CSE344 – System Programming

Homeowork 4 Report

1) How Did I Solve This Problem?

In this homework, I checked the first command line arguments. To satisfy the requirements I used to getopt function. Thanks to getopt function I got arguments in the proper way and I got the command line arguments. After the get N, C and filepath, I checked the input file whether is proper to arguments or not. I used the two system V semaphores to hold material 1 and material 2. I initialize them as 0 using semcntl function. After that I create consumer threads and supplier thread. I use join for consumer threads and detached the supplier thread as it mentioned in homework pdf. I create several function to post, wait and read semaphores values. I use them to satisfy the synchronization.

2) My Design Decisions

I use error check first mechanism.

I use two System V semaphores.

3) Requirements That I Achived

I think I achieved almost all the requirements. However, I may not have been able to achieve some requirements. (If the input file has 1 line there must be an empty line after that line)

My Files

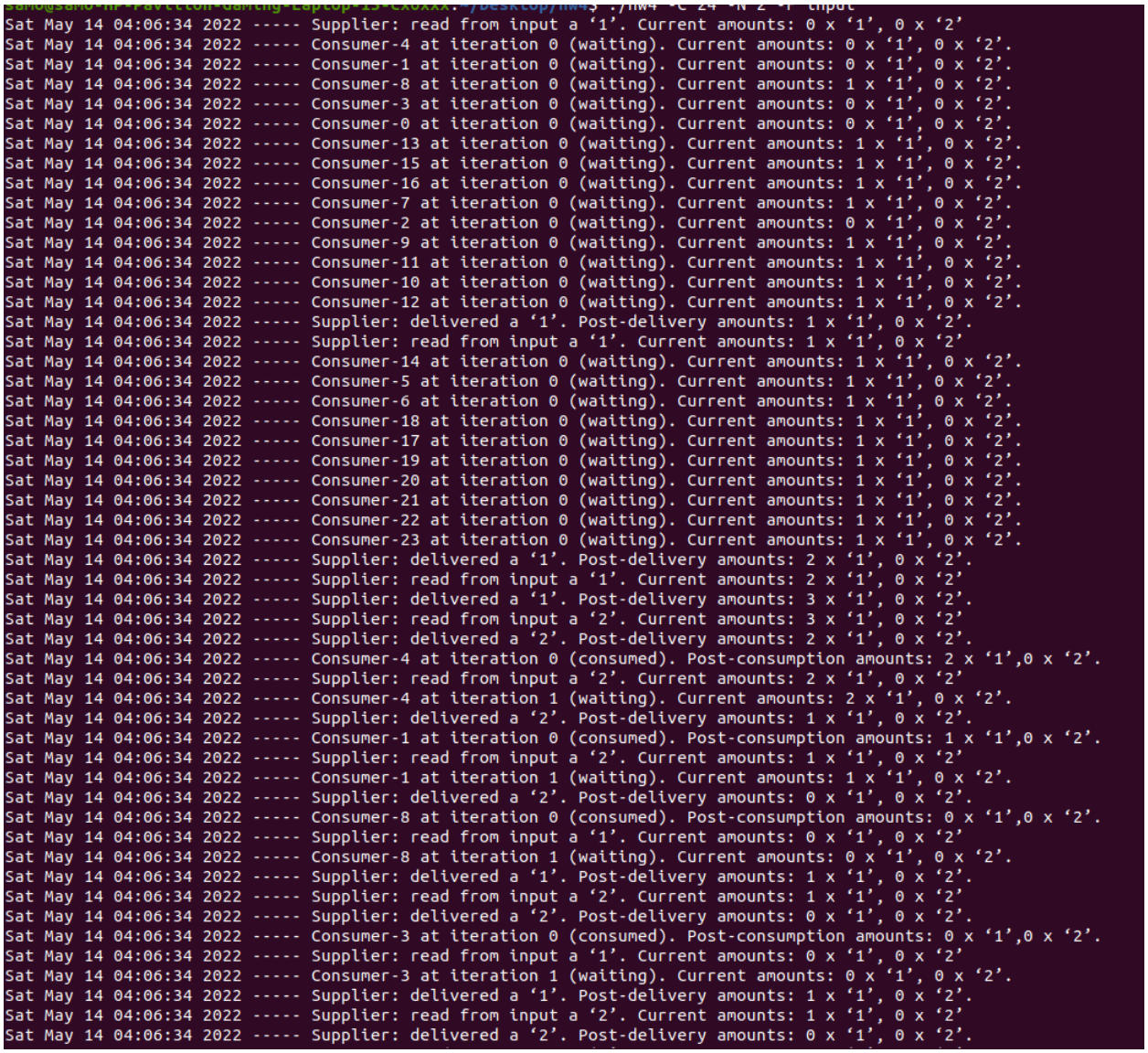
Makefile - The makefile.

hw4.c - Implementation with named semaphores.

4) Some Outputs From Program

```
1  1112221212121112221212121112
2
3  2212121211122212121
4    1112221212121112221212121112221212121112221212121
```

Image 1: Input File



....

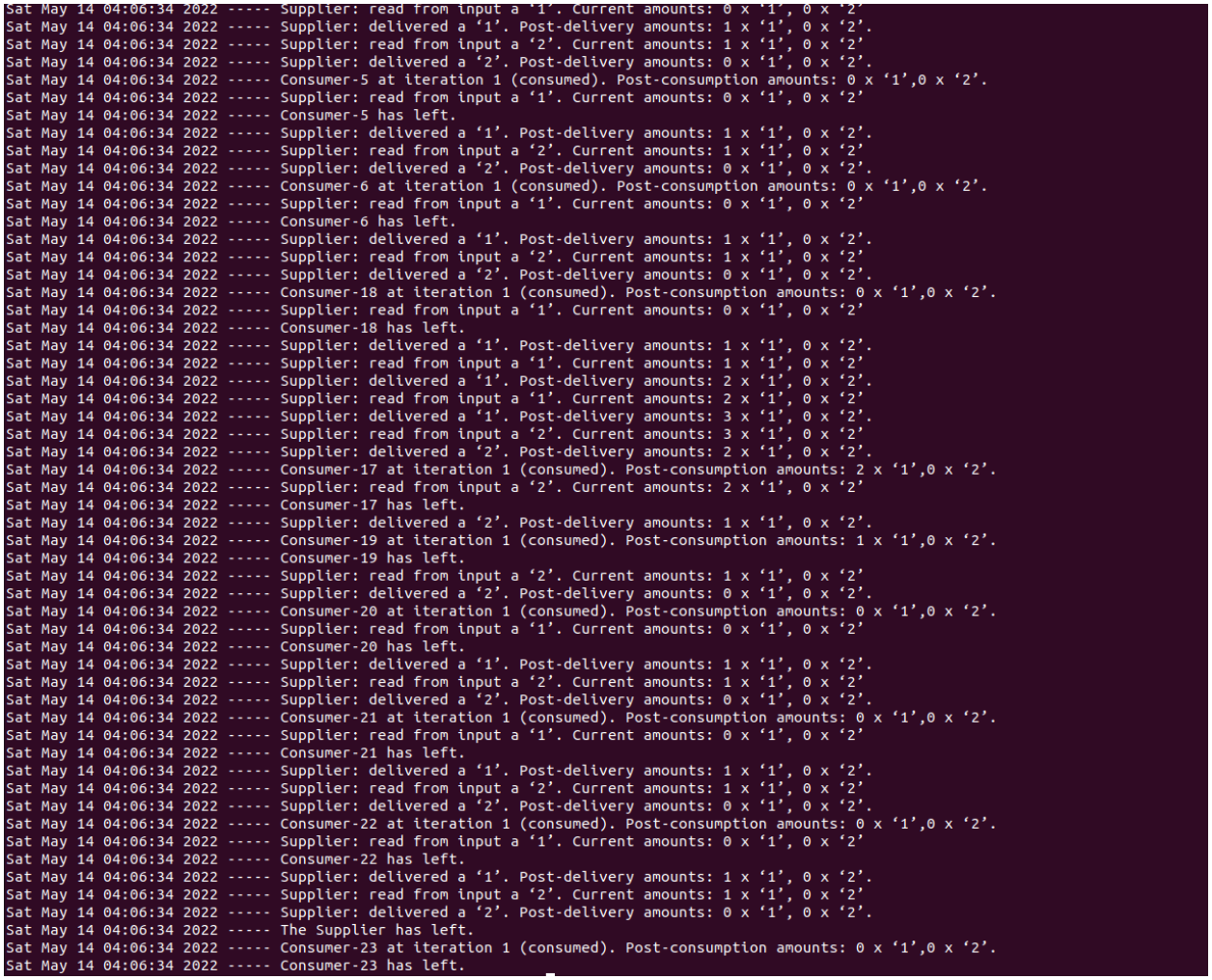


Image 2: Output of hw4