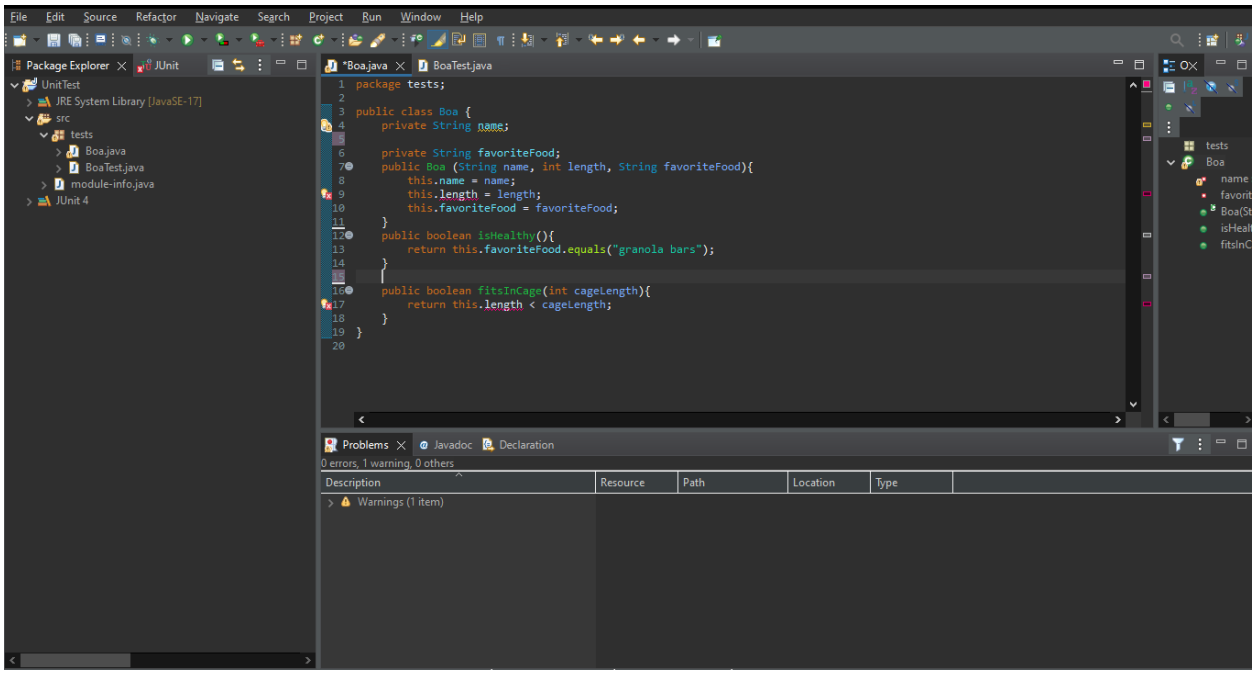
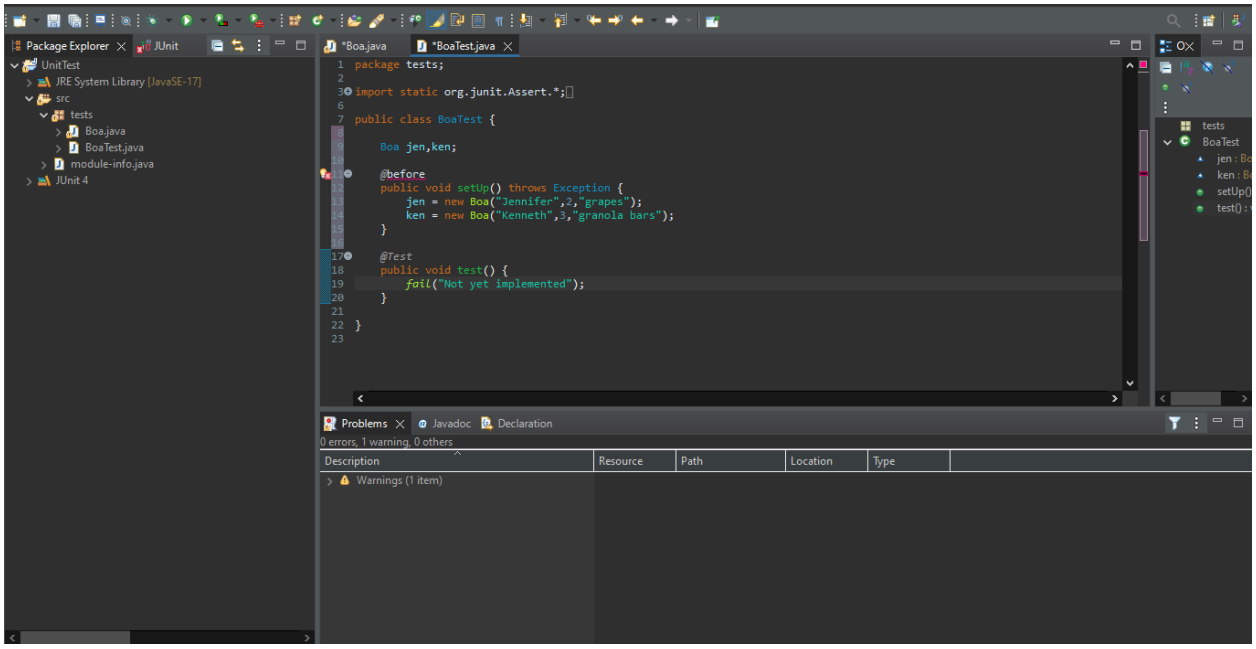

IT314 - Software Engineering

Harsh Prajapati
202001145

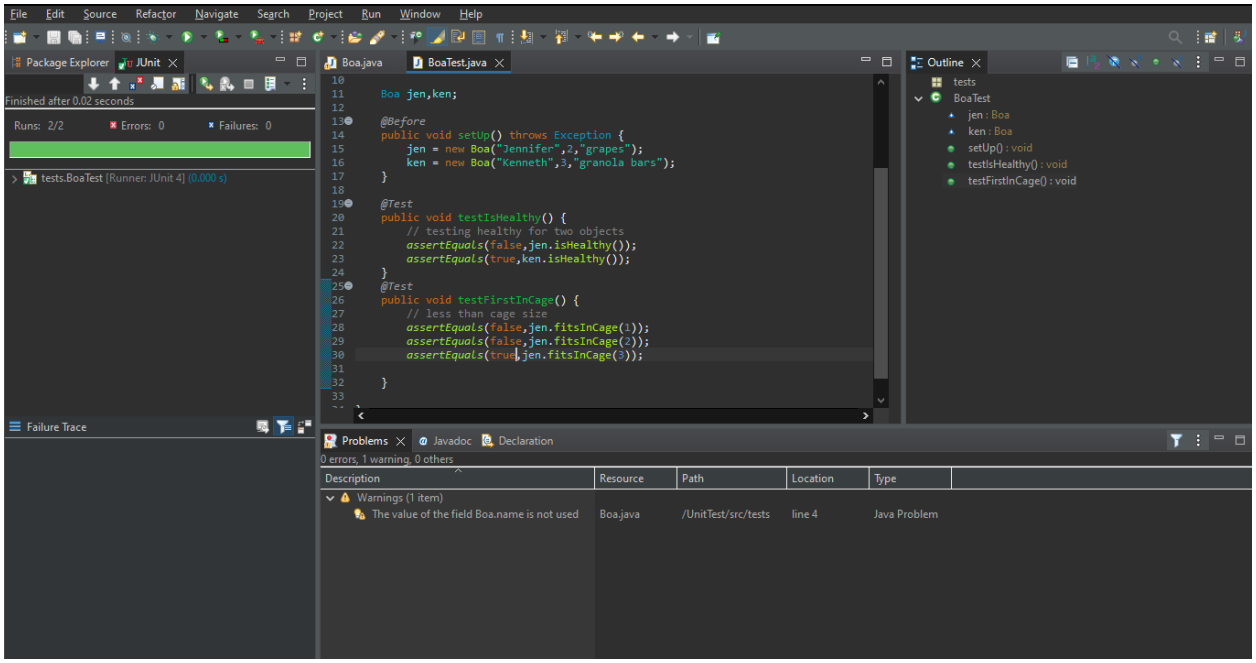
Create an Eclipse JAVA project and make a JUNIT testing file to test the unit.



Now after this create a setup function that will initialize two class objects and se the values in it.

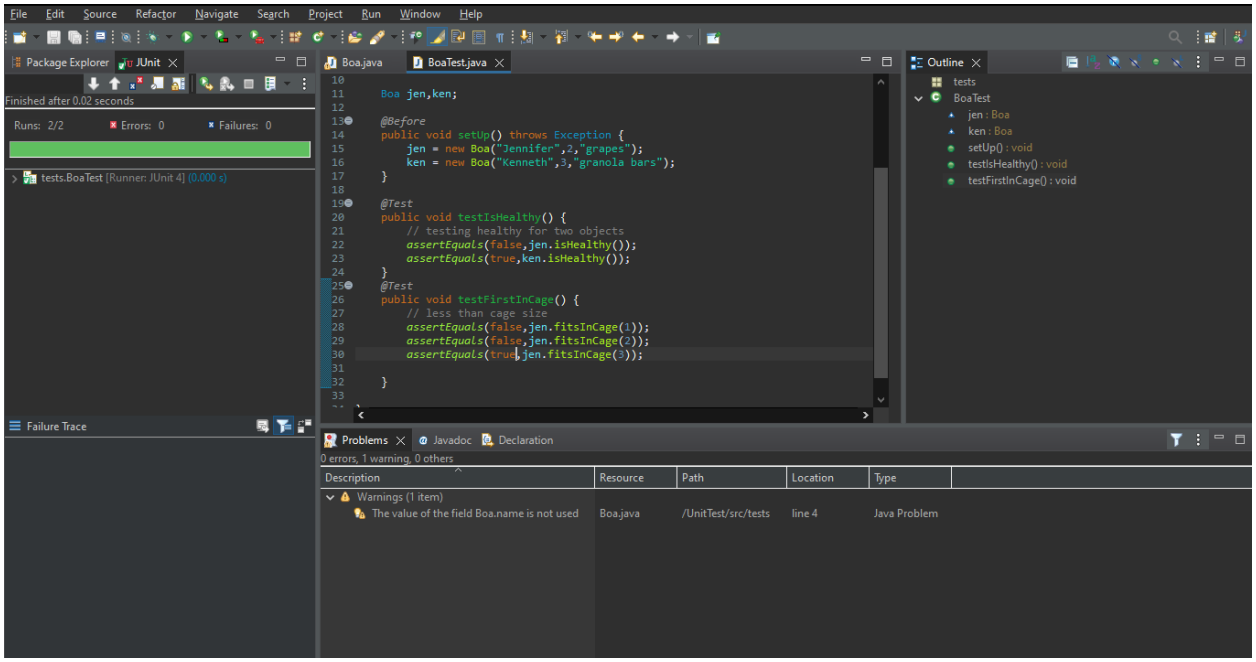


After given the different values for the test case and create two test functions

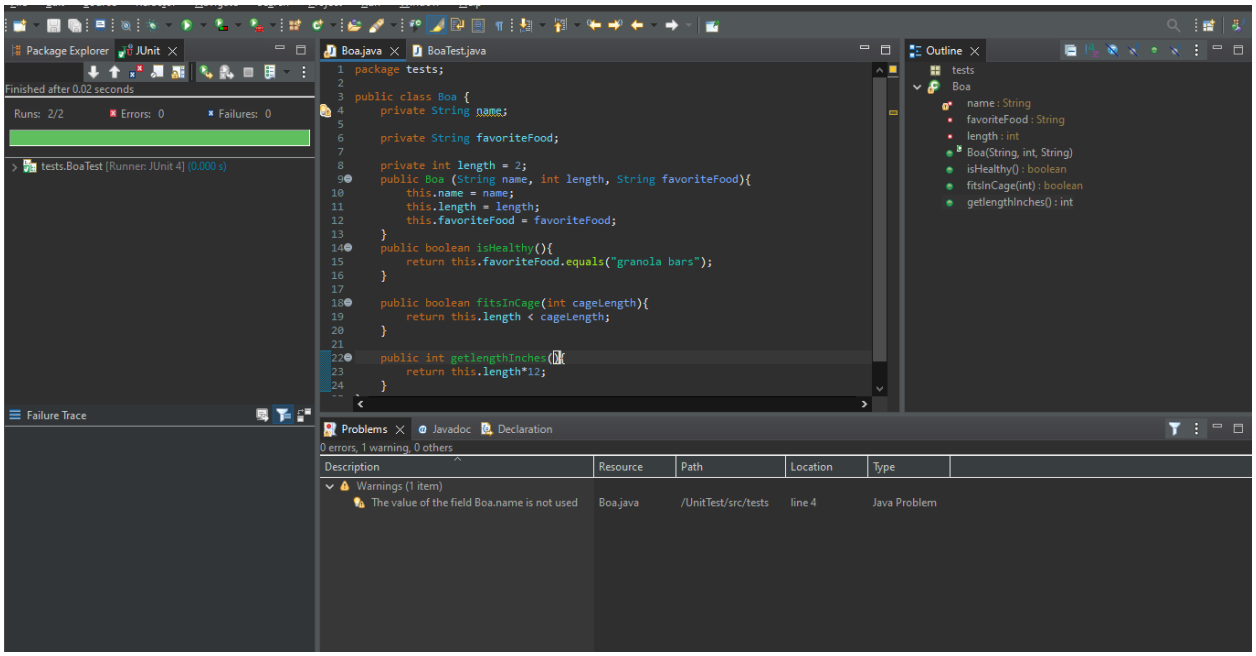


And this is expected that we need not to create different test cases for the both the objects as this has same class.

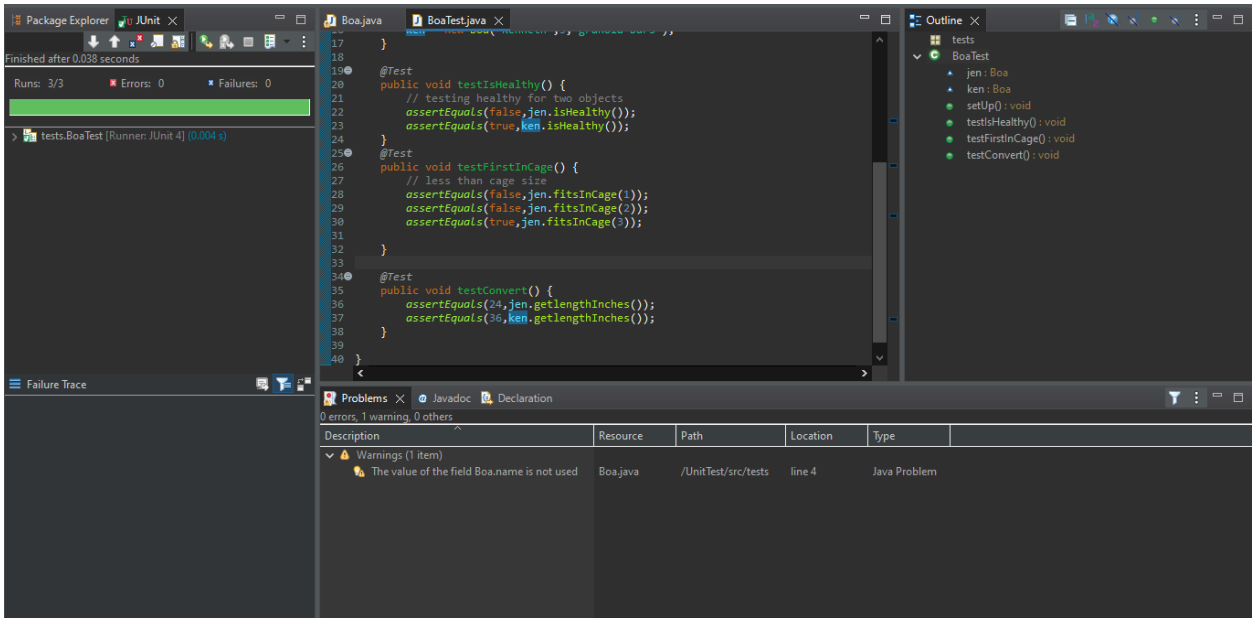
After running the testcases both were passed and by defaut I gave length = 5



Now create another function in the class that will convert the length into inches i.e multiply it with 12.



After creating this function to test this function write another Test into the test file



As we can in the above testing functions all the necessary parameters and inputs are given and tested the function successfully.

Code section :

Class:

```
package tests;
public class Boa {
	private String name;

	private String favoriteFood;
	private int length;
	public Boa (String name, int length, String favoriteFood){
		this.name = name;
		this.length = length;
		this.favoriteFood = favoriteFood;
	}
	public boolean isHealthy(){
		return this.favoriteFood.equals("granola bars");
	}

	public boolean fitsInCage(int cageLength){
		return this.length < cageLength;
	}

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

Test file:

```
package tests;
import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.Test;
public class BoaTest {

	Boa jen,ken;

	@Before
	public void setUp() throws Exception {
		jen = new Boa("Jennifer",2,"grapes");
		ken = new Boa("Kenneth",3,"granola bars");
	}
	@Test
	public void testIsHealthy() {
		// testing healthy for two objects
		assertEquals(false,jen.isHealthy());
		assertEquals(true,ken.isHealthy());
	}
	@Test
	public void testFirstInCage() {
		// less than cage size
		assertEquals(false,jen.fitsInCage(1));
		assertEquals(false,jen.fitsInCage(2));
		assertEquals(true,jen.fitsInCage(3));

	}

	@Test
	public void testConvert() {
		assertEquals(24,jen.getlengthInches());
		assertEquals(36,ken.getlengthInches());
	}
}
```

----------END of the Assignement ----------