

```

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.