

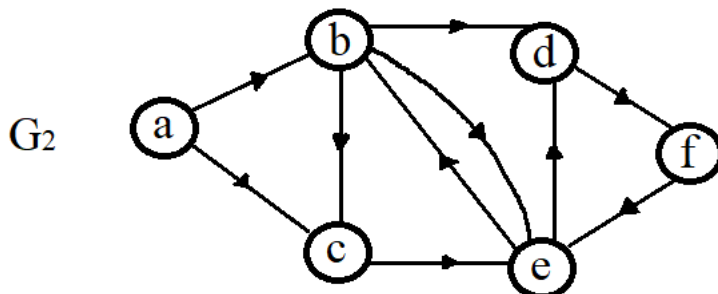
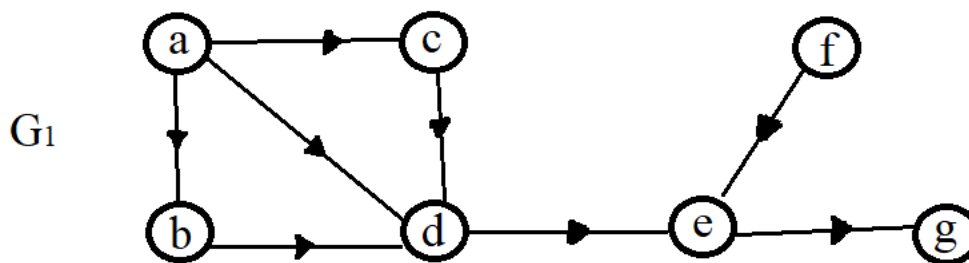
Programming assignment 8.

Due date: Monday, December 7, 2020 at 11:59pm

Note: you can have different names for vertices: $\{a\ b\ c\ d\ e\ \dots\} = \{v_1\ v_2\ v_3\ v_4\ \dots\} = \{1\ 2\ 3\ 4\ \dots\}$

In this program you are required to implement DFS.

First, you can create the below graphs and print the resulting adjacency matrices/lists. Or create a random graph.



1. Run *DFS* function to check if the graph is a DAG (directed acyclic graph):
 - ✓ Search for backward edges. If there are any, print: "Cycle detected, topological sort is impossible".
2. If the graph is DAG, (while running DFS):
 - ✓ Insert the vertex into a linked list as it finishes.
 - ✓ Using your linked list, print the topological order of the vertices along with their *start/finish time*.