**CS5250 – Advanced Operating Systems**

**Assignment 4**

AY2018/2019 Semester 2

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**[Assignment Answer]**

**Part A:**

1. **Simulator**

All the simulators code are in the following github address.

<https://github.com/SHIJINGLI0206/CS5250-CA4>

The input for 4 simulator is as below.

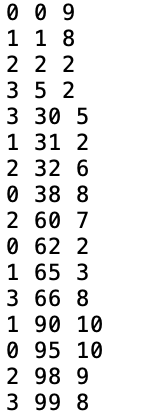


Figure 1. input for simulator

The output of 4 simulator is as below table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scheduling**  **Algorithm** | FCFS | RR(Q=2) | SRTF | SJF(a=0.5, T1=5) |
| **Output** |  |  |  |  |
| **AVG Waiting Time** | 6.44 | 8.56 | 4 | 7.12 |

1. **Created Simulator**

**Part B: Spin Lock**

The implemented code of spin shows in figure 1.

Assumptions:

1. All threads id will be greater than 0.
2. The spin lock will not used within interrupt handler.
3. The spin lock holder will not be delayed.

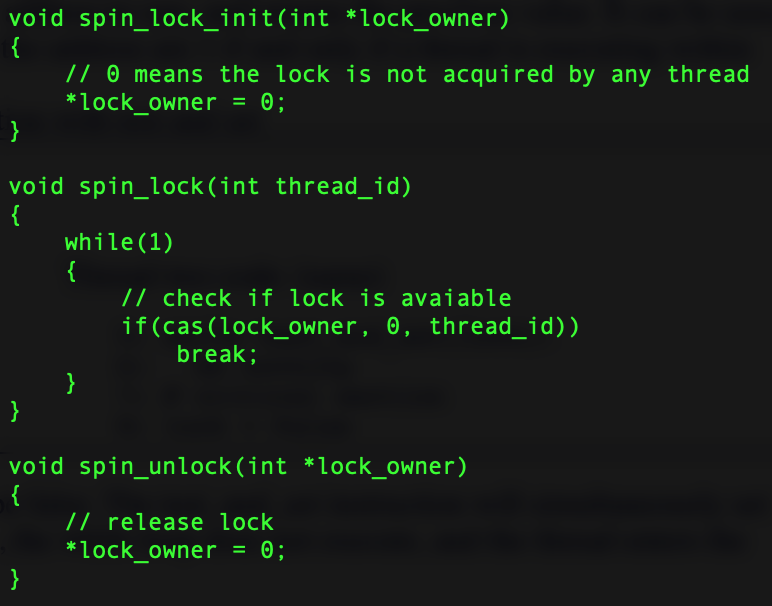


figure 1. spin lock