CSE 344
HOMEWORK 4
REPORT

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Supplier Thread:

Opens the input file. Then, reads the input file and increases the desired semaphore according to input. There are 2 types semaphores (1 and 2). Dies after there is no input left. Also, if SIGUSR1 signal occurs, it breaks the loop that it uses for reading, closes the input file and thread dies.

Consumer Thread:

Waits to get both 1 and 2 semaphores at the same
time. If SIGUSR1 signal occurs, it breaks the loop and thread dies.

NOTES:

* I used setbuf(stdout, NULL) in order to printf without buffering. It sets stdout buffer to NULL.

* Before each print Timestamp is calculated. During print timestamp is also printed.

* If SIGINT signal occurs, the process handles it and sends SIGUSR1 signal to threads. If SIGINT signal doesn't occur, process waits for threads to end. Then, it removes semaphores and frees the dynamically allocates variables.

* pthread_join function doesn't end after SIGINT signal occurs. So, it sends SIGUSR1 to the threads in order to end threads and do the necessary stuff.

* You need to type:
Example: ./hw4 -C 10 -N 5 -F inputfilePath to test my homework.

10 and 5 are just numbers. They can be any numbers. It depends on you. inputfilePath is the location of the input file.