Wreck Tamraj Kilvish

ZPRAC-16-17-Lab8

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[20]
Wreck Tamraj Kilvish

Shaktimaan came to know about Tamraj Kilvish evil plans of destroying all cute things (even Dogs) from the world to make this world an unattractive place. He has created a powerful "chakra" whose range can span the entire surface of Earth. The "chakra" can be destroyed using a "chamatkari mantra". Please help Shaktimaan to find out the "chamatkari mantra" and destroy the "chakra", hence, saving all cute things in the world (Dogs too :)).

The "chamatkari mantra" is encrypted in a 2-D character matrix of size $n \times n$. Specifically, it consists of words formed from bottom-left corner of the matrix to the left diagonal (The diagonal from the top left corner to the bottom right corner of a square matrix). Each word starts from first column and continues in the direction of left diagonal (top-left to bottom-right). For example, consider the below 3×3 matrix

f x x
a a x
l m t

The "chamatkari mantra" for above matrix is "l am fat" as "l", "am" and "fat" are the words formed in the direction of left diagonal from bottom-left corner to the left diagonal.

Given n and matrix as the input, print the "chamatkari mantra" as output.

Note: Notice the space between each word but not after the last word. Also take care while taking input, it is a space separated matrix of characters. Make sure your input is correctly recorded in your matrix.

Update: You should use only one 2-D array of size $n \times n$. Declaring one more 2-D array can exceed memory limit.

Example 1:
Input:
3
f x x
a a x
l m t
Output:
l am fat

Example 2:
Input:
4
k x x x
n n x x
d o o x
l o t w
Output:
I do not know

Hint for taking input: you can input each entry of the matrix as a string of size 2. Basically, input n^2 strings one by one and store first character of the string at respective location in the matrix.