Southern New Hampshire University

CS-320-T2648 Software Test Automation & QA

7-2 Final Project

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Summary

While working on the Project One, different levels of testing were used to ensure the requirements were met successfully. While using the programs from each milestone as a guide, I attempted to standardize the code as much as possible since requirements like contactID, appointmentID, and taskID were similar so I used the same format for all similar requirements, doing that kept the code cleaner and easier for me to understand. The appointmentService class was the most challenging in my opinion, mainly because of the Date utility that was required. I feel confident on the overall quality of my Junit tests, in addition to developing the program close following its requirements in the Rubrics, the test coverage result proved the code was accepting the information that I judged correct per the requirements.

Testing is a very crucial part of software development lifecycle; it is executed to test the functionality of the utility based on whatever the client’s requirements. While writing check instances for the classes, I frequently referred to the project’s requirements and performed extensive research to ensure the code was technically sound. Working on the simpler tasks first was helpful in moving the overall project along.

As mentioned previously, the AppointmentService was the most challenging for me because of the Date utility. My testing technique with the requirements allowed me to cowl maximum of my code inside the Junit look at cases and I obtained an output that I used to be looking ahead to from the utility ensured the code’s efficiency. Ensuring the code was properly commented from the very beginning of working in this project ensured the code was easily read and understandable. My Junit tests were far more efficient on the final project submission when compared to my milestones submissions because I had a better understanding of the process and more experience with the project’s requirements.

Reflection

Static testing is a software testing method that involves the “examination of a program, along with any associated documents, but does not require the program to be executed.” ("What is static testing?" 2020.) The test is accomplished through review and static analysis, and it includes software requirement specifications, test case validations, architectural review, and designs. Dynamic testing includes interacting with the program while it runs, to ensure the program’s variables are behaving as expected. (Rungta, n.d.) Dynamic testing have two different categories, a white box test, that checks how the system is performing while the code is performing, and a black box test that verifies the system’s functionality. The two types of testing are not meant to be used exclusively, the main difference between them is the fact one test type requires the program to be run and the other one does not. The static testing is typically performed earlier in the software development, it helps preventing defects before the program is deployed, it typically costs less, and it takes a shorter time to be performed. ("Difference between static and dynamic testing," 2020.) Dynamic testing typically happens later the software development stage after deployment, and it finds and fixes defects. Dynamic testing involves test cases; therefore, it is a lengthier and more expensive process when compared to static testing. While working on the final project, I found I took a more static approach than I did while working on the milestone’s projects. Functional Testing was also used while developing the program, Functional Testing is when we test the functionality for the behavior and output, test cases match the expected output.

For using mindset “caution” I know it is very important to make sure to rely on the tools you have disposal. Do not think about the code being good enough to do what is intended. Doing so will make sure your product is exceptional so when you are testing it is okay to take a few breaks if you are having a hard time. Companies you work for will hire you because you are giving them not just something that is good enough, but it is perfect and meets every requirement they want. Mindset “bias” kind of goes hand in hand with “caution”. You have to know that everyone makes mistakes its human nature. Make sure you take your time to go over the code that you have been working on and testing so that you can find any errors or bugs that potentially occurred because you miss typed something or forgot to add something. Also have someone else review your code they may find things that you did not because you are the one writing the code and sometimes it is hard to see things from your perspective. It is easy to think that your code is correct because you are the one that coded it and it is important to stay out of this mindset.

Mindset “disciplined” is something that is used in many different scenarios than just coding. Discipline is something you must work on yourself it comes with practice and perseverance. Being disciplined in coding means you do not take shortcuts even if you know you can. This will help you as a developer it will help avoiding silly mistakes because you were taking these shortcuts and, in the end, you had to put the same amount of time in or more because you had to go back and figure out where you went wrong. Cutting corners in development can really hinder the product so it is best to just do it without cutting corners. If you are being disciplined in this filed, you will be in a good position but if you are not, you will be looking for jobs constantly. I plan on avoiding this my taking responsibility as a developer and admitting when I have failed to adhere to the advice of how I could make the product better.

References

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