

Week 2 loop 迴圈

1. for loop 固定次數

- 當執行次數不重要時

```
for _ in ...  
do ...
```

- 用 i 記錄次數

```
for i in range( ):  
do ...
```

- for c in s:

依序取出字串 s 中的元素
(dict, list...)

* dictionary

```
for key in fruit:  
print ... (印出 key)
```

```
for k in fruit.items():  
print ... (印出對應的值)
```

2. range function

- 常用於控制 for loop

- range (start value, end value, 增加/減少 value)

```
ex. for i in range(1, 10, 2):  
    print(i, end=' ')  
# 1 3 5 7 9
```

3. 巢狀迴圈 (並不能分為3層)

```
for i in range( ):  
    for j in range( ):  
do ...
```

- 常用於處理二維結構 (ex. 矩陣, 鄰接表)

4. break, continue

- break 中斷並跳出這層 loop
- continue: 跳過 loop 內 continue 後的 code 執行下次 loop

5. while loop 指定條件不固定次數

- while (condition):

```
do ... when condition == True
```

- while True: 無窮 loop (用 break 結束)

```
do ...
```