CSCE 221 Cover Page
Programming Assignment #5
Due April 17 at midnight to CSNet

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Please list all sources in the table below including web pages which you used to solve or implement the current homework. If you fail to cite sources you can get a lower number of points or even zero, read more in the Aggie Honor System Office http://aggiehonor.tamu.edu/

Type of sources					
People	Katherine Click	Ryan Yantz			
Web pages (provide URL)					
Printed material					
Other Sources					

I certify that I have listed all the sources that I used to develop the solutions/code to the submitted work.

"*On my honor as an Aggie, I have neither given nor received any unauthorized help on this academic work.*"

Your Name (signature)   Jessica Fang   Date   04/16/2015

a) This program is able to take in characters from which it creates sets and union sets together. The purpose of this assignment is to utilize our knowledge of data structures and sets to create an efficient program which can manage sets.

b) DListNode has new functions that can get and set the node's representative, trailer, and list sizes.

MakeSet uses the DListNode constructor to create a node with the give key and set data then sets the trailer and representative to point to itself.

FindSet uses the key and nodeLocator vector and returns the representative of the node to get the fastest possible runtime.

c) FindSet has a best and worst case of O(1). Union has a best case of O(1) and a worst case of O(log n)

d) This program is compiled using a makefile (type make) and run using ./main.

e) Union does not check if elements in the smaller already exist in larger.

f) DListNode is templated.

g) Tests in the test program run smoothly.