

Programming assignment 8

Topological sort

Implement a program to topologically sort the vertices of a given graph if it is a DAG.

During the DFS procedure, visit the vertex with smaller vertex number first.

Input (Standard input)

From the next line, the adjacency list of graph G is represented by the incident vertices x and y.

This means the edge from vertex x to vertex y exists.

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.

[Example]

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

Description

1. File name must be Topological_sort.cpp

2. Make the comment of student ID, name and class in the first line of the source code.

ex) 2008601028_Honggildong_A or 2008601028_홍길동_A

3. Please keep the source code that you have submitted for unexpected accident.