

```
1 public class AGMStack<T> {
2     AtomicReferenceArray<T> items;
3     AtomicInteger top;
4     static final int CAPACITY = Integer.MAX_VALUE;
5
6     public AGMStack() {
7         items = new AtomicReferenceArray<T>(CAPACITY);
8         top = new AtomicInteger(0);
9     }
10    public void push(T x) {
11        int i = top.getAndIncrement();
12        items.set(i,x);
13    }
14    public T pop() {
15        int range = top.get();
16        for (int i = range - 1; i > -1; i--) {
17            T value = items.getAndSet(i, null);
18            if (value != null) {
19                return value;
20            }
21        }
22        // Return Empty.
23        return null;
24    }
25 }
```

FIGURE 3.15 Afek–Gafni–Morrison stack for Exercise 3.11.