

```

1  public class LockFreeStack<T> {
2      AtomicReference<Node> top = new AtomicReference<Node>(null);
3      static final int MIN_DELAY = ...;
4      static final int MAX_DELAY = ...;
5      Backoff backoff = new Backoff(MIN_DELAY, MAX_DELAY);
6
7      protected boolean tryPush(Node node) {
8          Node oldTop = top.get();
9          node.next = oldTop;
10         return(top.compareAndSet(oldTop, node));
11     }
12     public void push(T value) {
13         Node node = new Node(value);
14         while (true) {
15             if (tryPush(node)) {
16                 return;
17             } else {
18                 backoff.backoff();
19             }
20         }
21     }
22     ...
23 }

```

**FIGURE 11.2** The LockFreeStack<T> class: In the push() method, threads alternate between trying to alter the top reference by calling tryPush(), and backing off using the Backoff class from Fig. 7.5.