

Coding Arena



A B C D E F

Problem : Sorting Machine

A special purpose sorting machine takes text comprising of words and numbers, as input and sorts them both in ascending order and prints them in a manner that a word is followed by a number. Words can be in upper or lower case. The machine converts them into lowercase and then sorts and prints them.

Your task is to implement the sorting machine which does sorting by using Selection sort algorithm in which the smallest words and numbers are placed at the head of the array. In first pass, the machine applies the Selection sort to words and in second pass it applies to numbers, so on and so forth until all the text is processed.

You will be asked to print intermediate sort output of this special purpose sorting machine.

Input Format:

First line contains total number of test cases, denoted by N
 Each test case comprises of two lines of input

1. First line of test case contains a text in which words are at odd position and numbers are at even position and are delimited by space
2. Second line contains the intermediate step number after which the corresponding output of sorting machine needs to be printed

Output Format:

Output of sorting machine at the end of provided step number

Constraints:

1. Text starts with a word
2. Count of words and numbers are the same.
3. Duplicate elements are not allowed
4. Words should be printed in lower case.
5. No special characters allowed in text.

Sample Input and Output

SNo.	Input	Output
1	2 Wonders 43 Of 86 Science 31 medicals 11 production 21 3 Story 31 of 45 TOM 11 and 90 3	medicals 11 of 86 science 31 wonders 43 production 21 and 11 of 45 tom 31 story 90

Explanation:

Consider first test case.
 The processing will proceed as follows. After converting to lower case :

Initial position -> wonders 43 of 86 science 31 medicals 11 production 21
 After Step 1 -> medicals 43 of 86 science 31 wonders 11 production 21
 After Step 2 -> medicals 11 of 86 science 31 wonders 43 production 21
 After Step 3 -> medicals 11 of 86 science 31 wonders 43 production 21

Hence output is medicals 11 of 86 science 31 wonders 43 production 21

Time Left

02 11 21
 hr min sec

Rules & Regulations

Note:

Please do not use package and namespace in your code. For object oriented languages your code should be written in one class.

Note:

Participants submitting solutions in C language should not use functions from <conio.h> / <process.h> as these files do not exist in gcc

Note:

For C and C++, return type of main() function should be int.

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