**SE401: Software Quality Assurance & Testing**

**Activity 5.1: Unit Testing and Ant**

# Objective

The objective of this activity is to develop a test suite for unit testing using JUnit

# Specification of the Program to be Tested

You are given the source code of a Java class named StringUtil.java. This class provides a public static method

public static String pluralize(String word)

The specification of the method is as follows:

Input: The argument word is a single word in English.

Output: If the word is a singular noun, it returns the plural form of the noun. Otherwise, it returns the original word.

Exception: if the argument is not a properly formed English word, an IllegalArgumentException should be thrown.

# Requirements of the Lab Exercise

1. Write a JUnit test suit to adequately test the pluralize() method. You may use any combination of functional testing techniques to develop the test cases.
2. Use Ant to run the testing process, which includes compilation and the execution of the test suite.

# Deliverables

1. The source code of the JUnit test suite.
2. The Ant script.
3. The test report generated by JUnit.
4. A report that discusses the techniques you used to design the test suite.
5. A summary of the defects revealed by your test suite (with references to specific test cases).

All files must be in one of the following formats

* + Plain text, including source code and scripts.
  + Microsoft Word and Excel
  + PDF

The entire deliverable set must be packaged in a single archive file using one of the following formats

* + ZIP
  + TAR and GZIP (GNU zip)
  + JAR