## 01. Superhero Alliance

*You are the leader of a newly formed Superhero Alliance, dedicated to protecting the city from nefarious villains and supernatural threats. Your task is to assemble a team of superheroes with extraordinary abilities and manage their heroic actions. Here's how you'll proceed:*

On the first line of input, you will receive an integer **n** – the number of superheroes you can recruit. Following this, the details of each superhero will be provided on the next **n** lines. Each superhero's details include their superhero name, their superpower, and their current energy level in the following format:

"{superhero name}-{superpower}-{energy}"

* The energy level indicates how much power they have to use their abilities.
* a superhero can have a maximum of 100 energy
* if the super hero's energy is 0 or less, he cannot perform his super powers

After assembling your team, you will receive a series of commands, each on a new line, separated by " \* ", until the "**Evil Defeated!**" command is given. Here are the actions that superheroes can undertake:

### **"Use Power \* {superhero name} \* {superpower} \* {energy required}"**

* Check if the superhero has the specified superpower and enough energy. If both conditions are met, they perform the superpower and reduce their energy accordingly, than **print**:

"{superhero name} has used {superpower} and now has {remaining energy} energy!"

* If the superhero does not have the specified **superpower** or does not have enough **energy**, **print**:

**"{superhero name} is unable to use {superpower} or lacks energy!"**

### **"Train \* {superhero name} \* {training energy}"**

* Increase the superhero's energy by the specified amount (**training energy**). If this action would exceed the **maximum** energy level of 100, set the energy to 100. **Print**:

"{superhero name} has trained and gained {energy gained} energy!"

* If current energy is **already** 100, **print**:

"{superhero name} is already at full energy!"

### **"Learn \* {superhero name} \* {new superpower}"**

* If the superhero already knows the specified **superpower**, **print:**

"{superhero name} already knows {new superpower}."

* Otherwise, add the new superpower to their list of abilities. **Print**:

"{superhero name} has learned {new superpower}!"

### Input

* On the first line of the standard input, you will receive an integer **n.**
* On the following **n** lines, the superheros themselves will follow with their **superpower** and **energy** separated by a dash in the following format.
* You will be receiving different **commands**, each on a new line, separated by " \* ", until the "Evil Defeated!" command is given.

### Output

* After processing all commands until "**Evil Defeated!**", print each superhero in the following format:

"Superhero: {superhero name}

- Superpowers: {superpower 1, superpower 2, ...}

- Energy: {current energy}"

### Constraints

* All superhero names will be unique.
* All given commands will be valid and within the constraints.

### Examples

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| --- | --- |
| **Input** | **Output** |
| ([      "3",      "Iron Man-Repulsor Beams,Flight-80",      "Thor-Lightning Strike,Hammer Throw-10",      "Hulk-Super Strength-60",      "Use Power \* Iron Man \* Flight \* 30",      "Train \* Thor \* 20",      "Train \* Hulk \* 50",      "Learn \* Hulk \* Thunderclap",      "Use Power \* Hulk \* Thunderclap \* 70",      "Evil Defeated!"  ]) | Iron Man has used Flight and now has 50 energy!  Thor has trained and gained 20 energy!  Hulk has trained and gained 40 energy!  Hulk has learned Thunderclap!  Hulk has used Thunderclap and now has 30 energy!  Superhero: Iron Man  - Superpowers: Repulsor Beams, Flight  - Energy: 50  Superhero: Thor  - Superpowers: Lightning Strike, Hammer Throw  - Energy: 30  Superhero: Hulk  - Superpowers: Super Strength, Thunderclap  - Energy: 30 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| ([      "2",      "Iron Man-Repulsor Beams,Flight-20",      "Thor-Lightning Strike,Hammer Throw-100",      "Train \* Thor \* 20",      "Use Power \* Iron Man \* Repulsor Beams \* 30",      "Evil Defeated!"  ]) | Thor is already at full energy!  Iron Man is unable to use Repulsor Beams or lacks energy!  Superhero: Iron Man  - Superpowers: Repulsor Beams, Fligh  - Energy: 20  Superhero: Thor  - Superpowers: Lightning Strike, Hammer Throw  - Energy: 100 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| ([      "2",      "Iron Man-Repulsor Beams,Flight-100",      "Thor-Lightning Strike,Hammer Throw-50",      "Train \* Thor \* 20",      "Learn \* Thor \* Hammer Throw",      "Use Power \* Iron Man \* Repulsor Beams \* 30",      "Evil Defeated!"  ]) | Thor has trained and gained 20 energy!  Thor already knows Hammer Throw.  Iron Man has used Repulsor Beams and now has 70 energy!  Superhero: Iron Man  - Superpowers: Repulsor Beams, Flight  - Energy: 70  Superhero: Thor  - Superpowers: Lightning Strike, Hammer Throw  - Energy: 70 |