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1 package proj5;
2 import org.junit.Rule;
3 import org.junit.Test;
4 import org.junit.rules.Timeout;
5 import static org.junit.Assert.*;
6
7 /**
8  * test the functionality of Synonym.java,
9  * SynonymsList.java,
10 * and Thesaurus.java since all methods in Synonym.
11 * java and
12 * SynonymsList.java are used in Thesaurus.java
13 * author: Son Nguyen (Kyrie)
14 * version: 6/3/2020
15 */
16 public class ThesaurusTest {
17     @Rule // a test will fail if it takes longer than
18     // 1/10 of a second to run
19     public Timeout timeout = Timeout.millis(100);
20
21     private Thesaurus makeDefaultThesaurus() {
22         Thesaurus sample = new Thesaurus();
23         return sample;
24     }
25
26     private Thesaurus makeSpecificThesaurus(String
27 file) {
28         Thesaurus sample = new Thesaurus(file);
29         return sample;
30     }
31
32     @Test // string representation of a thesaurus;
33     public void testToString() {
34         Thesaurus defaultThesaurus =
35 makeDefaultThesaurus();
36         defaultThesaurus.insert("blue", new String[]{
37 "turquoise", "sad", "cyan", "azure",
38 "cobalt", "navy", "powder blue", "indigo",
39 "peacock", "ultramarine", "aquamarine"});
40         defaultThesaurus.insert("grungy", new String
41 []{"dingy", "dirty", "dusty", "grimy",
42 "grubby", "messy", "miry", "muddy", "
43 scruffy", "slovenly", "smirchy", "smoky", "smudgy",
44 "smutchy", "smutty", "snuffy", "sooty", "

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35 untidy"}));
36         String expected = "blue - {turquoise, sad,
cyan, azure, cobalt, navy, powder blue, indigo,
peacock, ultramarine, aquamarine}\n" +
37         "grungy - {dingy, dirty, dusty, grimy
, grubby, messy, miry, muddy, scruffy, slovenly,
smirchy, smoky, smudgy, smutchy, smutty, snuffy,
sooty, untidy}\n";
38         assertEquals(expected, defaultThesaurus.
toString());
39     }
40
41     @Test // delete a keyword and its synonyms
42     public void testDelete() {
43         Thesaurus defaultThesaurus =
makeDefaultThesaurus();
44         defaultThesaurus.insert("blue", new String[]{
"turquoise", "sad", "cyan", "azure",
45         "cobalt", "navy", "powder blue", "indigo
", "peacock", "ultramarine", "aquamarine"});
46         defaultThesaurus.insert("grungy", new String
[]{"dingy", "dirty", "dusty", "grimy",
47         "grubby", "messy", "miry", "muddy", "
scruffy", "slovenly", "smirchy", "smoky", "smudgy",
48         "smutchy", "smutty", "snuffy", "sooty", "
untidy"});
49         defaultThesaurus.delete("grungy");
50         String expected = "blue - {turquoise, sad,
cyan, azure, cobalt, navy, powder blue, indigo,
peacock, ultramarine, aquamarine}\n";
51         assertEquals(expected, defaultThesaurus.
toString());
52     }
53
54     @Test // insert a keyword and its synonyms
55     public void testInsert() {
56         Thesaurus defaultThesaurus =
makeDefaultThesaurus();
57         defaultThesaurus.insert("blue", new String[]{
"turquoise", "sad", "cyan", "azure",
58         "cobalt", "navy", "powder blue", "indigo
", "peacock", "ultramarine", "aquamarine"});
59         defaultThesaurus.insert("grungy", new String
[]{"dingy", "dirty", "dusty", "grimy",

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60         "grubby", "messy", "miry", "muddy", "
    scruffy", "slovenly", "smirchy", "smoky", "smudgy",
61         "smutchy", "smutty", "snuffy", "sooty",
    "untidy"}));
62     String expected = "blue - {turquoise, sad,
    cyan, azure, cobalt, navy, powder blue, indigo,
    peacock, ultramarine, aquamarine}\n" +
63         "grungy - {dingy, dirty, dusty,
    grimy, grubby, messy, miry, muddy, scruffy, slovenly
    , smirchy, smoky, smudgy, smutchy, smutty, snuffy,
    sooty, untidy}\n";
64     assertEquals(expected, defaultThesaurus.
    toString());
65     }
66
67     @Test // get a synonym for a word
68     public void testGetSynonym() {
69         Thesaurus smallThesaurus =
    makeSpecificThesaurus("src/smallThesaurus.txt");
70         assertEquals("", smallThesaurus.
    getSynonymFor("Kyrie"));
71         assertFalse("nasty".equals(smallThesaurus.
    getSynonymFor("nasty")));
72     }
73 }
```