

BadBank

STATEMENT

You have just been hired by BadBank, a Spanish bank with a really bad reputation, so badly mismangaged that, instead of using an actual database, they keep all their banking information in a C++ program that they have asked you to write. Write it in under 1h while you send out Cvs to more serious places.

Transactions to process will be indicated by the account-holder's names (which contain no spaces), and the amount (in whole Euros) to transfer from one account to the other. Money that is deposited over the counter will be indicated with an * (which can be modelled as someone with infinite funds); while money withdrawn from the counter will also be indicated with a *. When the source account has no funds, you should return an error and make no changes to the corresponding accounts.

The input

The input will contain several blocks of transactions, which must be processed in order and independently of each other. The first line of each block will contain an integer, $t \geq 1$, indicating then number of transactions in the block. Each transaction will follow the schema `<sourceAccount> <targetAccount> <moneyToTransfer>`, where account names will not contain spaces and all quantities will be positive integers. The last line of the input, which should not be processed, will contain a single 0. After each block of input (excluding that last 0, which is not an actual block), you should output a blank line.

The ouput

For each block, you must process its transactions, displaying messages in the form `<transactionNumber> <sourceAccount> necesita <missingEuros> de <moneyToTransfer> Euro(s)` only when `<sourceAccount>` has insufficient funds to perform the requested transaction. At the end of each block, you will list, sorting by alphabetical account names, the state of all accounts, excluding those which are empty.

Example inputs and outputs

```
2
* Juan 10
Juan * 7
4
* Ana 100
Luisa Ana 1
Ana Marta 105
Ana Adara 2
0
```

```
Juan 3

2 Luisa necesita 1 de 1 Euro
3 Ana necesita 5 de 105 Euros
Adara 2
Ana 98
```