Programming assignment 12

Topological Sort

Input (Standard input)

In the first line, the numbers of vertices N($1 \leq N \leq 1{,}000$) and edges M($1 \leq M \leq 40{,}000$) are given.

In each of the next M lines, a directed edge (x,y) is given as x y.

Output (Standard output)

In the first line, if the graph G is a DAG, print 1. Otherwise, print 0.

If it is a DAG, in the next line, print the vertices in the topological order.

You should use DFS and discover the lower-numbered vertex first.

[Example]

Input	Output
9 9 1 4 1 5 2 5 4 5 4 6 6 9 7 6 7 8 8 9	1 7 8 3 2 1 4 6 9 5

Description

1. **File name must be TopologicalSort.cpp**
2. **Make a comment of your student ID, name and class in the first line of the source code.** ex) 2014601028_Honggildong_A or 2014601028_홍길동_A
3. **Back up your submitted source code for an unexpected accident.**