

```
1 public boolean add(T item) {
2     int key = item.hashCode();
3     while (true) {
4         Node pred = head;
5         Node curr = pred.next;
6         while (curr.key < key) {
7             pred = curr; curr = curr.next;
8         }
9         pred.lock();
10        try {
11            curr.lock();
12            try {
13                if (validate(pred, curr)) {
14                    if (curr.key == key) {
15                        return false;
16                    } else {
17                        Node node = new Node(item);
18                        node.next = curr;
19                        pred.next = node;
20                        return true;
21                    }
22                }
23            } finally {
24                curr.unlock();
25            }
26        } finally {
27            pred.unlock();
28        }
29    }
30 }
```

FIGURE 9.11 The OptimisticList class: the add() method traverses the list ignoring locks, acquires locks, and validates before adding the new node.