

E. Almost Fault-Tolerant Database

time limit per test: 2 seconds

memory limit per test: 512 megabytes

input: standard input

output: standard output

You are storing an integer array of length m in a database. To maintain internal integrity and protect data, the database stores n copies of this array.

Unfortunately, the recent incident may have altered the stored information in every copy in the database.

It's believed, that the incident altered at most two elements in every copy. You need to recover the original array based on the current state of the database.

In case there are multiple ways to restore the array, report any. If there is no array that differs from every copy in no more than two positions, report that as well.

Input

The first line contains integers n and m ($2 \leq n; 1 \leq m; n \cdot m \leq 250\,000$) — the number of copies and the size of the array.

Each of the following n lines describes one of the currently stored copies in the database, it consists of m integers $s_{i,1}, s_{i,2}, \dots, s_{i,m}$ ($1 \leq s_{i,j} \leq 10^9$).

Output

If there is an array consistent with all given copies, print "Yes" and then the array itself. The array must have length m and contain integers between 1 and 10^9 only.

Otherwise, print "No".

If there are multiple possible arrays, print any of them.

Examples

input	Copy
<pre>3 4 1 10 10 100 1 1 1 100 10 100 1 100</pre>	
output	Copy
<pre>Yes 1 10 1 100</pre>	

input	Copy
<pre>10 7 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1</pre>	
output	Copy

Codeforces Round #704 (Div. 2)

Contest is running
01:39:09
Contestant

Submit?

Language: GNU G++14 6.4.0

Choose file:

파일 선택

선택된 파일 없음

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit

Score table

	Score
Problem A	460
Problem B	920
Problem C	1380
Problem D	2070
Problem E	2760
Successful hack	100
Unsuccessful hack	-50
Unsuccessful submission	-50
Resubmission	-50

* If you solve problem on 00:20 from the first attempt

```
Yes
1 1 1 1 1 1 1
```

input

Copy

```
2 5
2 2 1 1 1
1 1 2 2 2
```

output

Copy

```
No
```

Note

In the first example, the array $[1, 10, 1, 100]$ differs from first and second copies in just one position, and from the third copy in two positions.

In the second example, array $[1, 1, 1, 1, 1, 1, 1]$ is the same as the first copy and differs from all other copies in at most two positions.

In the third example, there is no array differing in at most two positions from every database's copy.

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