**CS 499 MODULE 5-2**

1. Briefly describe the artifact. What is it? When was it created?

Animal Shelter project was created when I was taking CS340. This project is about creating an application that allows user access to a database of animals to create, read, update, and delete (or CRUD) animals from the stored data. This program was designed to test my skill working with databases as an admin, creating user access to databases, and manipulating the data within.

1. 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?

I included the CRUD animal shelter artifact in my ePortfolio because it demonstrates my ability to develop a functional, user-friendly application that interacts with a database. The project showcases my skills in both backend and frontend development, as it combines the use of a CRUD (Create, Read, Update, Delete) system with a web interface powered by Dash. By using Python and Dash, I was able to create an interactive data dashboard that allows users to filter, view, and manipulate animal shelter data. This artifact reflects my knowledge in database management, web development, and Python programming.

The artifact was improved by integrating a Command-Line Interface (CLI) that allows users to interact with the shelter’s database directly, making it more versatile. The addition of the CLI feature not only provides a more practical way to manage data but also enhances the overall usability of the project. This improvement demonstrates my ability to adapt and enhance a project to meet different user needs, showcasing my problem-solving skills and understanding of user interfaces in both graphical and command-line environments. The project highlights my proficiency in integrating multiple components to create a comprehensive solution.

1. 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’d say yes, I met the course outcomes I planned to meet with this enhancement in Module One. My primary goal was to demonstrate my ability to create a full-stack application that interacts with a database, and this project achieved that by combining backend CRUD operations with a user-friendly interface. I was able to implement a functional web application using Dash and Python, and the addition of the CLI functionality showcased my ability to provide multiple ways for users to interact with the data.

1. 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?

During the process of enhancing and modifying the artifact, I learned a lot about integrating different technologies and ensuring they work together seamlessly. Initially, I focused on creating a functional dashboard with Dash for displaying animal shelter data, which helped me understand the importance of both frontend and backend development. As I added the CLI feature, I learned how to combine different methods of interacting with a database (graphical user interface vs. command-line interface), which significantly expanded my understanding of user interaction and data handling.

One of the main challenges I faced was ensuring the different components (Dash web app and CLI) worked without interfering with each other. I had to balance the need for a responsive web interface with the simplicity and functionality of the command line.