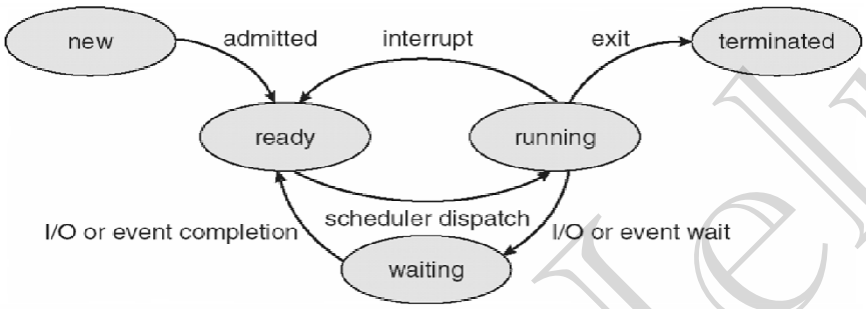
Lec-10: Process States | Process Queues

1. **Process States**: As process executes, it changes state. Each process may be in one of the following states.
    a. **New**: OS is about to pick the program & convert it into process. OR the process is being created.
    b. **Run**: Instructions are being executed; CPU is allocated.
    c. **Waiting**: Waiting for IO.
    d. **Ready**: The process is in memory, waiting to be assigned to a processor.
    e. **Terminated**: The process has finished execution. PCB entry removed from process table.



2. **Process Queues:**
    a. Job Queue:
        i. Processes in new state.
        ii. Present in secondary memory.
        iii. **Job Schedular (Long term schedular (LTS))** picks process from the pool and loads them into memory for execution.
    b. Ready Queue:
        i. Processes in Ready state.
        ii. Present in main memory.
        iii. **CPU Schedular (Short-term schedular)** picks process from ready queue and dispatch it to CPU.
    c. Waiting Queue:
        i. Processes in Wait state.
3. **Degree of multi-programming**: The number of processes in the memory.
    a. **LTS** controls degree of multi-programming.
4. **Dispatcher:** The module of OS that gives control of CPU to a process selected by **STS**.

CodeHelp