

# SD2 - Worksheet 2 - 6%



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Faculty:	Computing Science					
Course:	BSCH/BSCO/EXCH			Stage/year:	2	
Subject:	Software Development 2					
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Lecturer Name:	Gemma Deery					
Assignment Title:	Worksheet 2					
Date due:	5/3/25					
Date submitted:	4/3/25					

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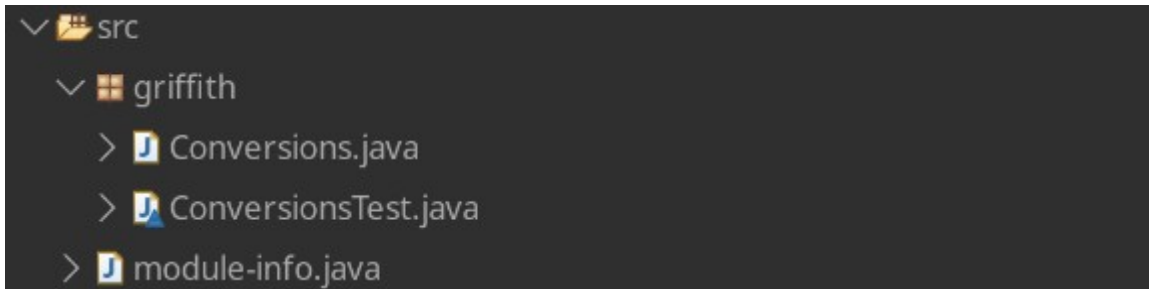
# SD2 - Worksheet 2 - 6%

Repo Link: [https://github.com/romanpolishchuk-griffith-college/WorksheetTwo\\_3135838](https://github.com/romanpolishchuk-griffith-college/WorksheetTwo_3135838)

## Task One:

### Part one

Create Package and Project files



### Part two

Add Conversions class stub methods

```
1 package griffith;
2
3 public class Conversions {
4     public double euroToDollar(double euro) {
5         return 0.0;
6     }
7     public double dollarToEuro(double dollar){
8         return 0.0;
9     }
10    public int stringToInteger (String val){
11        return 0;
12    }
13    public String integerToString (int val){
14        return "";
15    }
16    public String switchCase() // change uppercase to lowercase and vice versa
17    {
18        return "";
19    }
20 }
21
```

## Part three

Add ConversionsTest class stub methods

```
Conversions.java  ConversionsTest.java  module-info.java
7 class ConversionsTest {
8
9     @Test
10    void euroToDollarTest() {
11        fail("Not yet implemented");
12    }
13
14    @Test
15    void dollarToEuroTest() {
16        fail("Not yet implemented");
17    }
18
19    @Test
20    void stringToIntegerTest() {
21        fail("Not yet implemented");
22    }
23
24    @Test
25    void integerToStringTest() {
26        fail("Not yet implemented");
27    }
28
29    @Test
30    void switchCaseTest() {
31        fail("Not yet implemented");
32    }
33 }
```

Implement euroToDollarTest method



```
@Test
void euroToDollarTest() {
    //Create Conversions class instance
    Conversions conversions = new Conversions();


    //Test euro is 10
    assertEquals(10.48, conversions.euroToDollar(10));
    //Test euro is 5
    assertEquals(5.24, conversions.euroToDollar(5));
    //Test euro is 0
    assertEquals(0, conversions.euroToDollar(0));
    //Test euro is -999
    assertEquals(0, conversions.euroToDollar(-999));
}
```


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### Test fails

Finished after 0.129 seconds

Runs: 1/1  Errors: 0  Failures: 1



✓  ConversionsTest [Runner: JUnit 5] (0.025 s)



 euroToDollarTest() (0.025 s)


### Implement euroToDollar method


```
public double euroToDollar(double euro) {  
    return Math.max(0, euro * 1.048);  
}
```


### Test passes

Finished after 0.115 seconds

Runs: 1/1  Errors: 0  Failures: 0



✓  ConversionsTest [Runner: JUnit 5] (0.021 s)

 euroToDollarTest() (0.021 s)

## SD2 - Worksheet 2 - 6%



Implement dollarToEuroTest method


```
@Test
void dollarToEuroTest() {
    //Create Conversions class instance
    Conversions conversions = new Conversions();


    //Test dollar is 9.432
    assertEquals(9, conversions.dollarToEuro(9.432));
    //Test dollar is 102.704
    assertEquals(98, conversions.dollarToEuro(102.704));
    //Test dollar is 0
    assertEquals(0, conversions.dollarToEuro(0));
    //Test dollar is -999
    assertEquals(0, conversions.dollarToEuro(-999));
}
```


Test fails

Finished after 0.064 seconds

Runs: 1/1  Errors: 0  Failures: 1



✓  ConversionsTest [Runner: JUnit 5] (0.010 s)



✗  dollarToEuroTest() (0.010 s)


Implement dollarToEuro method


```
public double dollarToEuro(double dollar){
    return Math.round(Math.max(0, dollar * 0.954198473282));
}
```


Test passes

Finished after 0.061 seconds

Runs: 1/1  Errors: 0  Failures: 0



✓  ConversionsTest [Runner: JUnit 5] (0.008 s)

✓  dollarToEuroTest() (0.008 s)

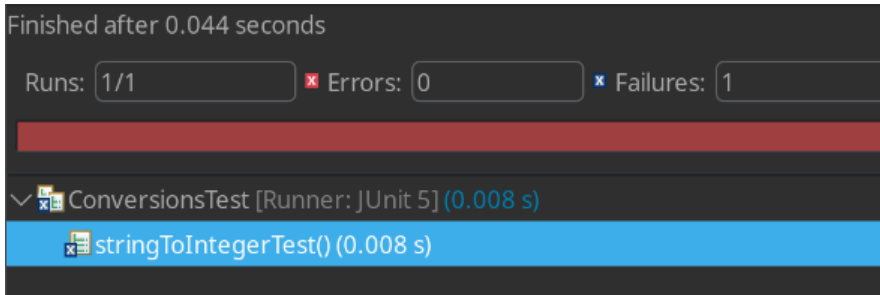
## SD2 - Worksheet 2 - 6%

### Implement stringToIntegerTest method

```
@Test
void stringToIntegerTest() {
    //Create Conversions class instance
    Conversions conversions = new Conversions();

    //Test string is 9
    assertEquals(9, conversions.stringToInteger("9"));
    //Test string is 14.55
    assertEquals(14, conversions.stringToInteger("14.55"));
    //Test string is 0
    assertEquals(0, conversions.stringToInteger("0"));
    //Test string is -999
    assertEquals(-999, conversions.stringToInteger("-999"));
    //Test string is null
    assertEquals(0, conversions.stringToInteger(null));
}
```

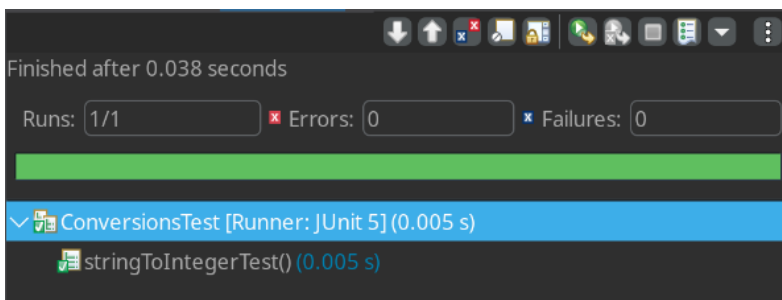
### Test fails



### Implement stringToInteger method

```
public int stringToInteger (String val){
    if(val == null) {
        return 0;
    }
    return (int)Double.parseDouble(val);
}
```

### Test passes



## SD2 - Worksheet 2 - 6%

Implement integerToStringTest method


```
@Test
void integerToStringTest() {
    //Create Conversions class instance
    Conversions conversions = new Conversions();


    //Test int is 10
    assertEquals("10", conversions.integerToString(10));
    //Test int is 99
    assertEquals("99", conversions.integerToString(99));
    //Test int is 0
    assertEquals("0", conversions.integerToString(0));
    //Test int is -1000
    assertEquals("-1000", conversions.integerToString(-1000));
}
```

Test fails

Finished after 0.043 seconds

Runs: 1/1 ✖ Errors: 0 ✖ Failures: 1

✓  ConversionsTest [Runner: JUnit 5] (0.007 s)

✖  integerToStringTest() (0.007 s)


Implement integerToString method


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

Test passes

Finished after 0.042 seconds

Runs: 1/1 ✖ Errors: 0 ✖ Failures: 0

✓  ConversionsTest [Runner: JUnit 5] (0.006 s)

✓  integerToStringTest() (0.006 s)



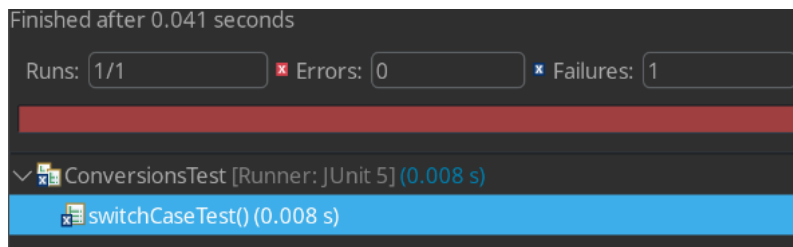
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## Implement switchCaseTest method

```
@Test
void switchCaseTest() {
    //Create Conversions class instance
    Conversions conversions = new Conversions();

    //Test string is HELLO
    assertEquals("hello", conversions.switchCase("HELLO"));
    //Test string is planet
    assertEquals("PLANET", conversions.switchCase("planet"));
    //Test string is LaPtOp
    assertEquals("lApToP", conversions.switchCase("LaPtOp"));
    //Test string is lower_case_AnD_UPPER_CASE
    assertEquals("LOWER_CASE_aNd_upper_case",
        conversions.switchCase("lower_case_AnD_UPPER_CASE"));
}
```

## Test fails

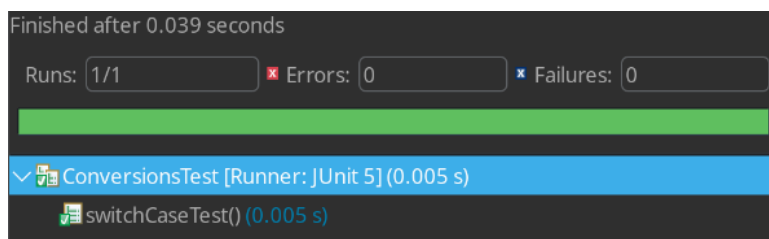


## Implement switchCase method

```
//Switch case of a character
public String switchCase(String string) // change uppercase to lowercase
{
    StringBuilder newStringBuilder = new StringBuilder();
    //Check all characters
    for(int i = 0; i < string.length(); i++) {
        //If character is lower case, set it to upper case
        if(Character.isLowerCase(string.charAt(i))) {
            newStringBuilder.
                append(Character.toUpperCase(string.charAt(i)));
        }
        //If character is upper case, set it to lower case
        else {
            newStringBuilder.
                append(Character.toLowerCase(string.charAt(i)));
        }
    }

    //Return final string
    return newStringBuilder.toString();
}
```

## Test passes





# SD2 - Worksheet 2 - 6%

All tests pass

Finished after 0.039 seconds

Runs: 5/5 Errors: 0 Failures: 0

✓ **ConversionsTest [Runner: JUnit 5] (0.007 s)**

- ✓ **stringToIntegerTest() (0.005 s)**
- ✓ **dollarToEuroTest() (0.000 s)**
- ✓ **switchCaseTest() (0.000 s)**
- ✓ **integerToStringTest() (0.000 s)**
- ✓ **euroToDollarTest() (0.001 s)**

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### Commits

master

All users All time

Commits on Mar 4, 2025

<b>Add comments to Conversions class</b> Roman Polishchuk committed 14 minutes ago	5b54269	
<b>Implement switchCase method</b> Roman Polishchuk committed 19 minutes ago	9f384b7	
<b>Implement switchCaseTest method</b> Roman Polishchuk committed 25 minutes ago	e325979	
<b>Fix switchCase method not accepting string</b> Roman Polishchuk committed 29 minutes ago	89e03c5	
<b>Implement integerToString method</b> Roman Polishchuk committed 32 minutes ago	f5253a1	
<b>Implement integerToStringTest method</b> Roman Polishchuk committed 34 minutes ago	b55f7cf	
<b>Fix stringToIntegerTest method test case</b> Roman Polishchuk committed 38 minutes ago	1e2a3a7	
<b>Implement stringToInteger method</b> Roman Polishchuk committed 39 minutes ago	34ae2f9	
<b>Implement stringToIntegerTest method</b> Roman Polishchuk committed 42 minutes ago	abe3918	
<b>Fix comment messages for tests</b> Roman Polishchuk committed 46 minutes ago	98cd52e	
<b>Fix comment messages for tests</b> Roman Polishchuk committed 47 minutes ago	5e715aa	
<b>Implement dollarToEuro method</b> Roman Polishchuk committed 50 minutes ago	a0b6f1e	

Roman Polishchuk - 3135838