

# SE 461 Software Testing and Quality

## Assignment 3

**Due on Wednesday, April 7, 11:59PM.**

1. (80 Points) Revisit Question 3 of Assignment 1. Use TestM-skeleton.java (attached to this assignment) as a starting point, and rename it as TestM.java to continue. Write one JUnit Test Class that achieves, for method M.m(), each of the following coverages: (1) node coverage but not edge coverage; (2) edge coverage but not edge-pair coverage; (3) edge-pair coverage but not prime path coverage; and (4) prime path coverage. In other words, you will write four test sets (groups of JUnit test methods) in total. One test set satisfies (1), one satisfies (2), one satisfies (3), and the last satisfies (4). Consider feasible test requirements only.

Write a report that includes the following two parts:

- 1) For each test method written, explain which coverage criterion it addresses and which test path it covers.
- 2) A screenshot of the result of running your test class in Eclipse.

2. (20 Points) Finish the exit exercise of the JUnit tutorial that the instructor provided.

After you finish the assignment, submit three files to the Cougar Course system:

- 1) The TestM.java file.
- 2) The pdf version of your report.
- 3) A second pdf document that includes your finished JUnit tutorial work, including the source code of the two test methods, and a screenshot of running your test suites.