

Problem 2. Friend List Maintenance

Our player is having trouble with his friend list and some guys are disappearing without a reason so he asks you to create a program that will figure out what is going on and at the end will bring him a report.

On the **first line** you will **receive** all his friends separated by ", ". On the **next lines** until the **"Report"** command you will receive **commands**. The commands could be:

- **Blacklist {name}**
 - Find the name in the friend list and **change it** to **"Blacklisted"** and **print on the console**:
 - "{name} was blacklisted."
 - If the **name** is **not** in the friend list **print**:
 - "{name} was not found."
- **Error {index}**
 - Check if the **username** at the given index is **not "Blacklisted"** or **"Lost"**. If it isn't, **change** the username to **"Lost"** and **print** on the console:
 - "{name} was lost due to an error."
- **Change {index} {newName}**
 - Check if the user at **index** position is in **range of the array**. If he is, **change** the **current** username with the **new one** and **print** on console:
 - "{currentName} changed his username to {newName}."

After you **receive "Report"** print on the console the **count of blacklisted names**, the **count of lost names**, and the friend list separated by a **single space**.

Input

- The **first input line** will contain the usernames that need to be stored.
- On the **next input lines** until **"Report"** you will **receive** commands.

Output

- The output should be in the following format:
 - "Blacklisted names: {blacklistedNamesCount}"
 - "Lost names: {lostNamesCount}"
 - "{name1} {name2} .. {nameN}"

Examples

Input	Output
Mike, John, Eddie Blacklist Mike Error 0 Error 1 Change 2 Mike123 Report	Mike was blacklisted. John was lost due to an error. Eddie changed his username to Mike123. Blacklisted names: 1 Lost names: 1 Blacklisted Lost Mike123
Comments	
On the first line are the names from the friendlist that need to be stored in an array.	

After that the commands start to flow in. The first command finds Mike and blacklists him: "Mike was blacklisted."

After that "Error 0" failed because the name is already blacklisted and we do nothing.

"Error 1": John is replaced with "Lost" and the message is sent to the console: "John was lost due to an error."

After that Mike changes his username to Mike123: "Eddie changed his username to Mike123".

And the report is asked for so the program ends with the shown output.

Mike, John, Eddie, William
 Error 3
 Error 3
 Change 0 Mike123
 Blacklist Eddie
 Report

William was lost due to an error.
 Mike changed his username to Mike123.
 Eddie was blacklisted.
 Blacklisted names: 1
 Lost names: 1
 Mike123 John Blacklisted Lost