



COMPSCI 230 Tutorial 8 JUnit

Getting Started

Case Study 1: Use JUnit to write test cases for testing Add(), Subtract(), and TestDivide() Functions from Calculator.java (you can download the calculator.java from the tutorial website)

Q1 Test the add() function, test values are 2 and 3, does the result equals 5?

```
calculator.add(2);  
  
calculator.add(3);  
  
assertEquals(5, calculator.getResult());
```

Q2 Test the subtract() function, test values are 10 and 2, does the result equal 8 ?

```
calculator.add(10);  
calculator.subtract(2);  
assertEquals(8, calculator.getResult());
```

Q3 Test the divide () function, test values are 8 and 2, does the result equal 4 ?

```
calculator.add(8);
calculator.divide(2);
assertEquals(4, calculator.getResult());
```

Q4 Test the square function, test value is 2, does the result equal 4 ?

```
calculator.square(2);
assertEquals(4, calculator.getResult());
```

Q5 Write a code to test the squareRoot(), multiply(), what's the output?

```
@Test(timeout=1000)
public void test SquareRoot () {
    System.out.println("inside testSquareRoot ()");
    calculator.squareRoot ();
}
```

@Test

```
public void testMultiply () {

    calculator.multiply (2);

    assertEquals(4, calculator.getResult());

}
```

Failed both test, because the loop is an infinite loop, and multiply is an empty method.
To fix the issue, we have to complete the code for both functions.

Case Study 2: Use JUnit to write test cases for testing wordFormat4DB Functions from WordDealUtil.java (you can download the WordDealUtil.java from the tutorial website)

Q1: Input string "employeeInfo" into the wordFormat4DB function; does the output string equal "employee_info"?

```
String target = "employeeInfo";  
String result = wordDealUtil.wordFormat4DB(target);  
assertEquals("employee_info", result);
```

Q2: Complete the "public void wordEormat4DBEmpty()" by inputting string "" into the wordFormat4DB function; does the output string equal ""?

```
String target = "";  
String result = wordDealUtil.wordFormat4DB(target);  
assertEquals("", result);
```

Q3: Complete the “public void wordEormat4DBBegin ()” by inputting string “EmployeeInfo” into the wordFormat4DB function; does the output string equal “employee_info”?

```
String target = "EmployeeInfo";  
String result = wordDealUtil.wordFormat4DB(target);  
assertEquals("employee_info", result);
```

Q4: Complete the “public void wordEormat4DBEnd ()” by inputting string “employeeInfoA” into the wordFormat4DB function; does the output string equal “employee_info_a”

```
String target = "employeeInfoA";  
String result = wordDealUtil.wordFormat4DB(target);  
assertEquals("employee_info_a", result);
```

Q5: Complete the “public void wordEormat4DBTogether ()” by inputting string “employeeAInfo” into the wordFormat4DB function; does the output string equal “employee_a_info”

```
String target = "employeeAInfo";  
String result = wordDealUtil.wordFormat4DB(target);  
assertEquals("employee_a_info", result);
```