Homework 4

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Repo URL: **https://github.ccs.neu.edu/cs5500-fse/tannerhuynh-F19**

Commit Date: **Fri Nov 8 20:34:23 2019 -0500**

Late: **No**

Grader: **Sibendu Dey**

Score: **55.0**

Rubric Items

Question: Problem 1a: int sqr (int n);

-10pt No answer given

total deduction taken: 10.0

Question: Problem 1b: int factorial (int n)

Good answer given

Question: Problem 1c: int multiplier (int x, int y)

-0.5pt Missing boundary case (1, MAXINT)
-0.5pt Missing boundary case (1, -MAXINT)
-0.5pt Missing boundary case (-1, MAXINT)
-0.5pt Missing boundary case (-1, -MAXINT).,
-0.5pt Missing boundary case (46340, 46340).,
-0.5pt Missing boundary case (46340, -46340).,
-0.5pt Missing boundary case (-46340, -46340).,
-0.5pt Missing boundary case (-46340, 46340).

total deduction taken: 4.0

Question: Problem 1d: String despacer(String inputText);

-1pt Missing test case no spaces in the string
-1pt Missing test case with only single spaces in the string
-1pt Missing test case with at least one double space in the string (boundary)

-1pt Missing test case with more than a double space somewhere in the string
-1pt Missing a test case where the string is null.

total deduction taken: 5.0

Question: Problem 2a: Create the CFG (control flow graph) for the code. You may draw this by hand, scan it, and then insert it into your submission.

-1pt Loop condition (i < inputText.length()) is not in its own block
-2pt the entire for loop statement is in its own block - that is, line 17 is in its own block
-3pt CFG is missing the for loop
-2pt The arcs leading from any condition block are not both labelled - and the labels must be T(rue) or F(alse).

total deduction taken: 8.0

Question: Problem 2b: Create junit test cases for the tests proposed in Problem 1 for the despacer method. Run those tests. Based on the scope of these tests and the results (functional or structural), should we accept or reject this implementation? Explain your answer using data. (10 points)

-10pt No answer given.

total deduction taken: 10.0

Question: Problem 3 Consider the two methods IRS.youOwe, shown in Figure 3 on page 4, and IRS_Alternate.youOwe2, shown in Figure 3 on page 5. Thinking only about structural testing, please argue whether one should prefer one version or the other, or explain why neither structure matters using a fact-based argument. The two methods are functionally equivalent. We will ignore arguments based on functionality or readability. (15 points)

-8pt Preference considers branch and condition coverages, but gives no concrete numbers for the coverage.

total deduction taken: 8.0

Question: Additional Comments

Comments:
1. Problem 1a is a sqr() method, I think you misunderstood it.
2. CFG should constitute actual portions of the code, I think you made the CFG
based on a much pseudo version of the code.

Question: Screenshot, if any

None
