Question 1: **In the absence of synchronization, why does this happen? What sequence of events is occurring that causes these errors to be raised?**

Because of we have four MiddleMans working with common resourse as generalPurposeQueue we need to synchronize their access to the common resource. Otherwise we get uncontrolled access in which several threads can try to remove the last element from generalPurposeQueue at the same time.

Question 2: **Even though the block isn’t synchronized, and even though the queue is a regular LinkedList that doesn’t support concurrency protection, why is there never a situation where the MAX\_QUEUE\_SIZE constraint is violated?**

We have only one Producer, which means there is no uncontrolled access to the MAX\_QUEUE\_SIZE variable.

Question 3: **Write code to fix these overflows. You may NOT change the DELAY timings to do so, which influences the rate at which data is produced or consumed on the queues. Explain why your modifications work.**

The program has four MiddleMans the each two of it works with the common resourse queue. Also the program has the consumers working with the same queues. So we need to synchronize operation of checking the queues size. Otherwise there is a possible when two MiddleMans get true when the common queue size 9 is lesser than 10.