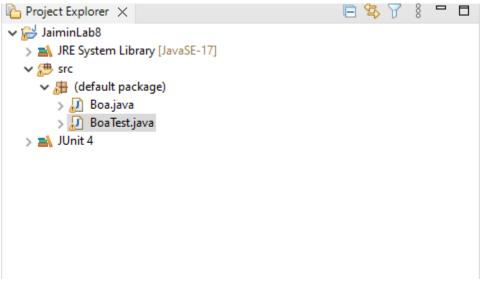
# Software Engineering (IT314)

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1> Creating a new eclipse project and a package within the project



# 2> Creating a class for Boa

```
}
// returns true if this boa constrictor is healthy
public boolean ishealthy(){
return this.favoriteFood.equals("granola bars");
                                                  Problems @ Javadoc X Declaration Console
```

3> Creating a junit test case with methods is Healthy and fits In Cage.

4> Creating setup method and annotating with @Before and creating jen and ken objects of Boa class.

```
🕡 Boa.java

    ■ BoaTest.java ×
  1⊖ import static org.junit.Assert.*;
  3 import org.junit.Assert;
  4 import org.junit.Test;
  5 import org.junit.Before;
😘 6 import org.junit.Test;
  8 public class BoaTest {
% 9
        private Boa jen, ken;
 10
 11⊝
         @Before
         public void setUp() throws Exception {
 12
          jen = new Boa("Jennifer", 2, "grapes");
ken = new Boa ("Kenneth", 3, "granola bars");
 13
 14
 15
```

#### 5 > Running Test Case

```
Project Explorer Tu JUnit X
                                                                          □ 🖟 Boa.java 🖟 BoaTest.java 🗙
                                       Finished after 0.013 seconds
                                                                                         import org.junit.Assert;
                                                     ■ Failures: 0
                                                                                         import org.junit.Test;
                           Errors: 0
                                                                                         import org.junit.Before;
                                                                                         import org.junit.Test;
 > BoaTest [Runner: JUnit 4] (0.000 s)
                                                                                         public class BoaTest {
                                                                                             private Boa jen, ken;
                                                                                     10
                                                                                              public void setUp() throws Exception {
  jen = new Boa("Jennifer", 2, "grapes");
  ken = new Boa ("Kenneth", 3, "granola bars");
                                                                                     15
16
17<sup>©</sup>
                                                                                              public void testBoa() {
    Boa healthyBoa = new Boa("Lucy", 8, "granola bars");
    Assert.assertTrue(healthyBoa.isHealthy());
```

### 5> Writing tests for fitsInCage and isHealthy method

```
16
        @Test
17⊝
18
        public void testBoa() {
              Boa healthyBoa = new Boa("Lucy", 8, "granola bars");
19
20
              Assert.assertTrue(healthyBoa.isHealthy());
21
        }
22
23⊖
        @Test
        public void testIsHealthy() {
24
25
                assertFalse(Jen.isHealthy());
26
                assertFalse(Ken.isHealthy());
27
        }
28
29⊝
        @Test
30
       public void testFitsInCage() {
31
            assertTrue(Jen.fitsInCage(3));
32
            assertFalse(Jen.fitsInCage(2));
33
            assertFalse(Jen.fitsInCage(1));
34
            assertFalse(Jen.fitsInCage(-1));
35
            assertTrue(Ken.fitsInCage(9));
36
            assertFalse(Ken.fitsInCage(3));
37
38
39
   }
40
```

#### 6 > Testing both

```
🗖 🗖 🔊 Boa.java 🔑 BoaTest.java 🗴
Project Explorer v Junit ×
                                                        1⊖ import static org.junit.Assert.*;
Finished after 0.015 seconds
                                                                                                                                 import org.junit.Assert;
import org.junit.Test;
 Runs: 3/3
                                     Errors: 0

    ■ Failures: 1
✓ 🖫 BoaTest [Runner: JUnit 4] (0.000 s)
                                                                                                                                 public class BoaTest {
        testBoa (0.000 s)
        testlsHealthy (0.000 s)
                                                                                                                           119
        testFitsInCage (0.000 s)
                                                                                                                                        gBerore
public void setUp() throws Exception {
   Jen = new Boa("Jennifer", 2, "grapes");
   Ken = new Boa ("Kenneth", 3, "granola bars");
                                                                                                                           15
16
                                                                                                                           17<sup>©</sup>
18
19
                                                                                                                                       public void testBoa() {
    Boa healthyBoa = new Boa("Lucy", 8, "granola bars");
    Assert.assertTrue(healthyBoa.isHealthy());
                                                                                                                          20
21
22
23<sup>©</sup>
24
25
26
27
28
29<sup>©</sup>
30
31
32
33
                                                                                                                                        @Test
public void testIsHealthy() {
                                                                                                                                                      assertFalse(Jen.isHealthy());
assertFalse(Ken.isHealthy());
                                                                                                                                        @Test
public void testFitsInCage() {
                                                                                                                                              plic void testritsInCage() {
    assertTrue(Jen.fitsInCage(3));
    assertFalse(Jen.fitsInCage(2));
    assertFalse(Jen.fitsInCage(1));
    assertFalse(Jen.fitsInCage(-1));
    assertTrue(Ken.fitsInCage(9));
    assertFalse(Ken.fitsInCage(3));
Failure Trace
                                                                                                       3 7 #
🤚 java.lang.AssertionError
at BoaTest.testIsHealthy(BoaTest.java:26)
                                                                                                                       38
39 }
```

# 7> Writing code to convert length in inches

```
// produces the length of the Boa in inches

public int lengthInInches() {

return 12*this.length;

}

29 }
```

# 8> Writing the tests for length in inches.

# 9> Running Test

