



Web Programming

Spring 2021



#27

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Topics

- The concepts of Web Services
- Web data protocols
 - HTTP, WebSocket, WebRTC
 - HTML, CSS
- Web JavaScript programming
- Cookies and sessions
- Web Frontend frameworks
- **Web Backend frameworks**
- RESTful API design





Web Backend frameworks

- 主要提供 Backend API server
 - 連接 database 並提供 RESTful endpoint 給 frontend 擷取資料
- 還有一些前端目前無法處理的問題
 - 大部分都會交給後端處理
- 串接第三方API



Web Backend frameworks

- 後端工程師的養成更加需要時間
- Beginner 到 Junior 大概需要一年
- Junior → Senior 大概需要一年半到三年
- 然後就是一個漫長養成過程
 - 後端簡單的說包含的範圍非常廣大
 - 例如前端打了“泡咖啡API” 後端就要能泡咖啡
 - Google search所吐回來搜尋結果
 - 也可以說是後端
- 後端就是神
- 所以我們只介紹最基本的 有興趣的同學可以再深入了解

Python + Django

- 開放原始碼的Web應用框架
- 主要目標是簡化資料庫驅動的網站的開發
- 2003 年開始 2005 年開源
- Instagram 就是Django 寫的
- Django目前是 3.2版本
- 不算太潮 但是很穩定

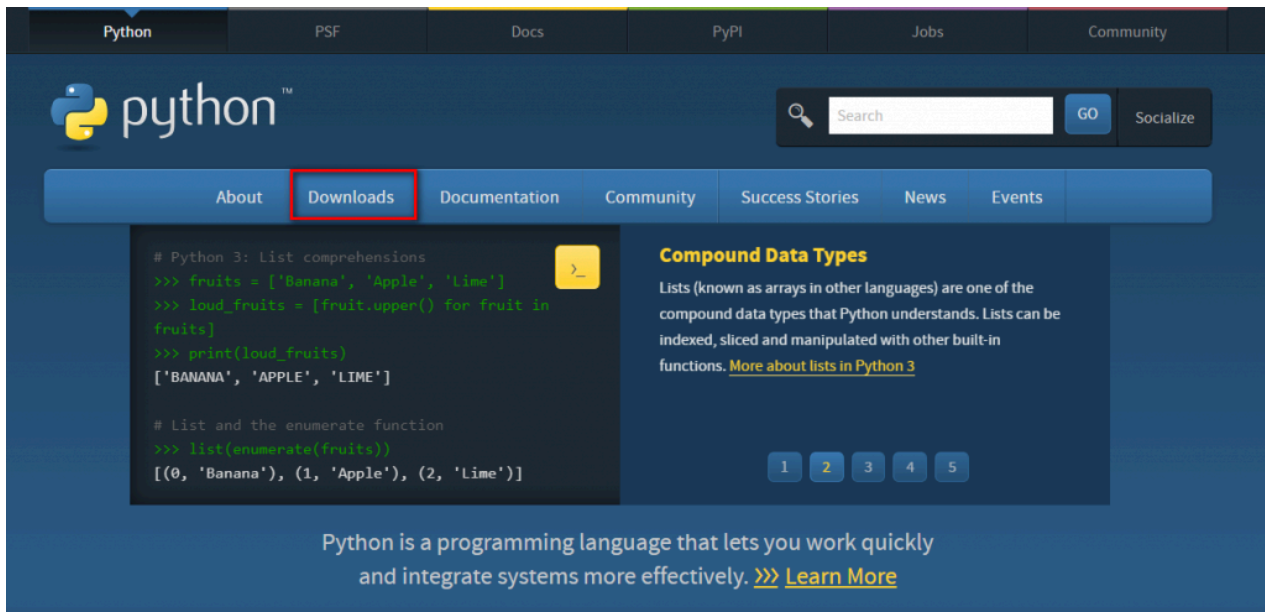
The Django logo, which consists of the word 'django' in a white, lowercase, sans-serif font, set against a dark green rectangular background.

Backend 就是要

1. 穩定
 2. 不會死
 3. 沒有bug
- 其他都好說

先來裝一下Python

- <https://www.python.org/downloads/>



Install Python 3.6.2 (64-bit)

Select Install Now to install Python with default settings, or choose Customize to enable or disable features.

→ Install Now

C:\Users\h3080\AppData\Local\Programs\Python\Python36

Includes IDLE, pip and documentation
Creates shortcuts and file associations

→ Customize installation

Choose location and features

2

☐ Install launcher for all users (recommended)

☒ Add Python 3.6 to PATH

1

Cancel

python
for
windows



python
for
windows

Optional Features

☒ Documentation

Installs the Python documentation file.

☒ pip

Installs pip, which can download and install other Python packages.

☒ tcl/tk and IDLE

Installs tkinter and the IDLE development environment.

☒ Python test suite

Installs the standard library test suite.

☒ py launcher ☐ for all users (requires elevation)

Use Programs and Features to remove the 'py' launcher.

Back

Next

Cancel

Advanced Options

- ☒ Install for all users 1
- ☒ Associate files with Python (requires the py launcher)
- ☒ Create shortcuts for installed applications
- ☒ Add Python to environment variables
- ☒ Precompile standard library
- ☐ Download debugging symbols
- ☐ Download debug binaries (requires VS 2015 or later)

Customize install location

C:\Python36 2

Browse

Back

3

Install

Cancel

python
for
windows



- 看一下裝的版本

```
23:16:53 py3.7 ...projects/react_test/hello-world master ✖ ⚙ ★
$ python -V
Python 3.7.4
(py3.7)
23:16:56 py3.7 ...projects/react_test/hello-world master ✖ ⚙ ★
```

- Python 主要有2 和 3
- 不要再用python 2了 <—血和淚的坑

Python — Virtualenv 虛擬環境安裝

安裝virtualenv



建立虛擬環境



虛擬環境中啟動
及安裝所需套件

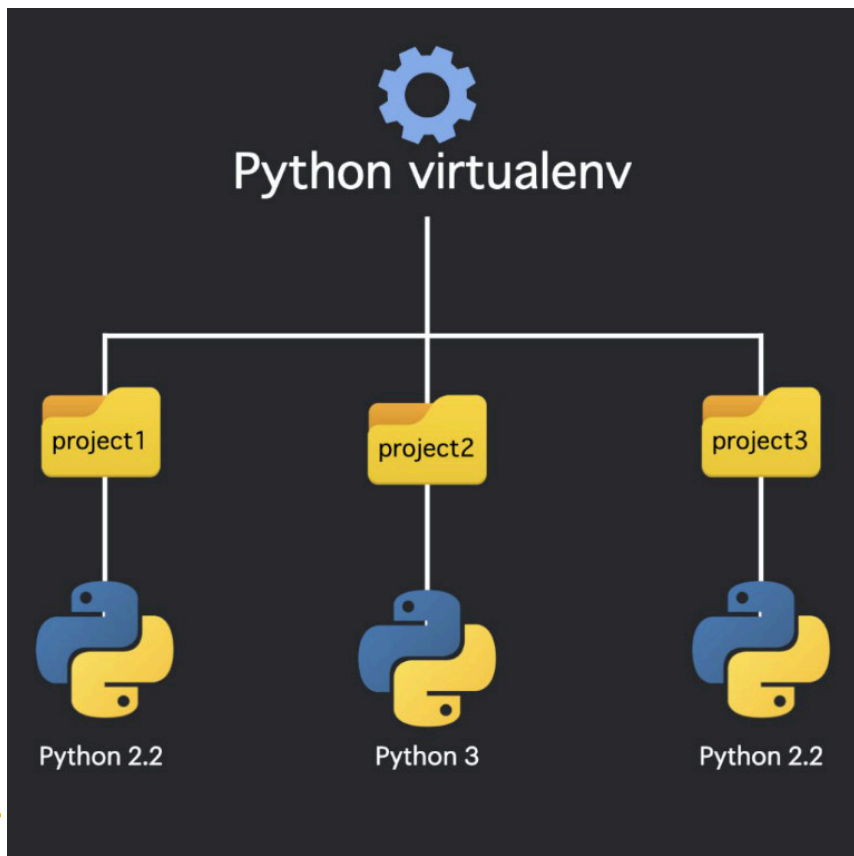


離開虛擬環境

- pip3 install — upgrade pip
- pip3 install virtualenv
- virtualenv py3.7
- activate
- deactivate
- pyenv (用來管理虛擬環境)



Virtualenv 主要是不要互相污染傷害





Thanks!

Open for any questions

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