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3-2 Milestone Two: Enhancement One: Software Design and Engineering

CS-499-T6571 Computer Science Capstone 20EW6

The artifact that was used for the milestone two assignment is a medical application program that can store doctor, patient, and employee information. Once the information is stored, the program allows you to print out the information that was entered in by the user. It was provided to me through a software testing class for the purposes of learning how to test software programs similar to the medical application. It is a fairly large program written in the C++ programming language and not only provides experience with how to write code, but how to test it as well.

Being able to write code is a great skill to have in the computer science field but, until you know how to test code and implement testing strategies the way a tester would, you will always be susceptible to unnecessary errors in you code. C++ is one of the more popular programming languages and testing strategies are a key component to working in the computer science field therefore, I chose to showcase the medical application in my ePortfolio for the software design and engineering portion. With the use of Junit testing framework, I was able to write several test classes meant to test different parts of the application for any errors that might exist using the C++ programming language. This shows the ability to not only write code for software design but shows the ability to test it and utilize testing strategies to search out errors within code. I was able to write several test cases using JUNIT that showed parts of the application working properly and I also was able to write test cases that were able to find several errors within the program. With this information, a developer can run the test case and be able to go directly to the portion of code that houses the error that needs to be corrected.

With the submission of the updated medical application I believe I am on track to meet the requirements of the final project ePortfolio and the learning objectives within this course. It showcases the ability to use programming languages and testing strategies to meet the objectives of this course and the software development portion of the final project. I have learned that programs are able to function and run even though errors exist within it. This means that testing strategies are necessary to ensure that a product is error free and all portions of it work properly.