

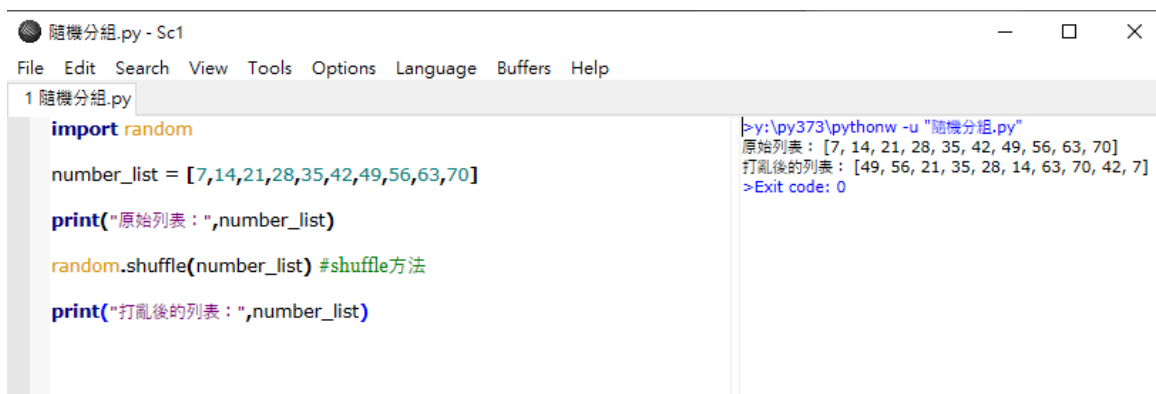
作業一

請描述如何針對該課程進行有效的隨機分組，
或者隨機進行點名？

1. 隨機分組

(1)random.shuffle 的語法

random.shuffle (x , 隨機) 使用方法



The screenshot shows a Python IDE window titled "隨機分組.py - Sc1". The code in the editor is as follows:

```
import random

number_list = [7,14,21,28,35,42,49,56,63,70]

print("原始列表:",number_list)

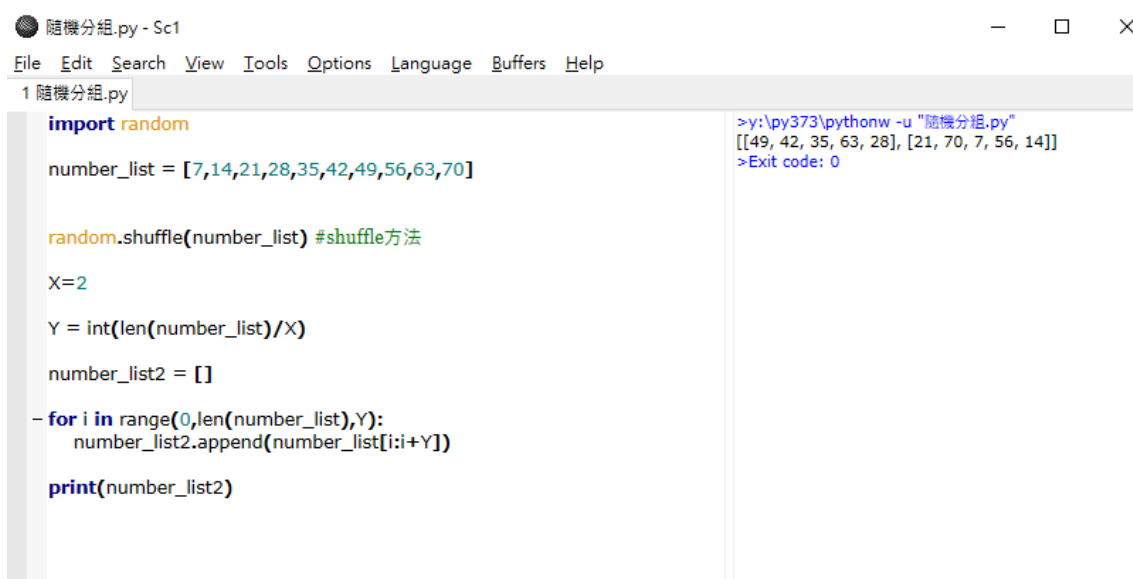
random.shuffle(number_list) #shuffle方法

print("打亂後的列表:",number_list)
```

The output console on the right shows the execution results:

```
>y:\py373\pythonw -u "隨機分組.py"
原始列表: [7, 14, 21, 28, 35, 42, 49, 56, 63, 70]
打亂後的列表: [49, 56, 21, 35, 28, 14, 63, 70, 42, 7]
>Exit code: 0
```

(2)for 迴圈



The screenshot shows a Python IDE window titled "隨機分組.py - Sc1". The code in the editor is as follows:

```
import random

number_list = [7,14,21,28,35,42,49,56,63,70]

random.shuffle(number_list) #shuffle方法

X=2

Y = int(len(number_list)/X)

number_list2 = []

for i in range(0,len(number_list),Y):
    number_list2.append(number_list[i:i+Y])

print(number_list2)
```

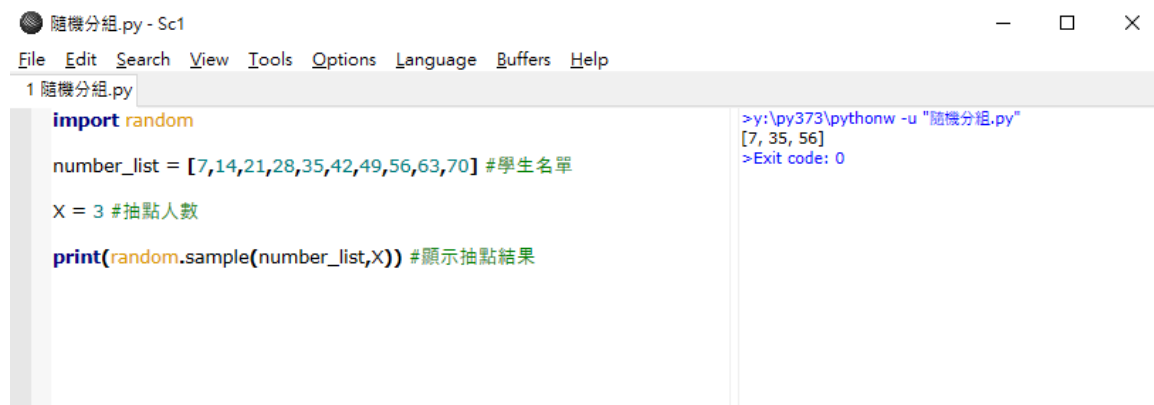
The output console on the right shows the execution results:

```
>y:\py373\pythonw -u "隨機分組.py"
[[49, 42, 35, 63, 28], [21, 70, 7, 56, 14]]
>Exit code: 0
```

2. 隨機進行點名

`random.sample(population, k)`

回傳長度為 `k` 且元素唯一的 `list`。



```
隨機分組.py - Sc1
File Edit Search View Tools Options Language Buffers Help
1 隨機分組.py
import random
number_list = [7,14,21,28,35,42,49,56,63,70] #學生名單
X = 3 #抽點人數
print(random.sample(number_list,X)) #顯示抽點結果

>y:\py373\pythonw -u "隨機分組.py"
[7, 35, 56]
>Exit code: 0
```

參考文獻

<https://blog.louie.lu/2017/07/27/random-python-standard-library-02/>

<https://www.jianshu.com/p/bbc34212b3e1>