Basic Algorithms, Assignment 5
Due, Thursday, Oct 18


2. Modify the topological ordering algorithm of §3.6, or the version given in class, so that there will be a stacks (or queues, you decide) BADCYCLE and GOODORDER and a Boolean Variable NOPROBLEMO. The input to your algorithm will be a directed graph with the adjacency list representation. When the algorithm is over there are two cases. If there is a topological order then NOPROBLEMO = true and GOODORDER gives such an order. If there is no topological order then NOPROBLEMO = false and BADCYCLE gives a directed cycle. (When NOPROBLEMO = true it doesn’t matter what BADCYCLE is and when NOPROBLEMO = false it doesn’t matter what GOODORDER is.)

Give your algorithm in detailed pseudocode with copious commentary.

Why did you come to Casablanca anyway, Rick?
I came for the waters.
Waters, what waters? Casablanca is in the desert.
I was misinformed
Claude Rains and Humphrey Bogart in Casablanca