

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

Report	Blacklisted Lost Mike123
Comments	
<p>On the first line are the names from the friendlist that need to be stored in an array.</p> <p>After that the commands start to flow in. The first command finds Mike and blacklists him: "Mike was blacklisted."</p> <p>After that "Error 0" failed because the name is already blacklisted and we do nothing.</p> <p>"Error 1": John is replaced with "Lost" and the message is sent to the console: "John was lost due to an error."</p> <p>After that Mike changes his username to Mike123: "Eddie changed his username to Mike123".</p> <p>And the report is asked for so the program ends with the shown output.</p>	
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