

Assignment P2

We have used the following Java mechanisms to implement the producer/consumer model.

- Thread. Used as a superclass for Doorman and Barber in order to make instances of these classes run as threads. We override the *run()* method which is called when the threads are started.
- Synchronized. This keyword prevents multiple threads from accessing the same code block at the same time. E.g. prevents several Barbers from attempting to take customers from the queue at the same time.
- Condition/Lock. Condition variables are used to allow threads to suspend until notified by another thread that some condition have been fulfilled. E.g. the Barber threads may suspend, i.e. call *wait()*, and be waked up by the Doorman thread when the condition *notEmpty* is fulfilled. The condition variables must be created from a Lock object.