111-1基礎程式設計(7)

亞大資工系

課程大綱

- W1-Python簡介及程式工具
- W2-變數和運算
- W3-迴圈和格式化輸出
- W4-判斷式和容器
- W5-字串處理和輸出入
- W6-M1測驗

- W07-字典容器
- W08-檔案處理
- W09-函數
- W10-進階流程控制
- W11-進階運算和生成器
- W12-M2測驗

- W13-進階函數
- W14-類別
- W15-進階類別
- W16-模組和套件
- W17-進階設計
- W18-M3測驗

2

本週主題:字典容器

- Week7-字典容器
  - Topic 1(主題1)-字典的宣告
  - Topic 2(主題2)-字典的初始化(Dict Comprehensions, PEP 274)
  - Topic 3(主題3)-字典項目的增加
  - Topic 4(主題4)-字典項目的移除
  - Topic 5(主題5)-字典項目的使用
  - Topic 6(主題6)-字典的迴圈
  - Topic 7(主題7)-字典轉串列
  - Topic 8(主題8)-複習格式化輸出

Topic 1-字典的宣告

```python
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
print(thisdict)
```

Topic 2-字典的初始化

```
days = ["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"]
temp_C = [30.5,32.6,31.8,33.4,29.8,30.2,29.9]
weekly_temp = {day:temp for (day,temp) in zip(days,temp_C)}

print(weekly_temp)
```

Topic 3:字典項目的增加

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
thisdict["color"] = "red"
print(thisdict)
```
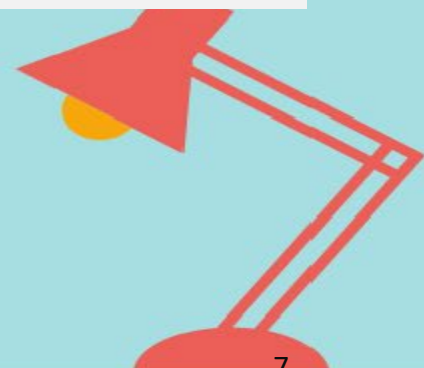
Topic 4-字典項目的移除

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
thisdict.pop("model")
del thisdict["year"]
print(thisdict)
```
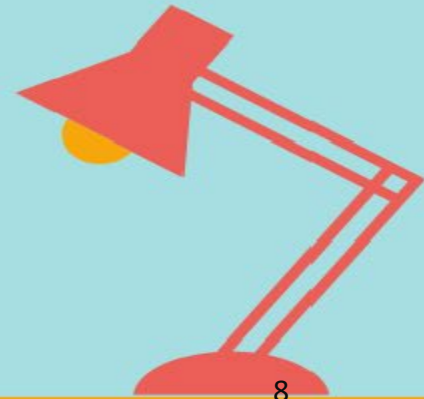
```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}

thisdict.clear()
print(thisdict)
```

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}

del thisdict
print(thisdict)
```
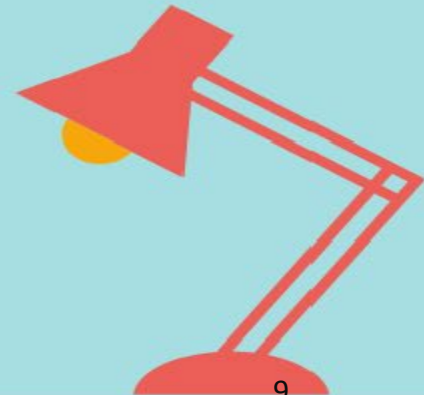
Topic 5-字典項目的使用

```
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
x = thisdict["model"]

car["year"] = 1999
```

Topic 6: 字典的迴圈

```python
thisdict = {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
for x in thisdict.keys():
  print(x)

for x in thisdict.values():
  print(x)

for x, y in thisdict.items():
  print(x, y)
```

Topic 7(主題7)-字典轉串列

```
[(k,v) for k,v in dict.items()]
```

Topic 8-複習格式化輸出

說明：

%-formatting 格式化列印

print('Art: %5d, Price per Unit: %8.2f' % (435, 59.058))

str-format（Python 2.6+）格式化列印

print("Art: {0:5d}, Price per Unit: {1:8.2f}".format(435, 59.058))

f-string （Python 3.6+）格式化列印

A = 435; B = 59.058

print(f"Art:{A:5d}, Price per Unit: {B:8.2f}")

Q&A

Thanks!