

Question #3:

Wan Shi Tong's Library (40 points)

Please read [important information](#) first.

Description

Wan Shi Tong's Library is the new library of Xandar. They want to develop a kiosk for the library.

You are expected to make the app for the Xandar government so that citizens can borrow or return books easily.

Inputs

You are given two lists filled with citizen names and the number of books they already borrowed (consecutively). You are expected to execute the required operation given by the user, which can be borrow, return, or exit. After you take the operation, you need to take the citizen's name, and the number of books being returned or borrowed in this order.

Operation	Possible Execution	Error Message
borrow	The amount borrowed books is added to citizen's account	
borrow	Print error message	You must return the books you borrowed first
borrow	Print error message	You cannot borrow more than 3 books at the same time
return	The amount returned books is subtracted to citizen's account	
return	Print error message	Whose books are they?
exit	Finish the program	

Outputs

You are expected to execute the necessary operation on their accounts and print "old account balance => new account balance", or error message.

Constraints

$1 \leq \text{Number of Citizens} \leq 100$

$0 \leq \text{Account Info of a Citizen} \leq 5$ (A citizen can be borrowed at most 5 books at the same time in total)

Citizens' account info can go down to 0, but they cannot exceed 5.

You should check the validity of inputs coming from the user.

If the user enters invalid input, you should keep asking for a correct input until you get one.

After an operation ends, you should keep asking for a new operation, until the user enters "exit" as an operation.

All input strings will be entered in lowercase, except names.

A user can borrow at most 3 books at once.

If the user wants to return more books than they borrowed, they are not theirs, and we don't accept that.

Hint

The `index()` method returns the index of the specified element in the list.

'in' is used to test if a sequence (list, tuple, string, etc.) contains a value. It returns True if the value is present, else it returns False.

Examples

Input	Output
borrow Nazim Owens 2 borrow Mayur Steele 3 return Nazim Owens 3 Anum Lake 5 borrow 5 Anum Lake 5 exit	0 => 2 2 => 5 Whose books are they? You cannot borrow more than 3 books at the same time
return Hamza Knapp 1 borrow Veronica Pittman 2 exit	1 => 0 You must return the books you borrowed first