Method of Synchronization

CS 4348.0U1 Project 1

James Ryan Evans

Jre170001@utdallas.edu

Shared Memory Inter Process Communication Method and Synchronization Mechanism

Binary Semaphore structure implementation is used to conduct process synchronization for the purpose of mutual exclusion protecting the critical section in order to avoid race conditions of the occurrence counting procedure.

A shared variable between processes can be incremented or decremented to represent the availability of a lock or mutex. When a lock is available, the shared variable is decremented to acquire the lock. When the process is done operating in the critical section, it can release the lock and increment the shared variable. A mutex lock can be a binary semaphore which can have values 0 or 1. This maximizes the avoidance of race conditions.