CS499 Milestone Four

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For the third enhancement, I continue working on the same artifact I selected for the second enhancement. It’s an artifact created during the CS 340 course, Advanced Programming Concepts. The project aimed to create a dashboard that would filter shelter animals based on the rescue mission they would be perfect for.

I decided to work on this artifact because dashboards can provide a holistic view of data. Since I plan on working as a data analyst, I believe that knowledge of dashboards will benefit me. Through this artifact, I showcased my strong foundation in Python programming and my ability to structure the dashboard’s components using Dash’s layout system. I also showed my ability to implement interactivity through callbacks and integration with the database. The improvements I made in this artifact included the implementation of register and login functionality and adding “register” and “login” buttons. Access to the data is restricted for users who didn’t register. I also improved error messages and input validation.

With those improvements, I met two course outcomes: Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices to implement computer solutions that deliver value and accomplish industry-specific goals. The second one is developing a security mindset.

As I improved the artifact, I learned how to connect to the MongoDB database. The artifact was originally created in Apporto, and Linux Shell was used to connect to the database. While I didn’t have significant issues moving the artifact to work on my computer, I did run into problems when trying to connect to the database. It took me a lot of trial and error to figure out how to make it work.