Bug-Tracking
Junit testing:

```java
package com.bug;
import static org.testng.Assert.assertEquals;
import static org.testng.Assert.assertSame;
import java.util.ArrayList;
import java.util.List;
import org.junit.jupiter.api.TestMethodOrder;
import org.junit.jupiter.api.Order;
import org.junit.jupiter.api.Test;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import com.bug.bean.Bug;
import com.bug.bean.Response;
import com.bug.bean.User;
import com.bug.service.BugService;
import com.bug.service.LoginService;
import com.bug.service.UserService;

@SpringBootTest
class SbBugTrackingApplicationTests {
        @Autowired
        UserService service;
        @Autowired
        LoginService logService;
        @Autowired
        BugService bugService;
        // This object is used to register user and log in as user
        User user1 = new User("Jeyandhan", "12345");

        // This object is used to log as as Admin
        User user2 = new User("aravinds", "12345");
        // This object is used to check the invalid user.
        User user3 = new User("domnic", "7896jd");

        // used to insert a bug
```

```java
        Bug insBug = new Bug("index out of bound", "siva", "while running array
program");
        // used to update bug
        Bug upBug = new Bug(5,"index out of bound","aravind","while running array
program","close","Your program accessing the out of bound element");

@Test
        @Order(1)
        void registerUser() {
                String expect = "inserted";
                String result = service.registerUser(user1);
                assertEquals(expect, result);
        }

    @Test
     @Order(2)
     void loginUser() {
                Response r1 = new Response("User Success");
                Response r2 = logService.verifyUser(user1);
                r1.equals(r2);
        }

     @Test
     @Order(3)
     void AdminUser() {
                Response r1 = new Response("Admin Success");
                Response r2 = logService.verifyUser(user2);
                r1.equals(r2);
        }

     @Test
     @Order(4)
     void invalidUser() {
                Response r1 = new Response("Login Fail");
                Response r2 = logService.verifyUser(user3);
                r1.equals(r2);
        }
```

```java
    @Test
    @Order(5)
    void registerBug() {
            String expect = "inserted";
            String result = bugService.registerBug(insBug);
            assertEquals(expect, result);
    }

    @Test
    @Order(6)
    void updateBug() {
            String expect = "updated";
            String result = bugService.updateBug(upBug);
            assertEquals(expect, result);
    }

    List<Bug> list1 = new ArrayList<Bug>();
    Bug bugcheck = new Bug(8, "angular", "dom", "while running the app", "open",
"waiting for debug");

    @Test
    @Order(7)
    void getBug() {
            list1.add(bugcheck);
            List<Bug> list = bugService.getBug("dom");
            list1.equals(list);
    }
}
```

All test cases passed: