SD2 - Worksheet 2 - 6%

GRIFFITH COLLEGE DUBLIN

Student name:	**Serianu Andrei-Silviu**				
Student number:	**3144757**				
Faculty:	**Computing Science**				
Course:	**BSCH/BSCO/EXCH**		**Stage/year:**	**2**	
Subject:	**Software Development 2**				
Study Mode:	Full time	☑		Part-time	
Lecturer Name:	**Gemma Deery**				
Assignment Title:	**Worksheet 2**				
Date due:	**05.03.2025**				
Date submitted:	**05.03.2025**				

Plagiarism disclaimer:

I understand that plagiarism is a serious offence and have read and understood the college policy on plagiarism. I also understand that I may receive a mark of zero if I have not identified and properly attributed sources which have been used, referred to, or have in any way influenced the preparation of this assignment, or if I have knowingly allowed others to plagiarise my work in this way.

I hereby certify that this assignment is my own work, based on my personal study and/or research, and that I have acknowledged all material and sources used in its preparation. I also certify that the assignment has not previously been submitted for assessment and that I have not copied in part or whole or otherwise plagiarised the work of anyone else, including other students.

Signed: _____Serianu_____ **Date: _____05.03.2025_____**

Please note: **Students** MUST **retain a hard / soft copy of** ALL assignments as well as a receipt issued and signed by a member of Faculty as proof of submission.

Repo Link:

Tasks:

Part Two

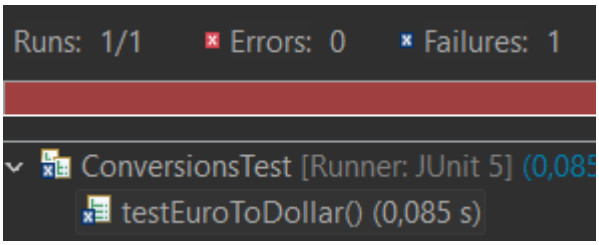
```java
package griffith;

public class Conversions {
    public double euroToDollar(double euro)
    {
        return 0.0;
    }
    public double dollarToEuro(double dollar)
    {
        return 0.0;
    }
    public int stringToInteger (String val)
    {
        return 0;
    }
    public String integerToString (int val)
    {
        return "";
    }
    public String switchCase()
    {
        return "";
    }
}
```

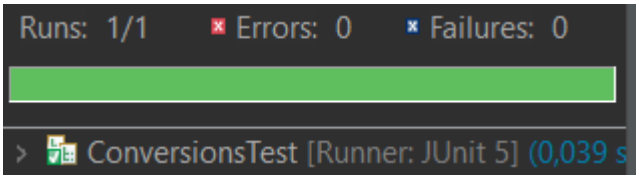
Part Three

Euro to Dollar

```java
    @Test
    public void testEuroToDollar() {
        Conversions conv = new Conversions();
        assertEquals(1.08, conv.euroToDollar(1), 0.01);
        assertEquals(5.40, conv.euroToDollar(5), 0.01);
        assertEquals(0.00, conv.euroToDollar(0), 0.01);
    }
}
```

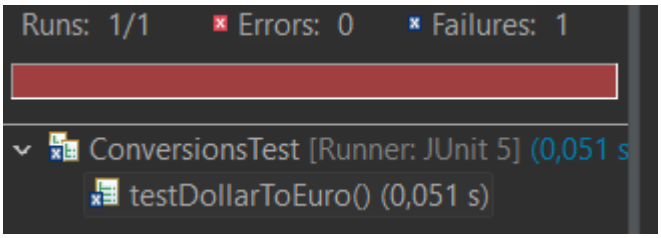



```java
public double euroToDollar(double euro) {
    return euro * 1.08;
}
```

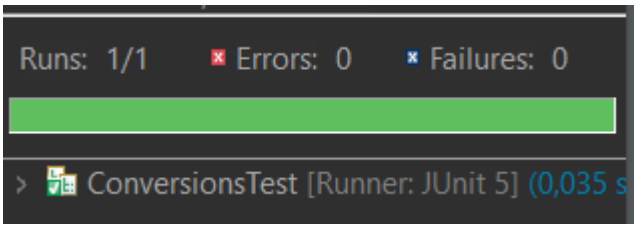


Dollar To Euro

```java
@Test
public void testDollarToEuro() {
    Conversions conv = new Conversions();
    assertEquals(0.93, conv.dollarToEuro(1), 0.01);
    assertEquals(4.65, conv.dollarToEuro(5), 0.01);
    assertEquals(0.00, conv.dollarToEuro(0), 0.01);
}
```

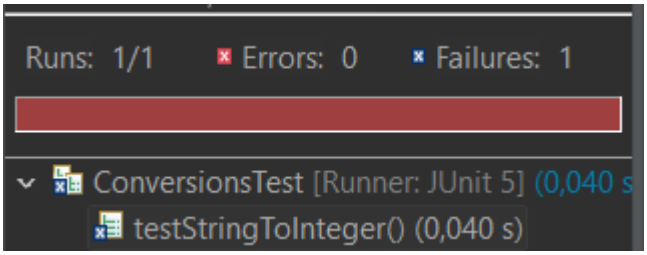



```java
public double dollarToEuro(double dollar) {
    return dollar * 0.93;
}
```

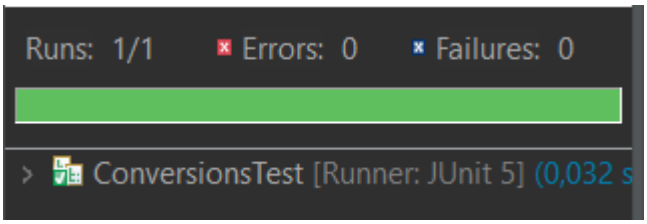


String to Integer

```java
@Test
public void testStringToInteger() {
    Conversions conv = new Conversions();
    assertEquals(123, conv.stringToInteger("123"));
    assertEquals(-456, conv.stringToInteger("-456"));
    assertThrows(NumberFormatException.class, () -> conv.stringToInteger("abc"));
}
```

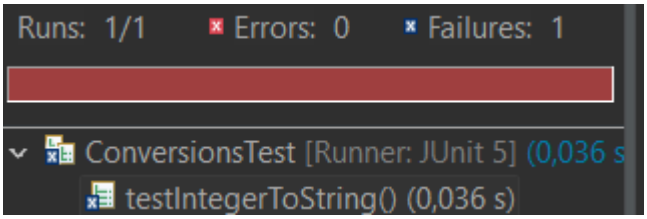



```java
public int stringToInteger(String val) {
    return Integer.parseInt(val);
}
```

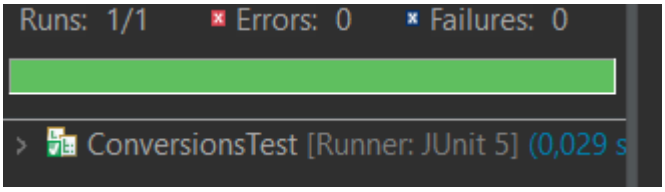


Integer to String

```java
@Test
public void testIntegerToString() {
    Conversions conv = new Conversions();
    assertEquals("123", conv.integerToString(123));
    assertEquals("-456", conv.integerToString(-456));
    assertEquals("0", conv.integerToString(0));
}
```

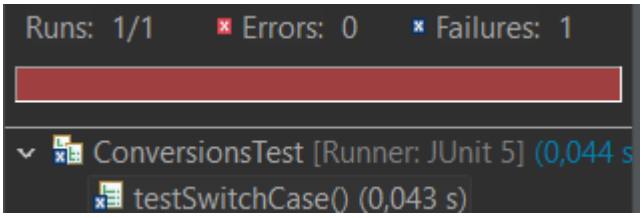



```java
public String integerToString(int val) {
    return String.valueOf(val);
}
```



Switch Case

```java
@Test
public void testSwitchCase() {
    Conversions conv = new Conversions();
    assertEquals("hELLO", conv.switchCase("Hello"));
    assertEquals("wORLD", conv.switchCase("World"));
    assertEquals("123", conv.switchCase("123"));
}
```



```java
public String switchCase(String input) {
    StringBuilder result = new StringBuilder();
    for (char c : input.toCharArray()) {
        if (Character.isUpperCase(c)) {
            result.append(Character.toLowerCase(c));
        } else if (Character.isLowerCase(c)) {
            result.append(Character.toUpperCase(c));
        } else {
            result.append(c);
        }
    }
    return result.toString();
}
```