

Tracking Party or Happening Guests (with Lists)

Write a program that keeps track of the guests that are going to a party or another kind of happening. Until the command "End", you will receive one of the following inputs (each on a new line):

- "{name} is going!"
- "{name} is not going!"

If you receive the first type of input, you have to add the person if he/she **is not** in the list. (If he/she is in the list print on the console: "**{name} is already in the list!**"). If you receive the second type of input, you have to remove the person if he/she **is** in the list. (if not print: "**{name} is not in the list!**"). At the end print all the guests in the list.

Examples

Input	Output
Allie is going! George is going! John is not going! George is not going! End	John is not in the list! Allie
Tom is going! Annie is going! Tom is going! Garry is going! Jerry is going! End	Tom is already in the list! Tom Annie Garry Jerry