## Lab Exercise (Chapter 8: Part 2)

## **Exercise 1: Packages**

- 1. Create a new project 'PackageDemo'
  - a. Create a class 'ClassA' in package 'com.prg1203.package1'
  - b. Create a test program (driver class) 'TestPackage' in package 'com. prg1203.package1'
  - c. Create a class 'ClassB' in package 'com. prg1203.package2'
  - d. Test both the classes created in the TestPackage by creating object for both classes.
- 2. Create a new project 'AnotherDemo'
  - a. Create a test program (driver class) 'TestAnother' in default package
  - b. Test both classes created in the previous project.



Note: Do not forget to import the packages whenever appropriate

Hint: You will need to add the class path to the project if the classes you're importing is not in the same project. (Take note that .class files are located in the 'bin' folder, not 'src' folder)

## Exercise 2: Access Modifiers: private, public, default(package), protected access

Create a new project 'TestAccessModifier'

- 1. Create a class 'Class1' in package 'Package1'
- 2. Create 4 static integer variables in Class1 with access modifier of private, public, default and protected.
- 3. Create a class 'Class2' in package 'Package1', create a method and try to assign value 10 to all the variables you've created in Class1.
- 4. Create a class 'Class3' in package 'Package2', create a method and try to assign value 10 to all the variables you've created in Class1.
- 5. Create a class 'Class4' as subclass of 'Class1' in package 'Package2', create a method and try to assign value 10 to all the variables you've created in Class1.

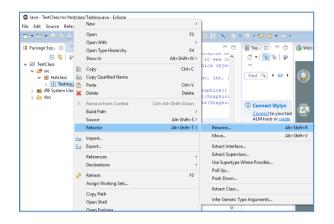
Sample statement of subclass (Inheritance):

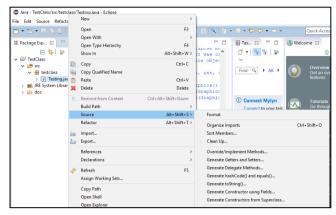
```
public class Class4 extends Class1 {
    ...
}
```

Note: Do not forget to import the packages whenever appropriate

**Exercise 3:** Explore the usage of refactor and auto-generate for setters/getters and constructors.

Create a simple **Product** class with the instance variables of: title (String), price (double), qty (int). Complete the class with all the constructors, setters/getters and toString. Use the auto-generate features in Eclipse to complete this exercise.





**Exercise 4:** Explore the usage of Javadoc.

- i) In the Product class you've created in Exercise 3, add in the Javadoc comments for the class, the variables and each methods, then generate the Java documentation.
- ii) Try generate the Java documentation for the project in Exercise 1. Observe the output.

Reference on 'How to Write Doc Comments for the Javadoc Tool': <a href="http://www.oracle.com/technetwork/java/javase/documentation/index-137868.html">http://www.oracle.com/technetwork/java/javase/documentation/index-137868.html</a>

