Reflection (Week 6)

This week's focus on inter-process communication (IPC) helped me understand how processes exchange information and coordinate their work. By experimenting with simple pipes, I saw how one process can send its output directly into another, which is the foundation of shell pipelines. Creating and using named pipes (FIFOs) showed me how communication can persist beyond a single command, acting like a reusable mailbox between processes.

Working with background jobs and FIFOs gave me a practical sense of how asynchronous communication works — one process can write while another reads later, without blocking the system. This reinforced the idea that IPC is not just about passing data, but also about synchronization and cooperation.

Overall, I learned that IPC mechanisms are essential for building complex systems where multiple processes need to work together. Pipes and FIFOs may seem simple, but they represent the building blocks of larger concepts like message queues and shared memory. I now appreciate how the operating system provides these tools to ensure processes can communicate efficiently and safely.