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

The artifact I used was a CS340 MongoDB dashboard made in a Jupyter notebook. The dashboard was a CRUD interface for a massive collection of animals that showed data such as breed and age.

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?**

By including this artifact in my ePortfolio, I can demonstrate my ability in interacting with MongoDB through the Python programming language. On top of that, I’m able to design a user-friendly interface that allows users to interact with data in various ways. Many popular applications boil down to being advanced CRUD interfaces, and this is just my own take on that.

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?**

Since this enhancement had to do with databases and security the course outcome I planned to meet was: “Develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources”. I believe with my implementation of the MongoDB database was done in a safe and secure manner. I’d be able to take it a step further, security-wise, if the database wasn’t hosted locally.

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?**

Since the original artifact was created in a Jupyter notebook, I wanted to move the functionality over to a desktop python application. The enhancement I proposed was a desktop GUI that used Tkinter to create a nice interface for the data I’ll receive from MongoDB. Since I don’t have access to the Codio that contained the database used in my original CS340 project, I found a JSON file containing 20,000+ movies to use instead. The GUI allows the user to search and sort through movies. When you select a movie, you’ll be shown its plot as well as a corresponding movie poster. The main challenge I faced while developing this application was learning the Tkinter syntax, since I’m only really familiar with PyQT.