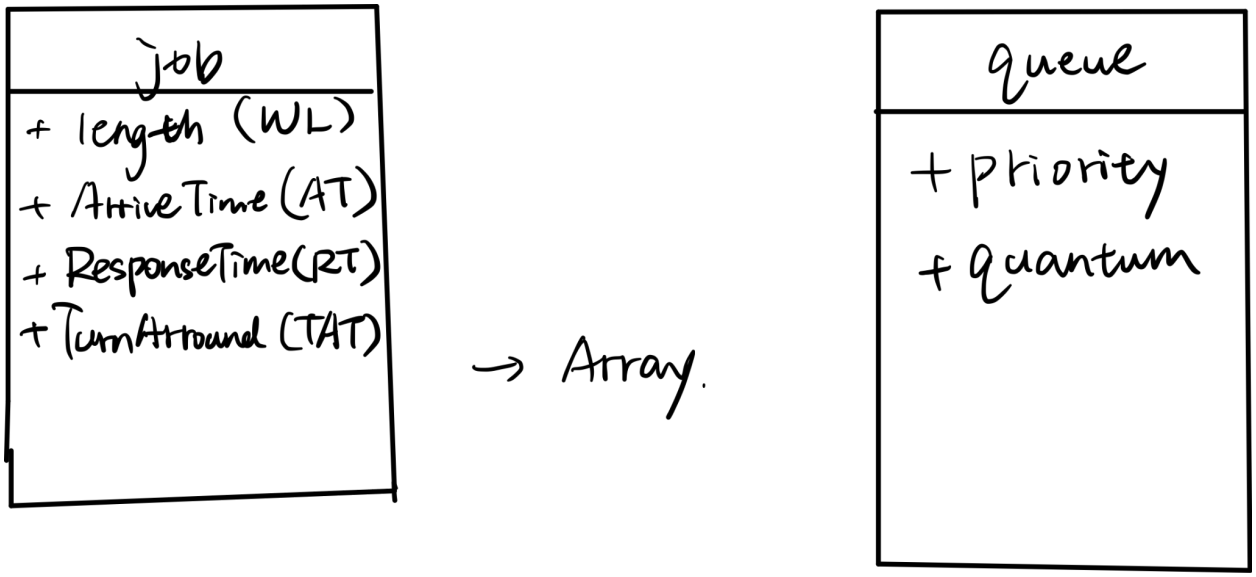
MLFQ Design —-- Tong Cui



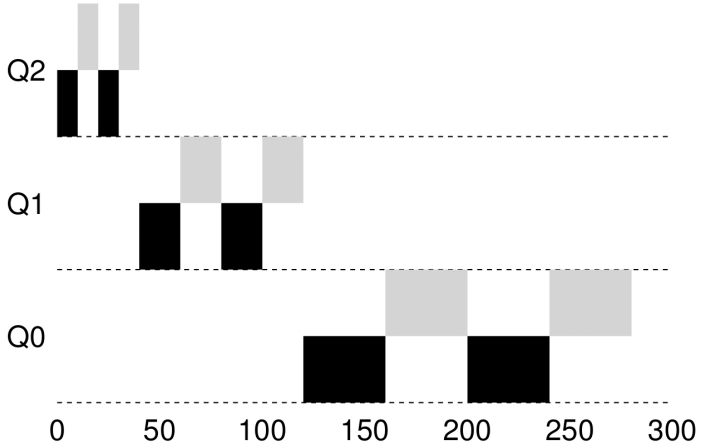


Figure 8.7: **Lower Priority, Longer Quanta**

I am going to design an MLFQ with three queues with the logic of figure 8.7. Q0 is the lowest-level queue with 20 quantum lengths. Q1 is the next with 10 quantum lengths. And Q2 is the highest-level queue with 5 quantum lengths. For the process, I would create a “job” class, with fields: length(WL), ArriveTime(AT), RespondsTime(RT), and Turnaround Time (TAT). Once the user inputs the tasks they are going to run, they need to specify the task type, Arrivetime, Response time, and work length. All of the tasks would add to Q2 first. After 5 time slices for each task, they would be moved to Q1. After 10 time slices for each, they would be moved to Q0, and run RR with 20 time slices for each until every task is done.