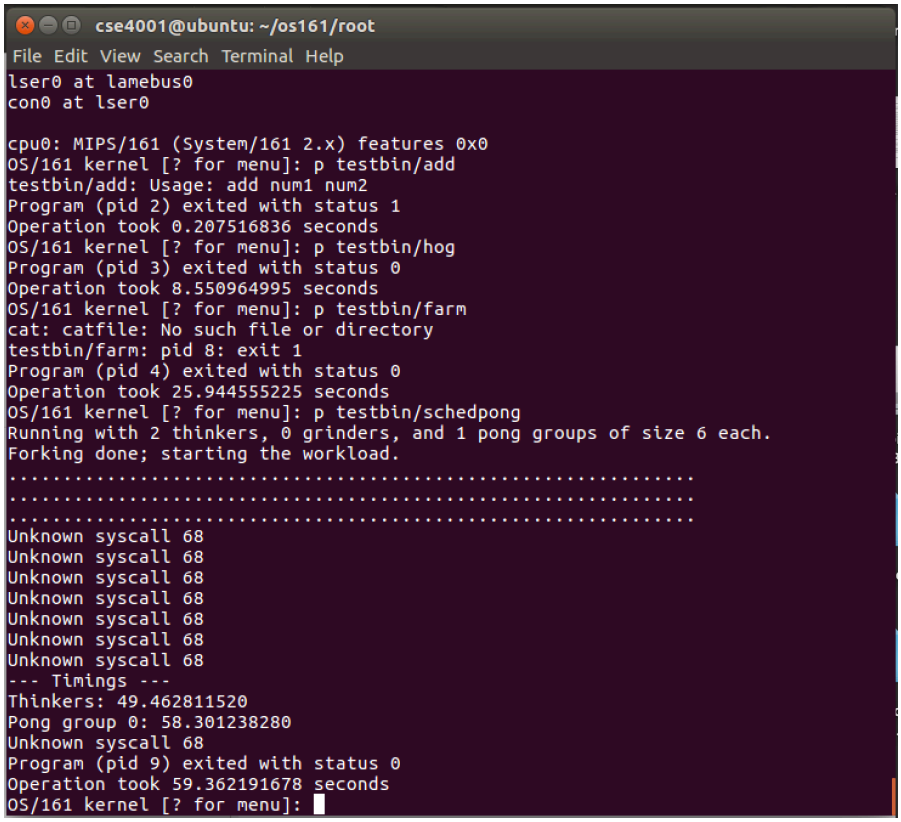
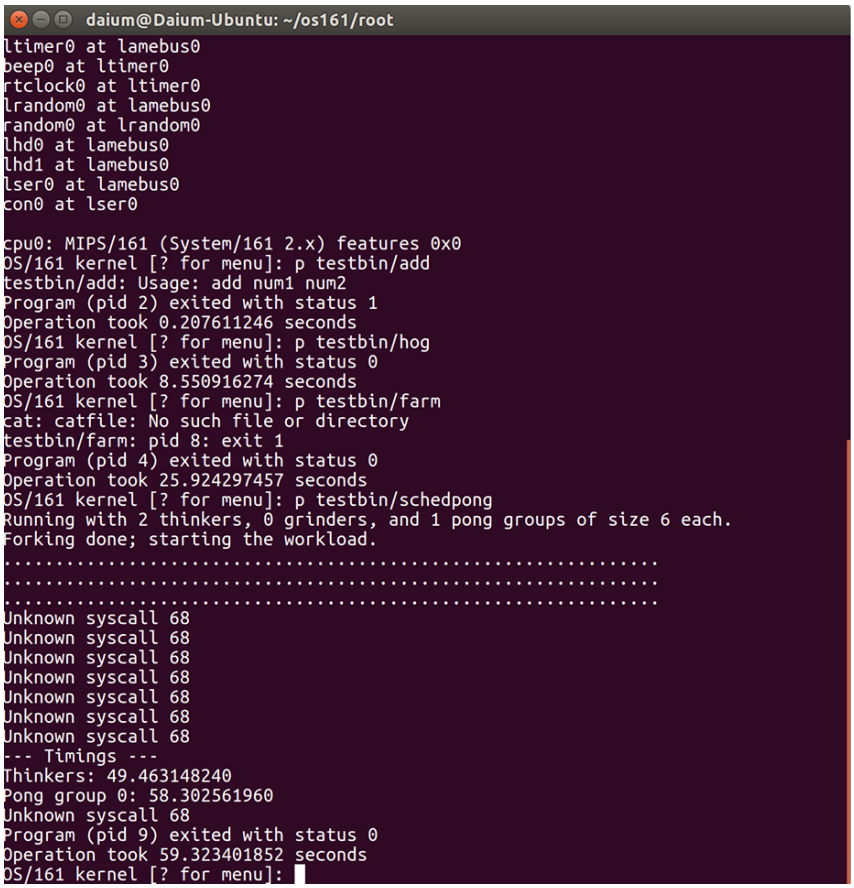
**Operating Systems Concepts**
**CSE 4001**
**Scheduler Assignment**
**Team Members:**

- **Design**: Explain how your scheduler works (e.g., diagrams) and under what conditions it performs better (or worse) than the other scheduling algorithm(s).
    - *We decided to use a First-In-First-Out Scheduler, it can handle basic scheduling, but does not necessarily beat the average response time of the Round Robin Scheduler. Round robin scheduling actually is not a great when majority of the tasks are of the same length.*
- **Implementation**: Specify what information you need to maintain to implement your scheduler, what data structures you used.
    - *We used a simple queue as a data structure, which includes a First-In-First-Out (FIFO) discipline, while scheduling and allocating CPU usage to certain tasks.*
- **Benchmark**: for each of the programs in `testbin/` (i.e., `add`, `hog`, `farm`, `schedpong`) add a picture where you compare the execution of the default scheduler (i.e. round robin) versus your scheduler.
    - When comparing our scheduler to the round robin scheduler we discovered that the round robin scheduler was better than our First-In-First-Out scheduler four 3 out of the four test samples. As seen below in the benchmarks we see that the FIFO scheduler is better only for one test case (add) otherwise the Round-Robin scheduler seems to complete the rest of the test samples within a smaller Average response time. Even though the difference between both schedulers is minuscule we see a small difference between the two in the decimals, but when it comes to scheduling tasks to the CPU at a much larger scale these minuscule time differences make a bigger impact.




## First In First Out (FIFO)




## Round-Robin Scheduler