12.1 Inter-process Commuication

Notebook: How Computers Work [CM1030]
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Essential Question:

What happens when multiples processes share or attempt to access the same resources?

Questions/Cues:

- What is meant by locking a resource?
- What is a semaphore?
- What is parallel software?

Notes

- Locking(Resource) = means setting a value of some bits of memory, probably literally one bit of memory. 1 for locked & 0 for unlocked
- Semaphore = special instruction in hardware that first checks whether a lock is locked & sets the lock at exactly the same time as it checks, nothing can interrupt this interaction; instruction has to be implemented directly in CPU. A flag used to control access to a particular resource.
- Deadlock = where processes wait on each other to unlock their respective resources in order to gain access to the other's resources and proceed, but both processes fail to unlock their resources and end up in a loop of sorts.
- Parallel Software = software where multiple processes are running at the same, particularly when they share resources.

Summary

In this week, we learned about the Deadlock, the locking of a resource and the remedy to Deadlock, the concept of a Semaphore.