Weekly Report

# Supervisor Notes

During the meeting I updated my supervisor on the current progress of the project. After this we discussed research methods for stochastic programs. My supervisor informed me that I would need to perform between 30 and 50 tests per benchmark then find the mean, standard deviation, the best and worst outcome. After testing I would need to evaluate the results, preferably against another person’s work. I informed my supervisor that I have been unable to find benchmarks for graphs. My supervisor then helped me look for research papers for Minimum spanning trees and we found a good number of useful papers. During the search it became clear that Degree Constrained Minimum Spanning Tree is the most regularly researched as of current.

This week’s checklist should cover the following 2 weeks

* Implement Unit tests for EWG
* Implement EWG to pass test
* Designed SDS for MST
* Create Requirements for SDS
* Implement Unit tests for SDS
* Implement SDS to pass tests
* Read research papers
* Research Degree Constrained Minimum Spanning Tree
* Create Gantt Chart

# This week’s progress

I have modified the requirements for the EWG to provide a broader test. The requirements are the following:

* The graph should not allow vertices to be connected to themselves (no self-loops)
* There must be no duplicate connections between vertices
* The label of each vertex must be unique
* Vertices can exist without any connecting edges
* Vertices can exist with connecting edges
* Traversal between all connected vertices is possible
* Edges cannot exist without connected vertices
* The graph can be deconstructed

I implemented all the Unit tests for the EWG with the exception of Traversal and Deconstruction which I will complete later today. I have filled out the EWG skeleton class’ methods and have ensured that it passes all tests that have been implemented.

I have begun researching how to create a Gantt chart and designed SDS for MST.