

```

23  class ReadLock implements Lock {
24      public void lock() {
25          lock.lock();
26          try {
27              while (writer)
28                  condition.await();
29              readers++;
30          } finally {
31              lock.unlock();
32          }
33      }
34      public void unlock() {
35          lock.lock();
36          try {
37              readers--;
38              if (readers == 0)
39                  condition.signalAll();
40          } finally {
41              lock.unlock();
42          }
43      }
44  }
45  protected class WriteLock implements Lock {
46      public void lock() {
47          lock.lock();
48          try {
49              while (readers > 0 || writer)
50                  condition.await();
51              writer = true;
52          } finally {
53              lock.unlock();
54          }
55      }
56      public void unlock() {
57          lock.lock();
58          try {
59              writer = false;
60              condition.signalAll();
61          } finally {
62              lock.unlock();
63          }
64      }
65  }

```

FIGURE 8.8 The SimpleReadWriteLock class: the inner read and write locks classes.