DAY 2

Problem 3: Knowing people (40 points)

A gathering is taking place in a large room. Each participant may know none, some, or all the other participants. We want to see whether there is a way to place all these people in a queue, so that for everyone in the queue, his/her acquaintances located behind him/her all know each other.

INPUT

Your program should read an input file INPUT.TXT that has the following structure.
The first line contains the total number N of people (1 <= N <= 50). The second line contains the total number M of pairs of people that know each other (0 <= M <= 1225). Each of the following M lines contains two integers I and J (1 <= I, J <= N) separated by a space character and indicates that persons I and J know each other.

.

OUTPUT

Your program should produce an output file OUTPUT.TXT that should be as follows.
The first line contains the string "YES" if there is a way to place all the people in a queue; otherwise, the string "NO" should appear in the output. If the answer is "YES", the next line of the output file contains a proper sequence of the N people, separated by space character (from the front to the end).

EXAMPLE

INPUT.TXT	OUTPUT.TXT
5	YES
7	1 2 4 5 3
1 2	
3 1	
2 3	
2 4	
4 3	
3 5	
4 5	

Time Limit per Test: 1 second