

```
17  private static enum Status {EMPTY, AVAILABLE, BUSY};  
18  private static class HeapNode<S> {  
19      Status tag;  
20      int score;  
21      S item;  
22      int owner;  
23      Lock lock;  
24      public void init(S myItem, int myScore) {  
25          item = myItem;  
26          score = myScore;  
27          tag = Status.BUSY;  
28          owner = ThreadID.get();  
29      }  
30      public HeapNode() {  
31          tag = Status.EMPTY;  
32          lock = new ReentrantLock();  
33      }  
34      public void lock() {lock.lock();}  
35      ... // other methods omitted  
36  }
```

FIGURE 15.9 The FineGrainedHeap class: inner HeapNode class.