Environment Setting

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Outline

- Anaconda introduction
- Jupyter Notebook introduction

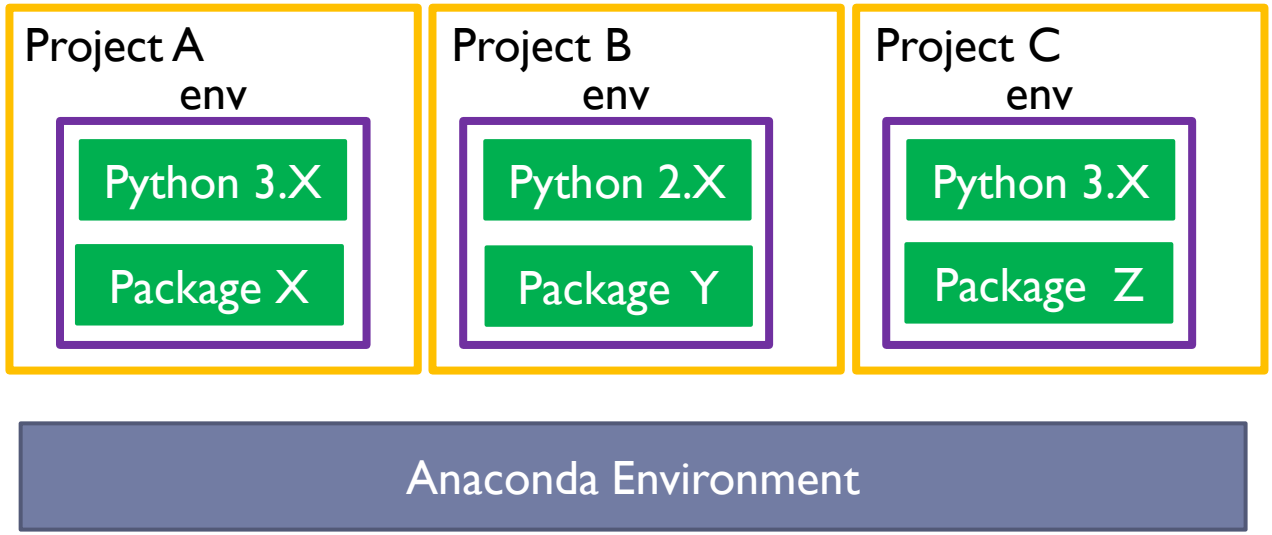
Anaconda introduction

What's Anaconda

- a free and open-source distribution of the Python and R programming languages for scientific computing
  - simplify package management
  - can support Windows, Linux, and MacOS

Anaconda Environment

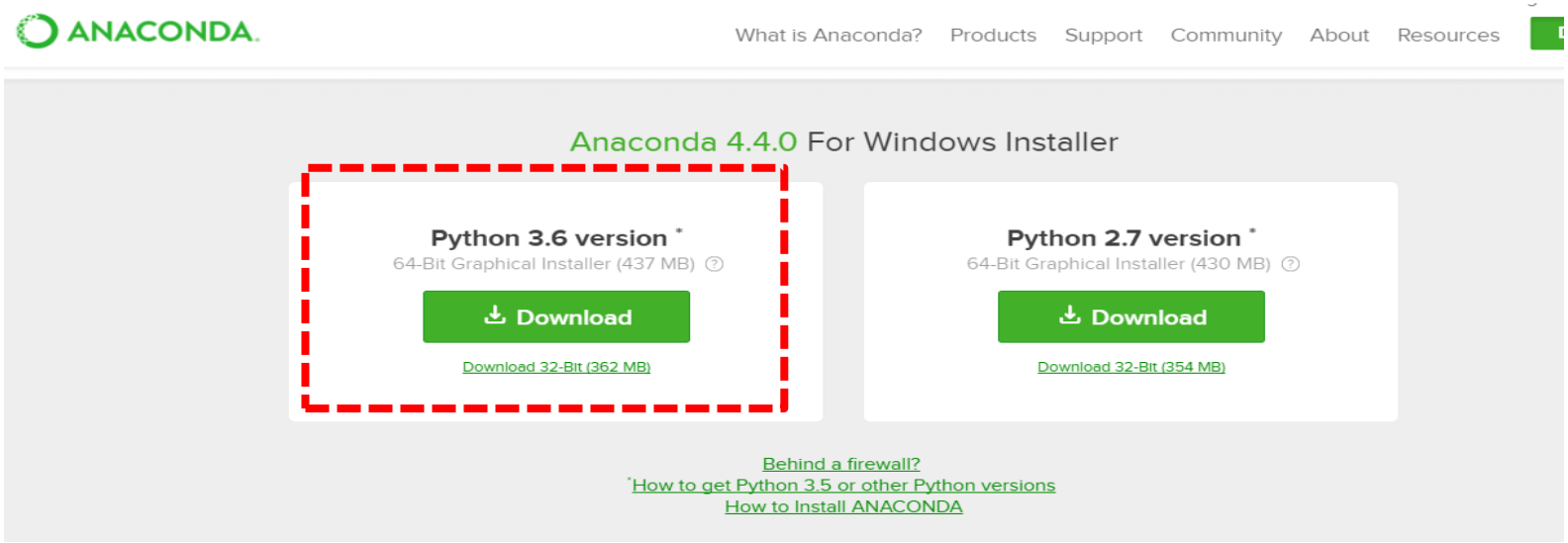
- User can create different anaconda environments for different projects
  - easy to manage different project
  - avoid software conflict problem among doing multiple projects at the same time



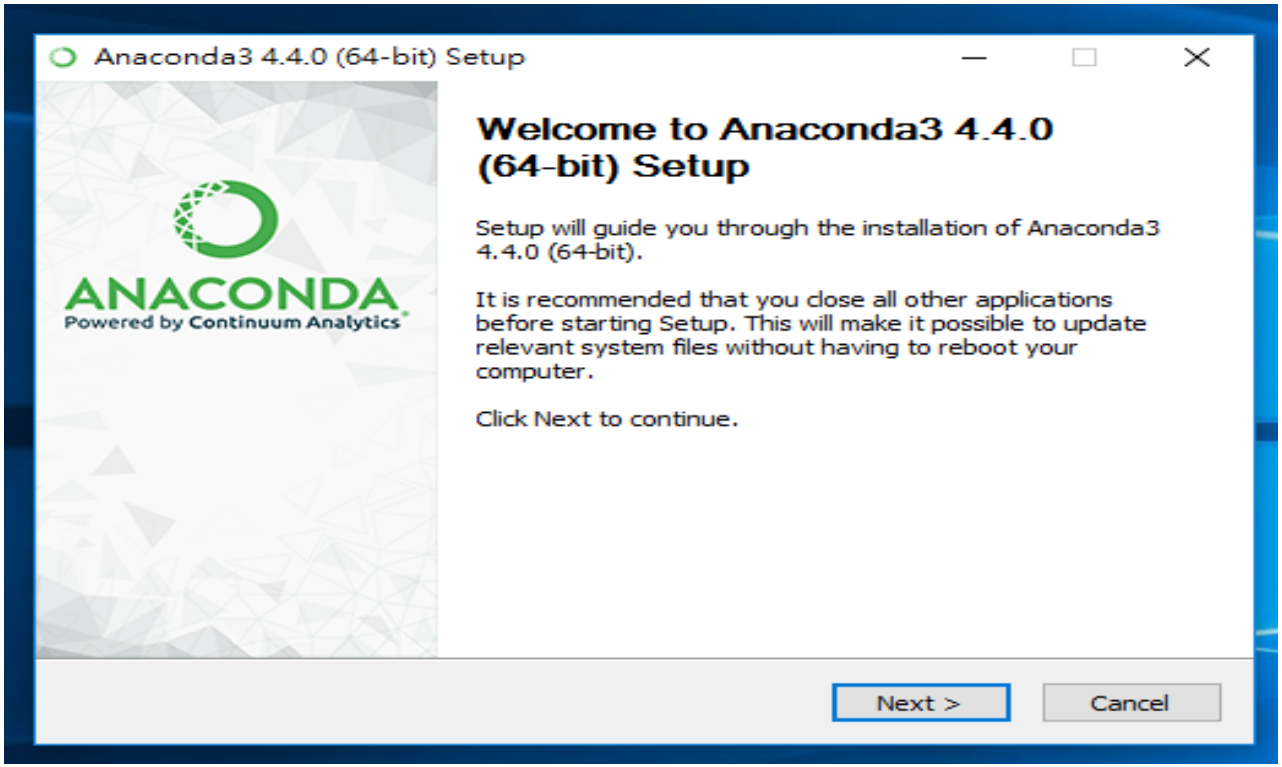
Install Anaconda

Download link

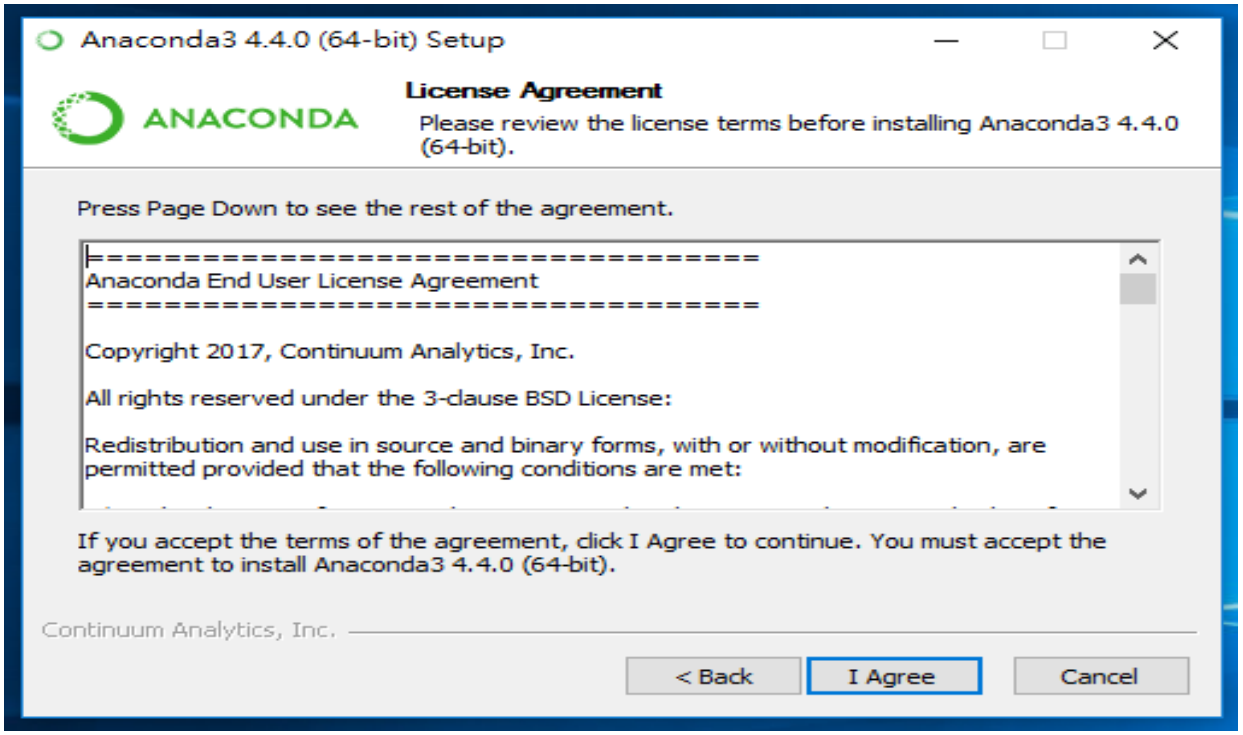
https://www.anaconda.com/download/



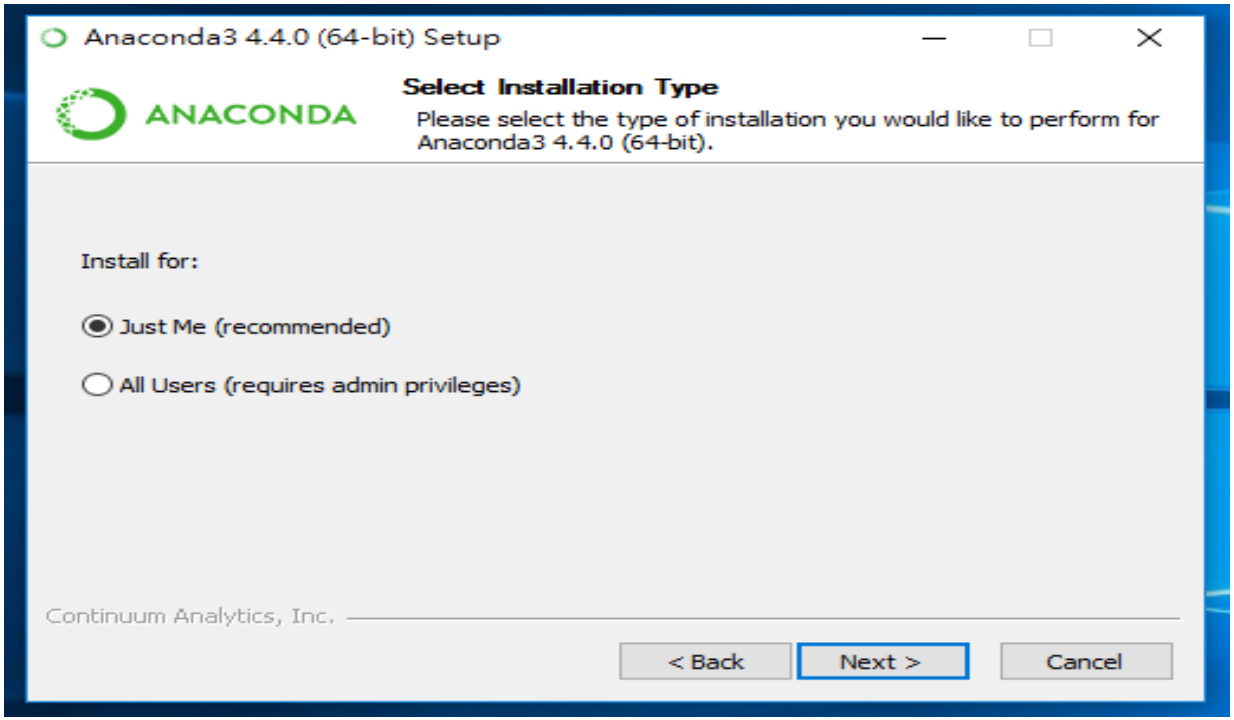
Install Anaconda



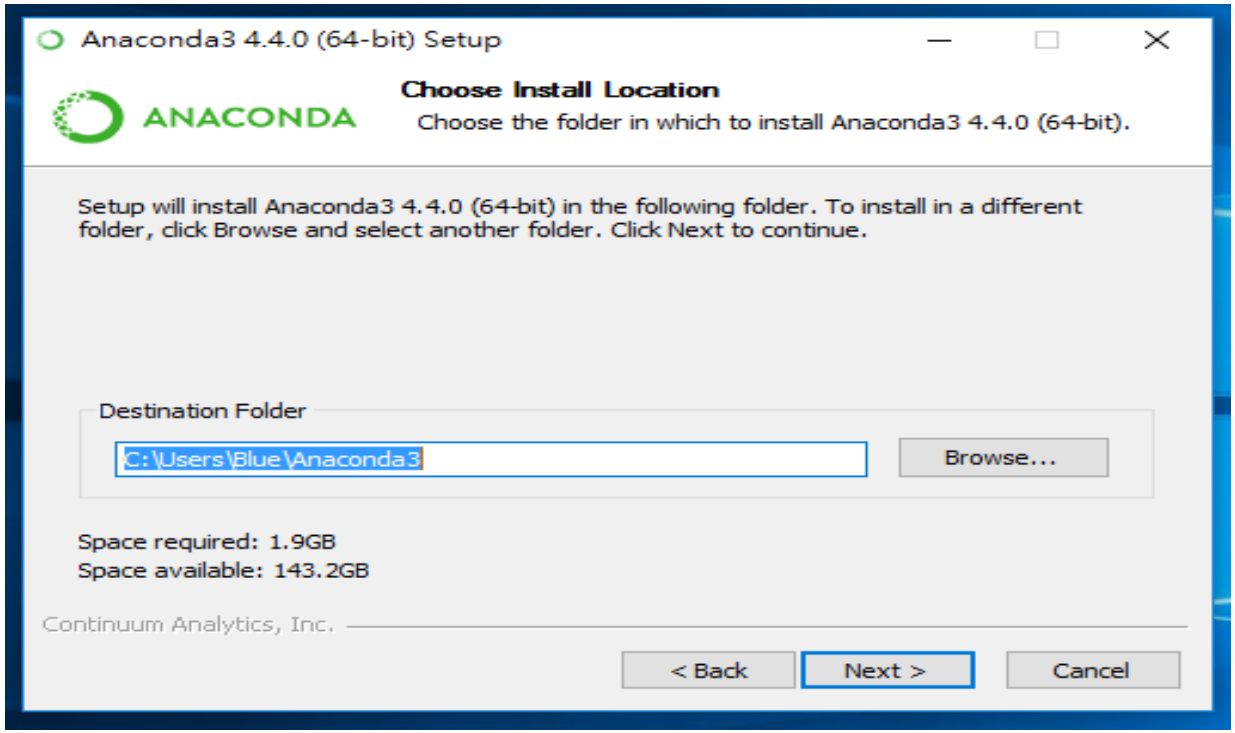
Install Anaconda



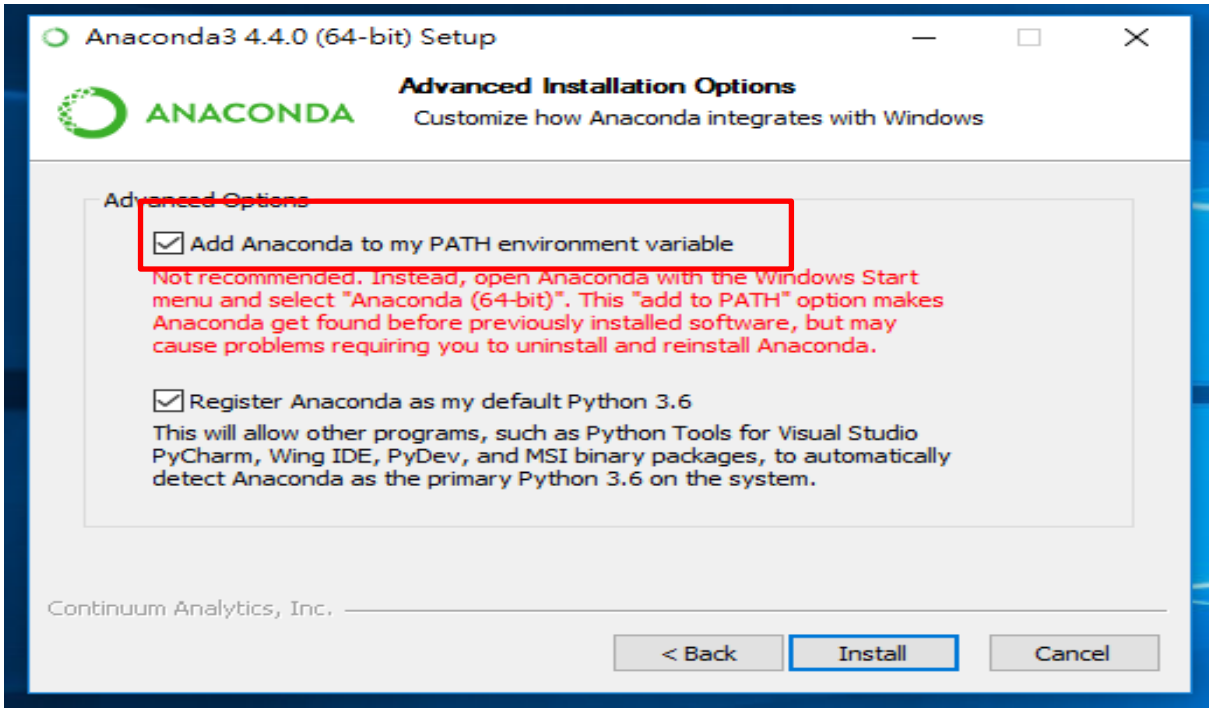
Install Anaconda



Install Anaconda

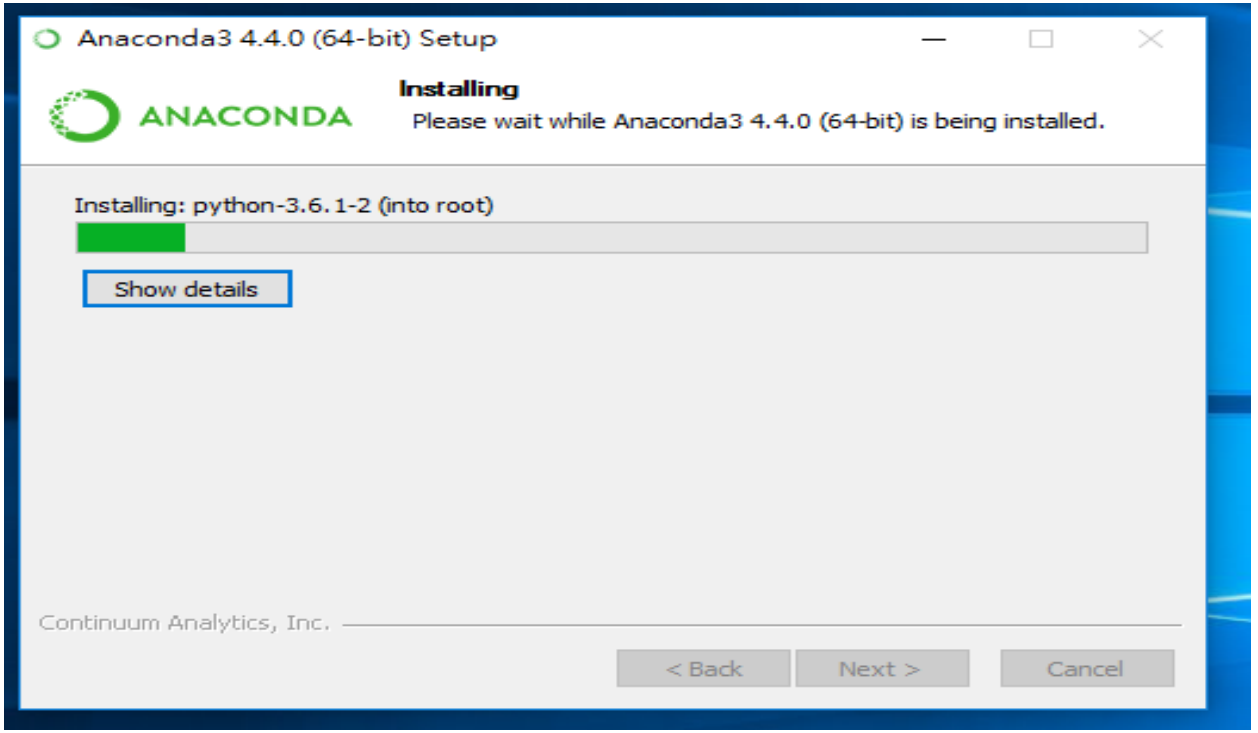


Install Anaconda



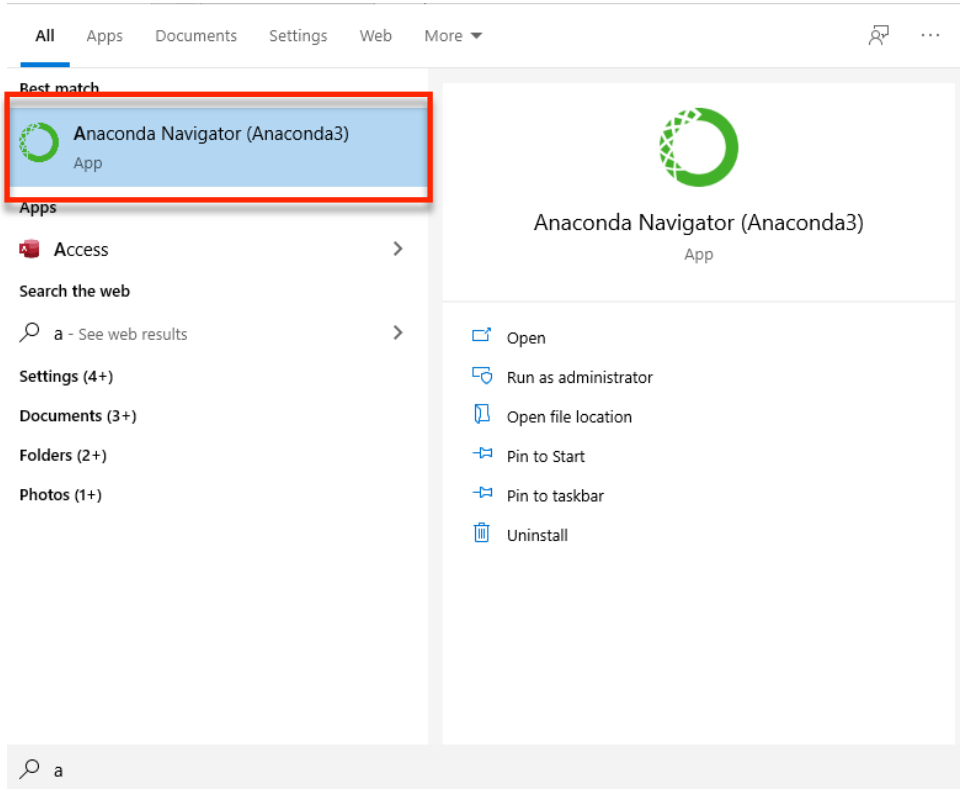
Please select "Add Anaconda to my PATH environment variable"

Install Anaconda

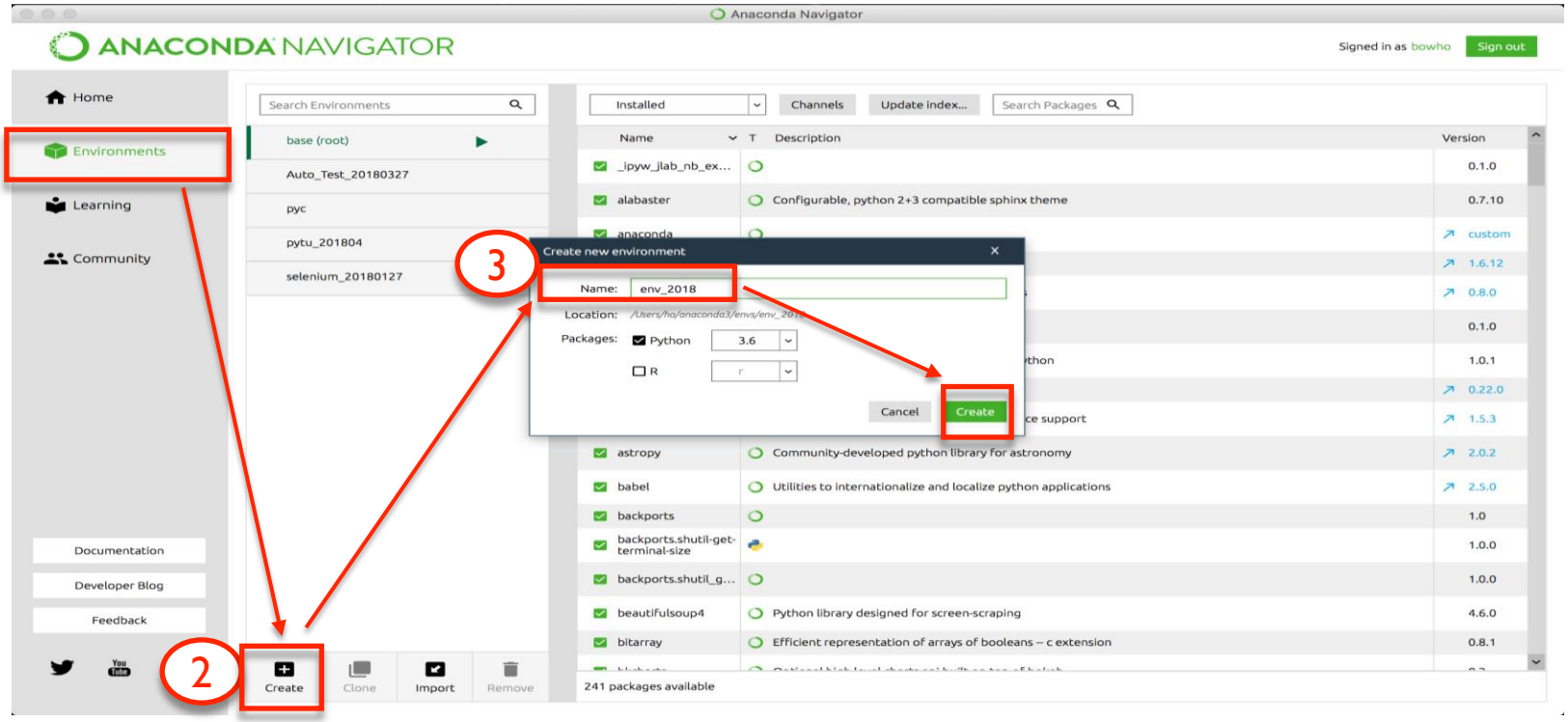


Open Anaconda Navigator

- search “Anaconda Navigator” on command terminal and open Anaconda

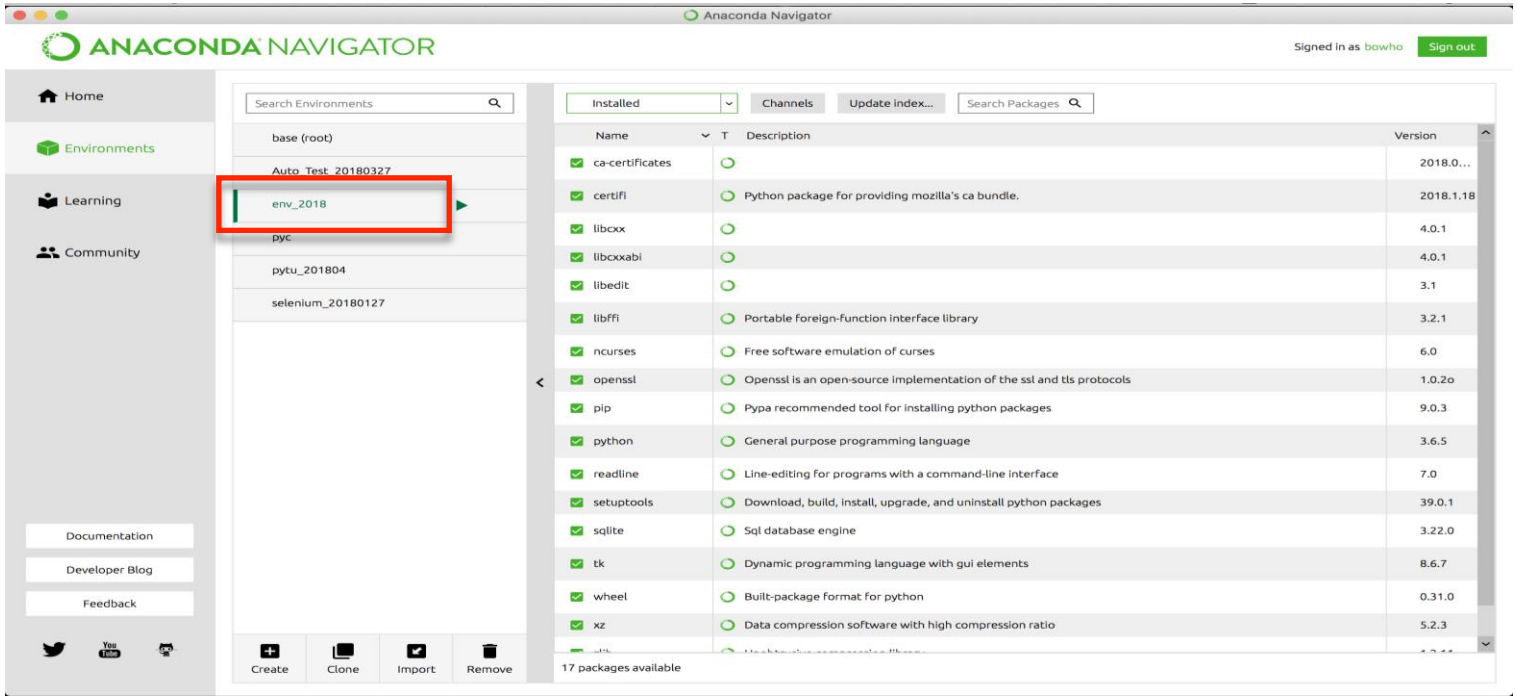


Create environment by GUI



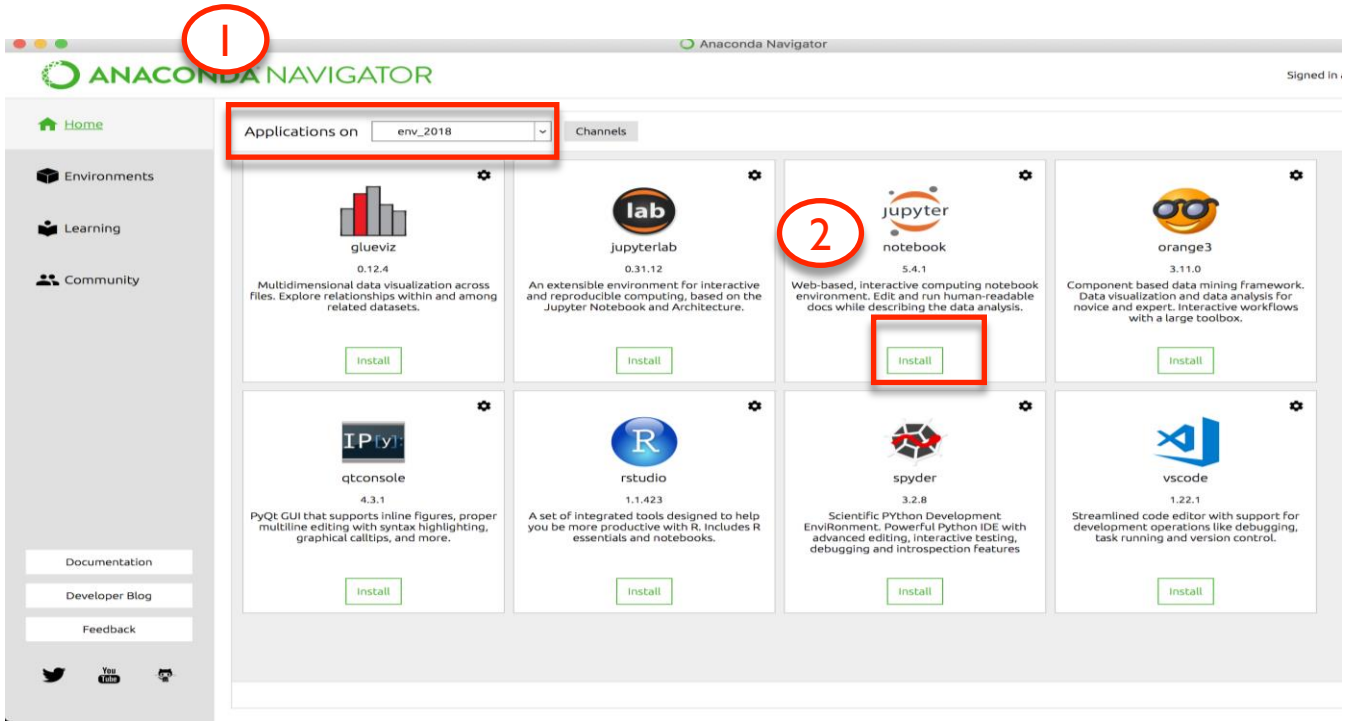
Create environment by GUI

When this showed means the environment is finish building



Install and open Jupyter Notebook

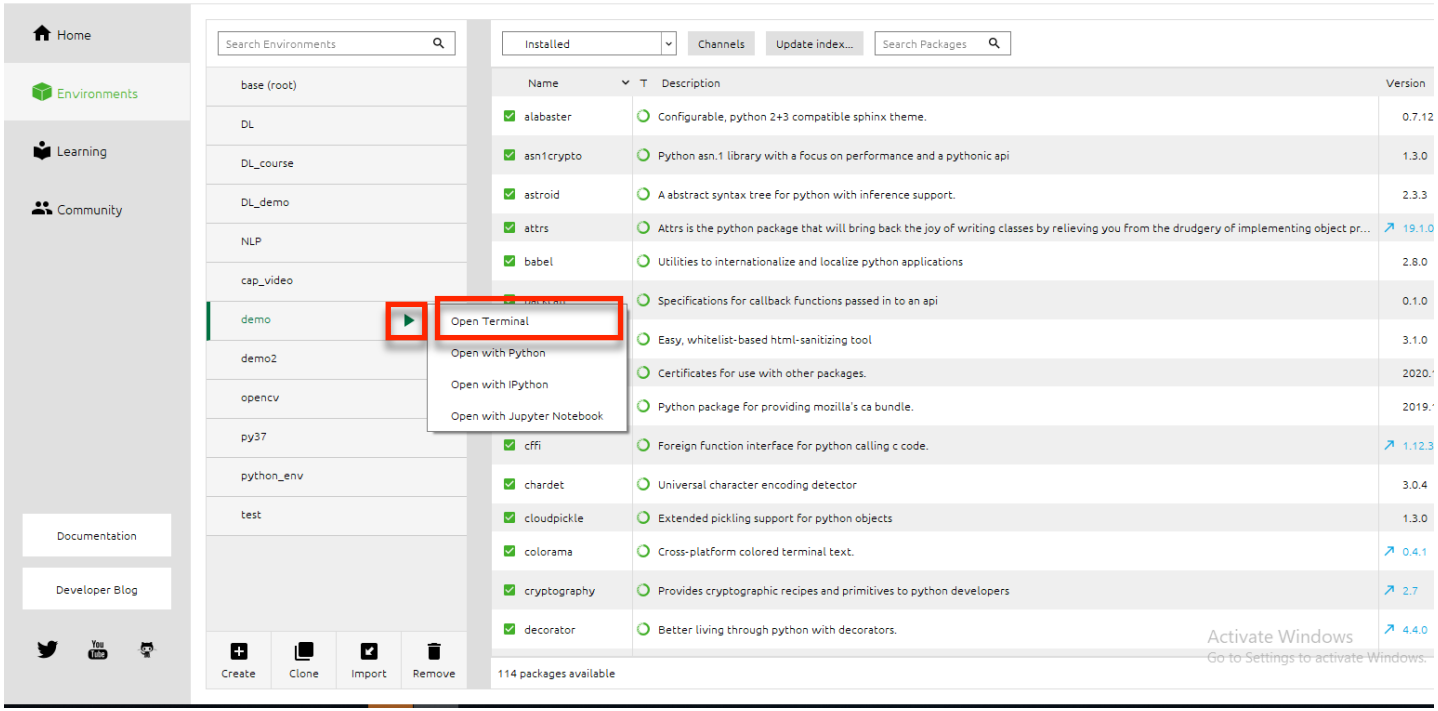
Select your environment and install jupyter notebook



Install and open Jupyter Notebook

Install package in Anaconda Environemnt

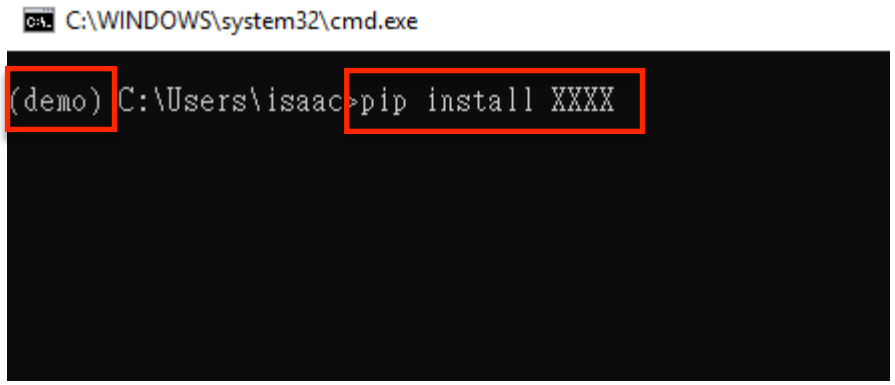
- Switch back to Environments in Anaconda
- Left click green arrow on your environment and click "open terminal"



Install package in Anaconda Environemnt

- Install your package by
  - pip install [package_name]
  - conda install [package_name]

your environment name

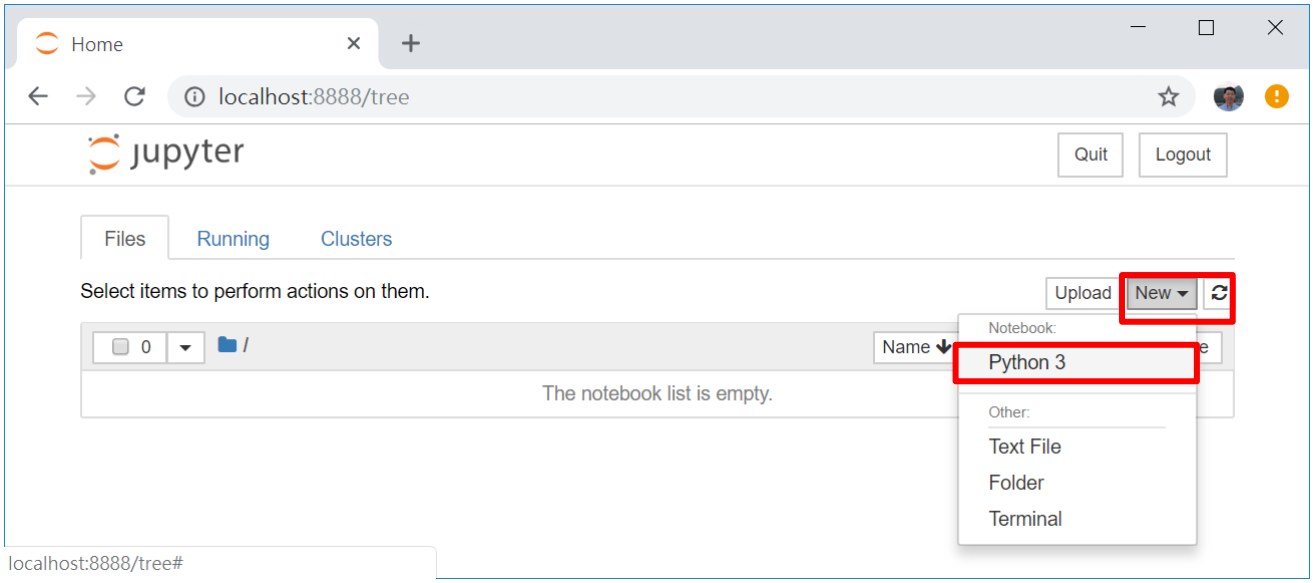


Jupyter Notebook introduction

What's Jupyter Notebook

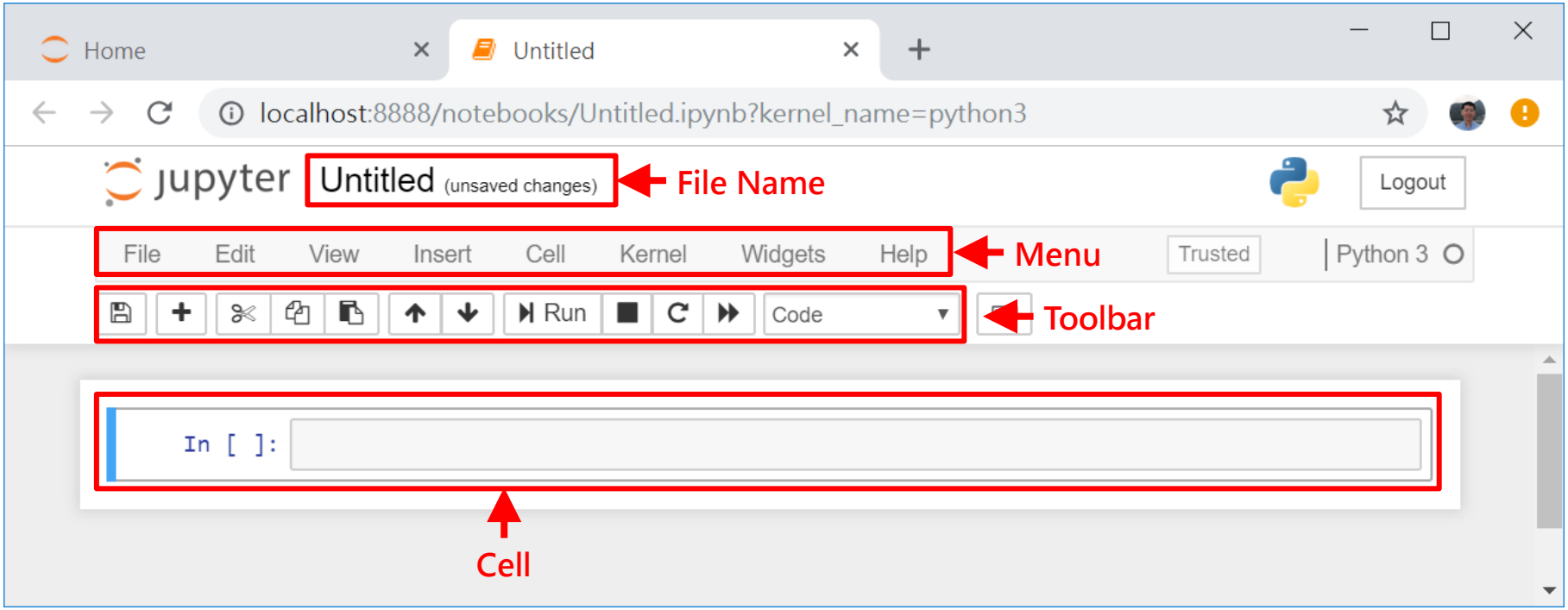
- a web-based interactive computational environment for creating Jupyter notebook documents
  - can be used to program python language
  - File extension is .ipynb
  - Jupyter notebook would autosave file while programming python

Create New Jupyter Notebook(.ipynb)



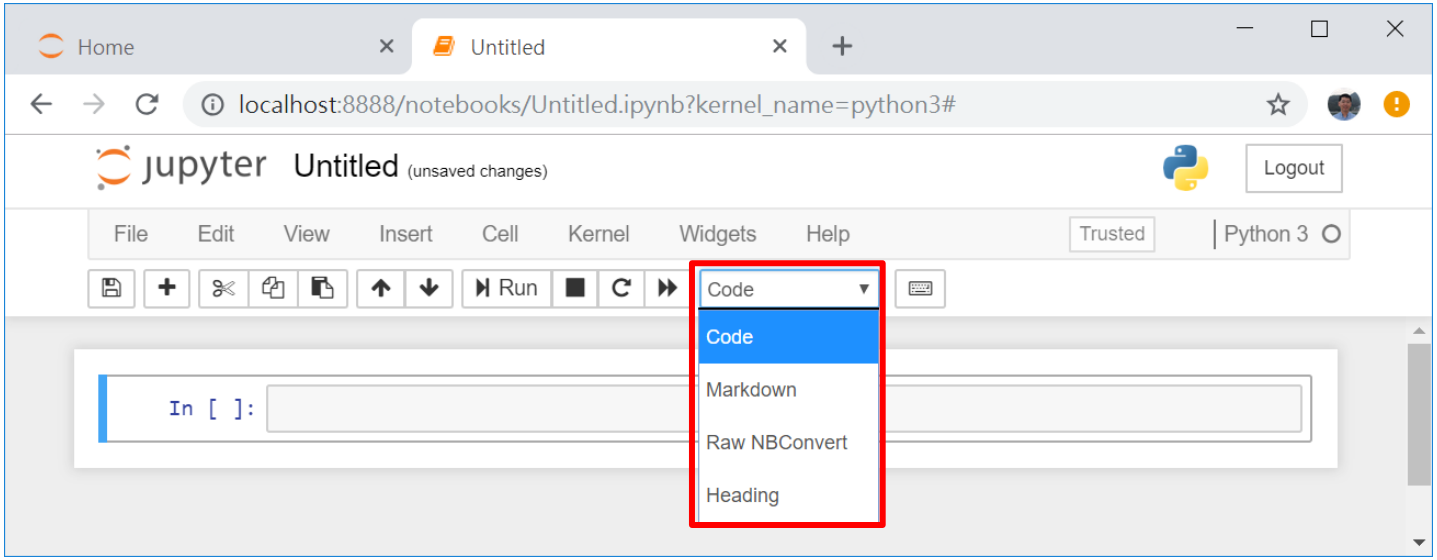
open a new python3 jupyter notebook file

Jupyter Notebook user interface



Cell Type

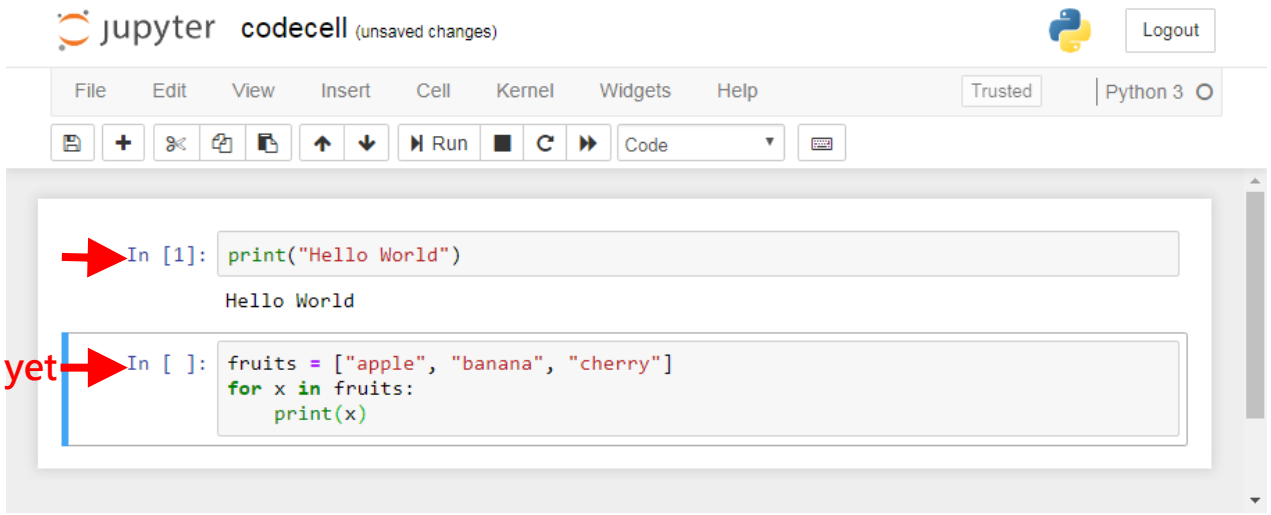
- There are two common cells we usually used in python programming
  - Code cells
  - Markdown cells



Code Cell

- Code cell can be used to write code

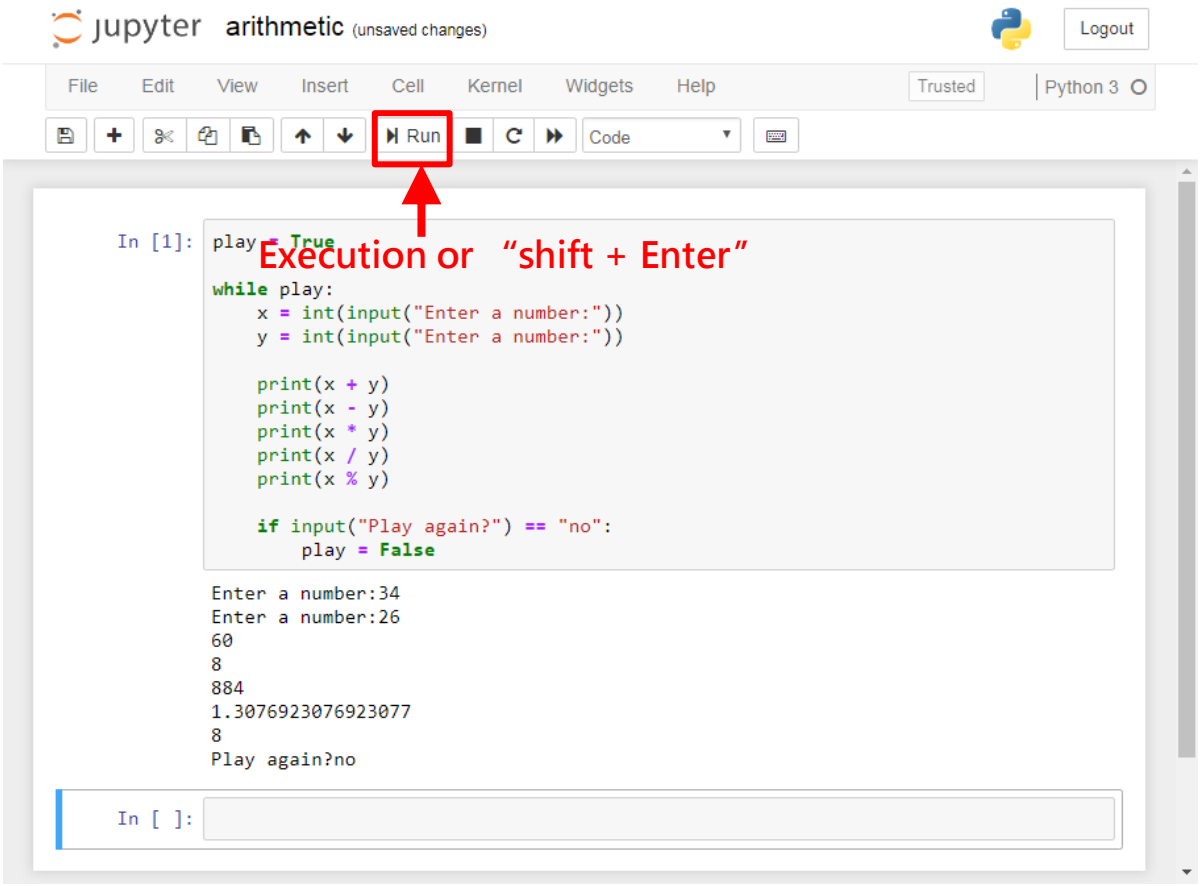
symbol	meaning
`In[]`	Program not execute yet
`In[num]`	After program execution
`In[*]`	Program execution now



After program execution

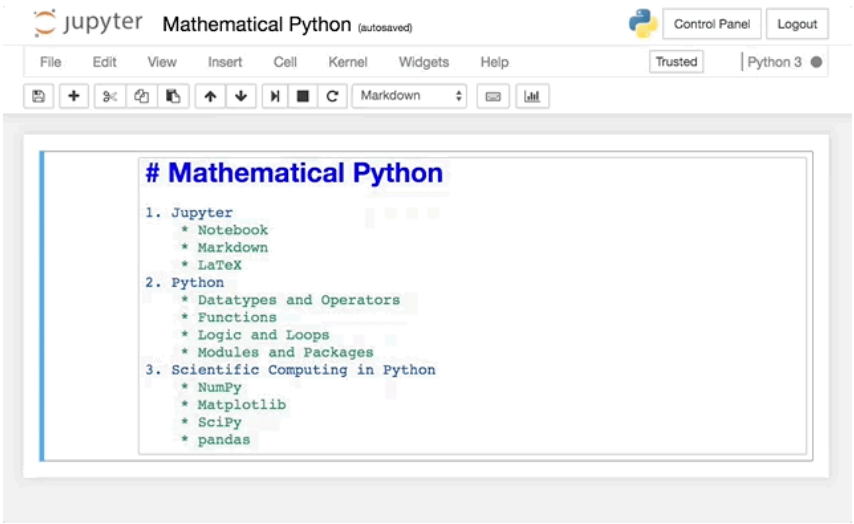
Program not execute yet

Execution program Jupyter Notebook



Markdown Cell

- A lightweight markup language with plain-text-formatting syntax
  - can be transformed into valid html document
- content of markdown include
  - markdown, HTML, Latex, images, videos,……



Markdown reference

- Markdown reference
  - https://markdown.tw/

Convert .ipynb to .py or .html file