# CS 6378 Advanced Operating Systems
## Project 3: Due date 1st Dec, 2017

This project is an individual project. You should demonstrate the project to the TA. Sharing your work with other teams is strictly prohibited. If found that code from others is used, you will get a 0.

In this project you need to implement the 3-phase protocol with 1 coordinator and 4 cohorts. The failure of a process can be determined using timeout. Use TCP/IP to ensure that communication channels are reliable. The value to be committed (assume one integer variable) can be entered through keyboard at the coordinator. The output should be stored in a file with one line per transaction showing the transaction id, status (commit or abort) and the committed value. There should be a separate output file for each process.

You need to demonstrate through a demo the following. (Use print statements to show the working of the protocol.)

- The basic working of 3-phase protocol in the absence of failures.
- All failure and timeout transitions from each state for both coordinator and cohort's failure at various states.
- The correct recovery procedure after failure of coordinator/cohort.

You can use the same distributed systems platform you created for the previous projects. Make sure you create interesting test cases to show all possible failure scenario.

**Grading Policy**

Implementation: 50%. Source code should be structured well with adequate comments clearly showing the different parts and functionalities implemented.

Correctness: 50%. CS should not be violated.

The source and config files should be submitted through elearning. The TA will compile the code when you demonstrate.