CMSC 435 - Software Engineering Spring 2010 Quiz 2

Name: SOLUTION

Answer the questions below. Be clear and concise in your answers, writing in complete sentences and providing examples for support as appropriate. No answer should take more than three sentences.//

Performance was much lower on this quiz. I didn't intend to ask particularly tricky questions, and all of the information was given during the 2/16 talk/demo. There were several perfect scores on the quiz. It's best to arrive on time for the quizzes. Usually this will give you plenty of time, not only to answer the questions but also to briefly plan your answer. As always, contact me if you have any questions or concerns.

1. (5 pts.) What is the primary difference between GUI testing with the GUITAR framework and testing using capture/replay tools alone?

What I was mainly looking for here was a mention that GUITAR uses a model to generate test cases while traditional capture/replay tools do not. Many of you felt that automation alone and/or automated generation of test cases was the primary difference (with no mention of the model), and I gave majority credit for that answer. In our discussion on 2/16, we definitely focused on the importance of the model, and the GTAC talk does the same.

Points:

- +1 for any difference between the two
- +2 for mentioning test case generation and/or automation
- +2 for mentioning that GUITAR is model-based

Favorite Answers:

- "GUITAR ensures that every possible sequence of events is tested by developing an event flow graph ... then each path is tested through execution"
- "GUITAR framework can rip the GUI to generate an event flow graph that can be used to generate test cases"
- "the GUITAR framework has the capture part create a core, which is used for other parts of the project such as replay"
- 2. (5 pts.) Describe (individually) the purpose of the Ant, SVN, and Cobertura tools.
 - Ant "Apache Ant is a Java-based build tool. In theory, it is kind of like make, without make's wrinkles (from Ant website)." As we know, we can also run programs and execute test cases with Ant, and there are plug-ins available to let us do many other things (such as SVNAnt, which lets us check out code via Subversion). Keywords: build, run, script
 - Subversion "Subversion manages files and directories, and the changes made to them, over time. This allows you to recover older versions of your data or examine the history of how your data changed (from Subversion website)." Keywords: version, source code
 - Cobertura "Cobertura is a free Java tool that calculates the percentage of code accessed by tests. It can be used to identify which parts of your Java program are lacking test coverage (from Cobertura website)." Keywords: Testing, coverage

Points:

- \bullet +2 for Ant
- \bullet +2 for SVN
- $\bullet~+1$ for Cobertura