CPUScheduleSimulation

+nbrOfCPU: int

+q: int

+parseProcessDataString(String s): process

+main(String[] args): void

PCB

+processState: ProcessState

+programCounter: int

+clockTimeSinceIORequest: int

+arrivalTime: int

+finishingTime: int

+firstClockTimeItIsRunning: int

+qTime: int

+cpuCore: int

+PCB(arrivalTime: int)

+PCB(p: PCB)

+clone(): PCB

Process

+PID: int

+pcb: PCB

+ioRequests: ArrayList<Integer>

+totalExecTime: int

+Process(PID: int, arrivalTime: int, ioRequests: ArrayList, totalExecTime: int)

+Process(p: Process)

+clone(): Process

+parseProcessDataString(s: String): Process

<<Enumeration>>
ProcessState

NEW

RUNNING

WAITING

READY

TERMINATED

CPUSheduler

+timeClock: int

+readyQueue: Queue<Process>

+waitQueue: Queue<Process>

+processes: ArrayList<Process>

+CPUScheduler(processes: ArrayList<Process>)

+addProcessToReadyQueue(process: Process): void

+addProcessToWaitQueue(process: Process): void

+updateWaitQueueTime(): void

+addWaitingProcessToReadyQueueOrTerminated(): void

+addArrivals(timeClock: int): void

+isAllProcessTerminated(): Boolean

+increaseCounter(currentProcesses: ArrayList<Process>): void

+executeFCFSMulti(nbrOfCPU: int): void

+executeSJF(nbrOfCPU: int): void

+executeRR(nbrOfCPU: int, q: int): void

+printInfo(currentProcesses: ArrayList<Process>, nbrOfCPU: int): void

+printCPUUtilization(processes: ArrayList<Process>, timeClock: int, nbrOfCPU: int): void

+printWaitingTime(processes: ArrayList<Process>): void

+printTurnAroundTime(processes: ArrayList<Process>): void

+printCPUResponseTime(processes: ArrayList<Process>): void