Milestone Two:
Enhancement One Narrative
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1. Briefly describe the artifact. What is it? When was it created?

This artifact is from about a year ago in CS340: Client/Server Development and placed us in the role of a developer designing a dashboard that would take a massive amount of data from an animal center CSV and put it into a webpage with a table and some graphs, all coded in Python. We had to create a database and that would pull the data from the CSV file and use it to populate a table and work with the sort functions on the dashboard. At the time of the project's completion, there was no way to add, remove, or update any of the data, only view it.

2. Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in software development? How was the artifact improved?

Category one is meant to highlight skills in software design and engineering. With this project focusing mostly on creating a database and using it to provide data for a dashboard, I chose to rewrite the program in Java and add features that would allow users to add, update, or delete data, instead of just reading it. This would require starting again from the ground up and not only recreating the original functionality but also expanding on it. The addition of the new CRUD features demonstrates that I am capable of not only following directions as with most of our past assignments, but also coming up with my own ideas

with their own unique implementations and doing the problem solving to get them in place and getting the program running correctly. I would say this qualifies as adaptability and problem-solving skills.

3. **Did you meet the course outcomes you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

I believe that I have adequately met or will soon meet the course outcomes that I originally strove for at the beginning of this course. I have designed and developed a professional quality program that solves the client's problem and does so with an easy-to-use interface that is simple in design but not overly so. The application is extremely user-friendly and works in a way that the client will be able to utilize for a long time. Should the client wish to have new features added, it should be straightforward because of the flexibility of IntelliJ Idea, phpMyAdmin, and MySQL, the tools I used to recreate this program. At the beginning of this course, I never spoke on developing a good security mindset because I have never been known for concentrating on security. It is not a matter of apathy; it is the high-speed nature of our course work and my busy life that typically meant I had enough time to get projects done and not enough time to do the adequate testing I wanted to do. I chose to be different this time and have improved my security mindset by implementing many more tests than usual and a secure account login feature to help mitigate design flaws and enhance security.

4. Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?

As much as I enjoyed enhancing this artifact, I had challenges that I had to overcome before I was satisfied with what I had done. The first obstacle was learning IntelliJ Idea. I am quite familiar with Android Studio, and designing forms on IntelliJ is similar, but there are enough differences to slow my progress. I learned that even being familiar with Java or any other language is a good thing, but not always enough to quickly and effortlessly finish a new project. There are many things I had forgotten throughout my courses, but the number of resources available to tackle challenges has been a blessing. I went from not knowing anything about IntelliJ or phpMyAdmin, to knowing enough to confidently create more complex projects in the future. I had issues getting various features of my program to work even though I thought that I had adequately coded all of them, only to find out that I misunderstood where the best place for my main function was and what to include in it. I also tend to spend too much time on things that are better left for a later time. If I'm not careful, I will spend hours finetuning a single page of an application so that it looks perfect to me, rather than move on and get the rest of the application working smoothly before going back to make it neat. I really tried to focus this time and deliver a quality project that did the work first and looked pretty second.