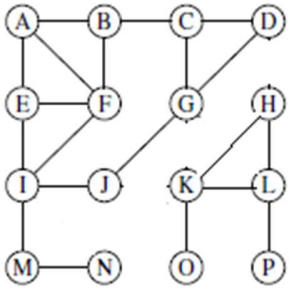
CSCI 3330

Chapter 3 programming exercise

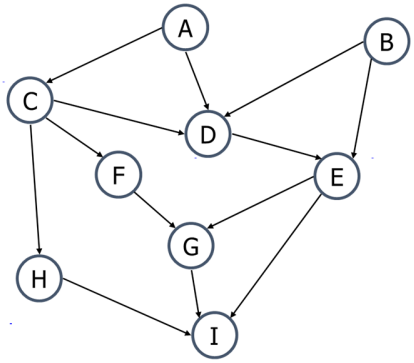
Description:

This assignment requires you to implement the depth-first-search (DFS) algorithm and apply it to solve the following problems:

1. Write an application that returns connected components of a graph with DFS. Test your code for the correctness with the graph below:



2. Write a function that finds a path between two nodes of a graph with DFS. Test your code with the graph above.
3. Write a function that finds the topological order of a digraph. Test your code with the digraph below. Compare the results of starting from A, or B, or C



What to submit: You need to make sure your code works well. It will be a component of the third group project to be submitted later. While you do NOT need to turn in anything at this time, please do ask questions if you have any in completing this exercise.

How it will be graded: It will be graded as a part of your third project.