```java
1 package components.WaitingLine;
2
3 import components.queue.Queue;
4 import components.standard.Standard;
5
6 /**
7  * First-in-first-out (FIFO) WaitingLine kernel component with
   primary methods.
8  *
9  * @param <T>
10  *            type of {@code QueueKernel} entries
11  * @mathmodel type WaitingLineKernal is modeled by string of T
12  * @initially {@code
13  * ():
14  *   ensures
15  *     this = <>
16  * }
17  * @iterator ~this.seen * ~this.unseen = this
18  */
19 public interface WaitingLineKernal<T> extends Standard<Queue<T>>,
   Iterable<T> {
20
21     /**
22      * Adds unique {@code x} to the end of {@code this}.
23      *
24      * @param x
25      *            the entry to be added
26      * @aliases reference {@code x}
27      * @updates this
28      * @ensures {@code this = #this * <x>}
29      */
30     void add1(T x);
31
32     /**
33      * Removes and returns the entry at the front of {@code this}.
34      *
35      * @return the entry removed
36      * @updates this
37      * @requires {@code this /= <>}
38      * @ensures {@code #this = <dequeue> * this}
39      */
40     T seat1();
41
42     /**
43      * Reports length of {@code this}.
```

```java
44        *
45        * @return the length of {@code this}
46        * @ensures length = |this|
47        */
48     int length();
49
50 }
51
```