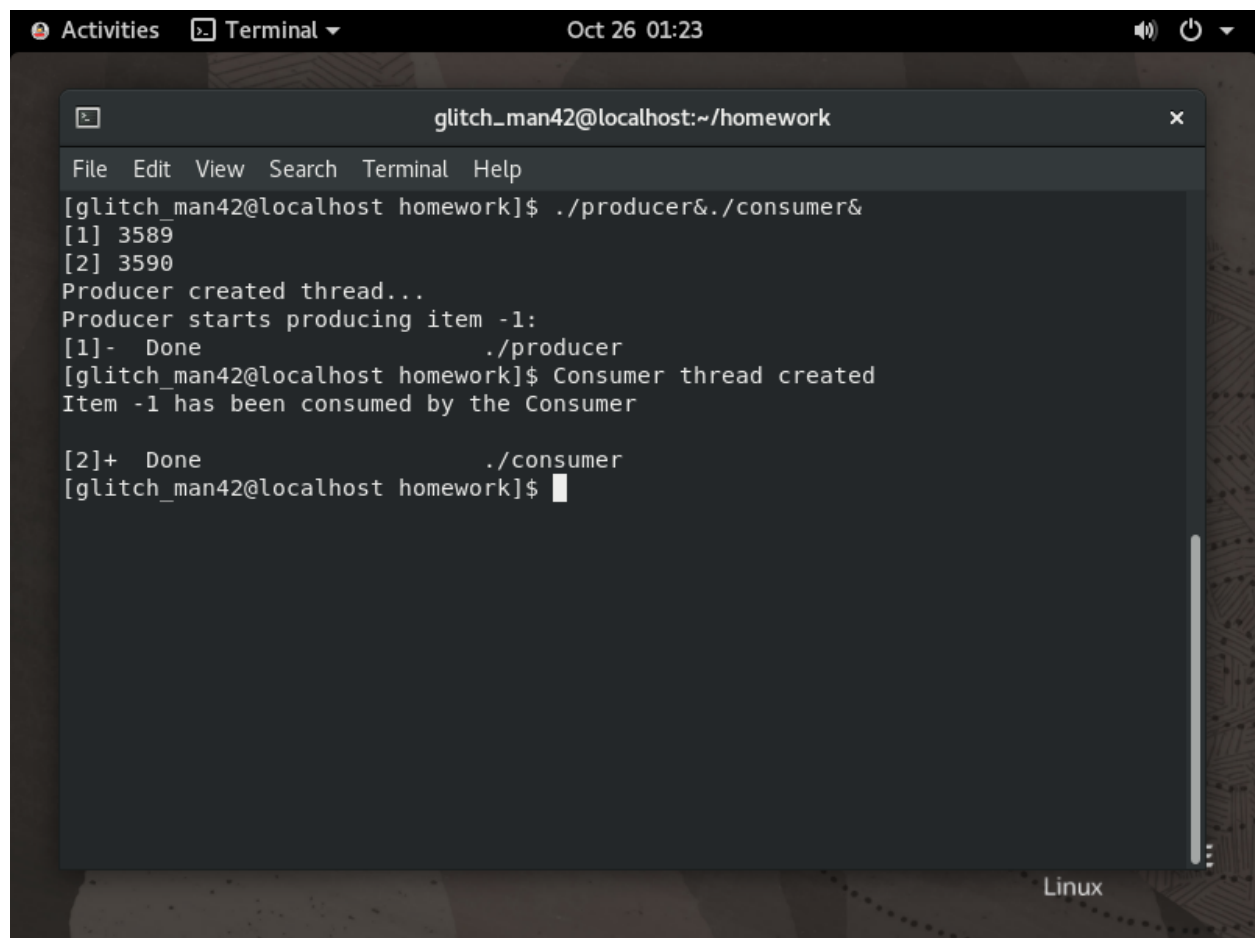


The Producer-Consumer problem is at the core of what we are trying to solve in this program. The two programs are named accordingly. The producer is named Producer, the consumer, Consumer. There is an external file named external.h, containing global variables and inclusion statements. Pthreads, semaphores, and mutual exclusion (mutex) as ways to accomplish our goal. Both the producer and consumer are running at the same time.

There are several problems within my implementation. First of all there is a semaphore-wait until the buffer is empty, but for some reason it doesn't work and the semaphore never is empty, so it is always waiting. The item produced by the producer is called item -1, which doesn't make sense. The consumer can end, but for some reason only when I press enter does it finish. There is room for improvement, but honestly I am not skillful enough.

Here is a real time showing of the program



```
Oct 26 01:23
glitch_man42@localhost:~/homework
File Edit View Search Terminal Help
[glitch_man42@localhost homework]$ ./producer&./consumer&
[1] 3589
[2] 3590
Producer created thread...
Producer starts producing item -1:
[1]- Done ./producer
[glitch_man42@localhost homework]$ Consumer thread created
Item -1 has been consumed by the Consumer

[2]+ Done ./consumer
[glitch_man42@localhost homework]$
```