

SOFTWARE ENGINEERING

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LAB 8

Boa.java file:

The screenshot displays an IDE interface with the following components:

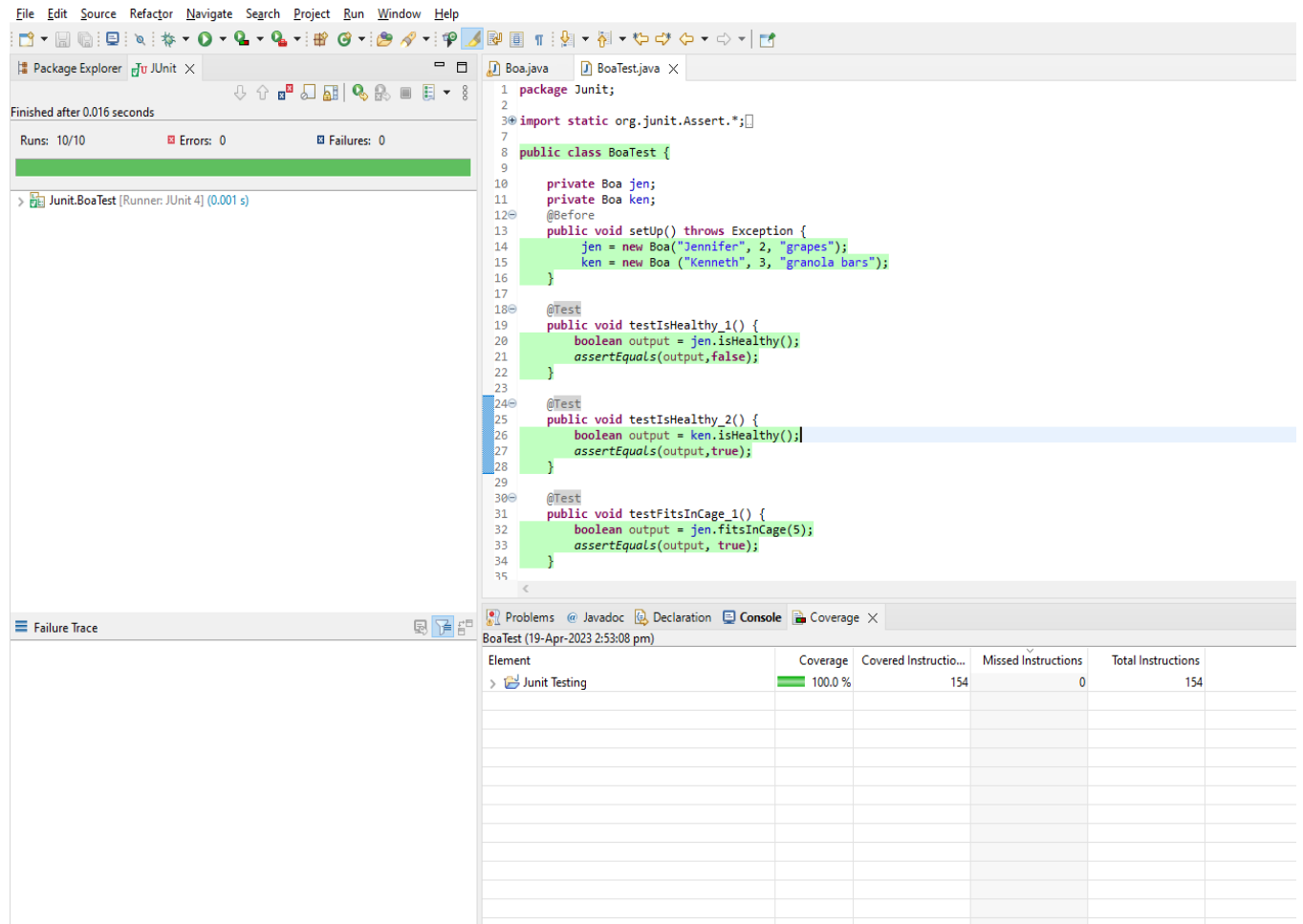
- Package Explorer:** Shows the project structure with 'JUnit' and 'BoaTest'.
- JUnit Runner:** Displays 'JUnit.BoaTest [Runner: JUnit 4] (0.001 s)' with a green bar indicating successful execution. Summary statistics: Runs: 10/10, Errors: 0, Failures: 0.
- Boa.java File:** Contains the following code:

```
1 package Junit;
2
3 //represents a boa constructor
4 public class Boa {
5     private String name;
6     private int length; // the length of the boa, in feet
7     private String favoriteFood;
8
9     public Boa (String name, int length, String favoriteFood){
10         this.name = name;
11         this.length = length;
12         this.favoriteFood = favoriteFood;
13     }
14     //returns true if this boa constructor is healthy
15     public boolean isHealthy(){
16         return this.favoriteFood.equals("granola bars");
17     }
18     //returns true if the length of this boa constructor is
19     //less than the given cage length
20     public boolean fitsInCage(int cageLength){
21         return this.length < cageLength;
22     }
23
24     public int lengthInInches(){
25         // you need to write the body of this method
26         return this.length*12;
27     }
28 }
```
- Coverage Report:** Shows the following data for 'BoaTest (19-Apr-2023 2:53:08 pm)':

| Element | Coverage | Covered Instruction... | Missed Instructions | Total Instructions |
|-----------------|----------|------------------------|---------------------|--------------------|
| > Junit Testing | 100.0 % | 154 | 0 | 154 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

BoaTest.java file:

Created 10 test cases: 2 for checking isHealthy() function, 6 for fitsInCage() function and 2 for lengthInInches() function.



The screenshot displays the IntelliJ IDEA IDE during a JUnit test run. The top toolbar includes the Run button (a green play icon). The left sidebar shows the Package Explorer with 'JUnit' selected. The main editor shows the source code of 'BoaTest.java' with several test methods. The bottom status bar shows 'JUnit Testing' with a green progress bar indicating 100.0% coverage. The bottom right pane shows the 'Coverage' tab with a table of coverage data.

| Element | Coverage | Covered Instruction... | Missed Instructions | Total Instructions |
|-----------------|----------|------------------------|---------------------|--------------------|
| > JUnit Testing | 100.0 % | 154 | 0 | 154 |

