CSE 5311 Lab Assignment 2

Due November 17, 2016

Goals:

1. Review of augmenting path approaches to network flows.

2. Understanding of capacity scaling.

Requirements:

1. Write (and test) a C/C++ program that uses capacity scaling to solve maximum flow problem. You may modify either `ffLab.c` on the course web page ("Ford-Fulkerson with adjacency lists") or other available network flow code. Your program should follow the simple input conventions used in `ffLab.c`. Your program should output all augmenting paths and also indicate any changes in Δ, the scaling parameter. When the maximum flow has been found, the amount of flow on each edge should be output.

   Your program must compile and execute on at least one of `omega.uta.edu` or Visual Studio. Your debugging trace should be disabled in the version you submit.

2. Submit your code by 9:15 am on Thursday, November 17.

Getting Started:

1. Since the set of edges is static, compressed adjacency lists without "next" pointers are used in `ffLab.c`. Under no circumstances should an adjacency matrix be used.

2. `ffLab.c` also produces a minimum cut. This is not required in the version that you submit.

3. Collecting CPU time information is optional. No report is required.