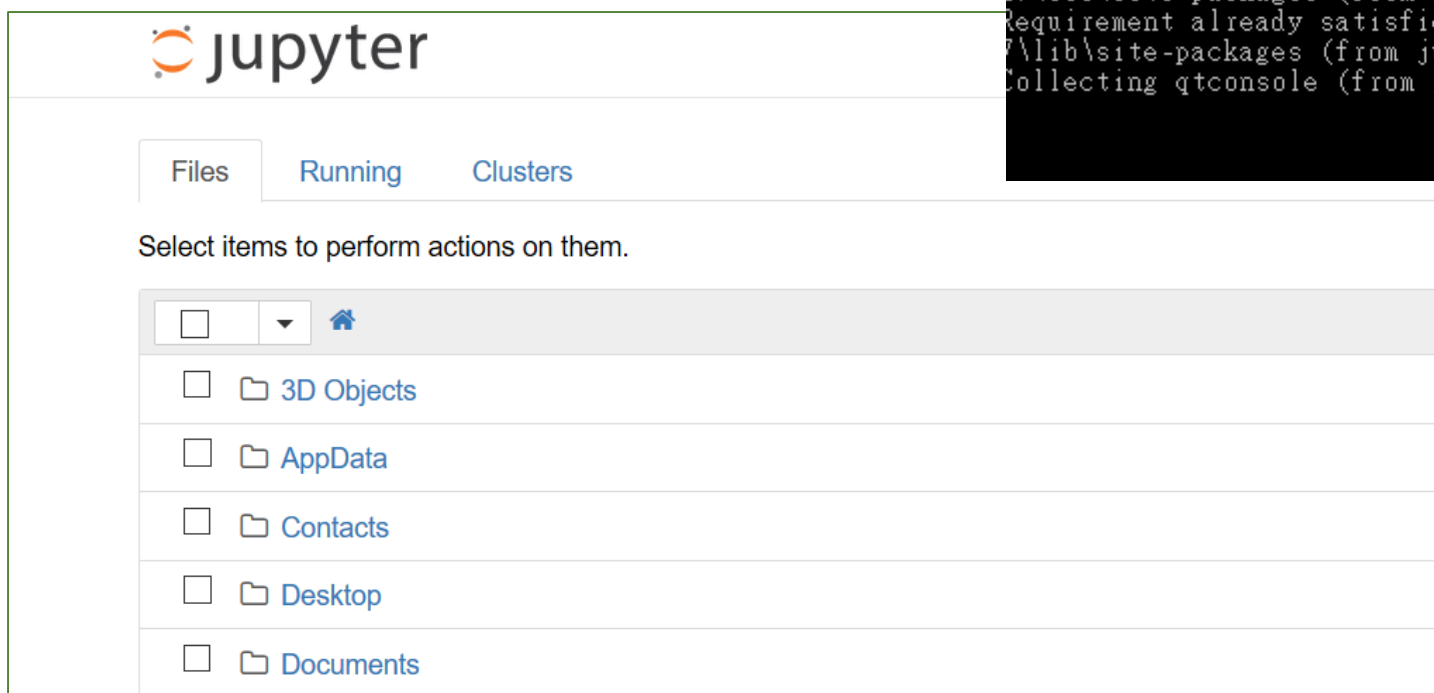
- pillow 是影像處理套件
- 前身是PIL（已停止更新）
- *Python* Image Library
- <https://python-pillow.org/>
- cmd 指令：
- pip install pillow

A screenshot of a Windows Command Prompt window. The title bar is green and contains the text '命令提示字元' (Command Prompt). The window shows the following text: 'Microsoft Windows [版本 10.0.14393]', '(c) 2016 Microsoft Corporation. 著作權所有，並保留一切權利。', and 'C:\Users\Nancy>pip install pillow'. The cursor is at the end of the command line.

```
命令提示字元
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 著作權所有，並保留一切權利。
C:\Users\Nancy>pip install pillow
```

install jupyter

- pip install jupyter
- cmd 指令 : jupyter notebook



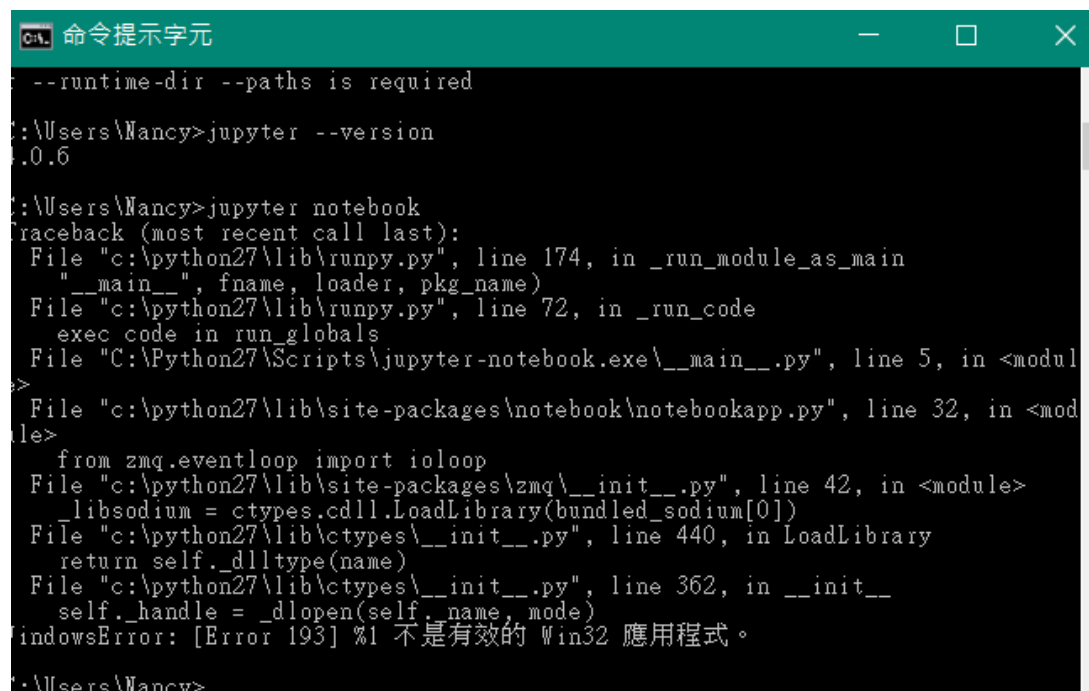
```
C:\> 命令提示字元 - pip install jupyterter

Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 著作權所有，並保留一切權利。

C:\Users\Nancy>pip install jupyterter
Collecting jupyterter
  Downloading jupyterter-1.0.0-py2.py3-none-any.whl
Requirement already satisfied (use --upgrade to upgrade): ipykernel in c:\python27\lib\site-packages (from jupyterter)
Collecting jupyterter-console (from jupyterter)
  Downloading jupyterter_console-5.0.0-py2.py3-none-any.whl
Collecting ipywidgets (from jupyterter)
  Downloading ipywidgets-5.2.2-py2.py3-none-any.whl (43kB)
  47% |#####| 20kB 435kB/s eta 0:00:
  70% |#####| 30kB 267kB/s e
  94% |#####| 40kB 3
  100% |#####| 51kB
350kB/s
Requirement already satisfied (use --upgrade to upgrade): nbconvert in c:\python27\lib\site-packages (from jupyterter)
Requirement already satisfied (use --upgrade to upgrade): notebook in c:\python27\lib\site-packages (from jupyterter)
Collecting qtconsole (from jupyterter)
```

Q. 無法打開 Jupyter ?

- A：請檢查你的python版本，通常是因為32bit和64bit的dll混用的關係。
- 解決方式：
 - 請重新安裝針對OS正確版本的python
 - 檢查是否有重複舊套件沒有移除
 - 再重新安裝一次

A screenshot of a Windows Command Prompt window with a green title bar. The window shows the output of running 'jupyter --version' and 'jupyter notebook'. The first command shows version 0.6. The second command results in a traceback error. The error message at the bottom states: 'WindowsError: [Error 193] %1 不是有效的 Win32 應用程式。' (WindowsError: [Error 193] %1 is not a valid Win32 application).

```
C:\> 命令提示字元

--runtime-dir --paths is required

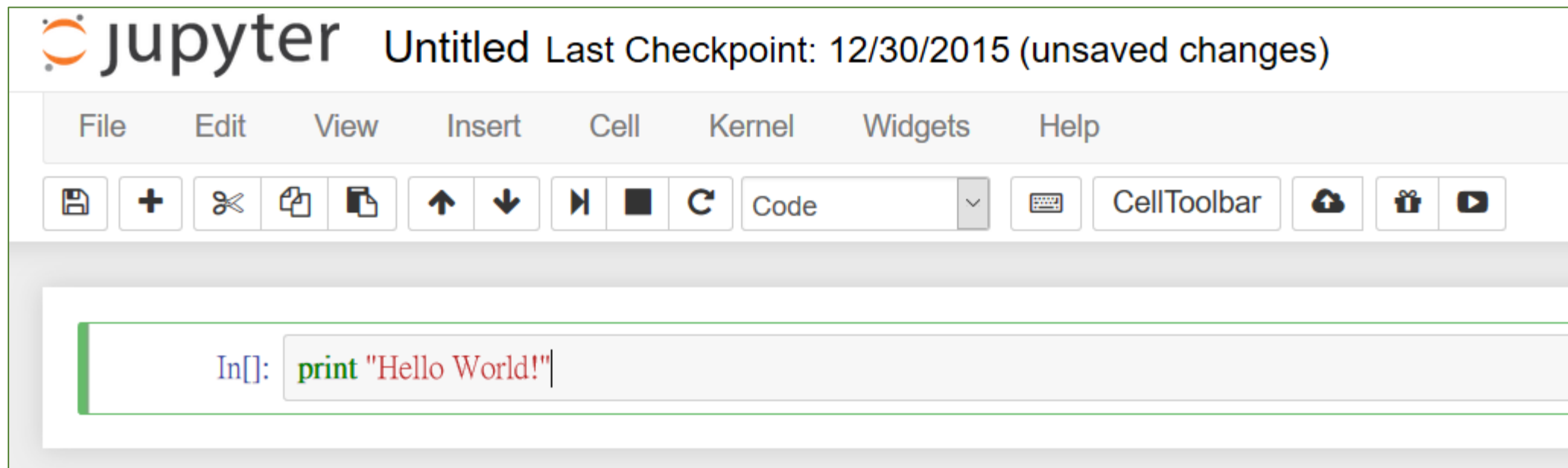
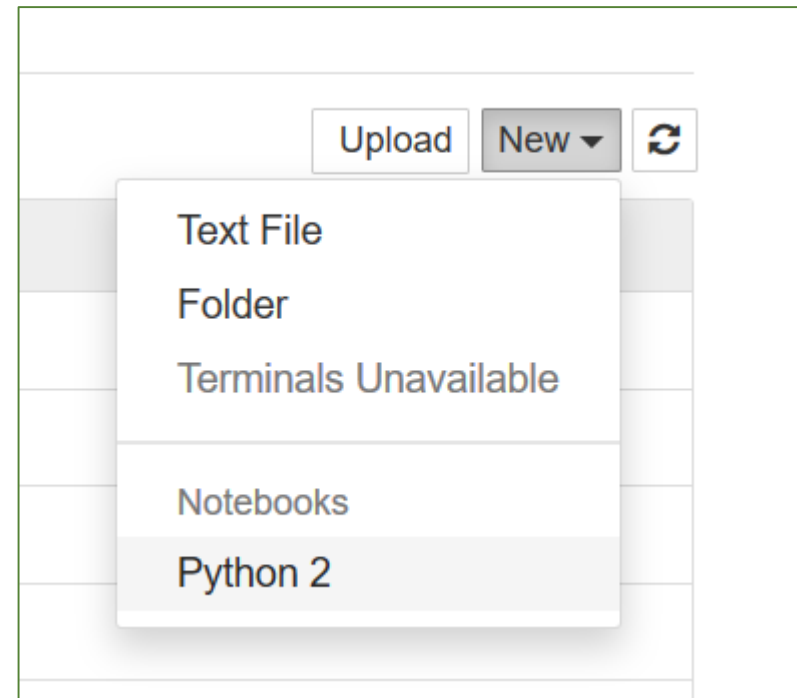
:\Users\Nancy>jupyter --version
0.6

:\Users\Nancy>jupyter notebook
Traceback (most recent call last):
  File "c:\python27\lib\runpy.py", line 174, in _run_module_as_main
    "__main__", fname, loader, pkg_name)
  File "c:\python27\lib\runpy.py", line 72, in _run_code
    exec code in run_globals
  File "C:\Python27\Scripts\jupyter-notebook.exe\__main__.py", line 5, in <module>
    >
  File "c:\python27\lib\site-packages\notebook\notebookapp.py", line 32, in <module>
    le>
    from zmq.eventloop import ioloop
  File "c:\python27\lib\site-packages\zmq\__init__.py", line 42, in <module>
    _libsodium = ctypes.cdll.LoadLibrary(bundled_sodium[0])
  File "c:\python27\lib\ctypes\__init__.py", line 440, in LoadLibrary
    return self._dlltype(name)
  File "c:\python27\lib\ctypes\__init__.py", line 362, in __init__
    self._handle = _dlopen(self._name, mode)
WindowsError: [Error 193] %1 不是有效的 Win32 應用程式。

:\Users\Nancy>
```

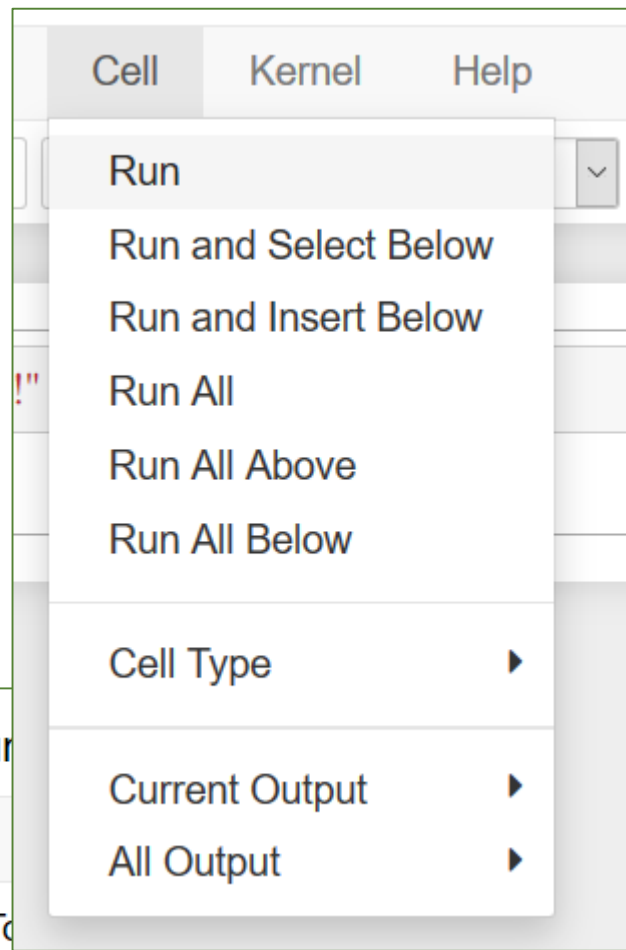
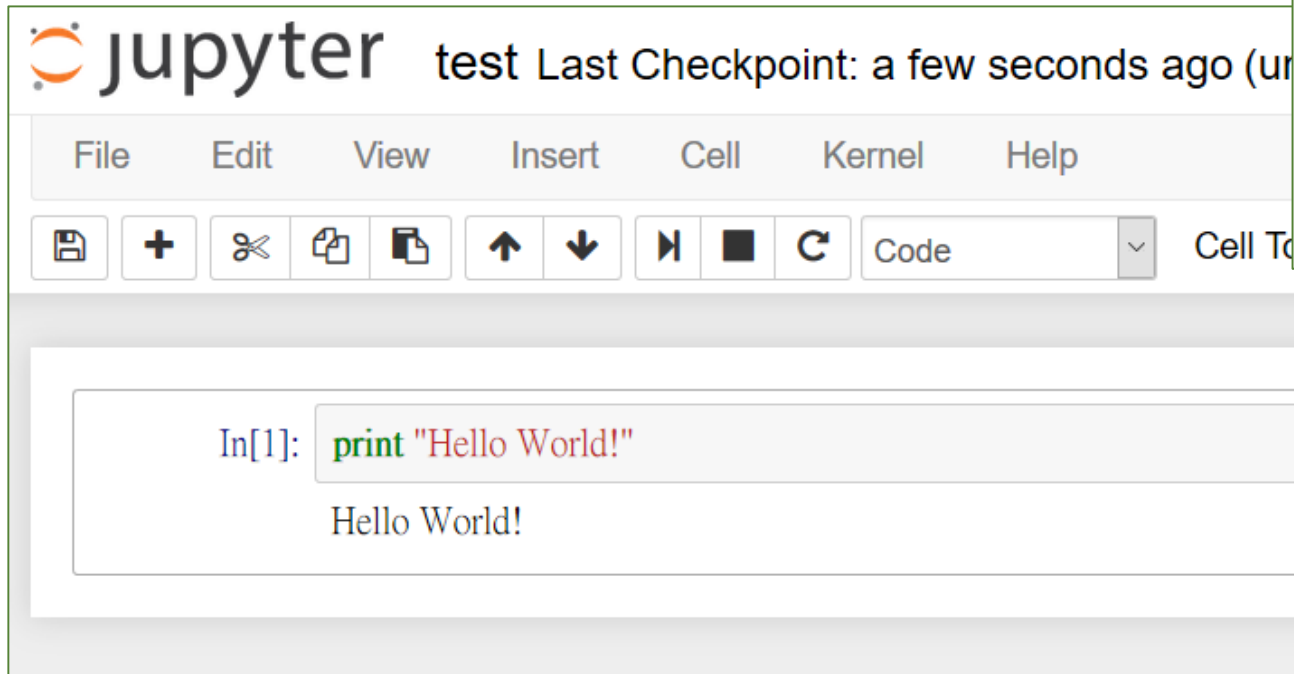
測試是否可行

- 打開 Jupyter，可自行建立資料夾放置檔案
- 右方新增（new）選Python 2
- 輸入 `print "Hello World!"`



測試是否可行 – 續

- 按Ctrl-Enter，若能在下方出現Hello World!
即代表能正常運行
- 亦可打開選單Cell > Run 執行



Anaconda安裝

ANACONDA

- 下載，請注意作業系統和Python版本
- <https://www.continuum.io/downloads>

This is a screenshot of the Anaconda download page for Windows. At the top, there are three tabs: "Download for Windows" (active), "Download for OSX", and "Download for Linux". The main content area is titled "Anaconda 4.2.0 For Windows". Below the title, it states "Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution." and provides a link to the "Changelog". A list of three steps guides the user through downloading the installer, verifying data integrity, and installing the software. On the right side, there are two sections for Python versions. The "Python 3.5 version" section has two buttons: a green "64-BIT INSTALLER (391M)" and a white "32-BIT INSTALLER (333M)". The "Python 2.7 version" section, which is highlighted with a red border, also has two buttons: a blue "64-BIT INSTALLER (381M)" and a white "32-BIT INSTALLER (324M)".

Download for Windows Download for OSX Download for Linux

Anaconda 4.2.0

For Windows

Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution.

[Changelog](#)

1. Download the installer
2. Optional: Verify data integrity with [MD5](#) or [SHA-256](#)
3. Double-click the **.exe** file to install Anaconda and follow the instructions on the screen

Behind a firewall? Use these [zipped Windows installers](#)

Python 3.5 version

64-BIT INSTALLER (391M)

32-BIT INSTALLER (333M)

Python 2.7 version

64-BIT INSTALLER (381M)

32-BIT INSTALLER (324M)

下載

- OSX
- 注意版本

Anaconda 4.2.0

For OSX

Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution.

[Changelog](#)

Graphical Installer

1. Download the graphical installer
2. Double-click the downloaded **.pkg** file and follow the instructions

Command Line Installer

1. Download the command-line installer
2. Optional: Verify data integrity with [MD5](#) or [SHA-256](#)
[More info](#)
3. In your terminal window type one of the below and follow the instructions:

Python 3.5 version

```
bash Anaconda3-4.2.0-MacOSX-x86_64.sh
```

Python 2.7 version

```
bash Anaconda2-4.2.0-MacOSX-x86_64.sh
```

NOTE: Include the "bash" command even if you are not using the bash shell.

Python 3.5 version

GRAPHICAL INSTALLER (407M)

COMMAND-LINE INSTALLER (349M)

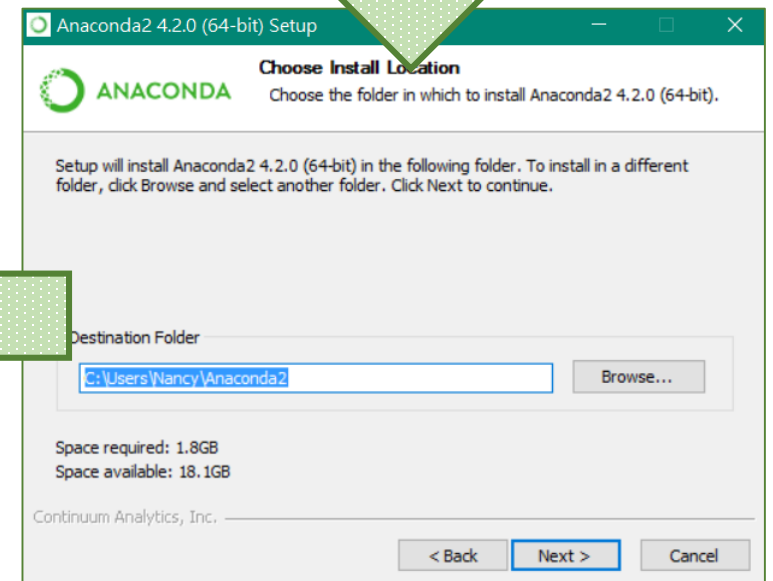
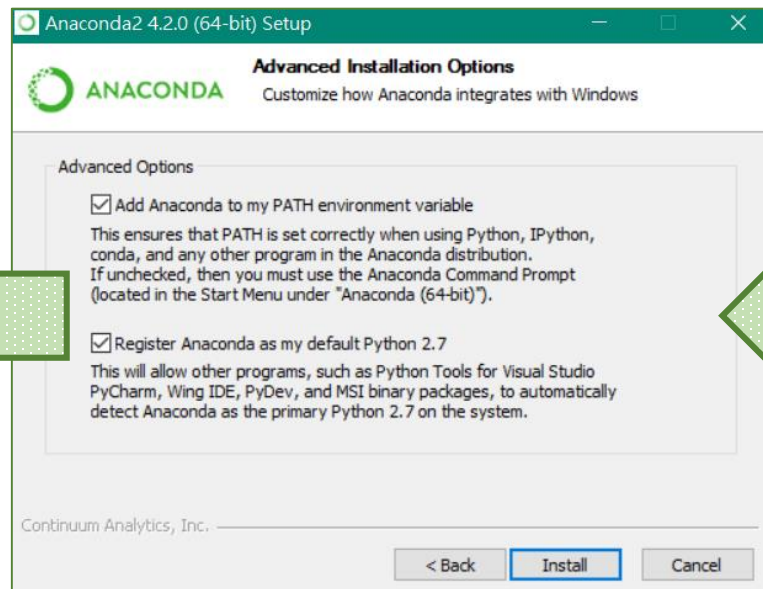
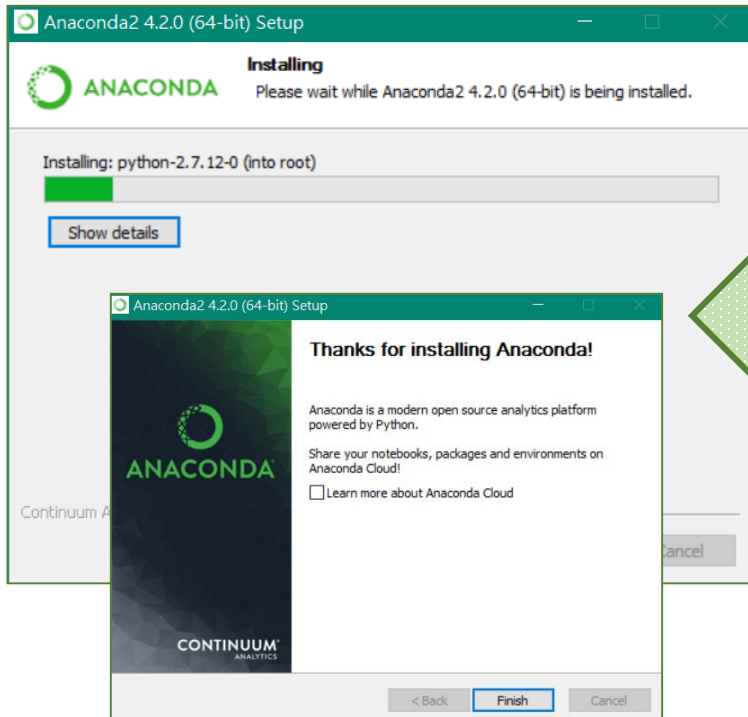
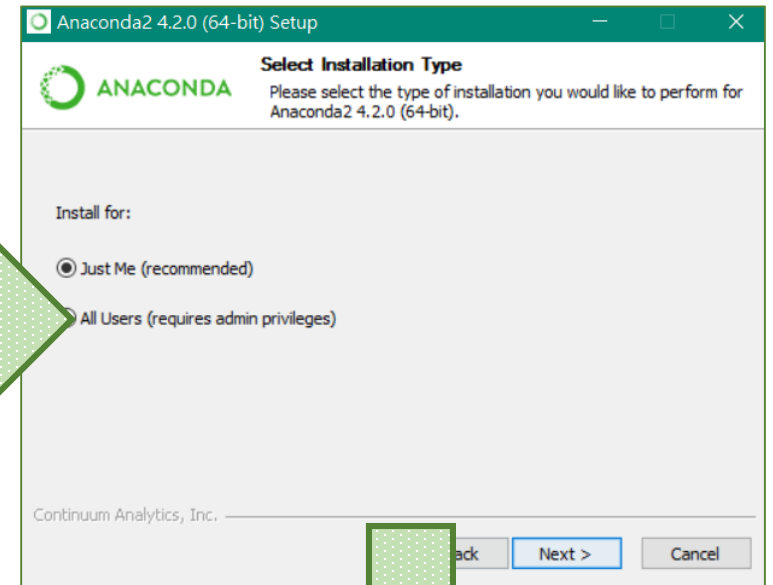
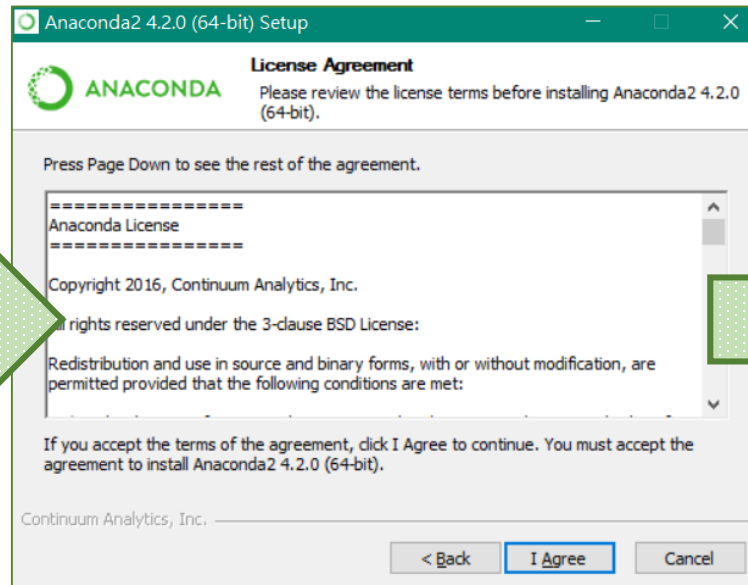
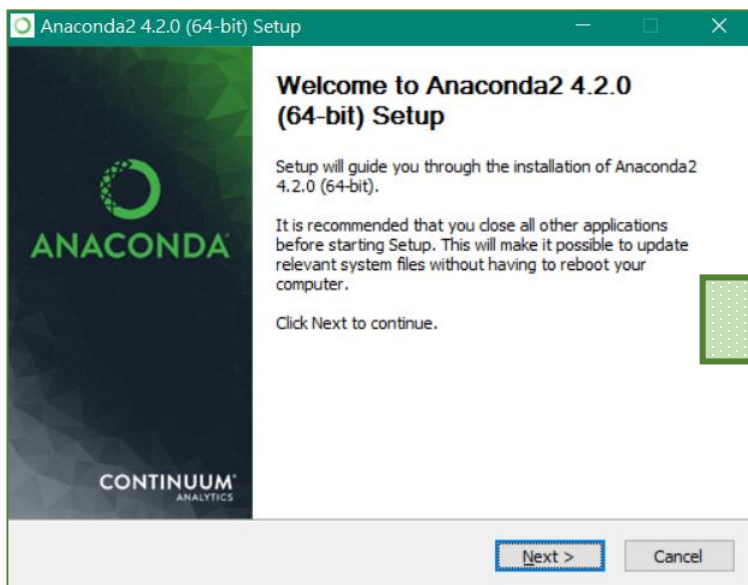
64-Bit

Python 2.7 version

GRAPHICAL INSTALLER (403M)

COMMAND-LINE INSTALLER (346M)

64-Bit

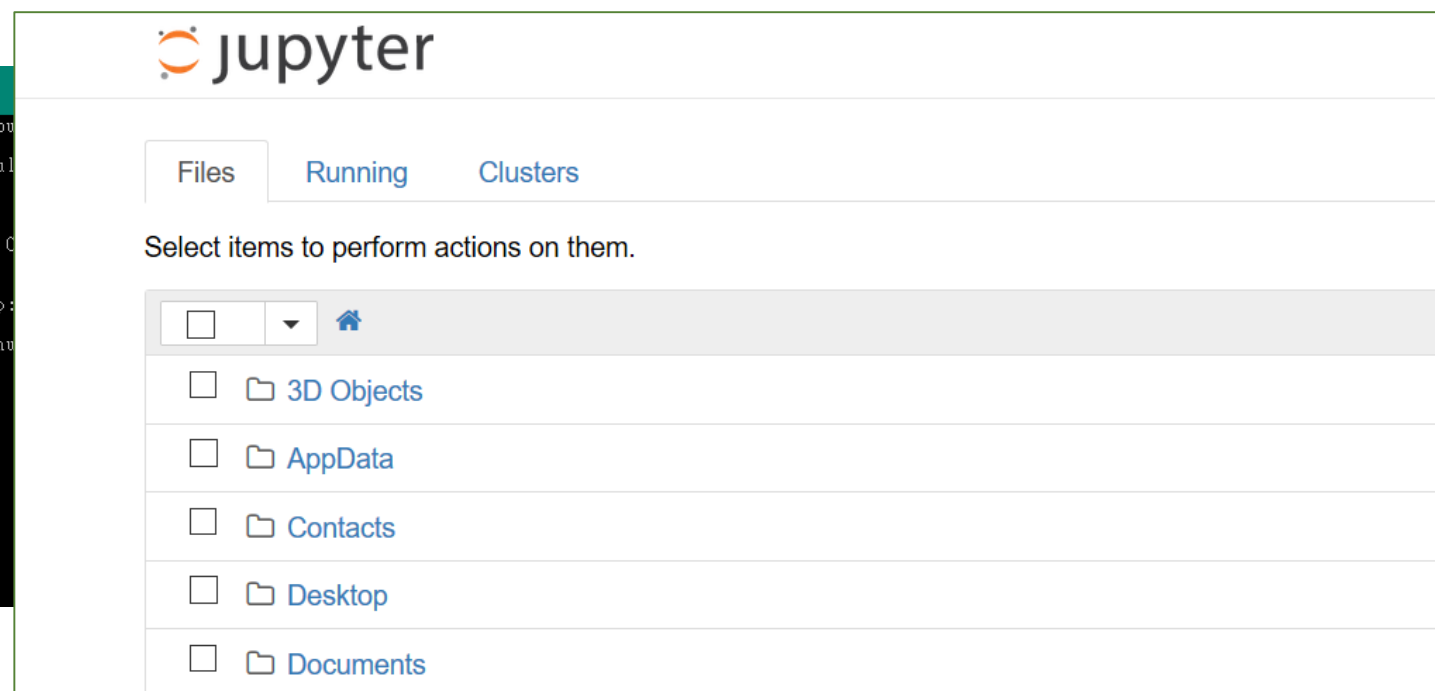


開啟 Jupyter Notebook

- 開始功能表搜尋 Jupyter Notebook
- 點擊即可開啟

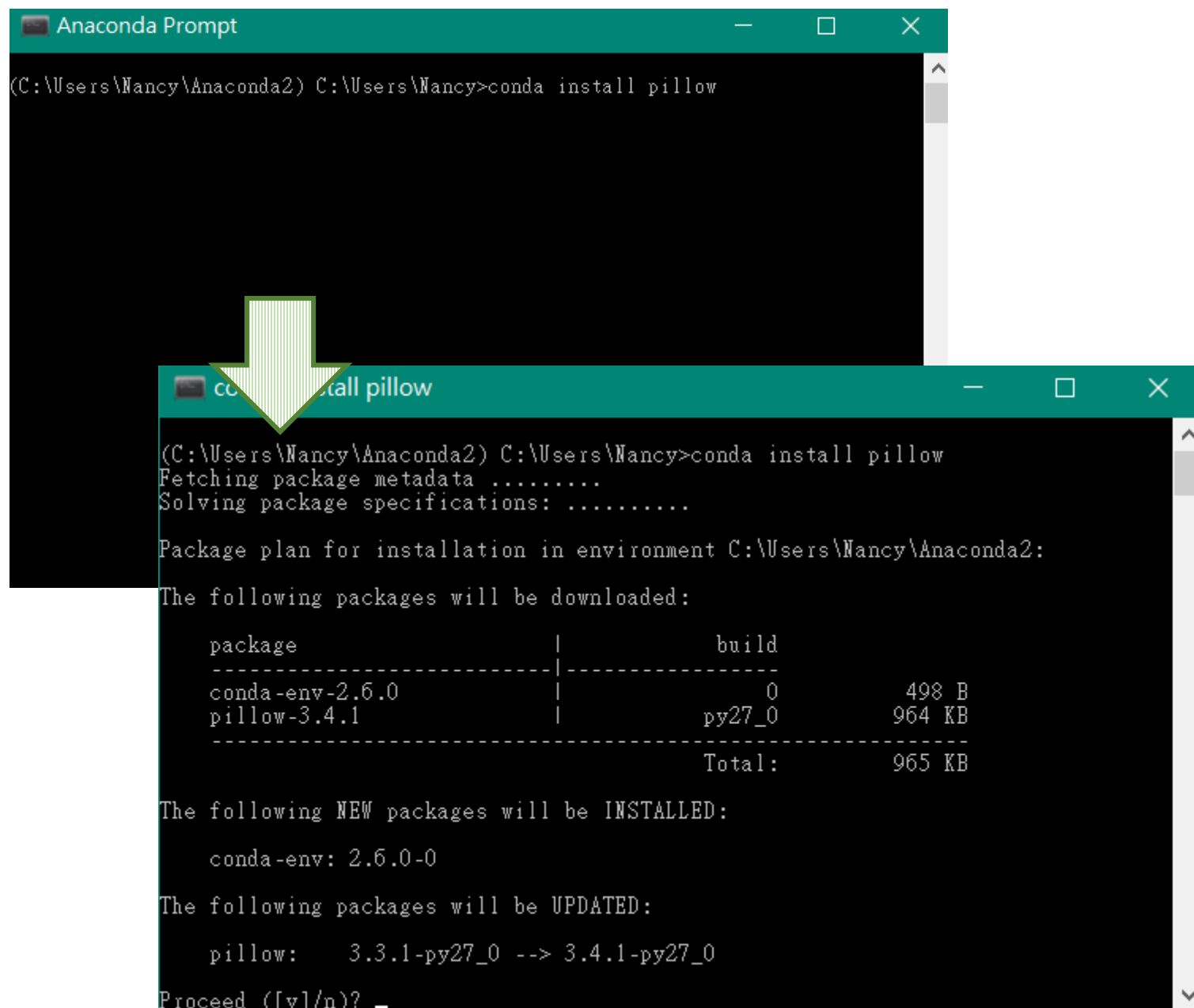


```
Jupyter Notebook
[13:26:28.743 NotebookApp] [nb_conda_kernels] enabled, 2 kernels found
[13:26:31.690 NotebookApp] ??nbpresent HTML export ENABLED
[13:26:31.691 NotebookApp] ??nbpresent PDF export DISABLED: No module named jupyter.pdf.exporters.pdf
[13:26:31.733 NotebookApp] [nb_conda] enabled
[13:26:32.282 NotebookApp] [nb_anacondacloud] enabled
[13:26:32.411 NotebookApp] Serving notebooks from local directory: C:\Users\jupyter\AppData\Local\jupyter\notebooks
[13:26:32.411 NotebookApp] 0 active kernels
[13:26:32.411 NotebookApp] The Jupyter Notebook is running at: http://localhost:8888/
[13:26:32.411 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
```



安裝 pillow

- 開啟Anaconda Prompt
- 輸入指令：
- `conda install pillow`
- 其實用cmd也行



```
(C:\Users\Nancy\Anaconda2) C:\Users\Nancy>conda install pillow
```

```
(C:\Users\Nancy\Anaconda2) C:\Users\Nancy>conda install pillow
Fetching package metadata .....
Solving package specifications: .....

Package plan for installation in environment C:\Users\Nancy\Anaconda2:

The following packages will be downloaded:


```

package	build	size
conda-env-2.6.0	0	498 B
pillow-3.4.1	py27_0	964 KB
Total:		965 KB

```
The following NEW packages will be INSTALLED:

  conda-env: 2.6.0-0

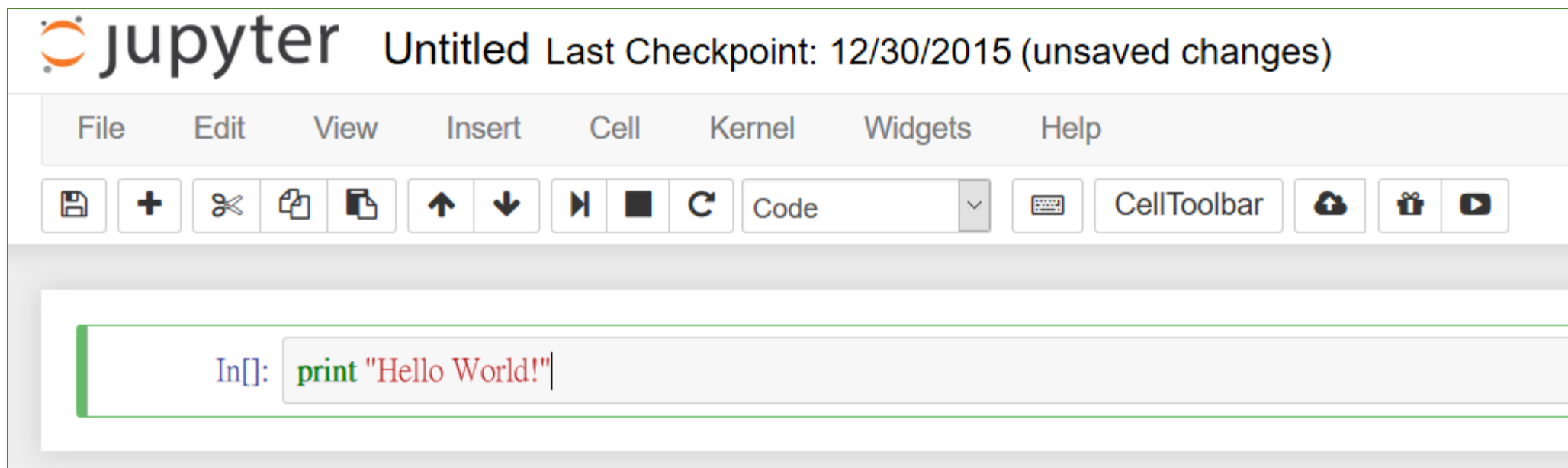
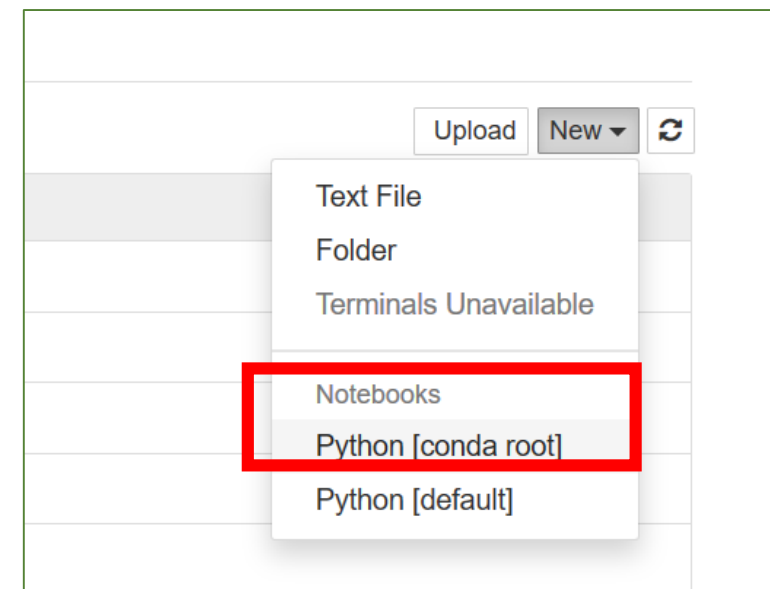
The following packages will be UPDATED:

  pillow: 3.3.1-py27_0 --> 3.4.1-py27_0

Proceed ([y]/n)?
```

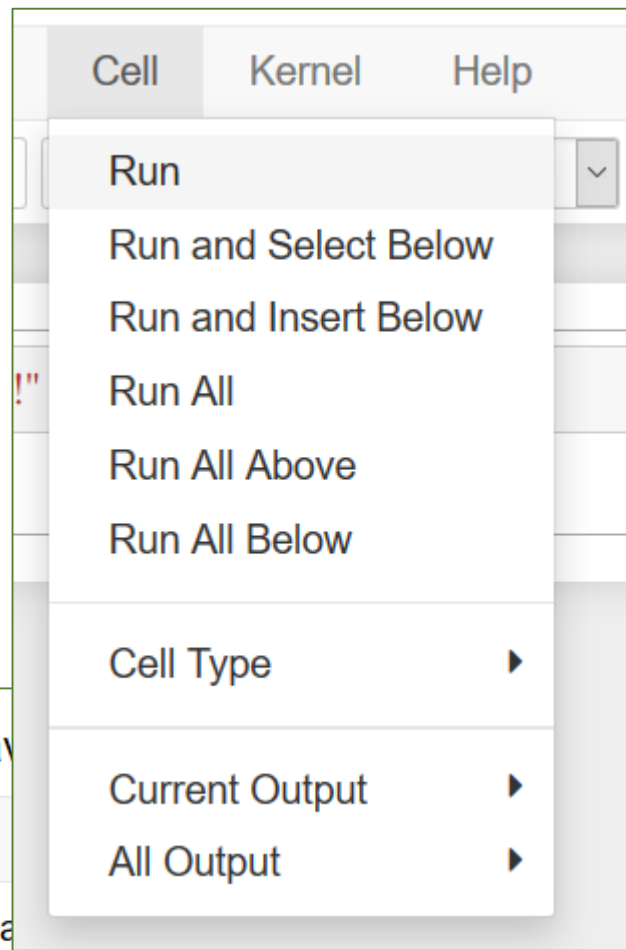
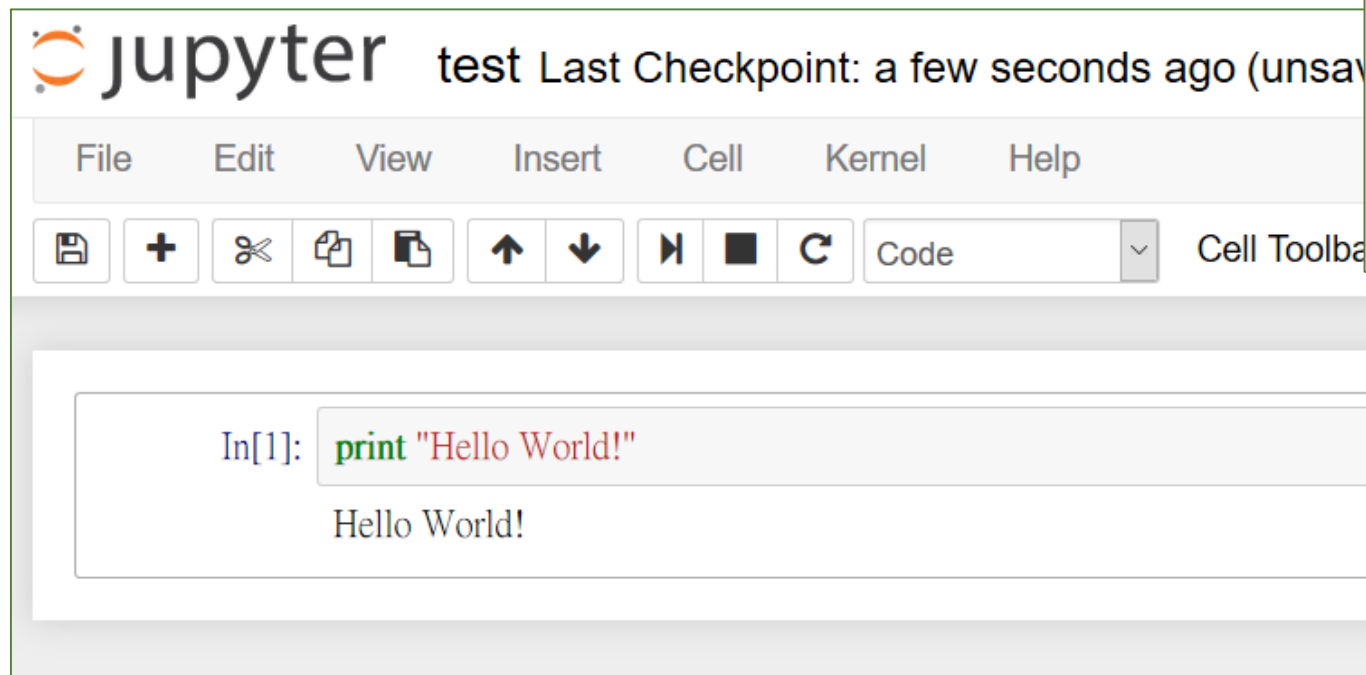
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- 右方新增（new）選Python [conda root]
- 輸入 `print "Hello World!"`



測試是否可行 – 續

- 按Ctrl-Enter，若能在下方出現Hello World!
即代表能正常運行
- 亦可打開選單Cell > Run 執行



若遇到問題

- 在安裝過程中如果出錯
 - 確認你的安裝資料夾名稱是否都為英文
 - 解除安裝（刪除資料夾）→要清乾淨
 - 必要時重新開機會比較保險
 - 多試幾次或是先放著等一下再說
 - **Google**可以幫助你