GEBZE TECHNICAL UNIVERSITY
COMPUTER ENGINEERING

SYSTEM PROGRAMMING LECTURE

HOMEWORK 4

REPORT 4

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Design Decisions and Problem Solved Part:

File is running without the \n ' at the end.

First I initialized the semephores. Then I created my threads. I created the supplier's thread as deteched. Consumer's threads are not deteched. Then I waited for the Consumer threads to finish with join. Then I deleted the semephores and threads. I exited. Inside the supplier thread, I increased the semephores with the values I read from the File. I flocked it while printing to the terminal. I also reduced the semephores in the Consumer Thread. If the semephore value is 0, the semephore is blocked. Thus, when the material arrived, it worked. Then, each consumer returned N times, consumed, finished his work and left. When the sigint came, I closed the file and deleted the threads. I did memory free. And exited.

Which requirements I achieved:

Threads created successfully. The expected actions have been taken. And it's out. Synchronization achieved. Only 2 semephores were used. Flocked while writing to STDOUT. Consumers consumed it. And the transaction is finished.

Which requirements I failed:

I followed the requirements in the pdf one by one and I think that I am not missing anything.

When I use Valgrind, sometimes 1 block memory leak happens, sometimes it doesn't, I couldn't understand why.