

B. Interesting Array

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

We'll call an array of n non-negative integers $a[1], a[2], \dots, a[n]$ *interesting*, if it meets m constraints. The i -th of the m constraints consists of three integers l_i, r_i, q_i ($1 \leq l_i \leq r_i \leq n$) meaning that value should be equal to q_i .

Your task is to find any *interesting* array of n elements or state that such array doesn't exist.

Expression $x \& y$ means the bitwise AND of numbers x and y . In programming languages C++, Java and Python this operation is represented as "&", in Pascal — as "and".

Input

The first line contains two integers n, m ($1 \leq n \leq 10^5, 1 \leq m \leq 10^5$) — the number of elements in the array and the number of limits.

Each of the next m lines contains three integers l_i, r_i, q_i ($1 \leq l_i \leq r_i \leq n, 0 \leq q_i < 2^{30}$) describing the i -th limit.

Output

If the *interesting* array exists, in the first line print "YES" (without the quotes) and in the second line print n integers $a[1], a[2], \dots, a[n]$ ($0 \leq a[i] < 2^{30}$) describing the *interesting* array. If there are multiple answers, print any of them.

If the *interesting* array doesn't exist, print "NO" (without the quotes) in the single line.

Examples

| input |
|--------------|
| 3 1 1 3 3 |
| output |
| YES 3 3 3 |

| input |
|-----------------------|
| 3 2 1 3 3 1 3 2 |
| output |
| NO |