**A. Create Result**

You are given information of N students. Particularly you are given the Name, Roll, CGPA and Marks (total) of a student. You have to prepare the result with a rank. A student will get a better rank, if they obtain a higher CGPA. If two person has the same CGPA then a person with higher Marks will get a better rank. If both CGPA and Marks is equal for some student, then the student with lower roll, will get a better rank. Students will have unique roll.

**Input**

Input will consist of an integer, N (1 <= N <= 105) in the first line. The next N line contains info of each student, Name (one word, no spaces, length <= 10), Roll (Between 1 to N), CGPA (Between 0 to 4, exactly two digits after decimal point), Marks (Between 0 to 1000).

**Output**

Output will consist of N lines. Each line will first print the rank, then the student info separated by spaces.

**Constraint:**

You have to take initial input in a linked list where each node of the linked list will contain student-information.

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| --- | --- |
| **Sample Input** | **Output of Sample Input** |
| 5  a 2 3.00 500  b 1 3.00 500  c 3 3.00 550  d 5 3.20 400  e 4 3.20 600 | 1 e 4 3.20 600  2 d 5 3.20 400  3 c 3 3.00 550  4 b 1 3.00 500  5 a 2 3.00 500 |

**B. Find Frequency of Distinct Values**

Given an integer N, and N integers, find the frequency of distinct values in the array in increasing order of values. For example, if the array contains 1, 2, 4, 1, 2, 5, 4, 2 the answer should be:

1 2  
2 3  
4 2  
5 1

**Input**

Input will consist of an integer, N (1 <= N <= 105) in the first line. The next line contains N integers Xi (Xi <= |109|).

**Output**

Output will consist of several lines. Each line contains a value and its frequency.

|  |  |
| --- | --- |
| **Sample Input** | **Output of Sample Input** |
| 6  1 4 2 7 2 4 | 1 1  2 2  4 2  7 1 |
| 4  5 5 5 5 | 5 4 |

**C. Sort An Array**

Given an integer N, and N integers, sort them in such an order so that all the odd numbers come before all the even numbers. The odd numbers should be sorted in increasing order and the even numbers should be sorted in decreasing order.

**Input**

Input will consist of an integer, N (1 <= N <= 105) in the first line. The next line contains N integers Xi (Xi <= |109|).

**Output**

Output will consist of 1 line: the array in sorted order.

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| **Sample Input** | **Output of Sample Input** |
| 6  1 -4 -2 7 3 -5 | -5 1 3 7 -2 -4 |
| 5  1 -1 2 -2 0 | -1 1 2 0 -2 |