Operating System Project List (Spring- 2024)

These are some course project ideas which can be selected.

1. System Call for Semaphore (Example: Reader- Writer Problem)
2. Ice Cream Factory Problem (System call)
3. System Call for Semaphore- Chain Smoker Problem
4. Dinning Philosophers Problem (System Call)
5. Slob Allocator - Worst Fit, Best Fit, First Fit
6. Comparison between Process And Threads (Ex. merge, quicksort with process and threads)- (five algorithms)
7. Process Communication via Different Mechanisms
8. 2-way Message Passing using Pipes (four problems Ex: fourier series, matrix multiplication)
9. Performance Comparison for IPC using filing, pipes, shared memory (3 problems with 2 methods = total 6 programs)
10. Parallel Programming - Comparison of sorting Algorithms using Pthreads vs. OpenMP (5 algorithms)
11. Hypervisor Comparison Type I and Type II

Note: For system call projects, kernel configuration should be done with student ID.

Students are supposed to submit:
1. Group members allowed (Max. 3)
2. Project cannot be repeated within section

For final project demonstration, students are required to submit the following:
3. Final working project demonstration
4. Project Viva
5. Project Report (Introduction, methodology, code, graphs (if comparisons), conclusion.

Note: Final project demonstration is expected to schedule in April,24.