## Problem 4 – All That Luggage

The distance between Anchova Bichkiya Hut and Momina Polyana Hut is 3 hours in walking. All the people that wanted to spend the New Year's Eve there must transfer their luggage to Momina Polyana Hut – all the food, all the drinks, everything. The real tourists transferred their stuff in their backpacks. The lazy ones did that by using an ATV machine. Your task is to give information about the luggage to everybody that asks you, because you are the leader of the group.

Fortunately everybody writes down everything about **their own luggage** on **sheets of paper.**

You are given a **list of luggage names on separate sheets** given as text table with the following columns:

**[owner name].\*.[luggage name] .\*. [is food] .\*.[is drink] .\*.[is fragile] .\*.[weight in kg] .\*.[transferred with].**

You are given **sorting criterion** as a string on the last line of the text table. See the example below.

The different **columns** will always be **separated by exactly one '\*' sign** and **0 or more '.' sign** on the **left** and **0 or more '.' sign** on the **right** side of the '\*' sign (for example valid separators are: '\*', '.\*', '\*…….', '...\*…..').

The **[owner name]** and **[luggage name]** are strings. The **[is food]**, **[is drink]**, **[is fragile]** are strings - either **'true'** or **'false'**.

If **'is food' is 'true'**, the **type** of the luggage is **'food'**.

If **'is drink' is 'true'**, the **type** of the luggage is **'drink'** ('is drink' and 'is food' cannot both be 'true').

If **'is food' and 'is drink' are false**, the **type** of the luggage is **'other'**.

The **[weight]** is floating-point number.

The **[transferred with]** is a string – either '**backpack'** or **'ATV'**.

The **sorting criterion** can be **'luggage name'**, **'weight'** or **'strict'**. **Aggregate the results** and print them as **JSON string** as shown in the example below.

The **order** of the **owner names** is the **order of appearance** in the input.

The order of the **luggage pieces** is according to the **sorting criterion**.

* If the sorting criterion is **'luggage name',** the luggage pieces are ordered **alphabetically** by their name.
* If the sorting criterion is **'weight',** the luggage pieces are ordered by their **weight** in **ascending** order. If the sorting criterion is **'strict'**,

the luggage pieces are ordered by their **order of appearance** in the input.

### Input

The input is passed to the first JavaScript function found in your code as **array of strings** holding the table lines. The input data will always be valid and in the format described. There is no need to check it explicitly.

### Output

Print at the console a **JSON string** that holds the **owner names**; for each owner: the **luggage** **names;** for each luggage name**: weight, fragile, type, transferredWith.** Please follow exactly the **JSON format** from the example below. The weight of the luggage pieces should not be rounded in any way.

### Constraints

* The numbers of **sheets** is between 1 and 100.
* The **owner's names** consist of **1 to 3** Latin letters words separated by **one space** from each other. The names always start with **capital letters**.
* The **luggage name** consists of exactly **one** Latin letter word with **small letters**.
* The **weight** is a floating point number **no greater than 100**.
* Allowed working time: 0.2 seconds. Allowed memory: 16 MB.

### Examples

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| **Input** |
| Yana Slavcheva.\*.clothes.\*.false.\*.false.\*.false.\*.2.2.\*.backpack  Kiko.\*.socks.\*.false.\*.false.\*.false.\*.0.2.\*.backpack  Kiko.\*.banana.\*.true.\*.false.\*.false.\*.3.2.\*.backpack  Kiko.\*.sticks.\*.false.\*.false.\*.false.\*.1.6.\*.ATV  Kiko.\*.glasses.\*.false.\*.false.\*.true.\*.3.\*.ATV  Manov.\*.socks.\*.false.\*.false.\*.false.\*.0.3.\*.ATV  strict |
| **Output** |
| {"Yana Slavcheva":{"clothes":{"kg":2.2,"fragile":false,"type":"other","transferredWith":"backpack"}},  "Kiko":  {"socks":{"kg":0.2,"fragile":false,"type":"other","transferredWith":"backpack"},  "banana":{"kg":3.2,"fragile":false,"type":"food","transferredWith":"backpack"},  "sticks":{"kg":1.6,"fragile":false,"type":"other","transferredWith":"ATV"},"glasses":{"kg":3,"fragile":true,"type":"other","transferredWith":"ATV"}},"Manov"  {"Kiko":[{"name":"banana","kg":3.2,"fragile":false,"type":"food","transferredWith":"backpack"},{"name":"glasses","kg":3,"fragile":true,"type":"other","transferredWith":"ATV"},{"name":"socks","kg":0.2,"fragile":false,"type":"other","transferredWith":"backpack"},{"name":"sticks","kg":1.6,"fragile":false,"type":"other","transferredWith":"ATV"}],"Manov":[{"name":"socks","kg":0.3,"fragile":false,"type":"other","transferredWith":"ATV"}]}dWith":"ATV"}]} |