

Readme

Contents of the mail :

program.c - source code

output.txt - output file

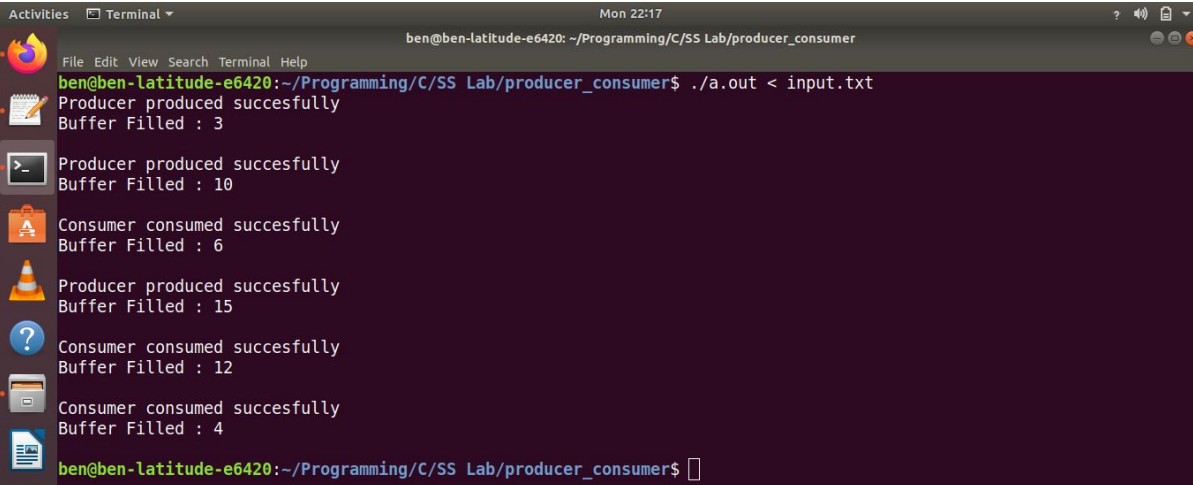
input.txt - input file

Procedure :

1. Compile the program and run it using the commands :
gcc program.c -lpthread
./a.out < input.txt
2. Inputs are taken from the file input.txt. Input format :
The first line is a number denoting total buffer size
Second line is a number denoting no of production rates (let it be n)
Next line has n numbers which are production rates
Next line is a number denoting no of consumption rates (let it be m)
Next line has m numbers which are consumption rates
3. Output is seen in the console, and also written into output.txt.
The output gives us a result from either of the 2 threads. Either the production function or the consumer function is run which is decided by semaphores. The order may vary every time the program is run.

Screenshots :

The program is run 3 times, each producing different results.



```
ben@ben-latitude-e6420: ~/Programming/C/SS Lab/producer_consumer
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$ ./a.out < input.txt
Producer produced successfully
Buffer Filled : 3
Producer produced successfully
Buffer Filled : 10
Consumer consumed successfully
Buffer Filled : 6
Producer produced successfully
Buffer Filled : 15
Consumer consumed successfully
Buffer Filled : 12
Consumer consumed successfully
Buffer Filled : 4
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$
```

```
Activities Terminal Mon 22:16
ben@ben-latitude-e6420: ~/Programming/C/SS Lab/producer_consumer
File Edit View Search Terminal Help
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$ ./a.out < input.txt
Consumer cannot consume
Producer produced succesfully
Buffer Filled : 3
Consumer cannot consume
Producer produced succesfully
Buffer Filled : 10
Consumer consumed succesfully
Buffer Filled : 6
Producer produced succesfully
Buffer Filled : 15
Consumer consumed succesfully
Buffer Filled : 12
Consumer consumed succesfully
Buffer Filled : 4
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$
```

```
Activities Terminal Mon 22:15
ben@ben-latitude-e6420: ~/Programming/C/SS Lab/producer_consumer
File Edit View Search Terminal Help
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$ gcc program.c -lpthread
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$ ./a.out < input.txt
Producer produced succesfully
Buffer Filled : 3
Consumer cannot consume
Producer produced succesfully
Buffer Filled : 10
Producer produced succesfully
Buffer Filled : 19
Consumer consumed succesfully
Buffer Filled : 15
Consumer consumed succesfully
Buffer Filled : 12
Consumer consumed succesfully
Buffer Filled : 4
ben@ben-latitude-e6420:~/Programming/C/SS Lab/producer_consumer$
```