Graphs Lab

This lab assignment will make use of the following book: Data Structures & Algorithms in Java Second Edition by Robert Lafore. Do the following programming exercises at the end of Chapter 13 (page 667):

1. 13.1 Modify the bfs.java program (Listing 13.2) to find the minimum spanning tree using a breadth-first search, rather than the depth-first search shown in mst.java (Listing 13.3). In main(), create a graph with 9 vertices and 12 edges, and find its minimum spanning tree.

Required: Modified Java program.

1. 13.2 Modify the dfs.java program (Listing 13.1) to use adjacency lists rather than an adjacency matrix. You can obtain a list by adapting the Link and LinkList classes from the linkList2.java program (Listing 5.2) in Chapter 5. Modify the find() routine from LinkList to search for an unvisited vertex rather than for a key value.

Required: Modified Java program.