Notes seminar 2

Why is synchronization taught in OS

Task 1 & 2

- Some of us had issues getting starvation for Task 1
- Pete solved the solution by implementing a queue for the readers and writers, with states of 0 and 1's
- We thought this semnar was a bit more challenging.
- All of us had similar solutions to the reader writer problem.
- For task 2 everyone used ReentrantLock to lock/unlock
- Pete implemented his own locking mechanism

Task 3

All of us had similar solutions since the circular wait problem can be solved easily by only allowing a left chopstick to be picked up if both of the chopsticks are available.

Why is synchronziation taught in OS?

Concurrency is used in multicore processing systems and since atomic instructions are implemented, they need allocated resources to successfully execute.

What is the difference between a mutex and a semaphore?

Mutex is a locking mechanism and semaphores are a signaling mechanism, mutexes handle locking and unlocking of access to a shared data object. Semaphores signal when a resource is ready for accessing or when a thread is executing or not.

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