

Wreck Khali-Bali

ZPRAC-16-17-Lab8

[20] *Wreck Khali Bali*

Shaktimaan came to know about Khali-Bali's evil plans of eating all cute beings (even Dogs) from the world to make this world an unattractive place. They have created a jail where they have captured all the cute beings. The jail can be destroyed using a passcode. Please help Shaktimaan to find out the passcode and destroy the jail, hence, saving all cute things in the world (Dogs too :)).

The passcode is encrypted in a 2-D character matrix of size $n \times n$. Specifically, it consists of words formed from characters present in the upper left triangular part of the matrix. Each word starts from first column and continues in the direction of right diagonal as shown below (bottom-left to top-right). For example, consider the below 3×3 matrix

```
I m t
a a x
f x x
```

The passcode for above matrix is "I am fat" as "I", "am" and "fat" are the words formed in the direction of right diagonal starting from the top-left corner("I") and following consecutive parallel diagonals for the other words $a \rightarrow m$ and $f \rightarrow a \rightarrow t$.

Given n and matrix as the input, print the passcode as output.

Note: Notice in the passcode, the space between each word but not before the first word.

Also take care while taking input, it is a space separated matrix of characters. There can also be multiple whitespaces between the characters. Make sure your input is correctly recorded in your matrix.

Also, you should define only one 2-D array for taking input. declaring an extra 2-D array might exceed memory limit.

Example1:

Input:

3

```
I m t
```

```
a a x
```

```
f x x
```

Output:

I am fat

Example2:

Input:

4

I o t w

d o o x

n n x x

k x x x

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 the respective location in the matrix.