University of Texas at Dallas—Department of Computer Science
CS 6380 Distributed Computing—Spring 2017
Project 2 Description

This is a group project.

Simulate an asynchronous network using the simulator you developed in project 1. The message transmission time for each link for each message is to be randomly chosen using uniform distribution in the range 1 to 18 "time units." All links are bidirectional and FIFO. (FIFO: If process p sends two messages m_1 and then m_2 to process q, then process q receives m_1 first and then m_2.)
You will implement AsynchBFS with convergecast method for termination.

The code (algorithm) executed by all processes must be the same. [One process, the root of the BFS tree, knows about it being the root; all other processes don't know the id of root of BFS till they receive a message.]

The input for this problem consists of the same input as that of project, with edge weights. You can ignore the edge weights for BFS where only connectivity is important. All links are bidirectional.

No process knows n. Each process knows the number of neighbors it has, the ids of its neighbors and the edge weights for the edges incident on them. Termination is to be done through the convergecast procedure.

Output the BFS by treating the tree as a graph and outputting the adjacency list.

Upload one tar file containing your source code, a README file that tells us how to compile and run, one sample input file and the result of running your program on your sample input file.

Due date: March 31, 11:55 pm.