

Exercise – Peeling and eating carrots



Version 1

Use a `BlockingQueue` from the previous exercise as part of a system simulating one person peeling carrots for many hungry carrot eaters. The carrot peeler keep on peeling carrots until there are 20 carrots ready to eat, in which case the carrot peeler waits. The hungry carrot eaters keep on eating carrots and only wait if there are no carrots to eat.

Make a simple class `Carrot` to put into and take from the `BlockingQueue`, two thread classes, one for carrot peeler and one for eater (define suitable sleeping time to simulate peeling time and eating time) and make a `main` method in which you create the queue, one carrot peeler and a lot of eaters .

Version 2

Re-implement the system with the carrot peeler peeling carrots until there are 20 carrots ready to eat in which case the carrot peeler waits but *this time the carrot peeler waits until there are less than or equal to 4 carrots before starting to peel again*. The hungry carrot eaters still keep on eating carrots and only wait if there are no carrots to eat.

This time, do not use the `BlockingQueue`, but implement a `Monitor` class with a `Queue` (not a thread safe queue). The monitor class has a method `peel` and a method `eat`. Figure out parameters and return types and implement the system (the `Monitor` class, the two thread classes and a main method creating monitor and threads and starting the simulation)