Taimoor Hafeez CISC 3320 ER6

Assignment 3

Author: Taimoor Hafeez

The goal was to create a program with many threads which each thread having the responsibility of allocating a pid, sleeping for a random period of time, and then releasing the pid. This program would also use some sort of mutex lock before allocating or releasing the pids. The random period of time is supposed to represent the amount of time it would take for the pid to be assigned to a process, that process starting, and then ending. I assumed that each thread would have to start and allocate a pid at the same time or else it would not make sense. Each thread would then sleep for a random period and then release the pid it was allocated. I assumed that since all the threads are running at the same time, the pids released would be random and not in order. Another assumption that I made was the lock had to be aquired before allocating pids and the lock would have to be released before releasing any pids.