



Python

## Week 02 - Snakify and Thonny IDE

☰ Memo	
☰ Week	1
☰ 課程單元	說明 Snakify 學習方法、Thonny IDE 簡介

### 學習目標

- 電腦運作原理及基本程式設計概念。
- 使用線上工具 Snakify 自主學習 Python。
- 下載安裝 Thonny IDE - 初學者的 Python 開發工具。

### 參考資料

- [Python 官方網站 \(<https://www.python.org/>\)](https://www.python.org/)
- [Snakify - 線上學習網](#)
- [Thonny - Python IDE for beginners](#)
- [Zuvio - 大學師生互動平台](#)

### 課程設計

[https://www.youtube.com/watch?v=OAx\\_6-wdslM](https://www.youtube.com/watch?v=OAx_6-wdslM)

<https://www.youtube.com/watch?v=mCq8-xTH7jA>

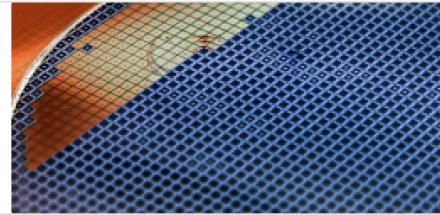
<https://www.youtube.com/watch?v=xnyFYiK2rSY>

<https://www.youtube.com/watch?v=Y8Tko2YC5hA>

### 推翻邏輯微縮道路上的「三座大山」 - 電子工程專輯

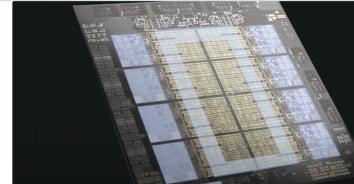
作者：邵樂峰，EE Times China 伴隨著電晶體大小不斷逼近原子的物理體積極限，電晶體設計、互連微縮、圖形化和設計-技術協同最佳化(DTCO)成為橫亘在邏輯微縮道路上的三座大山... 邏輯晶片是電子產品中主要的處理引擎，功耗和性能對其至關重要。以

<https://www.eettaiwan.com/20210826nt61-overcome-logic-chip-transistor-scaling-problem/>



IBM發布首款7奈米Telum處理器，整合AI加速推論晶片，下一代IBM Z大型主機先採用不讓Apple、Google、AWS專美於前，在今日(8/23 )線上舉行的Hot ...

<https://www.ithome.com.tw/news/146315>



### Thonny

Download version 3.3.13 for Windows \* Mac \* Linux Binary bundle for PC  
(Thonny+Python): bash <(wget -O - https://thonny.org/installer-for-linux) With pip: pip3  
install thonny With Flatpak: flatpak install org.thonny.Thonny Debian, Raspbian,  
<https://thonny.org/>

Variables	
Name	Value
age	7
name	'Tim'

### Snakify - Python 3 Interactive Course

Teach Python 3 and web design with 200+ exercises - Learn Python 3 - Snakify  
Welcome to our interactive manual of Python 3 programming language. This is an introductory course that is way different from the others.

<https://snakify.org/en/>

Global variables	
i	2
j	2

Output:  
1 0 0  
2 1 0

## 課堂作業

Homework 01 - Snakify Python 程式問題練習。驗收期限：期中考前一週 (10/31)。

- 請完成 [Lesson 3](#) 中的所有題目。
- 請務必先註冊且登入你的 Snakify 帳號。



2. Integer and float numbers

3. Conditions: if, then, else

- ↳ Is positive
- ↳ Is odd
- ↳ Is even
- ↳ Ends on seven

Minimum of two numbers

- ↳ Are both odd
- ↳ At least one odd
- ↳ Exactly one odd

Sign function

- ↳ Numbers in ascending order

- ↳ Is three digit

Minimum of three number

## Lesson 3

# Conditions: if, then, else

Theory Steps Problems

## 1. Syntax

All the programs in the first lesson were executed sequentially, line after line. No line could be skipped.

Let's consider the following problem: for the given integer X determine its absolute value. If  $X > 0$  then the program should print the value X, otherwise it should print -X. This behavior can't be reached using the sequential program. The program should conditionally select the next step. That's where the conditions help:

Homework 02 - 下載安裝 Thonny IDE，並且會基本的操作。驗收期限：9/13。

- 使用這個 Python 基本程式  
框架來練習。



```
#!/bin/python3

def main():
    print("Hello, Python world!")

if __name__=="__main__":
    main()
    exit(0)
```