

Jojo and Median

Jojo and Lili has just learned statistics in their school. However, Jojo fell asleep when the teacher was explaining about the concept of median. As Jojo doesn't want to get bad grades, he asked Lili to explain it to him. Lili explained that median is the "middle" value of a sorted list. She then gave Jojo a list of items each with their own ID, name and price and tasked him to list all the IDs and names of all items which have price equal or above the median price. Fortunately, the list Lili gave him is sorted by price already. As Jojo is still confused, he has asked you to help him finish this task.

Format Input

A single line with an integer N denoting the amount of items followed by 3N lines where every 3 lines contains the information of the ith item starting with the ID, followed by S, the name of the item, and lastly P, the price of the item.

Format Output

The IDs and names of items that are priced equal or above the median price in the order of input.

Constraints

- $1 \le N \le 3 * 10^4$
- The ID of an item is a string containing 8 numerical digits
- $\bullet \ 1 \le |S| \le 15$
- $\bullet \ 1 \leq P \leq 10^{12}$

Sample Input 1

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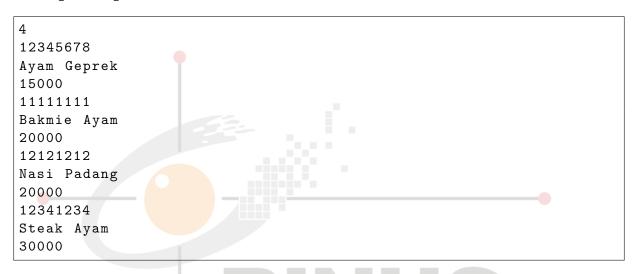


Mangga 3000

Sample Output 1

12345679 Jeruk 12345786 Mangga

Sample Input 2



Sample Output 2

11111111 Bakmie Ayam 12121212 Nasi Padang 12341234 Steak Ayam

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Jojo and Median

Jojo dan Lili baru saja mempelajari materi statistika di sekolah. Namun, Jojo tertidur pada saat pak guru sedang menerangkan konsep median. Karena Jojo tidak mau nilai ujiannya jelek, Jojo pun bertanya pada Lili. Lili menjelaskan bahwa median adalah nilai tengah dari data yang telah diurutkan. Untuk memperjelas penjelasannya, Lili memberikan Jojo sebuah daftar barang lengkap dengan ID, nama dan juga harganya. Lili menugaskan Jojo untuk menuliskan semua barang yang memiliki harga diatas atau sama dengan harga median. Untungnya, daftar barang yang diberikan Lili sudah terurut berdasarkan harga barang. Karena Jojo masih agak bingung, Ia pun meminta bantuanmu untuk menyelesaikan tugas ini.

Format Input

Satu baris berisi bilangan bulat N yang menyatakan jumlah barang diikuti oleh 3N buah baris dimana setiap 3 baris berisikan informasi mengenai barang ke-i dimulai dari ID, diikuti oleh S, yang menyatakan nama barang, lalu terakhir adalah P, harga dari barang tersebut.

Format Output

ID dan nama dari barang-barang yang memiliki harga diatas atau sama dengan harga median sesuai dengan urutan input.

Constraints

- $1 \le N \le 3 * 10^4$
- ID dari suatu barang memiliki panjang 8 dan hanya berisikan angka
- $1 \le |S| \le 15$
- $1 < P < 10^{12}$

Sample Input 1

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Jeruk 2750 12345786 Mangga 3000

Sample Output 1

12345679 Jeruk 12345786 Mangga

Sample Input 2

4
12345678
Ayam Geprek
15000
11111111
Bakmie Ayam
20000
12121212
Nasi Padang
20000
12341234
Steak Ayam
30000

Sample Output 2

11111111 Bakmie Ayam 12121212 Nasi Padang 12341234 Steak Ayam

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