## Problem 1 – Farm Management System

*You are the owner of a farm in a small picturesque village. Your team consists of farmers, and you need to manage their tasks and the areas they work in. Each farmer has a name, a work area, and a list of tasks they can perform.*

On the **first line** of the input, you will **receive** an integer **n** – the **number of farmers** in your team. On the next **n** lines, the **details of each farmer** will follow in the format:

"{farmer name} {work area} {task 1,task 2,...}"

The work area represents the location where the farmer works (e.g., garden, barn, apiary), and the list of tasks includes the activities the farmer can perform.

After forming your team, you will receive different commands, separated by " / ", until the command "End" is given. There are three types of actions farmers can perform:

**"Execute / {farmer name} / {work area} / {task}"**

* If the farmer is in the correct work area and can perform the task, print:

**"{farmer name} has executed the task: {task}!"**

* If the farmer is not in the correct work area or cannot perform the task, print:

**"{farmer name} cannot execute the task: {task}."**

**"Change Area / {farmer name} / {new work area}"**

* The farmer changes their work area. Print:

**"{farmer name} has changed their work area to: {new work area}"**

**"Learn Task / {farmer name} / {new task}"**

* If the farmer already knows the task, print:

**"{farmer name} already knows how to perform {new task}."**

* Otherwise, add the new task to their list and print:

**"{farmer name} has learned a new task: {new task}."**

### Input

* On the **first line**, you will receive an integer **n**.
* On the next **n** lines, you will receive **details** about the **farmers**.
* After that, you will receive **commands** until the "**End**" command.

### Output

* **Print** the results **of each command**.
* At the end, print all farmers with their updated work areas and task lists in the format:

**"Farmer: {farmer name}, Area: {work area}, Tasks: {task 1, task 2, ...}"**

* The **Tasks** should be printed in **alphabetical order.**

### Constraints

* The names of the farmers will be unique.
* All given commands will be valid.

### Examples

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| **Input** | **Output** |
| [  "2",  "John garden watering,weeding",  "Mary barn feeding,cleaning",  "Execute / John / garden / watering",  "Execute / Mary / garden / feeding",  "Learn Task / John / planting",  "Execute / John / garden / planting",  "Change Area / Mary / garden",  "Execute / Mary / garden / cleaning",  "End"  ] | John has executed the task: watering!  Mary cannot execute the task: feeding.  John has learned a new task: planting.  John has executed the task: planting!  Mary has changed their work area to: garden  Mary has executed the task: cleaning!  Farmer: John, Area: garden, Tasks: planting, watering, weeding  Farmer: Mary, Area: garden, Tasks: cleaning, feeding |
| **Input** | **Output** |
| [  "3",  "Alex apiary harvesting,honeycomb",  "Emma barn milking,cleaning",  "Chris garden planting,weeding",  "Execute / Alex / apiary / harvesting",  "Learn Task / Alex / beeswax",  "Execute / Alex / apiary / beeswax",  "Change Area / Emma / apiary",  "Execute / Emma / apiary / milking",  "Execute / Chris / garden / watering",  "Learn Task / Chris / pruning",  "Execute / Chris / garden / pruning",  "End"  ] | Alex has executed the task: harvesting!  Alex has learned a new task: beeswax.  Alex has executed the task: beeswax!  Emma has changed their work area to: apiary  Emma has executed the task: milking!  Chris cannot execute the task: watering.  Chris has learned a new task: pruning.  Chris has executed the task: pruning!  Farmer: Alex, Area: apiary, Tasks: beeswax, harvesting, honeycomb  Farmer: Emma, Area: apiary, Tasks: cleaning, milking  Farmer: Chris, Area: garden, Tasks: planting, pruning, weeding |