

Q: Is there a recommended data structure for us to use for our Broker? should we just use a queue and take FIFO

A: a queue would be good

Q: Since there is no actual input file of incoming trade requests, are we to randomly select which type of trade request enters the queue at the beginning of the program (either BTC or ETH)?

If this is the case, I have a follow-up question. Upon calling 'log\_request\_added()', will RequestType be randomly chosen between 0 and 1? Same case for ConsumerType?

Thanks.

A: The trade requests aren't exactly random, but they **are** nondeterministic. The crypto that is produced is dependent on the production time (ie. how long the sleep call takes), the CPU scheduler, how many other processes are accessing the critical section, etc.

The initial logic is that you create all 4 threads (2 producers, 2 consumers) at the same time. Both producers immediately simulate production using a sleep() call. As soon as the sleep() call is done for a producer, they should try and add it to the queue. If there's space on the queue, they should start producing on another item.

Note: Be sure to use a mutex to access to the queue since queues are not thread safe.