7-2 Project Two Submission

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**Summary and Reflections Report**

Unit testing is an essential part of creating solutions for software. It drastically decreases the number of errors that can be in a code. It also increases the quality of what has been coded. Unit testing is not only a quick way of finding the issues in the code, but it also allows the programmer to fix them quickly. The method I used for this caused me to create tests for each one of three required classes that were created. They were Contact service, Task service and Appointment service.

The first one I worked with was the Contact service. This one had set requirements. Some of these requirements included having unique ID strings that were either ten characters long or shorter. They also were not allowed to be null and were not able to be updated. It also made first and last name a requirement. The phone number was not permitted to be null or over 10 digits long. The address also couldn’t be null, but it was allowed to be up to 30 characters long. In order for the Unit tests to pass the code had to meet all of these requirements. The software must contain all the above listed requirements to pass the created Unit tests. I had to test all the of the requirements and ensure the software worked properly.

I followed the same method for both the Task and the Assignment parts of the project. I tested each part of the code that was required to ensure that it met the demands of the project. This was the best way to get test for any possible issues in the code. By testing the code so much, it gives the code the ability to be used for a different project later on down the line It could also be used for additional requirements for the current project. When a company is able to use pretested a code for a different project, it cuts down on the time and money that is spent during the software development process.

**Reflection**

The main testing method I used for this was the Dynamic testing. This allowed me to test the behavior of the code which is what dynamic testing is used for. This aids in ensuring that the variables will either be constant or not. It also finds any weaknesses or other issues that may be in the code. The other method to test the code that I used was the static testing. At my new job, this method gets used quite a bit. This is normally done through a review of the code. I normally have some on in the technical coach team check over the code just to make sure that I have not made any mistakes. A huge difference between static and dynamic testing is that its not as easy to find issues with the dynamic testing. The tester must use dynamic testing to find things such as data breaches or other security breaches.

To make sure this project was done right, I wanted make sure that all of the needed test cases were named. For this to work I had to make note of all the relationships that were made in the code. I also had to confirm that code was complex enough to be able to work all the tests that needed to be done with the code. This required full understand of not just parts if the code, but the full code.

Another thing that I have noticed is that many software developers can be biased when they have to look over their own code. I currently work with someone who not only gets defensive, but he literally gets offended when testing of their code is suggested. I have also learned that it’s better to not test your own code. That way you have someone with a fresh pair of eyes to look over your work. I am new to dealing with some type of software testing. However, in my few weeks of working in that field I have seen how small and big mistakes tend to be overlooked due to time restraints or biases. Normally the code will still work, but the mistakes that are overlooked affect the functionality or look of the program. of the program. Those issues can be fixed by having a set of testers that are specifically there to test the code and aid in the software developmental process.

Creating a program that has good quality is the main focus for any person that is a software developer. That means the program should be free of errors and mistakes and also runs properly for user. This requires taking the right amount of time to test the coding and every part of the code. If this is done properly then the financial cost to creating the code will be drastically cut down. It also means that you will have happier customers which in turn means a bigger pool of customers to work for.