

# Sort an array of student records by names

Sort an array of student records by their names using Mergesort algorithm.

## Input

Input begins with  $n$  ( $1 \leq n \leq 2^{20}$ ) of number student records. The following  $n$  lines has a student record per line. A student record of a student has a unique register number (one alphanumeric word and  $3 \leq \text{length of the word} \leq 10$ ), his/her name (one alphabetic word without any spaces and  $1 \leq \text{length of the name} \leq 20$ ) and his/her CGPA with the precision up to two digits after decimal point ( $00.00 \leq \text{CGPA} \leq 10.00$ ). The three fields of a record are separated by a spaces.

## Output

Print the sorted array with one student record in each new line in ascending order of student's name. In case of more than one record has a common name, the relative order of the records need to be maintained (i.e., sorting has to be "stable").

## Example

### Input:

```
10
CS003 Vinay 10.00
CS005 Mouli 9.94
CS010 Gautham 9.94
CS020 Sneha 9.94
CS200 Mohit 9.93
CS012 Aarti 9.90
CS006 Darshan 9.88
CS002 Adithya 9.78
CS050 Karthik 9.71
CS001 Adithya 9.58
```

### Output:

```
CS012 Aarti 9.90
CS002 Adithya 9.78
CS001 Adithya 9.58
CS006 Darshan 9.88
CS010 Gautham 9.94
CS050 Karthik 9.71
CS200 Mohit 9.93
CS005 Mouli 9.94
CS020 Sneha 9.94
CS003 Vinay 10.00
```