```java
 1
 2 /**
 3  * {@code Queue} represented as a {@code Sequence} of entries, with
 4  * implementations of primary methods.
 5  *
 6  * @param <T>
 7  *            type of {@code Queue} entries
 8  * @correspondence this = $this.entries
 9  */
10
11 import components.map.Map;
12 import components.map.Map1L;
13
14 /**
15  * Implementation of {@code EmailAccount}.
16  *
17  * @author Put your name here
18  *
19  */
20 public final class EmailAccount1 implements EmailAccount {
21
22     /*
23      * Private members
   ------------------------------------------------------------
24      */
25
26     String firstName;
27     String lastName;
28     String address;
29     static Map<String, Integer> map = new Map1L<>();
30
31     /*
32      * Constructor
   ------------------------------------------------------------
33      */
34
35     /**
36      * Constructor.
37      *
38      * @param firstName
39      *            the first name
40      * @param lastName
41      *            the last name
42      */
```

```java
43      public EmailAccount1(String firstName, String lastName) {
44
45          this.firstName = firstName;
46          this.lastName = lastName;
47          if (map.hasKey(lastName.toLowerCase())) {
48              Integer n = map.value(lastName.toLowerCase());
49              n = n + 1;
50              this.address = lastName.toLowerCase() + "." + n
51                      + "@buckeyemail.osu.edu";
52              map.replaceValue(lastName.toLowerCase(), n);
53          } else {
54              map.add(lastName.toLowerCase(), 1);
55              this.address = lastName.toLowerCase() +
    ".1@buckeyemail.osu.edu";
56          }
57      }
58
59      /*
60       * Methods
    --------------------------------------------------------------------
61       */
62
63      @Override
64      public String name() {
65
66          String fullName = this.firstName + " " + this.lastName;
67          return fullName;
68      }
69
70      @Override
71      public String emailAddress() {
72
73          return this.address;
74      }
75
76      @Override
77      public String toString() {
78
79          String str = "Name: " + this.firstName + " " +
    this.lastName
80                  + ", Email: " + this.address;
81          return str;
82      }
83
```

```
84 }
85
```