

Problem 3. Listmon's DB

Input / Constraints

Listmon is as like a Google. It tracks every of its players in the game. You beat It in its own game, so It asks you now to help It with the database and make several reports for It, because it is a mess there.

You will start receiving players data in format:

```
{playerName} -> {resultOfTheGame}, {resultOfTheGame}, {resultOfTheGame}, {resultOfTheGame} ...
```

Keep in mind that it is possible to have two players with the same **playerName**. You should **store the data separately, not replacing it**.

Every line is **different** data and **different player**.

You must store it until you receive command '**report**'. After that you will receive reporting tickets in format:

- **score descending**
- **score ascending**
- **numberOfGames descending**
- **numberOfGames ascending**

Output

* If you receive '**score descending**' you must print all players by the order of the score **descending, after that by name ascending** in format

```
{name}: {score}
```

* If you receive '**score ascending**' you must print all players by the order of the score **ascending, after that by name ascending** in format

```
{name}: {score}
```

* If you receive '**number of games descending**' you must print all players **by the number of games played descending, after that by name ascending** in format

```
{name}: {count of the games}
```

* If you receive '**number of games ascending**' you must print all players **by the number of games played ascending after that by name ascending** in format

```
{name}: {count of the games}
```

Examples

Input	Output	Comments
<pre>Sims -> 15, 25, 65, 85 Misho -> 5, 5, 5 Azzi -> 0, 0, 2, 5 Sims -> 5, 5, 5, 5, 5, 5, 5 report score ascending end</pre>	<pre>Azzi: 7 Misho: 15 Sims: 35 Sims: 190</pre>	Here we have two players with the same name. We store data for each separately and becoming a 'score ascending' command, we put players from smallest amount of score points to the highest.
Input	Output	Comments
<pre>theBest -> 952, 26, 83, 15, 25 ultimatePlayer -> 1998, 0, 25 nick_name -> 25, 0, 9852648 report numberOfGames descending numberOfGames ascending end</pre>	<pre>theBest: 5 nick_name: 3 ultimatePlayer: 3 nick_name: 3 ultimatePlayer: 3 theBest: 5</pre>	