

Unit Matrix

Problem

Submissions

Leaderboard

Discussions

Problem Statement

You will be given a matrix of size $N * N$. You need to tell if it is unit matrix or not.

Note: A matrix is called a unit matrix if all the primary diagonal elements are 1 and all the non-diagonal elements are 0.

Input Format

- First line will contain N , the row and column of the square matrix.
- Then the $N * N$ sized matrix will be given where the values are integer only.

Constraints

- $1 \leq N \leq 100$
- $0 \leq \text{Values} \leq 100$

Output Format

- Output "YES" if the matrix is unit matrix, otherwise output "NO" without the quotation marks.

Sample Input 0

```
3
1 0 0
0 1 0
0 0 1
```

Sample Output 0

```
YES
```

Sample Input 1

```
5
1 0 0 0 0
0 1 0 0 0
0 0 1 0 1
0 0 0 1 0
0 0 0 0 1
```

Sample Output 1

```
NO
```