

```
1
2 import components.queue.Queue;
3
4 /**
5  * {@code Queue} represented as a {@code Sequence} of entries, with
6  * implementations of primary methods.
7  *
8  * @param <T>
9  *         type of {@code Queue} entries
10 * @correspondence this = $this.entries
11 */
12 public class HelloWorld {
13
14     /**
15      * Finds {@code x} in {@code q} and, if such exists, moves it
16      * to the front
17      * of {@code q}.
18      *
19      * @param <T>
20      *         type of {@code Queue} entries
21      * @param q
22      *         the {@code Queue} to be searched
23      * @param x
24      *         the entry to be searched for
25      * @updates q
26      * @ensures <pre>
27      *   perms(q, #q) and
28      *   if <x> is substring of q
29      *   then <x> is prefix of q
30      * </pre>
31      */
32     private static <T> void moveToFront(Queue<T> q, T x) {
33         boolean included = false;
34         int i = 0;
35         while (i < q.length()) {
36             T temp = q.dequeue();
37             if (x != temp) {
38                 q.enqueue(temp);
39             } else {
40                 included = true;
41             }
42             i++;
43         }
44         if (included) {
```

```
44         Queue<T> temp = q.newInstance();
45         temp.enqueue(x);
46         temp.append(q);
47         q.transferFrom(temp);
48     }
49 }
50 }
51 }
```