

```
1 semaphore mutex = 1; //controls access to c.r.
2 semaphore items = 0;
3 semaphore spaces = BUFFER_SIZE;
```

```
1 void producer() {
2     while (true) {
3         item = produceItem();
4         down(spaces);
5         down(mutex);
6         putIntoBuffer(item);
7         up(mutex);
8         up(items);
9     }
10 }
```

```
1 void consumer() {
2     while (true) {
3         down(items);
4         down(mutex);
5         item = rmFromBuffer();
6         up(mutex);
7         up(spaces);
8         consumeItem(item);
9     }
10 }
```