# Problem 2 - Shopping List

Problem for exam preparation for the [Programming Fundamentals Course @SoftUni](https://softuni.bg/courses/programming-fundamentals-csharp-java-js-python).

Submit your solutions in the SoftUni judge system at [https://judge.softuni.org/Contests/Practice/Index/2031#1](https://judge.softuni.org/Contests/Practice/Index/2031" \l "1).

*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 an exclamation mark **"!"**.

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. Otherwise, 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. Otherwise, skip this command.

### 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 |