# Problem 2. Shopping List

*It’s the end of the week and it is time for you to go shopping, so you need to create a shopping list first.*

### Input

You will receive an **initial list** with groceries separated by **"!"**.

After that you will be receiving **4 types** of commands, until you receive **"Go Shopping!"**

* **Urgent {item} -** **add** the item at the **start** of the list. If the item **already exists,** skip this command.
* **Unnecessary {item} - remove** the item with the given name, only **if it exists** in the list. Otherwise skip this command.
* **Correct {oldItem} {newItem} –** if the item with the given **old name** exists, **change** its name with the **new** one. If it **doesn't exist**, skip this command.
* **Rearrange {item} -** if the grocery exists in the list, **remove** it from its **current position** and **add** it at the **end** of the list.

### Constraints

* There won`t be any duplicate items in the initial list

### Output

Print the **list** with all the groceries, joined by **", ".**

* **"{firstGrocery}, {secondGrocery}, …{nthGrocery}"**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| [  'Tomatoes!Potatoes!Bread',  'Unnecessary Milk',  'Urgent Tomatoes',  'Go Shopping!'  ] | Tomatoes, Potatoes, Bread |
| **Input** | **Output** |
| [  'Milk!Pepper!Salt!Water!Banana',  'Urgent Salt',  'Unnecessary Grapes ',  'Correct Pepper Onion',  'Rearrange Grapes',  'Correct Tomatoes Potatoes',  'Go Shopping!'  ] | Milk, Onion, Salt, Water, Banana |