HW #1. Sort (Text Input)

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

This homework will familiarize you with the CodeSensor system (https://codesensor.cs.nycu.edu.tw/), 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

N : an integer indicating the number of sequences to be sorted
Seq1
Seq2
…
SeqN

For example:

3
5 2 3
1
2 1 3 4

output.txt

Seq1 : the integers of Seq1 sorted in ascending order Seq2 : the integers of Seq2 sorted in ascending order … SeqN : the integers of 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 sequence

data : The sequences to be sorted.