Capstone Project Week 7 Status Report for

“Comparative Analysis of Multi-Threaded and Non-Threaded Implementations

of the Merge Sort Algorithm”

**Date:** 03-October-2016

**Accomplishments**

Activity 1: Hardware and software Installation and testing (25-September-2009 - 03-October-2016)

1. Hardware Procurement – completed for existing hardware and for Virtual Machine requirement.
2. Software Installation – completed for existing hardware and for Virtual Machine requirement.
3. VM installation and testing – completed on existing hardware.

 Activity 2: Data Set Research

1. Data Set Research – on-going. Downloaded code from *”Algorithms in a Nutshell”* and researching datasets through the FIT Library.
2. One research paper used several different datasets.
   * Random
   * Function to return Integers in a range
   * Bernoulli function to return 0 or 1
   * Geometric function
   * Pascal function
   * Binomial function
   * Zero function
   * Unbalanced function

**Current Activities (03-Oct-2016 – 09-Oct-2016)**

Activity 2: Data Set Research and Use Cases

1. Data Set Research and testing code for MergeSort from “*Algorithms in a Nutshell”*
2. Use Cases

**Challenges**

The challenges are:

1. How to obtain or produce a valid data set

The challenges listed above can be resolved and do not place the project at risk.

**Work to be Completed by Oct. 9, 2016**

1. Data Set research
2. Use Cases