ESO207: Data Structures and Algorithms

Bonus Programming Assignment *4* *Due: Nov 11 23:59*

Problem 1. Given an undirected graph G, a *bridge* is an edge of the graph that if removed disconnects the graph. A *separating vertex* (also called *articulation point*) is a vertex of the graph, which if removed, disconnects the graph. Equivalently, an edge is not a bridge iff it lies on some cycle. Figure 1 gives an example. In this figure, vertices d, a, h and l are separating vertices. Note that k is not a separating vertex. The edges $\{e, h\}$ and $\{k, l\}$ are bridges.

Given an undirected graph G as input in adjacency list format, print all the bridges and articulation points of G.

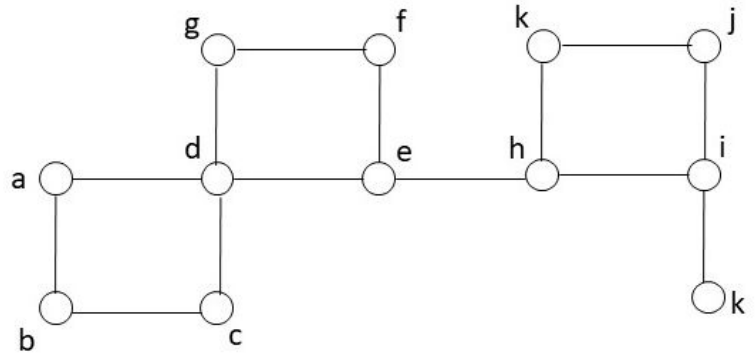

Figure 1: An example graph