Problem A
Snakey String

Time Limit: 1 second Memory Limit: 1GB

A *snakey string* is a fancy rendering of an otherwise normal string of text. When a string is made snakey, it is placed on a 2D grid such that the following conditions are met:

- The first character of the string is on the first column of the grid, the second on the second column, . . . , and the last on the last column.
- Each character in the string occupies either the row directly above or directly below the row of the previous character.

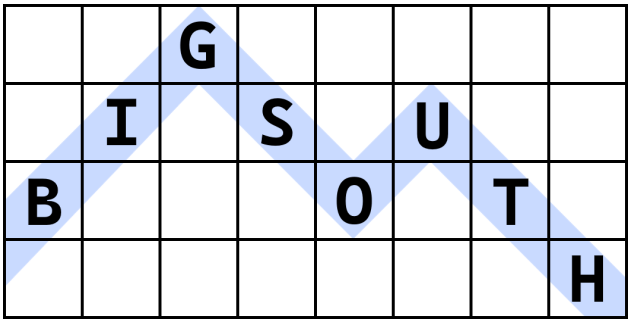


Figure A.1: The snakey string in the sample case.

Given a snakey string, can you recover the original string?

Input

The first line of input contains two integers r and c ($2 \leq r, c \leq 100$), the number of rows and columns of the grid.

The next r lines each contain c characters that form the 2D grid containing the snakey string. Empty cells are encoded with a period, while uppercase letters (`A`–`Z`) represent characters in the original string. Every column in the grid contains exactly one uppercase letter. It is possible that some rows do not contain any uppercase letters.

Output

Output a single string, the original string that was used to build this snakey string.

Sample Input 1	Sample Output 1
4 8 ..G..... .I.S.U.. B...O.T. ....H	BIGSOUTH