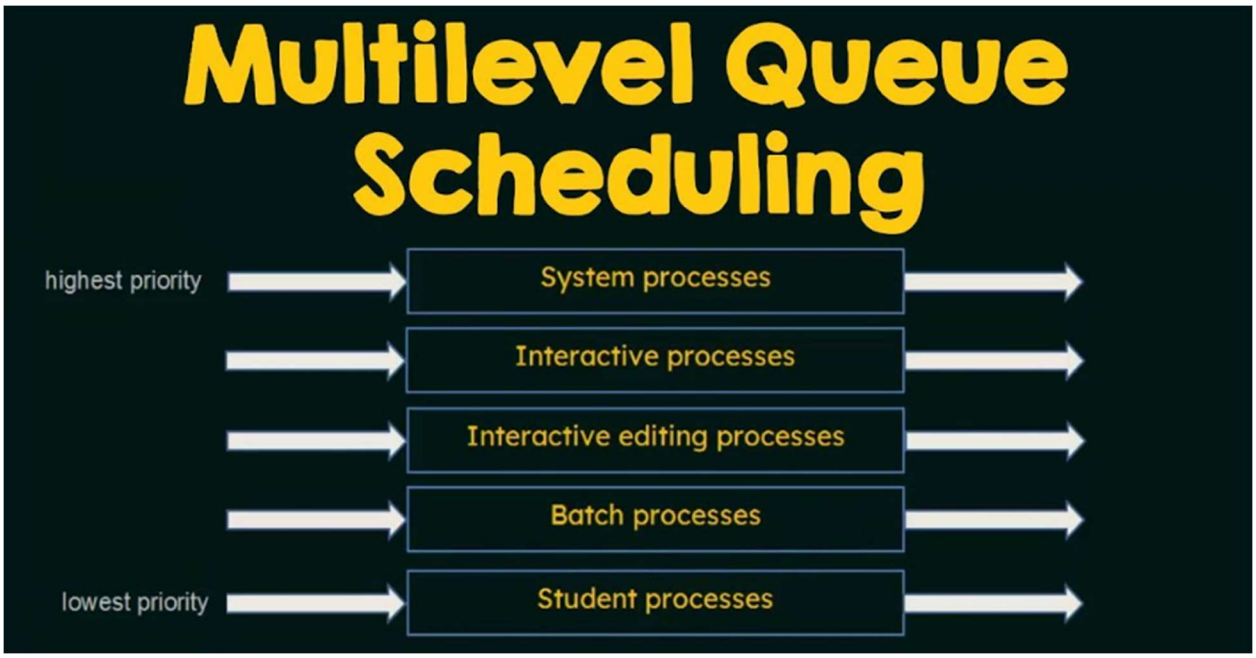
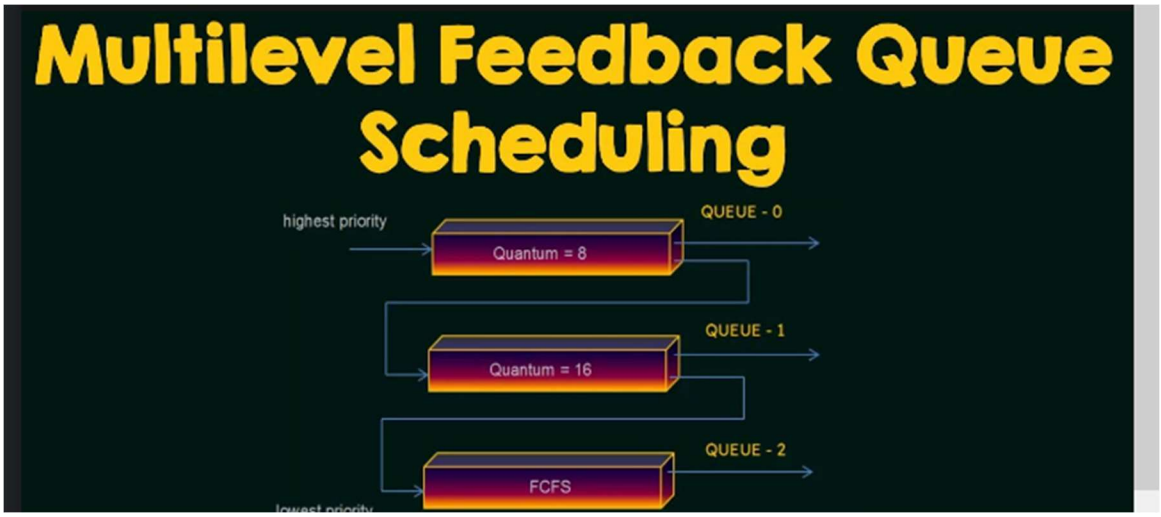
MULTI-LEVEL QUEUE & MULTI-LEVEL FEEDBACK QUEUE

give answer to : "what is multilevel queue and feedback scheduling " with exact wording and reference to the book "operating system concepts by galvin"+

According to "Operating System Concepts" by Galvin, a multilevel queue scheduling algorithm partitions the ready queue into several separate queues, each with its priority level. The processes are assigned to a queue based on some property of the process, such as memory size, process priority, or process type. Within each queue, a scheduling algorithm such as round-robin, shortest job first, or priority scheduling is used. The highest priority queue is serviced first, followed by the next highest priority queue, and so on. Feedback scheduling, on the other hand, is a type of scheduling algorithm in which a process is given a certain amount of time to run before it is preempted and moved to a lower-priority queue. If a process uses its entire time slice, it is moved to a lower-priority queue, and if it finishes before its time slice, it is moved to a higher-priority queue. This allows longer jobs to run without being starved of CPU time, while also ensuring that short jobs are not blocked by long-running processes.




Multilevel Feedback Queue Scheduling
highest priority
QUEUE - 0
Quantum = 8
QUEUE - 1
Quantum = 16
QUEUE - 2
FCFS