Readers and Writers: Monitor Solution

Variables:

```c
lock_lock;
Condvar readers CV; int readers = 0;
Condvar writers CV; int writers = 0;

write()
{
    lock->acquire()
    writers ++
    while (writers > 0)
    {
        writers CV->wait();
    }
    write
    {
        writers CV->broadcast();
        readers CV->signal();
    }
    lock->release
}
```

```c
read()
{
    lock->acquire()
    while (writers > 0)
    {
        writers CV->wait();
        reader ++;
        lock->release
    }
    
    lock->acquire()
    readers CV->signal();
    lock->release
}
```