Problem 3

Strong components of a graph are basically subgraphs of that graph where there is a path between all the vertices of that subgraph. Strong components can be found using Kosaraju's algorithm given below:

1) First run DFS on the graph while adding all the vertices that are completely explored, to a stack S

b c d a e f h g

2) Then reverse all the arrows of the graph

3) Pop a node from the stack S and then run DFS on that node in the reversed graph. The DFS starting from that node will print the strongly connected components.

4) Strongly connected components

b

c

d

a

e h f g