CS 494/594, Graph Algorithms, Applications and Implementations
Spring 2015, Homework 4

Write a program to find a minimum vertex cover (VC) in a simple, undirected, unweighted graph. Your program should output the minimum VC size, followed by a list of vertices in a minimum VC on the next line. The output should look similar to the following.

>./findminvc graph7.txt
Minimum Vertex Cover Size: 3
2 4 5

Note that many graphs have more than one VC of minimum size. It is not required that your program output any particular one.

We will be doing runtime comparisons between everyone's implementations and posting the results to the class webpage. This is for bragging rights only. You will not be graded on runtime.

As usual, your program should take a file name as a command-line argument and output to standard output. All graph files will be in the format discussed in class. All stipulations regarding the first two homework assignments remain in effect. Be sure to test that your programs compile and run in Linux on the EECS lab machines.

Submit your programs by emailing all necessary source code (including any needed makefile) and any other files necessary to compile and run your code to cphill25@utk.edu prior to the beginning of class next Wednesday, February 4. If you have any questions, please do not hesitate to email me or drop by during office hours.