IT314 SOFTWARE ENGINEERING

Lab-08

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CODE

FOR THE GIVEN FUNCTION

1) Boa.java

```
package Testing;
public class Boa {
    private String name;
    private int length; // the length of the boa, in feet
    private String favoriteFood;
    public Boa (String name, int length, String favoriteFood)
    {
        this.name = name;
    }
}
```

```
this.length = length;
           this.favoriteFood = favoriteFood;
     }
     // returns true if this boa constrictor is healthy
     public boolean isHealthy()
     {
           return this.favoriteFood.equals("granola bars");
     // returns true if the length of this boa constrictor is
     // less than the given cage length
     public boolean fitsInCage(int cageLength)
     {
           return this.length < cageLength;</pre>
     }
     public int lengthInInches()
     {
           // you need to write the body of this method
           return this.length*12;
     }
}
```

2) BoaTest.java

```
package Testing;
import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.Test;
public class BoaTest {
      private Boa jen;
      private Boa ken;
      @Before
      public void setUp() throws Exception {
            jen = new Boa("Jennifer", 2, "grapes");
            ken = new Boa ("Kenneth", 3, "granola bars");
      }
      @Test
      public void testIsHealthy_1() {
            boolean output = ken.isHealthy();
            assertEquals(output,true);
      }
      @Test
      public void testIsHealthy_2() {
            boolean output = jen.isHealthy();
            assertEquals(output,false);
      }
      @Test
      public void testFitsInCage_1() {
```

```
int cage = 4;
     boolean output = jen.fitsInCage(cage);
     assertEquals(output,true);
}
@Test
public void testFitsInCage_2() {
     int cage = 4;
     boolean output = ken.fitsInCage(cage);
     assertEquals(output,true);
}
@Test
public void testFitsInCage_3() {
     int cage = 6;
     boolean output1 = ken.fitsInCage(cage);
     assertEquals(output1,true);
}
@Test
public void testFitsInCage_4() {
     int cage = 2;
     boolean output1 = ken.fitsInCage(cage);
     assertEquals(output1,false);
}
@Test
public void lengthInInches_1() {
```

```
int output1 = ken.lengthInInches();
    assertEquals(output1,36);
}

@Test
public void lengthInInches_2() {

    int output1 = jen.lengthInInches();
    assertEquals(output1,24);
}
```

3) SCREENSHOTS

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Testing

Testing
                                                                                                                                                           1 package Testing;
                                                                                                                                                    3 public class Boa {
2 4 private String
                                                                                                                                                                              private String name;

private String name;

private int length; // the length of the <u>boa</u>, in feet

private String favoriteFood;

public Boa (String name, int length, String favoriteFood)
                                                                                                                                                                                              this.name = name;
this.length = length;
this.favoriteFood = favoriteFood;
                                                                                                                                                         11
                                                                                                                                                                              }
// returns true if this boa constrictor is healthy
public boolean isHealthy()
{
                                                                                                                                                         12
                                                                                                                                                         15
                                                                                                                                                       16
17
                                                                                                                                                                                               return this.favoriteFood.equals("granola bars");
                                                                                                                                                                       }
// returns true if the length of this boa constrictor is
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23
                                                                                                                                                                                     // less than the given cage length
                                                                                                                                                                                  public boolean fitsInCage(int cageLength)
{
                                                                                                                                                                                              return this.length < cageLength;
                                                                                                                                                                               }
                                                                                                                                                       24
25
                                                                                                                                                                               public int lengthInInches()
                                                                                                                                                         26
                                                                                                                                                                                                   // you need to write the body of this method
                                                                                                                                                                                                  return this.length*12;
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> Lab8

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> al. JUnit 4
                                                        3*import static org.junit.Assert.*;□
                                                     8 public class BoaTest {
                                                               private Boa jen;
private Boa ken;
                                                               public void setUp() throws Exception {
   jen = new Boa("Jennifer", 2, "grapes");
   ken = new Boa ("Kenneth", 3, "granola bars");
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                                                               }
                                                               public void testIsHealthy_1() {
   boolean output = ken.isHealthy();
                                                                    assertEquals(output,true);
                                                               public void testIsHealthy_2() {
   boolean output = jen.isHealthy();
   assertEquals(output, false);
}
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                                                               public void testFitsInCage_1() {
                                                                   int cage = 4;
boolean output = jen.fitsInCage(cage);
                                                                   assertEquals(output,true);
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```

