Ryan DeJesus

07/05/22

CS-499

For enhancement three, I chose to work on enhancing my Animal Shelter database that I created in CS-340. The original project had users access the database and allowed them to create, read, update, and delete data from the database. As well as being able to view the data in graph as well as on am geo-map. When deciding on an artifact for this portion of my Eportfolio I selected this project because it is a very clean and easy to use interface for users that demonstrates my ability to create an interface that allows user to access and modify a database. This is made clear when looking at Animalshelter.py each section of code is clearly designed and notated for one of the database management functions. Additionally, when looking at AnimalshelterDataBase.py this code takes the data and displays it in different easy to digest formats for the user, as well as letting them philter the data as they need.

When I accessed the project again after so long, I was no longer able to access the environment that I used during this course, so to work on this project I converted it to a complete python project, additionally I added more confirmations when the user accessed and of the CRUD functions, informing the user if a command could or could not be completed. In addition, I also added an interactive function when the tag on the map is clicked the name and breed of the dog show in an enlarged pop up. When planning my enhancements, I wanted to expand on the features that already existed. At first, I wanted to add more charts but as I worked, I felt it only crowded the page with a lot of the same information, so I decided instead to make the data that may have been harder to see clearer, thus the in-map data pop ups. The biggest challenge I faced when working on this artifact what the lack of the same environment in which it was created. This forced me to think about oh the project was designed and once I worked out how to get it to work in PyCharm I focused on improvement as I debugged. I developed 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 by completing the following enhancements: I worked through all warning in my code simplifying overly complex if else loops as needed, and introducing improvements to the crud mechanics so when a change is attempted and it fails the code does not break or fail it informs the user there was and error and why.