

```
1  import static org.junit.Assert.*;
2  import java.util.*;
3  public class ProxyServerTest {
4
5      @org.junit.Test
6      public void searchById() {
7          ProxyServer proxyServer = ProxyServer.getInstance();
8          Server server = Server.getInstance();
9
10         Song testSong = new Song("Test Song", "Test Artist", "Test Album", 1, 120);
11         server.addSong("Test Song", "Test Artist", "Test Album", 1, 120);
12
13         Song result = proxyServer.searchById(1);
14
15         assertEquals(testSong.getTitle(), result.getTitle());
16     }
17
18     @org.junit.Test
19     public void searchByTitle() {
20         ProxyServer proxyServer = ProxyServer.getInstance();
21         Server server = Server.getInstance();
22
23
24         List<Song> testSong = new LinkedList<Song>();
25         testSong.addFirst(new Song("Test Song", "Test Artist", "Test Album", 1, 120));
26         server.addSong("Test Song", "Test Artist", "Test Album", 1, 120);
27
28         List<Song> result = proxyServer.searchByTitle("Test Song");
29
30         assertEquals(testSong.getFirst().getTitle(), result.getFirst().getTitle());
31     }
32
33     @org.junit.Test
34     public void searchByAlbum() {
35         ProxyServer proxyServer = ProxyServer.getInstance();
36         Server server = Server.getInstance();
37
38         List<Song> testSong = new LinkedList<Song>();
39         testSong.addFirst(new Song("Test Song", "Test Artist", "Test Album", 1, 120));
40         server.addSong("Test Song", "Test Artist", "Test Album", 1, 120);
41
42         List<Song> result = proxyServer.searchByAlbum("Test Album");
43
44         assertEquals(testSong.getFirst().getTitle(), result.getFirst().getTitle());
45     }
46
47     @org.junit.Test
48     public void getInstance() {
49         ProxyServer instance1 = ProxyServer.getInstance();
50         ProxyServer instance2 = ProxyServer.getInstance();
51
52         assertEquals(instance1, instance2);
53     }
54 }
```

```
54 |         assertNotNull(instance1);
55 |         assertNotNull(instance2);
56 |     }
57 | }
```