```
semaphore mutex = 1; //controls access to c.r.
semaphore items = 0:
semaphore spaces = BUFFER SIZE;
void producer() {
                              void consumer() {
  while (true) {
                                while (true) {
    item = produceItem();
                                  down(items);
    down(spaces);
                                  down(mutex):
    down(mutex);
                                  item = rmFromBuffer():
    putIntoBuffer(item);
                                  up(mutex);
    up(mutex);
                                  up(spaces);
    up(items);
                                  consumeItem(item);
```