

Problem 3 - Plant Discovery

Problem for exam preparation for the [Programming Fundamentals Course @SoftUni](#).

Submit your solutions in the SoftUni judge system at <https://judge.softuni.org/Contests/Practice/Index/2518#2>.

You have now returned from your world tour. On your way, you have discovered some new plants, and you want to gather some information about them and create an exhibition to see which plant is highest rated.

On the **first line**, you will receive a number **n**. On the next **n lines**, you will be given some information about the plants that you have discovered in the format: "{plant}<->{rarity}". **Store that information** because you will need it later. If you receive a plant **more than once**, **update** its rarity.

After that, until you receive the **command "Exhibition"**, you will be given some of these **commands**:

- "Rate: {plant} - {rating}" – add the given **rating** to the plant (**store all ratings**)
- "Update: {plant} - {new_rarity}" – **update** the **rarity** of the plant with the **new one**
- "Reset: {plant}" – **remove all the ratings** of the given plant

Note: If any given plant name is invalid, print "error"

After the command **"Exhibition"**, print the information that you have about the plants in the following format:

"Plants for the exhibition:

- {plant_name1}; Rarity: {rarity}; Rating: {average_rating}
- {plant_name2}; Rarity: {rarity}; Rating: {average_rating}
- ...
- {plant_nameN}; Rarity: {rarity}; Rating: {average_rating}"

The **average rating** should be formatted to the **second decimal place**.

Input / Constraints

- You will receive the input as **described above**
- **JavaScript**: you will receive a **list of strings**

Output

- Print the **information** about all plants as **described above**

Examples

Input	Output
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3 Arnoldii<->4 Woodii<->7 Welwitschia<->2 Rate: Woodii - 10 Rate: Welwitschia - 7 Rate: Arnoldii - 3 Rate: Woodii - 5 Update: Woodii - 5 Reset: Arnoldii Exhibition	Plants for the exhibition: - Arnoldii; Rarity: 4; Rating: 0.00 - Woodii; Rarity: 5; Rating: 7.50 - Welwitschia; Rarity: 2; Rating: 7.00
2 Candelabra<->10 Oahu<->10 Rate: Oahu - 7 Rate: Candelabra - 6 Exhibition	Plants for the exhibition: - Candelabra; Rarity: 10; Rating: 6.00 - Oahu; Rarity: 10; Rating: 7.00

JS Examples

Input	Output
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<pre>(["3", "Arnoldii<->4", "Woodii<->7", "Welwitschia<->2", "Rate: Woodii - 10", "Rate: Welwitschia - 7", "Rate: Arnoldii - 3", "Rate: Woodii - 5", "Update: Woodii - 5", "Reset: Arnoldii", "Exhibition"])</pre>	<p>Plants for the exhibition:</p> <ul style="list-style-type: none"> - Arnoldii; Rarity: 4; Rating: 0.00 - Woodii; Rarity: 5; Rating: 7.50 - Welwitschia; Rarity: 2; Rating: 7.00
<pre>(["2", "Candelabra<->10" "Oahu<->10", "Rate: Oahu - 7", "Rate: Candelabra - 6", "Exhibition"])</pre>	<p>Plants for the exhibition:</p> <ul style="list-style-type: none"> - Candelabra; Rarity: 10; Rating: 6.00 - Oahu; Rarity: 10; Rating: 7.00