

```

package Algorithm;

import Items.Job;
import Items.Queue;

/**
 *
 *
 * "preemptive priority" works like "shortest remaining time" except
 * that the jobs in the ready queue are ordered by priority
 */
public class Priority2 extends MyAlgorithm{

    /**
     * pass the work queue to super class to initialize lists
     * @param workQueue queue of lists to be worked on
     */
    public Priority2(Queue workQueue)
    {
        super(workQueue);
    }

    /**
     * shows what happen in a single step when using this algorithm
     * @param simulationTime current time of this simulation
     * @return job the CPU was working on
     */
    @Override
    public Job nextStep (int simulationTime)
    {
        updateReadyQueue(simulationTime); // add newly arrived jobs to the ready queue
        /* return the current job to the ready queue to make sure that the job with
           higher priority will be worked first*/
        if(simulationTime!=0 && currentJob.getRemainTime() !=0) {readyQueue.addJob(currentJob); }
        if(readyQueue.size() > 1){ readyQueue.OrderByPriority();}
        if(readyQueue.isEmpty()) { return null;}
        setCurrentJob(); // move the first job in the ready queue to be the current working job
        return workInCPU(simulationTime);
    }
}

```