Lecture-10
Date 12/02/18
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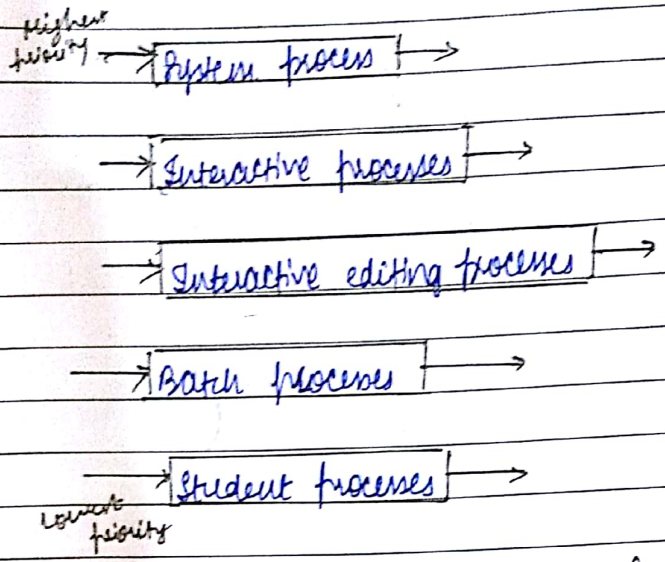
Multilevel queue scheduling

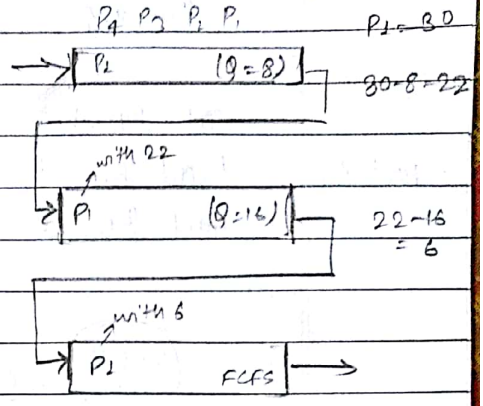


Diff parameters to segregate diff types of processes -
- CPU burst time
- Memory size required
- Process's priority to the system
- Process characteristics

Multilevel feedback queue scheduling
- Favours short CPU burst processes.
- Determines nature of the job as soon as it comes to the system. Eg:- Time sharing env.

- If new process enters the queueing network at the back of the top queue.
- It moves through that queue until it gets the CPU.
- If the job completes, or releases the CPU for I/O completion, the job leaves the queueing network.
- If the process's quantum expires in a time sharing environment before the process voluntarily relinquishes the CPU, the process is placed at the back of the next lower level queue.
- The process is then serviced when it reaches the head of that queue if the first queue is empty.

- As long as the process uses the full quantum provided at each level, it continues to move at the back of the next lower level queue.
- Usually there is a bottom level queue through which process circulate FCFS until it completes



~~Co-operative~~ Independent processes

A process is independent if it cannot affect or be affected by the other processes in the system.

Co-operative processes

The concurrent process executing in the operating system ~~maybe either independent~~ can affect or be effected by other processes.

Different reasons for cooperation:
- Information sharing
- Computation speed up
- Modularity
- Convenience.

Interprocess communication (IPC)
- Message passing
- Direct communication

Message passing - → we don't need to mention process id.

This system allows processes to communicate with one another without the need to ~~safe~~ ~~secret~~ the shared data. Two main operations - send(msg) recieve(msg)

Direct communication

send(Q, msg), recieve(P, msg) Q → P (Q sends to P receives)

Fixed size msg

Variable sized msg. * Process id required.