## Problem 1 – MotoGP Race

*You are in the middle of a highly competitive MotoGP race. Let's determine who the best rider is! The input format and the actions the riders can perform are described below.*

The first line of the input should contain an integer 'n' - the number of riders participating in the race. The next 'n' lines should provide the details of each rider, including their fuel capacity and current position in the race. Each rider's details should be separated by a pipe (|) and follow this format:

"{rider}|{**fuel capacity**}|{**position**}"

Note: A rider's fuel capacity can have a maximum value of 100%.

After adding the riders, you can start the race. You will receive different commands, each on a new line and separated by " - ", until the "**Finish**" command is given.

The actions the riders can perform during the race are as follows:

"StopForFuel – {rider} – {minimum fuel} – {changed position}"

* If the rider has less than minimum fuel, he needs to a make pit stop. Print this message:
  + "{rider} stopped to refuel but lost his position, now he is {changed position}**.**"
* If the rider has enough fuel **print**:
  + "**{rider} does not need to stop for fuel!**"

"**O**vertaking – {rider 1} – {rider 2}"

* If rider 1 is positioned to the left of rider 2, it means that rider 1 is ahead of rider 2 in the race, **swap** the **position** of the two riders. Then, **print** the following:

"{rider 1} overtook {rider 2}!"

"EngineFail – {rider} – {laps left}"

* If the rider’s engine fails, remove him from the race and **print**:

"{rider} is out of the race because of a technical issue, {laps left} laps before the finish."

### Input

* On the first line of the standard input, you will receive an integer **n**
* On the following **n** lines, the riders themselves will follow with their **fuel capacity** and **position** in percentages**,** separated by a pipe in the following format
* You will be receiving different **commands**, each on a new line, separated by " – ", until the "Finish" command is given

### Output

* Every command should **print its own template sentence**, after that **print** all riders who are **finished** the race, in the following format:

"{rider}

Final position: {position}"

### Constraints

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

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| (["3",  "Valentino Rossi|100|1",  "Marc Marquez|90|2",  "Jorge Lorenzo|80|3",  "StopForFuel - Valentino Rossi - 50 - 1",  "Overtaking - Marc Marquez - Jorge Lorenzo",  "EngineFail - Marc Marquez - 10",  "Finish"]) | Valentino Rossi does not need to stop for fuel!  Marc Marquez overtook Jorge Lorenzo!  Marc Marquez is out of the race because of a technical issue, 10 laps before the finish.  Valentino Rossi  Final position: 1  Jorge Lorenzo  Final position: 2 |
| **Input** | **Output** |
| (["4",  "Valentino Rossi|100|1",  "Marc Marquez|90|3",  "Jorge Lorenzo|80|4",  "Johann Zarco|80|2",  "StopForFuel - Johann Zarco - 90 - 5",  "Overtaking - Marc Marquez - Jorge Lorenzo",  "EngineFail - Marc Marquez - 10",  "Finish"]) | Johann Zarco stopped to refuel but lost his position, now he is 5.  Marc Marquez overtook Jorge Lorenzo!  Marc Marquez is out of the race because of a technical issue, 10 laps before the finish.  Valentino Rossi  Final position: 1  Jorge Lorenzo  Final position: 3  Johann Zarco  Final position: 5 |