# **Operating Systems Project Proposal (Spring 2015)**

**Selected Topic:**

“File Access (read/write) Synchronization between Processes”

**Team Members:**

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**Objective:**

In this project, we will be closely examining how parallel (or apparently parallel) execution of processes occurs in Operating Systems and we will apply different techniques to solve one of the most common problems encountered in OS design, i. e. The Readers-Writers Problem.

Basically, we will try to implement a way to lock or restrict modification to certain files or areas of memory when they are already being used by another process. In this way we can insure that during concurrent execution of processes in our operating system, the same file isn’t being accessed and modified by two different processes at the same time.

In order to synchronize ‘n’ processes executing concurrently we will make use of a family of popular multi-user environment access control methods form Computer Science, known as Semaphores.