

## CPP 程式設計題

命題者：TCC

題目名稱(中文/英文)：Sort and output the input number with occurrences

主要測試觀念： 排版練習

### Basics

- ☒ C++ BASICS 1
- ☐ FLOW OF CONTROL
- ☒ FUNCTION BASICS
- ☐ PARAMETERS AND OVERLOADING
- ☒ ARRAYS
- ☐ STRUCTURES AND CLASSES
- ☐ CONSTRUCTORS AND OTHER TOOLS
- ☐ OPERATOR OVERLOADING, FRIENDS, AND REFERENCES
- ☒ STRINGS
- ☐ POINTERS AND DYNAMIC ARRAYS

### Functions

- ☐ SEPARATE COMPILATION AND NAMESPACES
- ☐ STREAMS AND FILE I/O
- ☐ RECURSION
- ☐ INHERITANCE
- ☐ POLYMORPHISM AND VIRTUAL FUNCTIONS
- ☐ TEMPLATES
- ☐ LINKED DATA STRUCTURES
- ☐ EXCEPTION HANDLING
- ☐ STANDARD TEMPLATE LIBRARY
- ☐ PATTERNS AND UML

**題目說明：**Write a program that reads in an array of type int from a file, "input.txt". Please note that the number of entries is not limited. Your program determines how many entries are used. The output is to be a two-column list. The first column is a list of the distinct array elements; the second column is the count of the number of occurrences of each element. The list should be sorted on entries in the first column, largest to smallest, and write the list to a file "output.txt".

**輸入說明：**For the array values: -12 3 -12 4 1 1 -12 1 -1 1 2 3 4 2 3 -12

**輸出說明：**The output should be:

```

      N      Count
      4        2
      3        3
      2        2
      1        4
     -1        1
    -12      4(中間空白為/t)
  
```

**I/O 範例：**

	Sample Input	Sample Output
第一組測資與輸出	13 8 -4 0 8 -8 8 -1 12 0	N count 13 1 12 1 8 3

		0 2 -1 1 -4 1 -8 1
<b>附屬資料：</b> <input checked="" type="checkbox"/> 解答程式：occurencCounting.cpp(檔名) <input checked="" type="checkbox"/> 測試資料：input.txt, output.txt		
<input checked="" type="checkbox"/> 易，僅需用到基礎程式設計語法與結構 <input type="checkbox"/> 中，需用到多項程式設計語法與結構 <input type="checkbox"/> 難，需用到多項程式結構或較為複雜之資料型態或結構		
<b>解題時間：30 分鐘。</b>		
<b>其他註記：</b>		