[0 pts] Your Choice

You are a TV show host called "Your Choice". In this show, you have a guest at every episode and you play a game with your guest. The format is as follows: for every round of the game, from N boxes, you show a box (numbered from 0 to N-1) to the guest, the guest chooses to take the box and drop her current box, or to keep her box and reject the new box. Then the new round starts and you again show a new box, and the guest makes her choice again, so on so on... At the end of the game the guest opens her box and wins the price in the box. You show each box exactly once.

You are a soft hearted host and you lead your guest to the box P with the biggest price. Surprisingly, your media team interviewed your guest before the show and you know exactly what your guest's choice would be in each round (e.g. when she has box-1 and you ask to accept/reject box-5 you know whether she will accept or not).

Your task is the following: by using this interview information, order the boxes that you will offer your guest in such a way that at the end she will have the box with the biggest price.

If there is no applicable solution with a given P, your code should print out 'NOT POSSIBLE.'

Your code should accept an input file with the given format, and should output a file with the given format.

Input file format:

N: Number of boxes, P: the id of box which has the biggest price

For the following N lines:

N symbols to indicate the guest's choice: Y if the guest prefers box-i to box-i, N if the guest prefers box-i to box-i.

Output file format:

O: The order of boxes you should offer

Example input file:

4,3

-,Y,N,N

N,-,Y,Y

Y,N,-,Y

Y,N,N,-

Example output file:

1,2,0,3

At first, the guest will start the game with box-1. Then you will show box-2 to the guest, since she will prefer box-2 to box-1, she will drop box-1 and take box-2. Then you will show box-0 and her choice will be to take box-0. Finally when you show box-3, she will drop the box-0 and will finish the game with box-3 which is what we exactly want.