Test 3 Fall 2016

/80

# Part 1 - Written

1. Describe the steps you would follow to create a class. /10
2. What are unit tests? Why would we want to use them? What is regression testing?

/10

1. Describe the purpose of the methods in the unit test below.

/10

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import org.junit.After;

import org.junit.AfterClass;

import org.junit.Before;

import org.junit.BeforeClass;

import org.junit.Test;

import static org.junit.Assert.\*;

/\*\*

\*

\*/

public class Example {

public Example() {

}

@BeforeClass

public static void setUpClass() {

}

@AfterClass

public static void tearDownClass() {

}

@Before

public void setUp() {

}

@After

public void tearDown() {

}

@Test

public void hello() {

// this is a test

}

}

# Part II Practical Test 45 minutes maximum. /50

Open the Netbeans IDE.

Create a new package called **test3.f15** and **put all your code in there**.  **To hand it in,**

* **push the code to your project repository,**
* **upload the word document to your lms dropbox.**
* **include the URL to your git repository in the word document**.

**NOTE \*\* Your code must be fully commented,**

1. Create a class and a driver for the following object.  
  
A class called Course with the following attributes.

* name (Example; Introduction to Java)
* code (Example; CSD211)
* startDate (Ex; 01/09/2013). Note, make this a String type.
* numberOfStudents
* count

The class should have...

* 2 constructors,
  + a default constructor and
  + a constructor to initialize each attribute.
* create setters and getters for each attribute.
* identify with comments
  + instance variables
  + local variables
  + method parameters
* the class should be printable. When you print it you see the course code and name printed like this  
  **[CSD211, Introduction to Java]**
* you should be able to test for the equality of 2 courses, where two courses are equal if the course code and name are the same.

For the driver

* create 3 courses with the following attributes (yes course 1 and 2 are the same)  
  VARIABLE\_NAME NAME CODE  
  course1 Intro to course 1 CSD111  
  course2 Intro to course 1 CSD111  
  course3 Intro to course 3 CSD333
* print out each one.
* print out the number of courses that have been instantiated..
* draw a picture showing each driver and every object in the driver.
* print out whether or not course1 and course2 are the same.
* print out whether course3 and course1 are the same.

1. Write two unit tests. One tests that 2 courses are the same. Your unit test should create two courses with the same course code and course name and then test that they are the same. The second will create two courses that have different course codes and names and test they are not the same.