ACM IITR
Student Chapter

ACM Open Projects 2024

1. **CPU SCHEDULER:** A CPU scheduler is a crucial component of an operating system responsible for managing the execution of processes. It decides which process should utilize the CPU and for how long, ensuring efficient resource utilization. Through algorithms and policies, it balances various factors like throughput, response time, and fairness to optimize system performance. In essence, the CPU scheduler acts as a traffic controller for the CPU, orchestrating the flow of processes for smooth operation.

   Requirements (Compulsory)

   1. Through Understanding of various scheduling algorithms and their implementation details and when to use them.
   2. Project should be either in C or C++.
   3. Implementation of a scheduler which can schedule tasks given information of tasks.
   4. Specific algorithms and implementation are up to you but the scheduler should be fairly sophisticated, projects involving basic simulation programs and use of only one algorithm to do all the scheduling will not be considered.

   Resources

   1. **https://www.youtube.com/playlist?list=PLBInK6fEyqRitWSE_AyyySWfhRgyA-rHk** (For Basics)
   2. Chapter-4 of Linux Kernel Development by Robert Love (For implementation Details)