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Design:

Our implementation uses a linked list where each node contains a task with name, priority, and burst time. Each scheduler implements three functions: `add()` inserts tasks into the list using `malloc()` and `strdup()`, `pickNextTask()` selects which task runs next, and `schedule()` executes all tasks. For FCFS, `add()` appends tasks to the end by traversing to the last node, `pickNextTask()` returns the head task, and `schedule()` loops through executing each task for its full burst time before freeing memory. Priority scheduling searches the entire list in `pickNextTask()` to find the highest priority task. Round-Robin executes tasks for 10ms (QUANTUM), then re-queues incomplete tasks to the end. We added a tail pointer for FCFS and Round-Robin to make appending $O(1)$ instead of traversing the list each time. Memory is managed with `malloc()` for allocation and `free()` for cleanup when tasks complete.

Individual Contributions:

Christopher

- Wrote primary functionality of code
- Debugged
- Wrote report

Akeem

- Debugged
- Wrote code
- Recorded code compiling

YouTube of code

<https://youtu.be/7j0DpTA7808>