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**CST-221**

**CST-221 Producer and Consumer**

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**Git hub Link:** https://github.com/FREDDYSMALLZ/Operating-Systems-Concepts-CST-221.git

**Producer and Consumer**

In this project assignment we are required to demonstrate the ability to create and manage processes and threads. The ***producer*** is simply creating numbers, which are “passed” to the ***Consumer*** in a static buffer. The task is to implement the ***put()*** and ***get()*** functions. Each function will use a buffer (implemented as a word). The main aim is to ensure that the ***producer*** is always ahead of the c***onsumer*** and the ***consumer*** does not have to wait.

**Explanation and approach**

**The producer** thread calls ***produce()*** method which generates a random number and places it into the buffer using the ***put()*** function (The put() function is member of stream class. It is used to write single character into file). The put function then causes the thread to sleep if the buffer is working on some process and later generates or uses the ***wakeup*** call to be used by the consumer. On the other hand, ***the consumer*** then calls a ***get()*** function to get the already saved item from the buffer already put by the producer put() function. Most importantly, if the buffer is empty, the ***sleep*** function is used. Once the producer puts something in the buffer, the consumer function is called to write the number generated to the console.

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**Problem and Errors**

I could not get to print the file as expected but I am hoping to complete this task in the next class assignment. I will have to revisit the core program execution functions as well as the producer and consumer call functions.

References

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Tim. (2010). Pthreads in C – a minimal working example. Retrieved from http://timmurphy.org/2010/05/04/pthreads-in-c-a-minimal-working-example/