## Problem 1 – Medieval Guild Management

*You are the leader of a medieval adventurer’s guild. Your guild consists of members, each assigned to a specific role and possessing a set of skills they can perform.*

On the **first line** of the input, you will **receive** an integer **n** – the **number of guild members**. On the next **n** lines, the **details of each member** will follow in the format:

"{member name} {role} {skill 1,skill 2,...}"

The role represents the member's primary responsibility in the guild (e.g., warrior, healer, mage, blacksmith), and the list of skills includes the tasks they can perform in that role.

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

**"** **Perform / {member name} / {role} / {skill}"**

* If the member is in the correct role and can perform the skill, print:

**"{member name} has successfully performed the skill: {skill}!"**

* Otherwise, print:

**"{member name} cannot perform the skill: {skill}."**

**"** **Reassign / {member name} / {new role}"**

* The member changes their assigned role. Print:

**"{member name} has been reassigned to: {new role}"**

**"Learn Skill / {member name} / {new skill}"**

* If the member already knows the skill, print:

**"{member name} already knows the skill: {new skill}."**

* Otherwise, add the skill to their list and print:

**"{member name} has learned a new skill: {new skill}."**

### Input

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

### Output

* **Print** the results **of each command**.
* At the end, print all guild members with their updated roles and skill lists in the format. Skills should be sorted in **ascending** order:

**"Guild Member: {member name}, Role: {role}, Skills: {skill 1, skill 2, ...}"**

### Constraints

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

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| [  "3",  "Arthur warrior swordsmanship,shield",  "Merlin mage fireball,teleport",  "Gwen healer healing,alchemy",  "Perform / Arthur / warrior / swordsmanship",  "Perform / Merlin / warrior / fireball",  "Learn Skill / Gwen / purification",  "Perform / Gwen / healer / purification",  "Reassign / Merlin / healer",  "Perform / Merlin / healer / teleport",  "End"  ] | Arthur has successfully performed the skill: swordsmanship!  Merlin cannot perform the skill: fireball.  Gwen has learned a new skill: purification.  Gwen has successfully performed the skill: purification!  Merlin has been reassigned to: healer  Merlin has successfully performed the skill: teleport!  Guild Member: Arthur, Role: warrior, Skills: shield, swordsmanship  Guild Member: Merlin, Role: healer, Skills: fireball, teleport  Guild Member: Gwen, Role: healer, Skills: alchemy, healing, purification |
| **Input** | **Output** |
| [  "4",  "Lancelot knight jousting,swordplay",  "Morgana sorceress dark\_magic,illusion",  "Robin archer archery,stealth",  "Galahad paladin healing,swordplay",  "Perform / Robin / archer / archery",  "Perform / Morgana / knight / illusion",  "Learn Skill / Lancelot / swordplay",  "Learn Skill / Robin / tracking",  "Learn Skill / Robin / tracking",  "Reassign / Galahad / warrior",  "Perform / Galahad / warrior / healing",  "Reassign / Galahad / healer",  "Perform / Galahad / healer / healing",  "End"  ] | Robin has successfully performed the skill: archery!  Morgana cannot perform the skill: illusion.  Lancelot already knows the skill: swordplay.  Robin has learned a new skill: tracking.  Robin already knows the skill: tracking.  Galahad has been reassigned to: warrior  Galahad has successfully performed the skill: healing!  Galahad has been reassigned to: healer  Galahad has successfully performed the skill: healing!  Guild Member: Lancelot, Role: knight, Skills: jousting, swordplay  Guild Member: Morgana, Role: sorceress, Skills: dark\_magic, illusion  Guild Member: Robin, Role: archer, Skills: archery, stealth, tracking  Guild Member: Galahad, Role: healer, Skills: healing, swordplay |