

CIS 613 – Software Testing, Winter 2020
Project 1: Boundary Value Testing and JUnit 5
Due Date: Friday, January 31st, 2020

You are provided (on Blackboard) with the following Java source files:

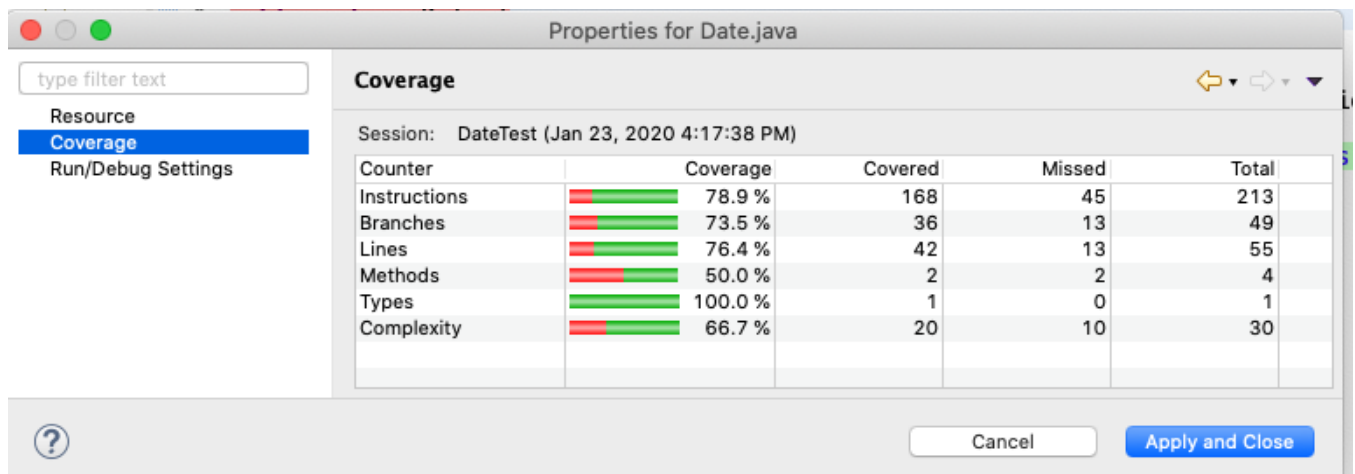
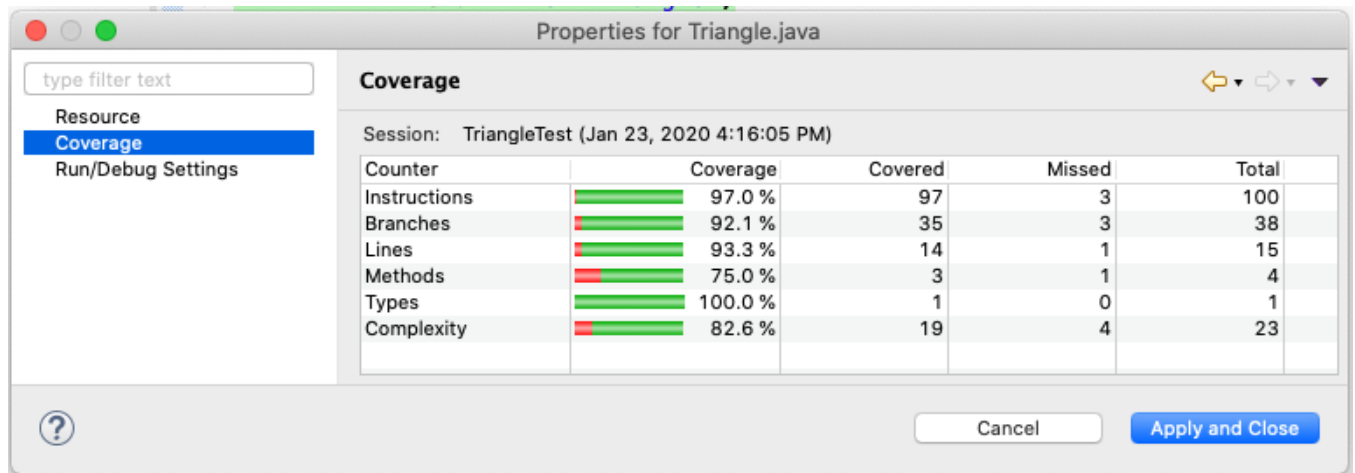
- `Date.java`
- `Triangle.java`
- `InvalidValueException.java`
- `InvalidDateException.java`
- `DateTest.java`
- `TriangleTest.java`

For the `Triangle` class, code the test cases for Robust Worst-Case Boundary Value Testing (Table 4) as described in the file `BoundaryValueTesting-Triangle.pdf`. The `TriangleTest` class provides you with the template methods to complete.

Similarly, for the `Date` class, code the test cases for Robust Worst-Case Boundary Value Testing (Table 4) as described in the file `BoundaryValueTesting-NextDate.pdf`. The `DateTest` class provides you with the template methods to complete.

Instructions:

- Use JUnit 5 framework's parameterized testing feature to code the test cases identified from applying the Robust Worst-Case Boundary Value testing method to `Triangle` and `Date` classes.
- Complete the "TO DO" sections in `TriangleTest` and `DateTest` classes.
- DO NOT modify any other classes provided to you.
- Get all the tests (343 tests each for `Triangle` and `Date` classes) to pass.
- After all the tests (343 tests for each class under test) pass, use Eclemma to measure code coverage. You can accomplish this by doing the following:
 - Right-click `TriangleTest` class and select "Coverage As -> JUnit Test" to run the tests in coverage mode.
 - Right-click the `Triangle` class in the Coverage view and select Properties and then select Coverage. Take a snapshot of the resulting window and upload the resulting image file to Blackboard (see images below).
 - Right-click `DateTest` class and select "Coverage As -> JUnit Test" to run the tests in coverage mode.
 - Right-click the `Date` class in the Coverage view and select Properties and then select Coverage. Take a snapshot of the resulting window and upload the resulting image file to Blackboard (see images below).



- Upload only the following two test files and the code coverage images file by due date.
 - DateTest.java
 - TriangleTest.java
 - Two code coverage image files
- **Due Date: Friday, January 31st by 11:59PM on Blackboard**