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

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43         } else {
44             temp.enqueue(tempPair);
45         }
46         i++;
47     }
48
49     temp.append(q);
50     q.transferFrom(temp);
51
52 }
53 }
```