Module 5: Journal Entry

Jason Kremhelmer

Southern New Hampshire University

CS 320: Software Test Automation

Karl Lewis

9 June 2024

**What were the software testing techniques that you employed for each of the milestones? Describe their characteristics using specific details.**

During this course there were multiple forms of testing used. I used both static and unit testing, both of which are forms of Whitebox testing. When static testing is employed, the code is studied and compared to specifications in order to identify bugs. This type of testing was very useful when my code would fail a JUnit test. I was able to find and fix the code that was flagging the error.

**What are the other software testing techniques that you did not use for the milestones? Describe their characteristics using specific details.**

One technique I did not use was integration testing. This form of testing would test the application. It would be possible to confirm that AppointmentService, TaskService, and any other classes work together at the integration layer. I have not completed this test yet.

Automated testing is another form that I have not tried. The JUnit testing that I completed was done manually. There are services available in eclipse that autorun JUnit testing. I have not employed them during this course.

**For each of the techniques you discussed, explain the practical uses and implications for**

**different software development projects and situations.**

Firth we will look at automated testing. This type of testing is more suited for larger applications or code bases. This would prove to be useful if t an integration pipeline was employed, you would also want to employ some sort of automated testing prior to the code entering the pipeline. One bad branch could interfere with all future code.

Doing a unit test is helpful to squash issues while they are still small. This helps ensure that when you are writing the code, you can catch it prior to it becoming a much larger issue. Doing unit testing may also help harden the code in case of missed logic branches.