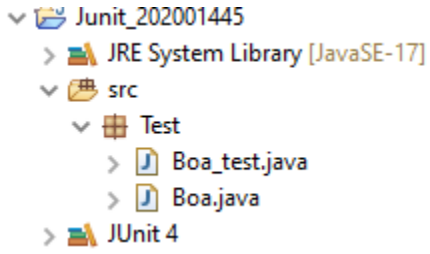
Patel Krunal
202001445

1. Create a new Eclipse project, and within the project create a package and defining class in given lab exercise pdf.

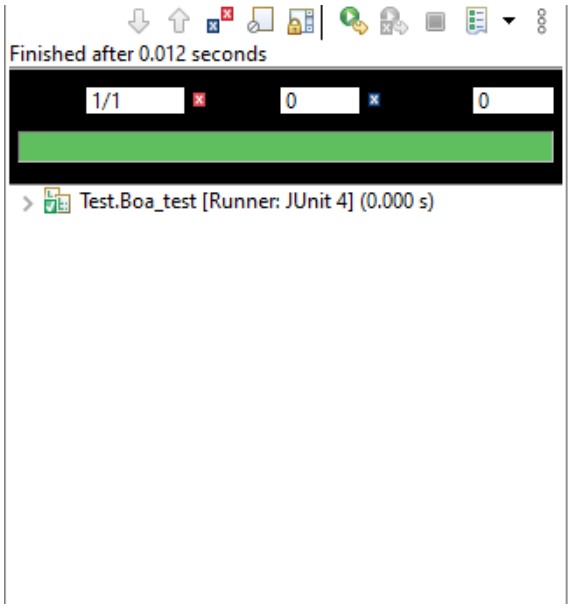


2. Create a class for a Boa.

```java
package Test;

//represents a boa constrictor
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;
}
}

```

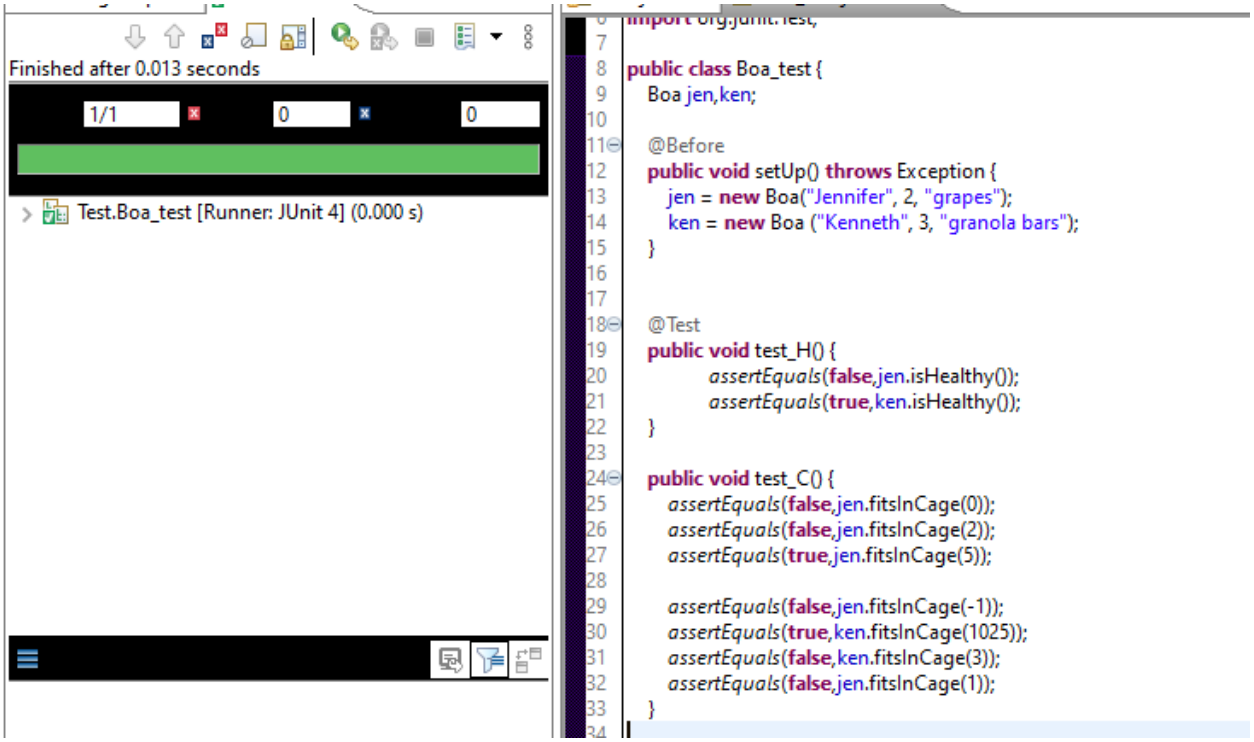
3. Modify the setUp() method so that it creates a couple of Boa objects, as follows:

```
class BoaTest {

    private Boa jen ;
private Boa ken ;

@BeforeEach
public void setUp() throws Exception {
      jen = new Boa("Jennifer", 2, "grapes");
      ken = new Boa ("Kenneth", 3, "granola bars");
      }
   }
```




```
1  package Test;
2
3  import static org.junit.Assert.*;
4
5  import org.junit.Before;
6  import org.junit.Test;
7
8  public class Boa_test {
9    Boa jen,ken;
10
11   @Before
12   public void setUp() throws Exception {
13     jen = new Boa("Jennifer", 2, "grapes");
14     ken = new Boa ("Kenneth", 3, "granola bars");
15   }
16
17
18   @Test
19   public void test_H() {
20         assertEquals(false,jen.isHealthy());
21         assertEquals(true,ken.isHealthy());
22   }
23
```

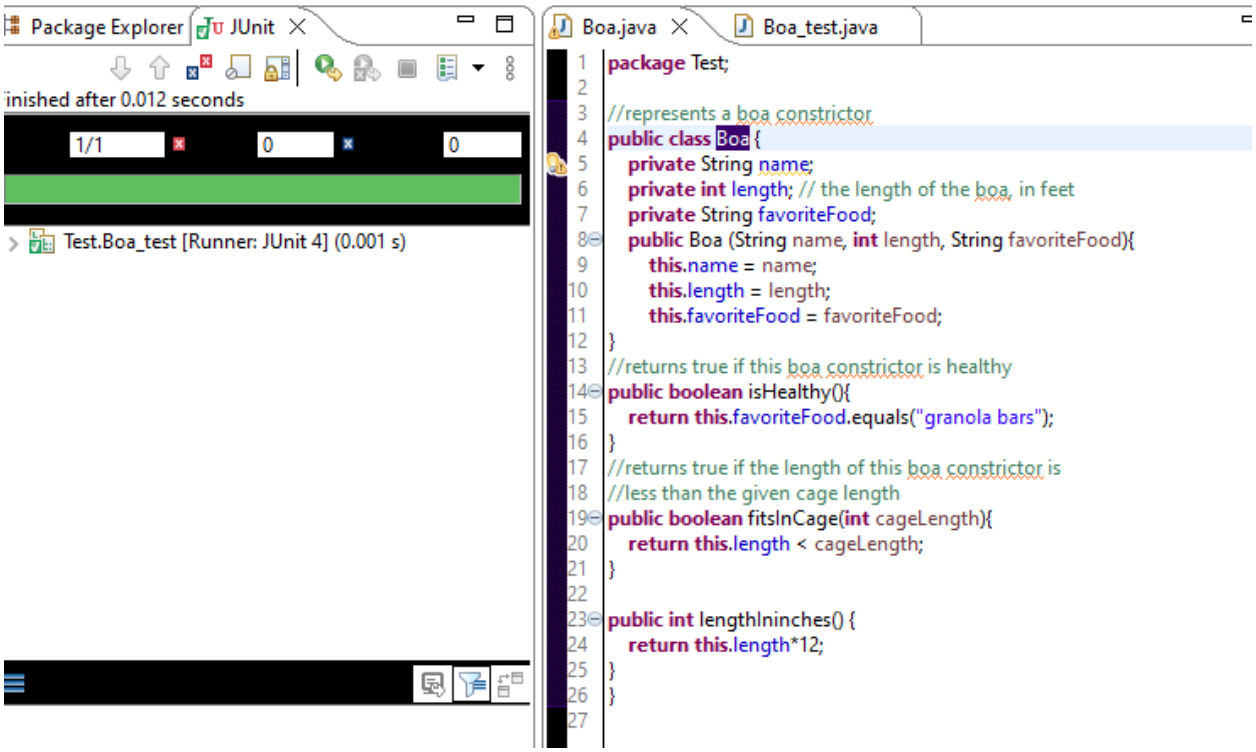
4.testFitsInCage() method in the BoaTest class :

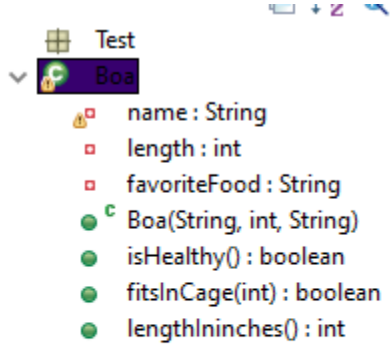


5 Add a new method to the Boa class, with this purpose and signature:

```
}

public int lengthInInches() {
    return this.length*12;
}
}
```

6. Run the test cases


Package Explorer
JUnit
inished after 0.012 seconds
1/1
0
0
Test.Boa_test [Runner: JUnit 4] (0.001 s)
Boa.java
Boa_test.java
1 package Test;
2
3 //represents a boa constrictor
4 public class Boa {
5 private String name;
6 private int length; // the length of the boa, in feet
7 private String favoriteFood;
8 public Boa (String name, int length, String favoriteFood){
9 this.name = name;
10 this.length = length;
11 this.favoriteFood = favoriteFood;
12 }
13 //returns true if this boa constrictor is healthy
14 public boolean isHealthy(){
15 return this.favoriteFood.equals("granola bars");
16 }
17 //returns true if the length of this boa constrictor is
18 //less than the given cage length
19 public boolean fitsInCage(int cageLength){
20 return this.length < cageLength;
21 }
22
23 public int lengthInInches() {
24 return this.length*12;
25 }
26 }
27


Test
Boa
name : String
length : int
favoriteFood : String
Boa(String, int, String)
isHealthy() : boolean
fitsInCage(int) : boolean
lengthInInches() : int