CS-320-T2824 Software Test Automation & QA

5-2 Journal: Software Testing Techniques

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

During modules three, four and five the techniques I used was to first to determine the requirements for the given milestone. The develop the various methods needed to satisfy those requirements. I also created all the methods needed to allow testing to have 100% code coverage. Creating the auto generated ID for the objects created made it somewhat easier to create the methods in each class.

My experience in development gave me insight into the methods and variables needed for the tests to be successful. Each week I used the previous weeks modules as a guide and then added the new requirements for that week into the classes and tests.

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

One of the major techniques I left out of testing was the use of “assert all”. If I had used it the way I should have my code in the tests probably would have been way smaller. I attribute this to my lack of experience in testing.

So instead of a technique that I did not use, I’m going to go with a technique (it’s really a habit) that I use to test my code that I need to break is instead of running the tests and looking to them for answers I still find myself executing the code and resolving my errors through that process. Even this week I found myself doing that and when it came time to run the tests everything passed because I would write a method and then run the code to find errors and resolve them that way. I guess in a way what I do could be considered error guessing which has been known to cost me lots of time when resolving issues with my code

* For each of the techniques you discussed, explain the practical uses and implications for different software development projects and situations.

I know you are probably wondering how creating a method that generates an ID automatically is a software testing technique, while it is not technically a technique for software testing it does have a major impact on how testing is carried out. So for each week I had a method that generated the ID automatically, this meant in my software tests I did not have to include the ID portion when testing the various methods. The ID was generated in the Service class using the add method. While this is somewhat of a more secure way of creating objects it did not go without its caveats. Because I went that route, I had to create a method in the Service class to get the last ID and last index of the arraylist, this had to be used during testing after an object was created so the test would succeed.

Another technique I used which is directly related to software testing is I use of a method for checking if the provided date is before today when attempting to create an Appointment object. Each method that involved the use of appointmentDate I would check for null and then call the checkDate method which would return a Boolean. I made use of LocalDateTime instead of Date because it is newer and a lot easier to use. On each of the test, the appointment date used was dynamically created by getting todays date and time then adding or subtracting 5 days which satisfies the test.