



Operating Systems Lab

Semaphores

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Lab Task

Write a program to implement this scenario:

Imagine a scenario where there is a shared printer in an office. Multiple processes represent different users who want to print documents. Implement a solution using semaphores to manage access to the printer. Each process represents a user trying to print a document, and the printer can handle up to three printing tasks simultaneously. Initially, use binary semaphores to control access to the printer, allowing only one user to print at a time.

Subsequently, extend the solution to use counting semaphores, enabling up to three users to print simultaneously.

Implement this using Semaphores.

First solve with **binary semaphore** then you can consider that three persons can take water at the same time