U. Regional Connectivity During The Covid Pandemic

Time Limit: 1 seconds

Problem description

Traffic map of Hanoi during the Covid pandemic[1] is represented as a directed graph with vertices numbered from 1 to N. To determine the mobility from one location to another, it is required that you must identify list of strongly connected regions on given directed graph.

As an talent IT developer, you've asked to list out all strongly connected regions.

Input:

Line 1: An integer N which indicate the number of edges to be defined in the next lines

Line 2 to N+1: each line contains source vertex and destination vertex

Output:

Line 1: An integer M which is the number of strongly connected regions found.

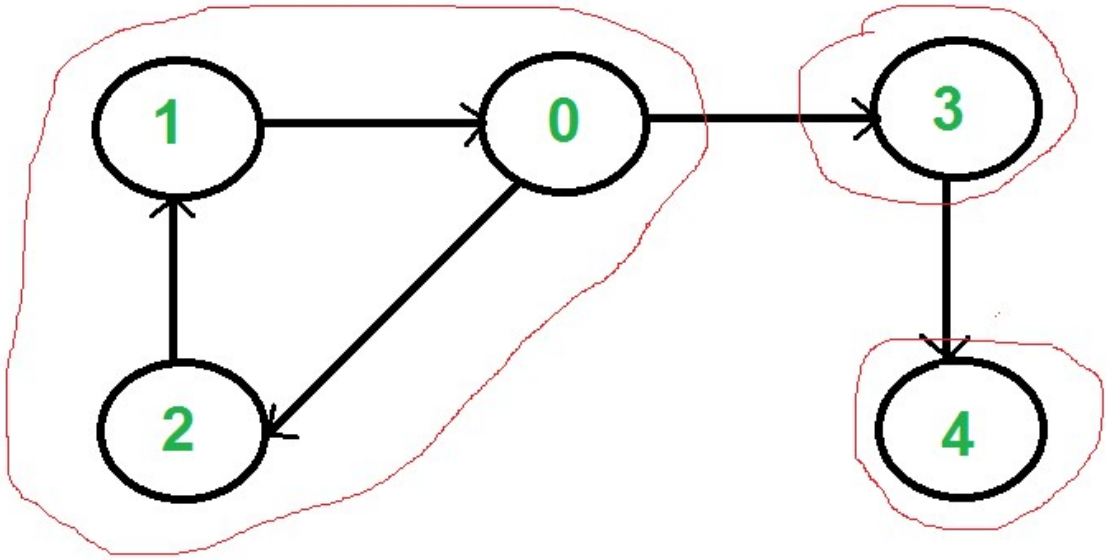
Line 2 to M+1: List of strongly connected regions sorted in descending order of number of vertices, each region is putted on a line. On each of these lines, each vertex is displayed in ascending order (no need for list out correct order of connecting edges).

Example 1:

Input	Output
5 1 0 0 2 2 1 0 3 3 4	3 0 1 2 3 4

[1] https://covidmaps.hanoi.gov.vn/

Based on the given data, the directed graph and list of strongly connected regions are illustrated as shown below



Example 2:

Input	Output
6 1 0 0 2 2 1 0 3 3 4 4 3	2 0 1 2 3 4