```java
public class FineGrainedHeap<T> implements PQueue<T> {
    private static int ROOT = 1;
    private static int NO_ONE = -1;
    private Lock heapLock;
    int next;
    HeapNode<T>[] heap;
    public FineGrainedHeap(int capacity) {
        heapLock = new ReentrantLock();
        next = ROOT;
        heap = (HeapNode<T>[]) new HeapNode[capacity + 1];
        for (int i = 0; i < capacity + 1; i++) {
            heap[i] = new HeapNode<T>();
        }
    }
    ...
}
```

FIGURE 15.8 The FineGrainedHeap class: fields.