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Documentation for Lab 3

1. Were you able to find more bugs using the conditional coverage? Why?

**Yes, I was able to find more bugs using the conditional coverage. Because this shows which part is not covered by the test. Also, it helps you evaluate the boolean expressions. Also, I was able to look at the coverage and create the specific test cases I wanted to check on covered bugs.**

2.What kind of “conditional coverage” does EclEmma report?

**EclEmma make sure that we have covered all the branches in the code. For this one, it reports at least once when it is accessed. From the documentation, it says that all the branch coverages are complex.**

3. Would an EclEmma report showing 100% condition coverage satisfy an FAA requirement for MC/DC? Why or why not?

**No, it would not satisfy an FAA requirement because it only covers branch coverage but not conditional coverage.**

4. Were there lines you were unable to execute using only the Parameterized tests? Why?

**No, I was able to execute all the tests using only the parameterized test because I had all the test cases that covers the conditional statements, this is because counter class is only for input partitioning and was able to create all the input tests.**

5. Which do they think would be a more time-consuming strategy for producing a white box test set for countOs();

a. using conditional coverage guidance to identify an adequate test set, or

b. using CFG analysis to identify an adequate test set?

**Using CFG analysis to identify an adequate test set.**

6. Which of the above two alternatives do you think would work best to select tests for a 100,000 lines piece of software? Why?

**Using conditional coverage would be a more effective way to generate test cases for 100,000 lines piece of software because we will be able to cover more conditions by using a set of test cases and it’s easy to start with conditional coverage.**

7. What are the limitations or weaknesses of test sets developed using only branch coverage? (think about which bugs you didn't find using conditional coverage and about what conditionals might look like in more complicated software.)

**The limitations or weaknesses of test sets developed using branch coverage are, that will ignore branches within the Boolean expression which occur. There also may be another condition that can be used for decision making.**