

SYSC 2004 C and D: Object-Oriented Software Development **Lab No 7: [1 mark]**

The main objective of this lab No 7 is to learn about test automation and how to use effectively the unit testing, regression tests, and to learn and experiment with Automated testing using BlueJ integrated JUnit (designing test cases, creating test classes, defining test methods, specifying assertions, creating fixtures, recording a test, running tests, and analyzing test results). To this end we will be reusing the *online-shop-junit* project from Chapter 9. Source code for this project is available in cuLearn in the general block (Chapter 9).

Q1: Create a test class for the reference **Comment** class. What methods are created automatically when a new test class is created.

Q2: Create a test to check that test adding three comments, you might call that method **testThreeComments**. Note that **SalesItemTest** is already created and associated with the reference class **SalesItem** in the *online-shop-junit* project.

Q3: Create a test to check that **addComment** returns false when a comment from the same author already exists.

Q4: Create a test that performs *negative testing* on the boundaries of the rating range. That is, test the values 0 and 6 as a rating (the values just outside the legal range 1 to 5). We expect these to return **false**, so assert **false** in the result dialog. You will notice that one of these actually (incorrectly) returns **true**. This is a bug. Make sure that you assert **false** anyway. The assertion states the *expected* result, not the *actual* result.

Important Notes and Submission Guidelines:

You start by reading the source code *online-shop-junit* project and identifying the classes, and their objects and methods involved for every test of functionality, then for every test you need to establish a *test procedure* and follow its steps.

You have to do and pass a demo using BlueJ with your teaching assistant (TA) in the lab room or during her/his office hours. Your TA will lead you and conduct and run the tests of your programs and evaluate your work. You are also allowed to do your demo using your own laptop.