**TRANSACTION APPLICATION - A CLASSROOM RESERVATION SYSTEM(CLARE)**

**1. Simple Description**

Our goal is to develop a transaction application which supports complete ACID properties. We will make a classroom reservation system for professors and students. Professors and students can reserve classrooms, labs and tools through this system.

**2. Concept**

Client -> Request -> Resource Manager(ACID property) <-> Data storage

**3. Range of our project**

1) implement transaction with ACID property (include LOCK feature) - RM manager

2) implement distributed transaction environment - Multiple RM Manager [Extra feature]

3) maybe Recovery feature can be added [Extra feature]

**4. Detailed Specification**

1) Feature

Resource Manager (RM) supports concurrent transactions with the ACID properties. Multiple clients access this RM concurrently to query and update the data through a transactional interface.

2) Tables

CLASSROOM, LAB, TOOL, PEOPLE, and RESERVATION

3) ACID property(LOCK)

As we learn ACID properties in detail, we will implement these features in our project.

4) Recovery and distributed transaction management.

These are extra features we may implement.

5) Assumptions

a) People can reserve or cancel any number of CLASSROOM, LAB, TOOL.

b) On a specific time slot, only one person can reserve CLASSROOM, LAB, TOOL.

c) As we progress, our assumptions can be added or deleted.

***References***: http://www.cs.washington.edu/education/courses/csep545/12wi, http://www.ics.uci.edu/~cs223/projects/