## Problem 4 – Users Module

The SoftUni team wants to improve their user module in the SoftUni Learning System. They need to **sort** some users data but can`t find a solution of the problem. There are **two** types of data entries:

**Students** and **Trainers**. Each entry has **id, first name**, **last name, town and role** (**student or trainer**)**.**

The trainers have **set of courses** and **lectures** per day.

The students have **set of grades, level** and **certificate** (true / false)**.**

Your task is to **sort the data** according to the **input conditions** and print it to the console.

If the students criteria is to sort them by name, you should **sort** them by **first name** and as **second** **condition** by **last name**.

If the student`s criteria is to sort them by level, you should sort them by **level** and as second condition by **id**.

The trainers should be sorted by the **quantity** of their **courses** and as second condition by **lectures per day**.

### Input

The input is passed to the first JavaScript function found in your code as **an array**.

* The first line of the input will be the sorting condition **(students^trainers)** in the format **[name/level]**^**[courses]**.
* The rest lines of the input will be data you should sort in **JSON** format.See the examples below to understand your task better.

The input data will always be valid and in the format described. There is no need to check it explicitly.

Output  
The output should be in the format: **{students:**  **[{ first name, last name, average grade, certificate }, … ], trainers: [ { id, first name, last name, courses, lectures per day}, … ]}**.

* The only output line is in JSON format.

### Constraints

* The average grade of students should be printed with 2 numbers after the decimal point
* All entries should be sorted in ascending order
* The number of JSON data lines will be in range [2… 10000]
* Allowed working time: 0.2 seconds. Allowed memory: 16 MB.

### Examples

|  |
| --- |
| **Input** |
| level^courses  {"id":0,"firstname":"Angel","lastname":"Ivanov","town":"Plovdiv","role":"student","grades":["5.89"],"level":2,"certificate":false}  {"id":1,"firstname":"Mitko","lastname":"Nakova","town":"Dimitrovgrad","role":"trainer","courses":["PHP","Unity Basics"],"lecturesPerDay":6}  {"id":2,"firstname":"Bobi","lastname":"Georgiev","town":"Varna","role":"student","grades":["5.59","3.50","4.54","5.05","3.45"],"level":4,"certificate":false}  {"id":3,"firstname":"Ivan","lastname":"Ivanova","town":"Vidin","role":"trainer","courses":["JS","Java","JS OOP","Database","OOP","C#"],"lecturesPerDay":7}  {"id":4,"firstname":"Mitko","lastname":"Petrova","town":"Sofia","role":"trainer","courses":["Database","JS Apps","Java"],"lecturesPerDay":2} |
| **Output** |
| {"students":[{"id":0,"firstname":"Angel","lastname":"Ivanov","averageGrade":"5.89","certificate":false},{"id":2,"firstname":"Bobi","lastname":"Georgiev","averageGrade":"4.43","certificate":false}],"trainers":[{"id":1,"firstname":"Mitko","lastname":"Nakova","courses":["PHP","Unity Basics"],"lecturesPerDay":6},{"id":4,"firstname":"Mitko","lastname":"Petrova","courses":["Database","JS Apps","Java"],"lecturesPerDay":2},{"id":3,"firstname":"Ivan","lastname":"Ivanova","courses":["JS","Java","JS OOP","Database","OOP","C#"],"lecturesPerDay":7}]} |