

OS 資格考題 (106 學年度第一學期)

1. [15%] Please describe the difference between blocking based semaphores and spinlocks.
2. [15%] Please explain 2 benefits of the microkernel structure, compared to the monolithic kernels.
3. [20%] What is the main advantage of using multilevel page tables? What is the main advantage of using inverted page tables?
4. [10%] Given 2 memory addresses A and B, the *swap* instruction exchanges the data content pointed by A and B. Please use the *swap* instruction to implement mutual exclusion.
5. [20%] Please describe the relationship between system calls and dual-mode operations (i.e., user and kernel modes).
6. [20%] What is the relationship between demand paging and page faults?