```java
1  package proj5;
2  import org.junit.After;
3  import org.junit.Before;
4  import org.junit.Rule;
5  import org.junit.Test;
6  import org.junit.rules.Timeout;
7  import static org.junit.Assert.*;
8
9  /**
10  * test the functionality of Counter.java and
    WordCounter.java
11  * author: Son Nguyen (Kyrie)
12  * version: 6/3/2020
13  */
14  public class WordCounterTest {
15
16     @Rule // a test will fail if it takes longer than
    1/10 of a second to run
17     public Timeout timeout = Timeout.millis(100);
18
19     private WordCounter wc;
20
21     @Before
22     public void setUp() throws Exception {
23         wc = new WordCounter();
24     }
25
26     @After
27     public void tearDown() throws Exception {
28         wc = null;
29     }
30
31     @Test // string representation of word counter
32     public void testToString(){
33         assertEquals("", wc.toString());
34         wc.findFrequencies("src/nonsense.txt");
35         String expected = "have: 1\n" +
36                 "hi: 6\n" +
37                 "if: 1\n" +
38                 "line: 1\n" +
39                 "probably: 1\n" +
40                 "reading: 1\n" +
41                 "seconds: 1\n" +
42                 "spend: 1\n" +
```

```
43                        "this: 1\n" +
44                        "three: 1\n" +
45                        "time: 1\n" +
46                        "wasted: 1\n" +
47                        "you: 2\n";
48            assertEquals(expected, wc.toString());
49        }
50
51        @Test // get frequency of a word
52        public void testGetFrequency() {
53            wc.findFrequencies("src/nonsense.txt");
54            assertEquals(6, wc.getFrequency("hi"));
55            assertEquals(2, wc.getFrequency("you"));
56            assertEquals(1, wc.getFrequency("three"));
57            assertEquals(0, wc.getFrequency("iPhone"));
58        }
59 }
60
```