CSE3101 Lab

OPERATING SYSTEMS LAB SYLLABUS

Implement the following programs on Linux platform using C language.

Exp. No	Chapter	List of Experiments
1	**CPU Scheduling Algorithms**	Write a C program to simulate the following non-preemptive CPU Scheduling algorithms to find turnaround time and waiting time. a) FCFS b) SJF c) Round Robin (pre-emptive) d) Priority
2		*****Write a C program to simulate multi-level queue scheduling algorithm considering the following scenario. All the processes in the system are divided into two categories: system processes and user processes. System processes are to be given higher priority than user processes. Use FCFS scheduling for the processes in each queue.
3	**File Allocation Strategies**	Write a C program to simulate the following file allocation strategies. a) Sequential b) Indexed c) Linked
4	**Memory Management Techniques**	Write a C program to simulate the MVT and MFT memory management techniques.
5		*****Write a C program to simulate the following contiguous memory allocation techniques a) Worst-fit b) Best-fit c) First-fit
6		Write a C program to simulate paging technique of memory management.
7	**File Organization Techniques**	Write a C program to simulate the following file organization techniques a) Single level directory b) Two level directory c) Hierarchical
8	**Deadlock Management Techniques**	Write a C program to simulate Bankers algorithm for the purpose of deadlock avoidance.
9		*Write a C program to simulate disk scheduling algorithms a) FCFS b) SCAN c) C-SCAN
10	**Page Replacement Algorithms**	Write a C program to simulate page replacement algorithms a) FIFO b) LRU c) LFU
11		*Write a C program to simulate page replacement algorithms a) Optimal
12	**Process Synchronization**	*****Write a C program to simulate producer-consumer problem using semaphores.
13		*Write a C program to simulate the concept of Dining-Philosophers problem.