Northeastern University
CS5500 – Managing Software Development
Fall 2018, {Jump, Katz, and Weintraub}

Grading for Homework 4: Testing

CCIS-ID:	aflores
Repo Name:	https://github.ccs.neu.edu/cs5500/student-49-F18
Commit-ID:	cc8aa15
Repo Commit Date:	18 Nov 2018, 18:44 GMT-5
Late:	No
Graded By:	Praveen
Total Score:	72

1 General

1. **QUESTION:** Maven test doesn't run correctly?

   Yes, runs correctly

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2 double sqrt int n

2. **QUESTION:** There should at least be three tests: input, output from function under test:

   (a) 1 , 1.0
   (b) 2 , 1.4
   (c) -1 , expect an error

   Satisfactory

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3. **QUESTION:** Is the test set insufficient?

   -1pts if there aren't at least two more tests

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4. **QUESTION:** Is MAX INT is used: boundary on int?

   No

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5. **QUESTION:** The test should include a reasonable range for precision of the answer, e.g. 0.1.?

   -1pt for no range

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6. **QUESTION:** Does the test suite accept our given implementation being supplied?

   It does

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7. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

   No

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8. **QUESTION:** Does the write-up comments that better style would be to throw an IllegalArgumentException instead of -1?

   +1pts yes

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3 public int sqr int n

9. **QUESTION:** There should be at least these four tests:

   (a) 46340 , 2147395600
   (b) -46340 , 2147395600
   (c) 46341 , expect an error
   (d) -46341 , expect an error

   -2pts for missing one test

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10. **QUESTION:** The test suite should include at least six more tests:

    (a) 0 , 0
    (b) 1 , 1
    (c) -1 , 1
    (d) 2 , 4
    (e) 3 , 9
    (f) 4 , 16
    (g) -2 , 4
    (h) -3 , 9
    (i) -4 , 16
    (j) 10000 , 100000000
    (k) -10000 , 100000000

-1pts for an insufficient test set; If there aren't at least six tests

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11. **QUESTION:** Does the write-up for this test suite accepts our given implementation being supplied? The code handles overflow or underflow poorly?

    Satisfactory

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12. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

    No

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13. **QUESTION:** Does the write-up comments that the function would be to throw an exception, e.g. RunTimeException or IllegalArgumentException?

    +1pts Yes

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4 public int factorial int n

14. **QUESTION:** There should be these four tests:

    (a) 0 , 1
    (b) 1 , 1
    (c) 13 , expect an error
    (d) -1 , expect an error

    -2pts for missing one test

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15. **QUESTION:** In addition, there should be these 10 tests:

    (a) 2 , 2
    (b) 3 , 6
    (c) 4 , 24
    (d) 5 , 120
    (e) 6 , 720
    (f) 7 , 5040
    (g) 8 , 40320
    (h) 9 , 362880
    (i) 10 , 3628800
    (j) 11 , 39916800
    (k) 12 , 479001600

Minus Points: 4

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16. **QUESTION:** Does the write-up for this test suite accepts our given implementation being supplied? The code handles overflow or underflow poorly?

    Satisfactory

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17. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

    No

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18. **QUESTION:** Does the write-up comments that the function would be to throw an exception, e.g. RunTimeException or IllegalArgumentException?

    No

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5 A public int sumUp int n

19. **QUESTION:** There should be these five tests:

    (a) 0 , 0
    (b) 1 , 1
    (c) -1 , expect an error
    (d) 65534 , 214738534
    (e) 65535 , expect an error

    Satisfactory

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20. **QUESTION:** There should be a minimum of three more tests?

    (a) 2 , 3
    (b) 100 , 5050
    (c) 20000 , 200010000

    Satisfactory

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21. **QUESTION:** Does the write-up for this test suite accepts our given implementation being supplied? The code handles overflow or underflow poorly?

    Satisfactory

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22. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

    Satisfactory

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23. **QUESTION:** Does the write-up comments that the function would be to throw an exception, e.g. RunTimeException or IllegalArgumentException?

    Satisfactory

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6 Interpretation 2: n is an element of I

24. **QUESTION:** There should be these four tests:

    (a) 65534 , 2147385345
    (b) 65535 , expect an error
    (c) -65534 , -2147385345
    (d) 65535, expect an error

    -5pts Missing more than 3

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25. **QUESTION:** There should be a minimum of six more tests:

    (a) 0 , 0
    (b) 1 , 1
    (c) -1 , -1
    (d) -2 , -2
    (e) 100 , 5050
    (f) 20000 , 200010000
    (g) -100 , -5050
    (h) -20000, -200010000

    Part 1: -1 if the test set has at least half of the six cases
    Part 2: +1 if the test set includes 0, 0 in addition to these six/three cases.
    Part 3: Satisfactory

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26. **QUESTION:** Does the write-up for this test suite accepts our given implementation being supplied? The code handles overflow or underflow poorly?

    Satisfactory

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27. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

    No

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28. **QUESTION:** Does the write-up comments that the function would be to throw an exception, e.g. RunTimeException or IllegalArgumentException?

    +1pts Yes

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7 public int simpleFunctionXplusY int x, int y

29. **QUESTION:** Part 1: There should be at least 16 boundary tests. Tests 3-4, 7-8, 11-12, 15-16 are examples of testing along the edges of the function, shown in the figure?

    Minus Points: 5

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30. **QUESTION:** Part 2 Bonus: There should be at least 16 boundary tests. Tests 3-4, 7-8, 11-12, 15-16 are examples of testing along the edges of the function, shown in the figure?

    Bonus Points: +1 If the test suite includes 0, 0, 0

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31. **QUESTION:** Plus any four so long as the four cover all combinations of plus or minus x and y that covers each region. I-IV in the graph?

    Satisfactory

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32. **QUESTION:** Does the write-up for this test suite accepts our given implementation being supplied? The code handles overflow or underflow poorly?

    Satisfactory

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33. **QUESTION:** Does the answer have the right tests on the negative path but missed on the write-up?

    No

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34. **QUESTION:** Does the write-up comments that the function would be to throw an exception, e.g. RunTimeException or IllegalArgumentException?

    +1pts Yes

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8 public String despacer

35. **QUESTION:** There should be at least seven tests (-1pts per missing test):

(a) With no spaces in the string

(b) With only single spaces in the string

(c) With at least one double space in the string

(d) At least one leading double space in the string

(e) At least one trailing double space in the string

(f) At least one with more than one at least double space in the string

(g) At least one with more than a double space somewhere in the string

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Minus Points: 0

You had the following tests: With no spaces in the string., With only single spaces in the string, With at least one double space in the string, At least one leading double space in the string, At least one trailing double space in the string, At least one with more than one at least double space in the string, At least one with more than a double space somewhere in the string

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36. **QUESTION:** Does the write-up for this test suite not accept our given implementation being supplied?

    Satisfactory

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9 Part 2 – Structural Testing

37. **QUESTION:** Missing CFG?

    Satisfactory

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38. **QUESTION:** Incorrect CFG?

    Minus Points: 2

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39. **QUESTION:** Tests don't get to 100 percent branch coverage?

    Satisfactory

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40. **QUESTION:** Missing Test?

    Satisfactory

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41. **QUESTION:** Accept the code in the write-up?

    -10pts

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10 General Comments

42. **QUESTION:** Comments:

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    ”1.WARNING - Maven not configured correctly. Result of ’mvn clean install’ -¿””Tests run: 0, Failures: 0, Errors: 0, Skipped: 0”” 2.All the tests are mocked, can’t test the actual implementation”

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43. **QUESTION:** Screenshot, if:

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    https://drive.google.com/open?id=1HlDgCkWenX7B57jn1zMX3aZw4TQ7el9L
