# нw #1. Sort (Text Input)

(Due: 2021/10/03 23:59:59)

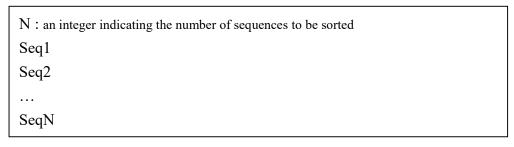
This homework will familiarize you with the CodeSensor system (<a href="https://codesensor.cs.nycu.edu.tw/">https://codesensor.cs.nycu.edu.tw/</a>), which is the automatic grading system for programming assignments in this course. The CodeSensor system evaluates both the correctness and the efficiency of submitted programs.

For each programming assignment, the input data is provided in the file input.txt. After solving the given problem, your program will output the result to the file output.txt.

The purpose of HW #1 is to familiarize you with the CODESENSOR system. You will be given multiple sequences of integer numbers as input. Your program has to sort the numbers in each sequence in ascending order and output the sorted sequences.

The formats of input.txt and output.txt are given as follows.

## input.txt



### For example:

```
3
5 2 3
1
2 1 3 4
```

### output.txt

```
Seq1 : the integers of \underline{Seq1} sorted in ascending order 
Seq2 : the integers of \underline{Seq2} sorted in ascending order ... 
SeqN : the integers of \underline{SeqN} sorted in ascending order
```

#### For example:

```
2 3 5
1
1 2 3 4
```

#### **Constraints:**

- 1. N (the number of sequences to be sorted) is in the range [1, 20]
- 2. The number of integers in the sequence is in the range [1, 20000]

## **Preloaded Input Data**

You may notice that loading the input data dictates a significant portion of your program's running time. CODESENSOR can preload the input data to the memory for C programs. In this case, you need to prepare your program accordingly as follows.

- A. Include "data.hpp" in your code
- B. Wrapped your code in void solve(tTestData\* test data)
- C. In the solve function, output the answer to output.txt as in the case without preloading.

In data.hpp, we have already read the input.txt into test\_data for you.

All you have to do is implement your algorithm in solve(tTestData\* test data) function

## tTestData structure:

```
struct tTestData {
    int cnt;
    int seq_size[cnt];
    int data[cnt][20000];
};
```

cnt : the number of sequences to be sorted.

seq\_size : the size of each sequencedata : The sequences to be sorted.