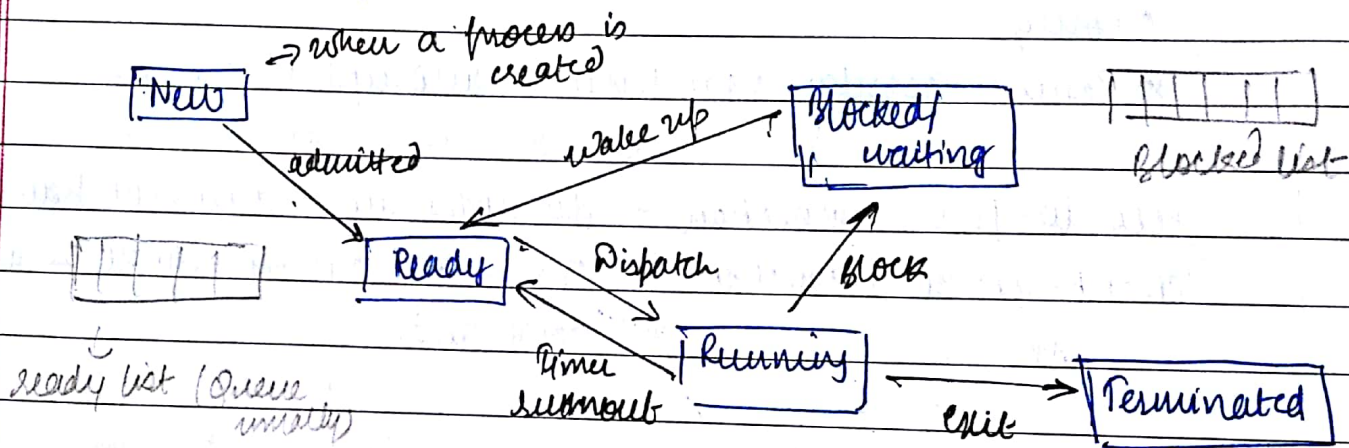


main processor controls the system. Other processors either look to the master for instructions or have some predefined job.

25/01/2018
Lecture-3
BDE

OS works as a resource allocator.

Process - a program in execution.



State transition diagram of a process

New: When a process is created

Ready: When the process is ready, CPU may or may not be ready. Prefetching job is done here.

Running: When everything is ready for execution

Blocked/waiting: When process waits for some other resource (file or I/O).

Event : I/O operation, disc operation

both work with only ready list not blocked one

Scheduler - A process that manages other processes in the ready list.

Dispatcher - A process that decides the order/priority of the other processes in the ready list and brings them to the CPU to their ~~for~~ running state.

* After blocked state, we don't know if CPU is available or not, so direct resumption is not possible. First the process has to go to ready state.

other processes go in starvation state

Time quantum - To stop processes from monopolizing CPU time usage, scheduler assigns a quantum of time to each process after which its access to CPU is snatched, which is called time quantum.

Process control block (PCB) -

- The process identification number should be unique.
- The current state of the process pointed to the ^{process's} parent, pointed to the process's child process, process's priority, pointed to local process's memory, pointed to allocated resources and many more.

