

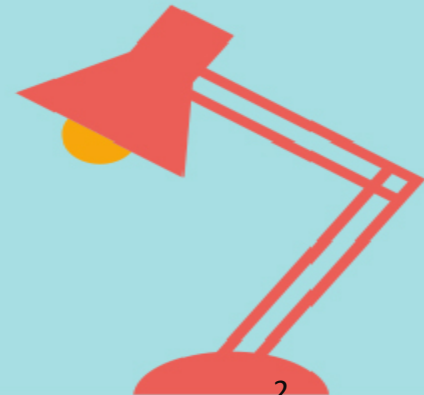


110-1基礎程式設計(11)

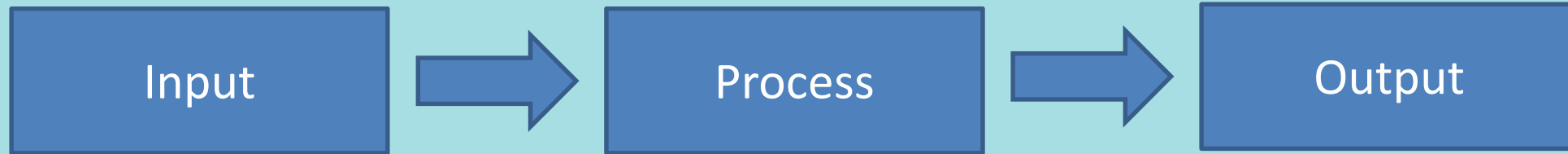
亞大資工系

課程大綱

- Week11-進階流程控制
 - Topic 1(主題1)-基本流程複習
 - Topic 2(主題2)-錯誤和例外
 - Topic 3(主題3)-match-case 陳述式
 - Topic 4(主題4)-迭代器(iterator)
 - Topic 5(主題5)-生成器(comprehension)
 - Topic 6(主題6)-原始碼品質控管



IPO Model (W11)



生成器(generator)

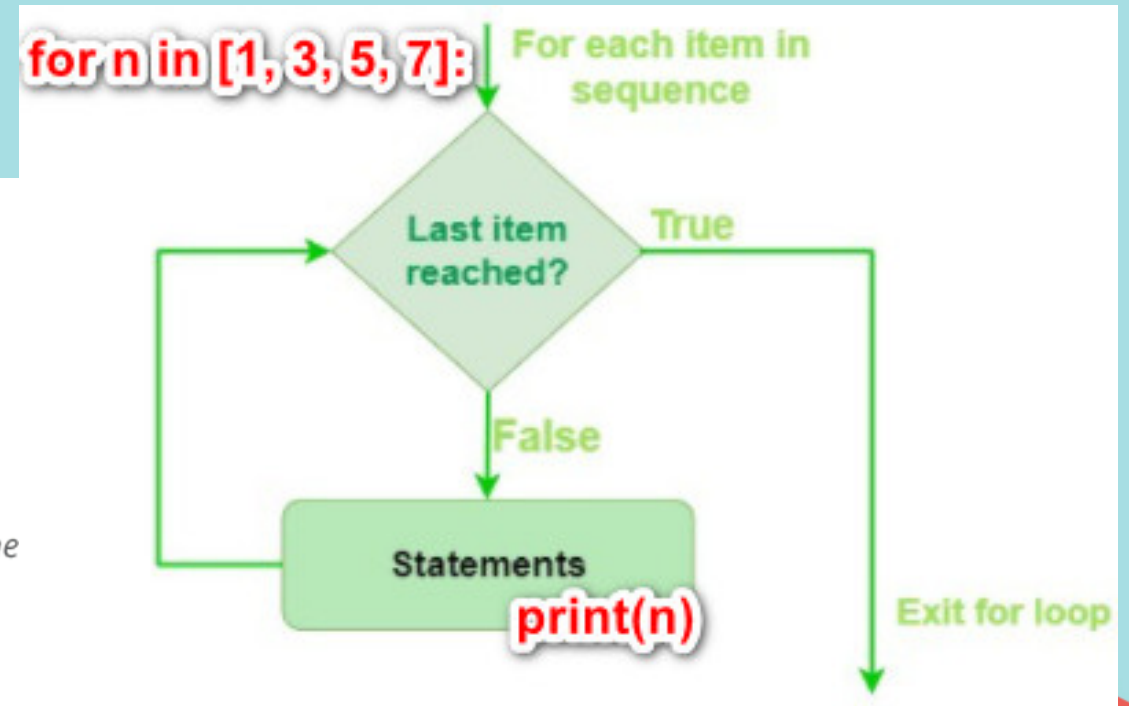
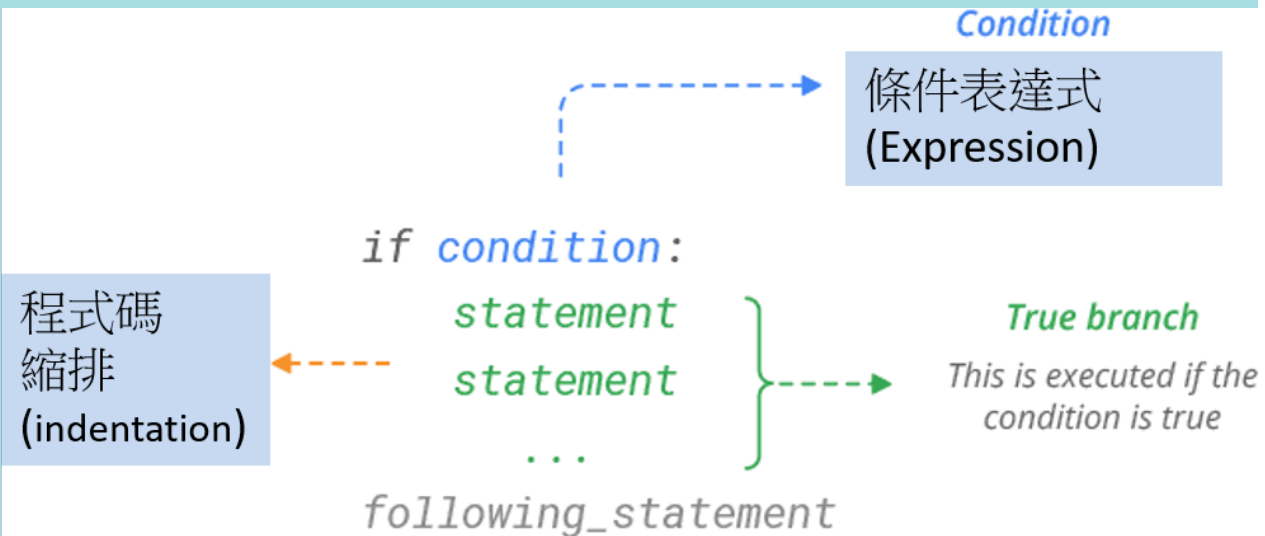
錯誤和例外
迭代器(iterator)

錯誤和例外



Topic 1-基本流程複習

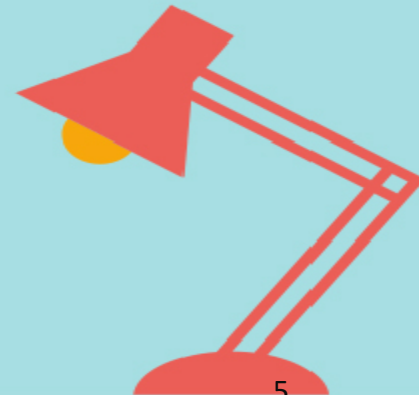
- Step 1: if-condition
- Step 2: for-loop



Topic 2-錯誤和例外

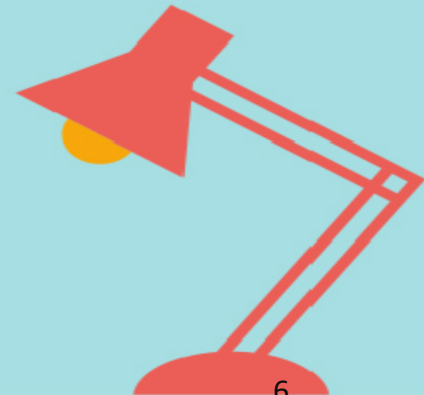
- 例外錯誤處理exception
- 例外錯誤處理Else
- 例外錯誤處理finally

```
try:  
    print(x)  
except:  
    print("Something went wrong")  
finally:  
    print("The 'try except' is finished")
```



Topic 3- match-case 陳述式

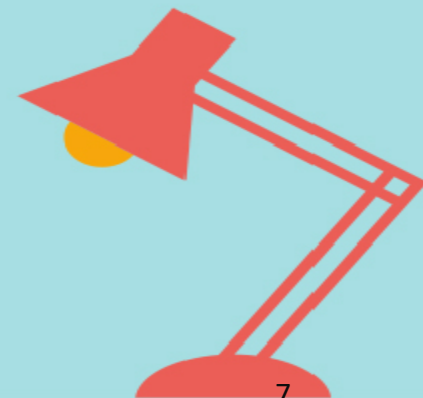
```
match command.split():  
    case ["quit"]:  
        print("Goodbye!")  
        quit_game()  
    case ["look"]:  
        current_room.describe()  
    case ["get", obj]:  
        character.get(obj, current_room)  
    case ["go", direction]:  
        current_room = current_room.neighbor(direction)  
# The rest of your commands go here
```



Topic 4-迭代器

```
for n in [1,2,3,4]:  
    print(n**2, end=" ")
```

```
a = iter([1,2,3,4])  
while True:  
    try:  
        n = next(a)  
        print(n**2, end=" ")  
    except StopIteration:  
        break
```



Topic 5-生成器

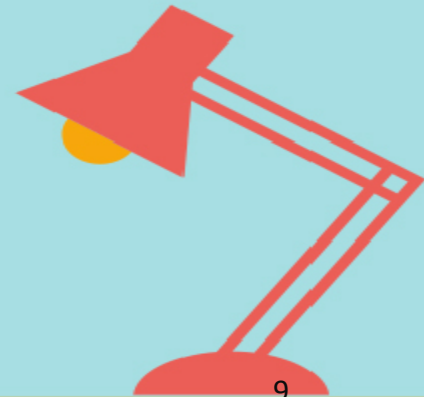
```
numbers = []  
for x in range(10):  
    numbers.append(x ** 2)  
print(numbers)
```

```
numbers = [x ** 2 for x in range(10)]  
print(numbers)
```



Topic 6-原始碼品質控管

- **assert**: 程式中安插除錯用的斷言（assertion）檢查。
- **doctest**: 模組提供了一個工具，掃描模組並根據程式中內嵌的文件字串執行測試。
- **unittest**: 在另外一個檔案裡撰寫更完整的測試集





Thanks!

Q&A

