

### Grid of Letters

One night, Lili was staring at a collection of letters 'a' - 'z' lying on the table. At first Lili just moved the letters randomly until the letters formed a square grid, then Lili thought of an interesting problem.

Right now, Lili has a grid of letters that is  $R \times C$ . Lili will do sorting 2 times. In the first sorting, Lili will sort the letters ascending lexicographically from left to right. In the second sorting, Lili will sort the words sorted before descending lexicographically.

Example:

dea

efb

gbe

First ordering:

ade

bef

beg

Second Ordering:

beg

bef

ade



There are integers R and C in the first line. Then there are R lines, each of which contains C letters.

### Format Output

Take out the  $R \times C$  grid which is the sorted letter.

#### Constraints

• 1 < R, C < 200

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# Sample Input (standard input)

3 3		
asj efd		
efd		
gza		

## Sample Output (standard output)

def	
ajs	
agz	



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Pada suatu malam, Lili sedang menatapi kumpulan huruf 'a' - 'z' yang tergeletak di meja. Pada awalnya Lili hanya memindah-mindahkan huruf tersebut secara acak hingga pada saat huruf-huruf tersebut membentuk suatu grid persegi, barulah Lili terpikir suatu permasalahan yang menarik.

Sekarang Lili memiliki sebuah grid berisi huruf yang berukuran  $R \times C$ . Lili akan melakukan 2x pengurutan. Yang pertama Lili akan mengurutkan huruf-huruf tersebut menaik secara lexicografis dari kiri ke kanan. Di pengurutan kedua, Lili akan mengurutkan kata-kata yang diurut sebelumnya secara menurun secara lexicografis.

Contoh:

dea

efb

gbe

Pengurutan pertama:

ade

bef beg

Pengurutan kedua:

beg

bef

ade

### Format Input

Pada baris pertama terdapat bilangan bulat R dan C. Kemudian terdapat R buah baris yang masing-masing terdapat C buah huruf.

### Format Output

Keluarkan grid berukuran  $R \times C$  yang merupakan huruf hasil pengurutan.

#### Constraints

•  $1 \le R, C \le 200$ 

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