CSCI 2270-100 Data Structures, Fall 2018
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Final Project Proposal

This idea for this project is based on Assignment 7, Communication Between Towers. However, instead of building a network of cities, we will be building a network of bad guys and good guys. The bad guys need to be able to send a message to other bad guys without letting the message fall into the wrong hands! If the good guys read the message then they catch the bad guys and throw them in jail.

1. What our Project is About:

This project is not only about the utilization of graphs and linked lists, it's also about saving the world in the best way possible; hacking. This project is about revealing one important aspect of how all of our future career paths will benefit the world. One aspect where we can make a difference. One aspect of how this world needs us.

2. Overall Design of our Project & Data Structures Implemented:

The design of our project will be simple, yet still full of depth in application. By using a simple graph with weighted edges, we traverse across as a means to transmit the bad guys messages. Through thick and thin, they move with haste, because yes, the good guys are about, ready to throw any bad guy they catch into an impenetrable linked list where the first in, is never the first out. See, the good guys have an equipped arsenal. Apart from the world renowned header files, they have Binary Trees, they have nodes, they have edges, stacks, queues, graphs and even a cpp file..And what, you may ask, is in that cpp file?? An int main...and just like captain planet, he organizes, he executes, and he conquers.

3. Why this Data Structure is the Best Choice:

Why are the tools of the good guys important? Why is state-of-the-art technology important for the good guys as a means to catch the bad guys? Well, please, enlighten us. What is a faster way to search through the vast graph of bad guy communications than the hearty Breadth First Search or Depth First Search? The good guys need all

these stacks, queues, and trees for a reason. The data structures budget is generous, and we'd like to keep it that way.

4. Expected Roadblocks/Challenges:

Of course, like with all noble pursuits, there will be hardships. Yet, vicious seg-faults shall not deter! Neither will daunting parameters nor improperly utilized class objects! You see, each function, each struct, and every single include...will be included. With a step by step approach in creating each function, in combination with a flawless function call from main, we will test, debug, and test again! After all functions are cleared for go, we will be ready..oh we will...this program will execute, and these bad guys will get caught...mark our words. And so we cross the rubicon...there is no turning back...Alea iacta est...the die has been cast.