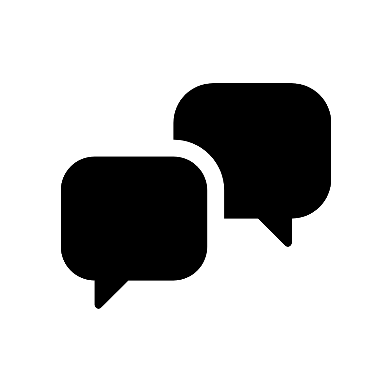
# Problem 3 - Chat Logger



A company hires you to create a program that implements a chat logger which works with commands. You may receive the following commands:

* "Chat {message}":
  + Add the message at the last position in the chat.
* "Delete {message}":
  + Delete the message if it exists.
  + Otherwise, ignore the command.
* "Edit {message} {editedVersion}":
  + Update the message with the edited version.
  + If it does not exist, ignore the command.
* "Pin {message}":
  + Find the given message and move it to the last index.
  + If it does not exist, ignore the command.
* "Spam {message1} {message2} {messageN}":
  + Add all messages at the end of the chat.
* "end":
  + Stop receiving commands.

After the "end" command, you should print the chat history starting from the first message.

### Input

* Until you receive **"end"**, you will be receiving **commands**.

### Output

* As output, you must **print the chat** **starting from the first message**. Every message must be in a **new line**.

### Constraints

* The **command will always be valid.**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Chat Hello  Chat darling  Edit darling Darling  Spam how are you  Delete Darling  end | Hello  how  are  you |
| Chat Hello  Delete John  Pin Hi  end | Hello |
| Chat John  Spam Let's go to the zoo  Edit zoo cinema  Chat tonight  Pin John  end | Let's  go  to  the  cinema  tonight  John |

### JS Examples

The input will be an array of strings.

|  |  |
| --- | --- |
| **Input** | **Output** |
| (["Chat Hello",  "Chat darling",  "Edit darling Darling",  "Spam how are you",  "Delete Darling",  "end"]) | Hello  how  are  you |
| (["Chat Hello",  "Delete John",  "Pin Hi",  "end"]) | Hello |
| (["Chat John",  "Spam Let's go to the zoo",  "Edit zoo cinema",  "Chat tonight",  "Pin John",  "end"]) | Let's  go  to  the  cinema  tonight  John |