



KRISTEN

DATA SCIENTIST AT WAVE-IN COMMUNICATION INC.

E-COMMERCE DATA MINING
TELECOM DATA ANALYTICS



課程簡介

- ✓ 資料結構 (Data structure)
- ✓ 資料處理 (Data processing)
- ✓ 資料探索 (Exploratory Data Analysis)
- ✓ 資料視覺化 (Data visualization)
- ✓ 資料分類與分群 (Classification and Clustering)



課程簡介

- ✓ 套件
- ✗ Numpy
- ✗ Panda
- ✗ Matplotlib
- ✗ Scikit-learn



課程資訊

✓ 課程時間：

✗ 3/17, 3/24, 4/7, 4/28, 5/5, 5/12, 5/19, 6/2

✗ 週五 PM 7:00- PM 9:00

✓ 課程網站：

✗ <https://github.com/kristenchan/Python-Data-Analysis>



聯絡方式

✓ Email :

✗ kristenchan.py@gmail.com

✓ 寄信主旨 :

✗ HW_第幾次作業_姓名

e.g. 陳小明交第三次作業 → HW_3_陳小明

✗ Q_姓名



使用軟體

- ✓ Python 3
- ✓ Anaconda
- ✓ Jupyter Notebook

WHY PYTHON



Why Python

- ✓ 簡單易學
- ✓ 開源免費
- ✓ 跨平台
- ✓ 豐富的函式庫

WHY PYTHON 3



Why Python 3



The screenshot shows the official Python website homepage. At the top left is the Python logo. To its right is the word "python" in lowercase, with a trademark symbol. Below the logo is a horizontal navigation bar with four tabs: "About", "Downloads", "Documentation", and "Community". The "Downloads" tab is currently active, indicated by a darker blue background. In the center of the page, there is a large yellow button with the text "Download the latest version for Mac OS X". Below this button are two smaller yellow buttons: one for "Download Python 3.6.0" and another for "Download Python 2.7.13". A note below the main download button says, "Wondering which version to use? [Here's more about the difference between Python 2 and 3.](#)" Further down, another note says, "Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [Mac OS X](#), [Other](#)". At the bottom, there is a link for "Want to help test development versions of Python? [Pre-releases](#)".



Applications for Python

- ✓ Web程式 - Django、Flask
- ✓ Game
- ✓ 網頁爬蟲 – Scrapy
- ✓ 資料分析/機器學習 - numpy, scipy, matplotlib
- ✓ 自然語言處理 - nltk



Anaconda



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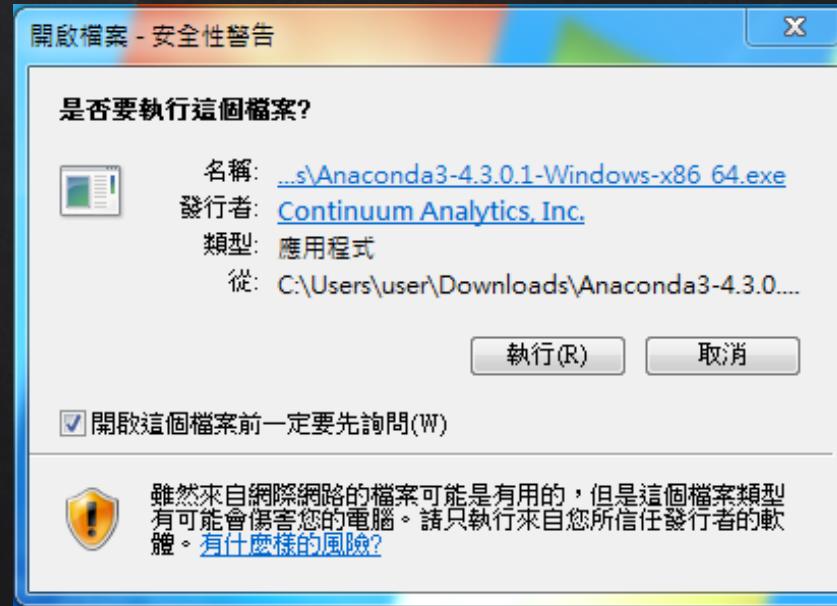


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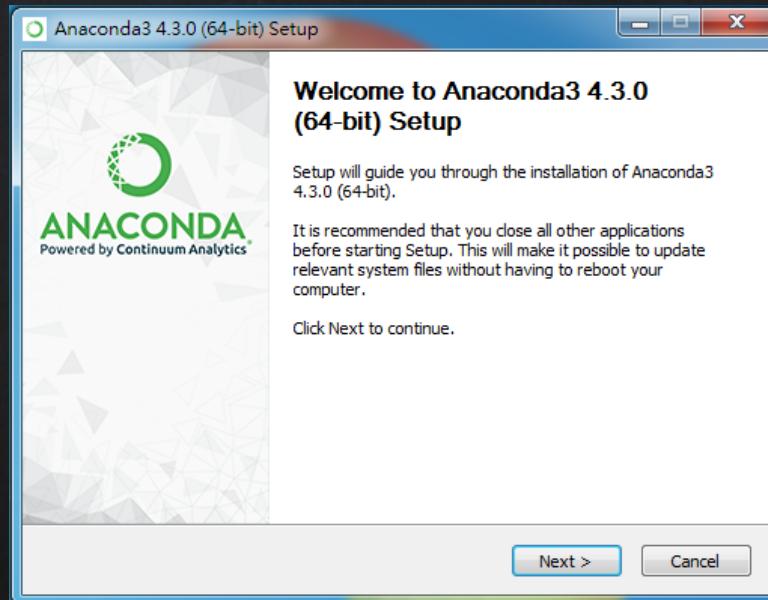


Anaconda



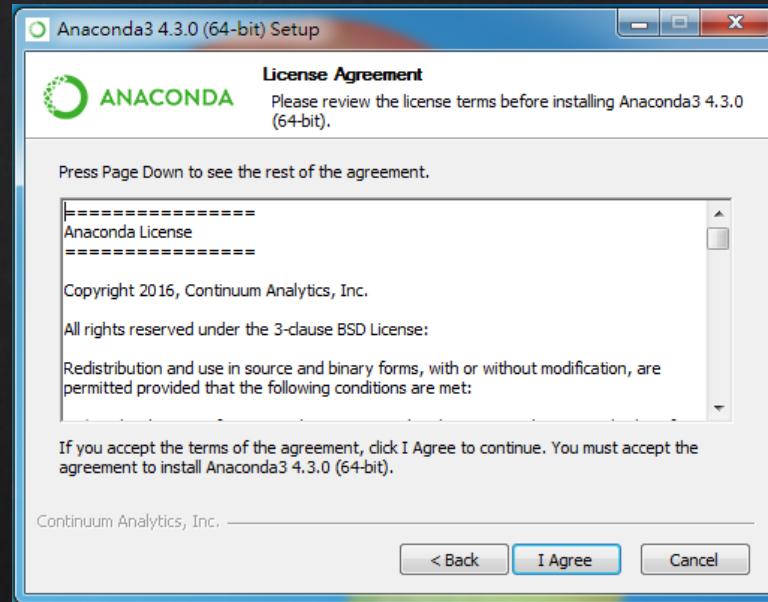


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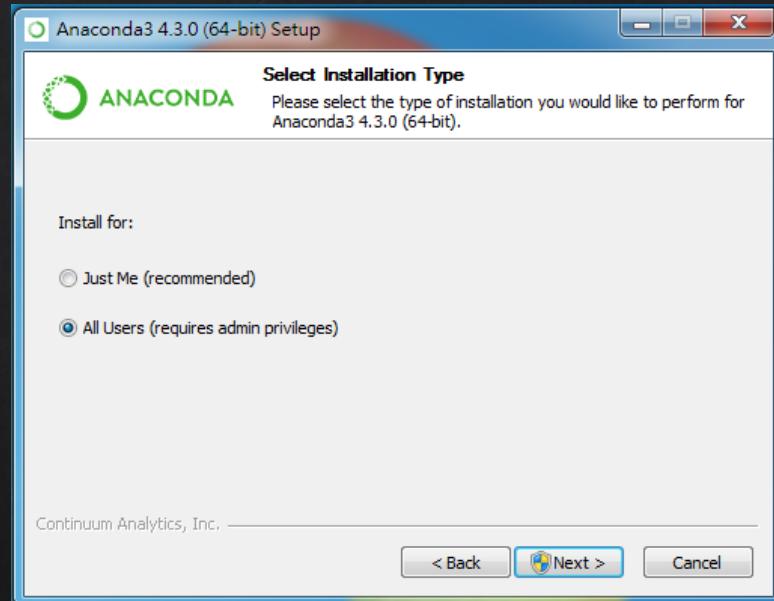


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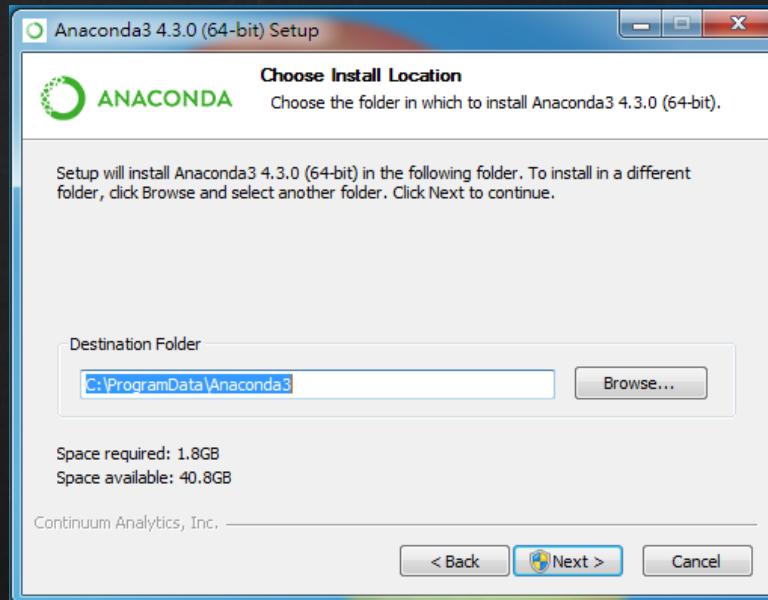


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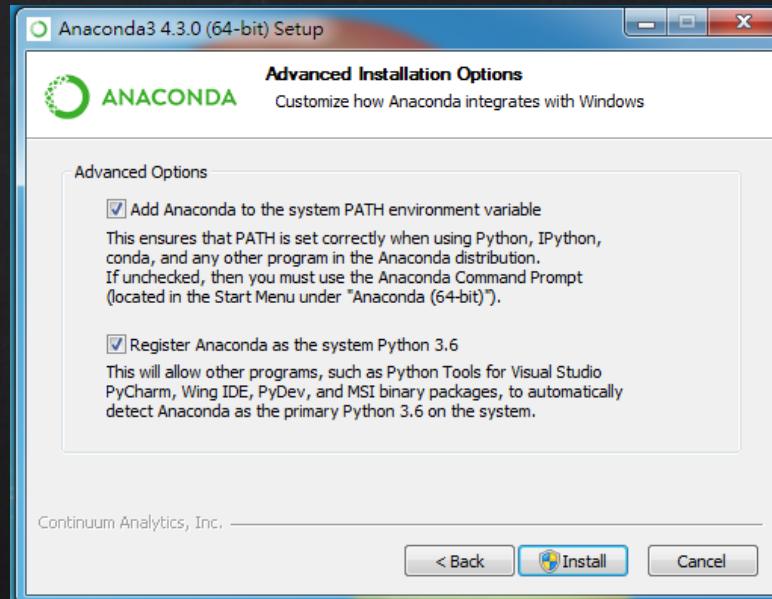


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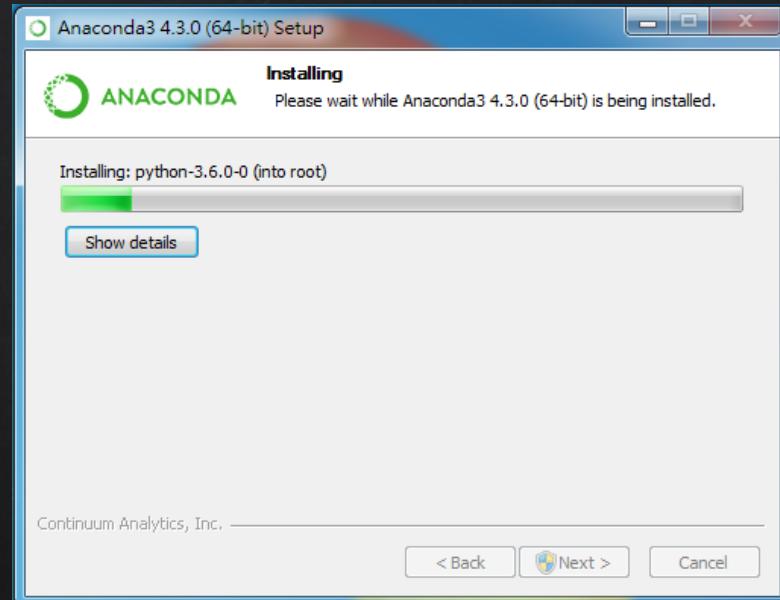


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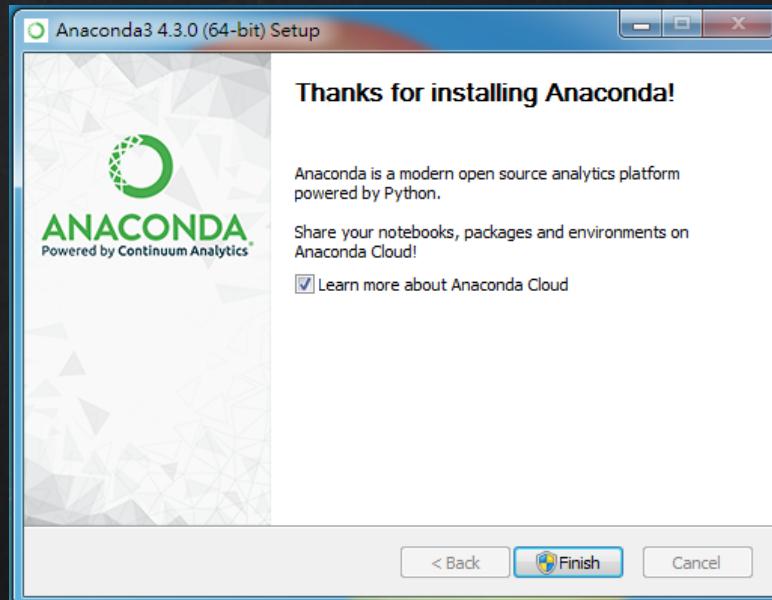


Anaconda



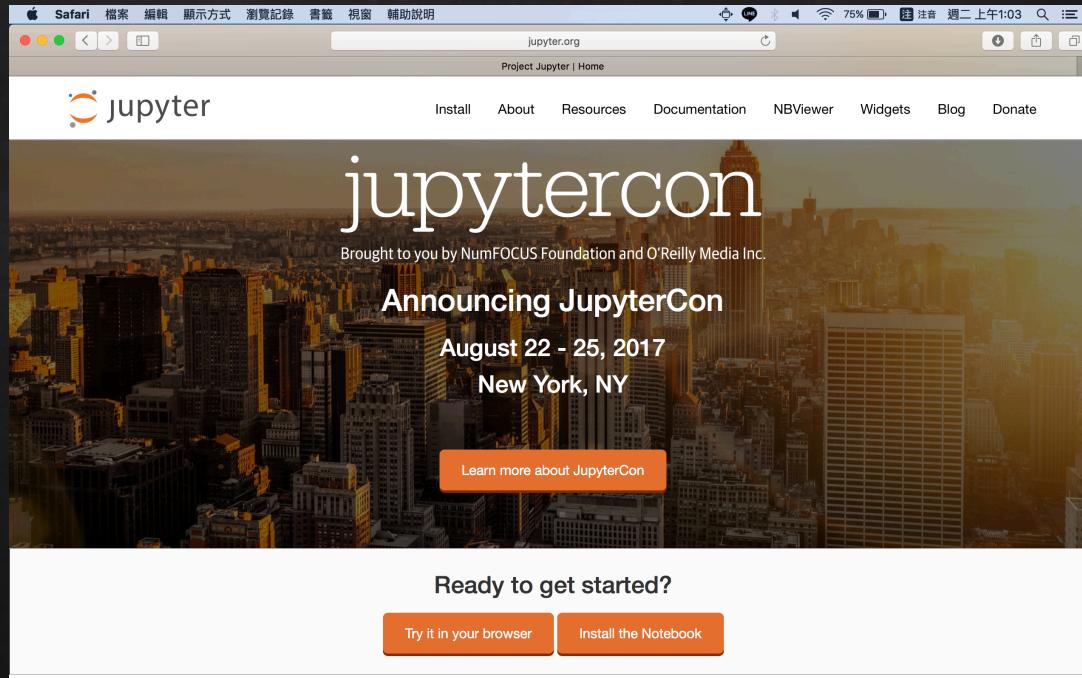


Anaconda





Jupyter Notebook(Online)



The screenshot shows the official Jupyter website (jupyter.org) displayed in a Mac OS X-style Safari browser. The page features a large, semi-transparent background image of a city skyline at sunset. Overlaid on the image is the word "jupytercon" in a large, lowercase, sans-serif font. Below this, smaller text reads "Brought to you by NumFOCUS Foundation and O'Reilly Media Inc." followed by "Announcing JupyterCon" and the event details "August 22 - 25, 2017" and "New York, NY". A prominent orange button at the bottom left of the image area says "Learn more about JupyterCon". At the very bottom of the page, a white footer bar contains two buttons: "Try it in your browser" and "Install the Notebook".

Safari 檔案 編輯 顯示方式 游覽記錄 書籤 視窗 幫助說明

jupyter.org

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jupytercon

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Announcing JupyterCon

August 22 - 25, 2017

New York, NY

Learn more about JupyterCon

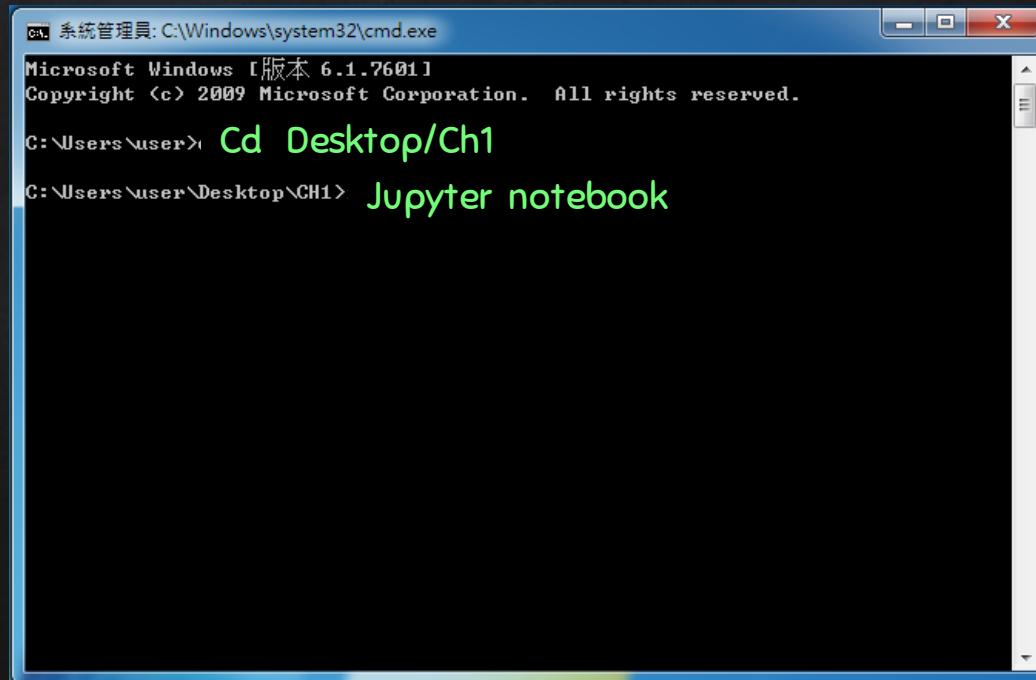
Ready to get started?

Try it in your browser

Install the Notebook



Open your Jupyter Notebook !!

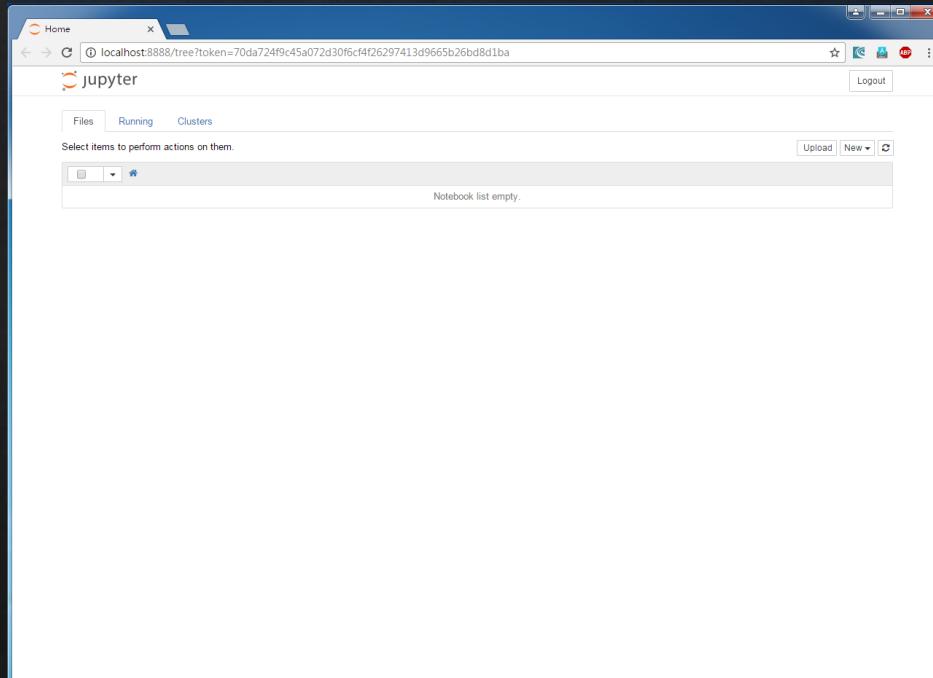


```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
Copyright <c> 2009 Microsoft Corporation. All rights reserved.

C:\Users\user> Cd Desktop\Ch1
C:\Users\user\Desktop\CH1> Jupyter notebook
```

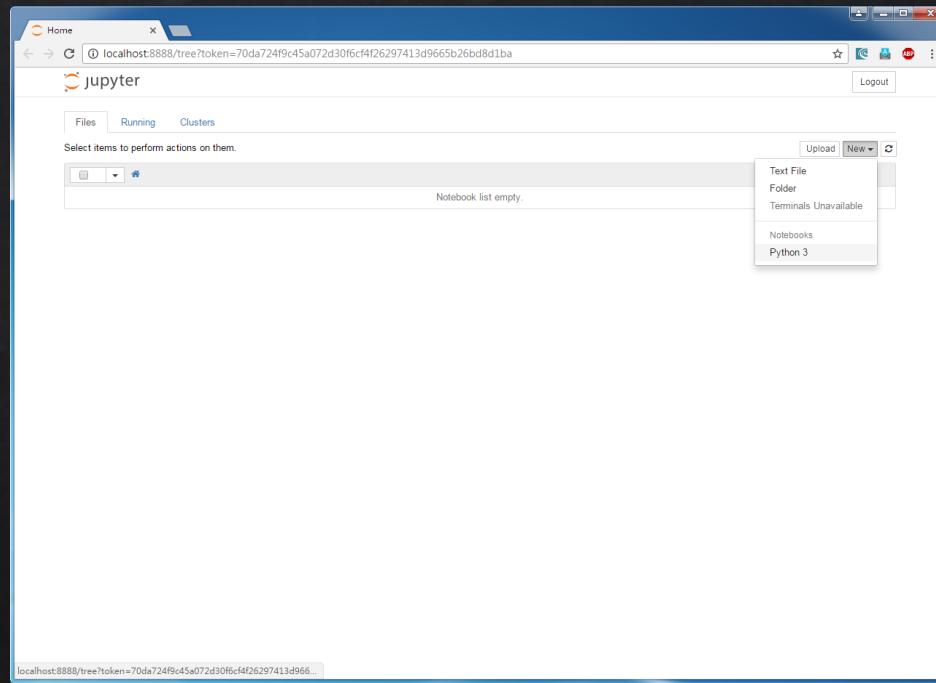


Open your Jupyter Notebook !!





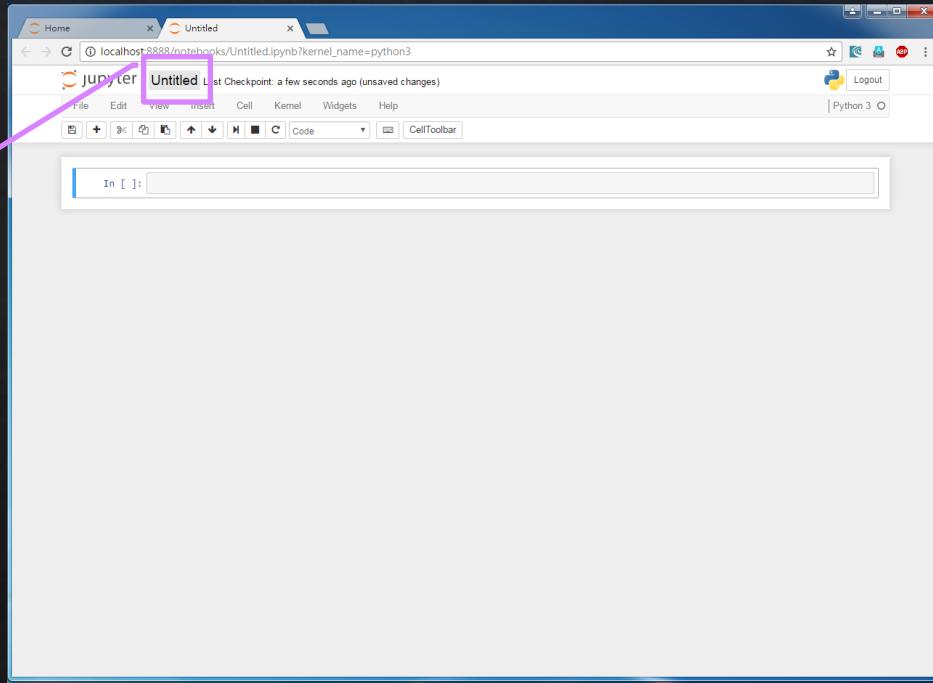
Open your Jupyter Notebook !!





Open your Jupyter Notebook !!

改檔名





Hello Python!!

Hello Python !!

```
In [1]: print('Hello Python !!')
```

```
Hello Python !!
```



The Zen of Python

In [2]:

```
import this
```

The Zen of Python, by Tim Peters

```
Beautiful is better than ugly.  
Explicit is better than implicit.  
Simple is better than complex.  
Complex is better than complicated.  
Flat is better than nested.  
Sparse is better than dense.  
Readability counts.  
Special cases aren't special enough to break the rules.  
Although practicality beats purity.  
Errors should never pass silently.  
Unless explicitly silenced.  
In the face of ambiguity, refuse the temptation to guess.  
There should be one-- and preferably only one --obvious way to do it.  
Although that way may not be obvious at first unless you're Dutch.  
Now is better than never.  
Although never is often better than *right* now.  
If the implementation is hard to explain, it's a bad idea.  
If the implementation is easy to explain, it may be a good idea.  
Namespaces are one honking great idea -- let's do more of those!
```

資料型態

DATA TYPE



DATA TYPE

Type	Example
int	
float	
complex	
boolean	



DATA TYPE

PACKAGE & MODULE



Package & Module

