

Inbox Manager

Create a program that manages **users** and **Emails sent** by those **users**. You need to store information about their **username** and their **sent** Emails. **The Emails are represented as strings**. You will be receiving **lines** with commands separated by "->" until you receive the **"Statistics"** command.

There are three **possible** commands:

- **"Add->{username}"**:
 - **Check** if the username **exists** and if it **does** print:
"{username} is already registered"
If it doesn't exist, then add the user to the collection of users.
- **"Send->{username}->{Email's text}"**
 - **Add** the **{Email}** to the **{username}'s** collection of sent Emails.
- **"Delete->{username}"**:
 - Delete **the given user**, if he **exists**. If the user **doesn't exist**, print:
"{username} not found!"

At the end of the program, **print the users**, with the contents of his/her **Emails**. Users should be sorted in **descending order** by the **number of Emails sent** and **then by their username** in **ascending** order in the following format:

Users count: {count}

{username}

- {Email1}

- {Email2}

- ...

- {Emailn}

Input

- You will be receiving lines until you receive the **"Statistics"** command.
- The commands will be in the format described above.

Output

- Print the collection in the format described above after the **"Statistics"** command.

Examples

Input	Output
<pre>[`Add->Mike`, `Add->George`, `Send->George->Hello World`, `Send->George->Some random test mail`, `Send->Mike->Hello, do you want to meet up tomorrow?`, `Send->George->It would be a pleasure`, `Send->Mike->Another random test mail`, `Statistics`]</pre>	<pre>Users count: 2 George - Hello World - Some random test mail - It would be a pleasure Mike - Hello, do you want to meet up tomorrow? - Another random test mail</pre>
Comments	
<p>First we receive our users. Since they are not already in our collection, we add them. Then they start sending emails and in the end we print the output in the described format.</p>	
<pre>[`Add->Mike`, `Add->George`, `Send->George->Hello World`, `Send->George->Your loan is overdue`, `Add->Mike`, `Send->Mike->Hello, do you want to meet up tomorrow?`, `Delete->Peter`, `Send->George->I'm busy`, `Send->Mike->Another random test mail`, `Delete->George`, `Statistics`]</pre>	<pre>Mike is already registered Peter not found! Users count: 1 Mike - Hello, do you want to meet up tomorrow? - Another random test mail</pre>