5-2 Milestone: Enhancement Three

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This artifact being improved is the same artifact as the last one. It is from the class CS-340 where we wrote code in python to interact with MongoDB. It goes through a database of animals ranging from cats, dogs, and birds. It worked alongside emergency services to find certain dogs for certain jobs. It was created back in June 2021.

This artifact not only shows my knowledge in algorithms, but also shows my knowledge and ability to work with a database. It incorporates multiple tools of knowledge that I have and allows for me to show my proficiency in computer science. It allows me to show my proficiency in securing a database, and formulating an application to work alongside the database.

The part being focused on here is the intractability with the database and authentication. When this was originally made, it was made with no security in place. This means that when run, the user just had access. If someone who should not have access had the script, then they would also get access. This led to a big security violation, where even in the beginning, the data tables could be edited. I went in, and I made it so the user actually had to input the username and password before getting access. They are then sent to the CRUD file, where it contacts the database to make sure the username and password are correct. It gets rid of a big security flaw. I also made it so you could not edit the data tables while signed in. You have to edit the information in the database as an admin. This makes it so people who are allowed access can do everything they can do, but cannot change any of the information, even if it was not malicious in nature. Two security flaws for the database and intractability to updated here and the system is a much more hardened system.

For artifact three, I also did not really have a well-defined plan besides I did want to be around security. I find security to be the most important process in any system, and I wanted to work on that. In a sense I did meet that goal, I just did not have a specific artifact I wanted to use, and it actually changed from the first one I submitted. I will add in the exact changes I made, and also update the specific object I used for the artifact in my update plan.

Since I already revisited this artifact in the last submission, I was past the reminiscing aspect of it, but it did help me understand the importance of security better. When I first started coding, I was just pushing a product out, and I did not think too far into the security of it. That was a problem, and through time I have grown to no longer do that. It was fun to see my own personal growth in the field by looking at a past creation. I did face a pretty big challenge, and that was making sure that the information was being sent to the CRUD. For some reason, in the beginning, the username and password were getting an error. I wish I could say the fix action was in the code, but it was actually on me. I was inputting the information wrong over and over again because I messed up on the actual password. It was fixed, but it shows how moving too fast can lead to errors.