Enhancement Two Narrative

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The artifact that I chose for the Algorithms and Data Structure enhancement was my final project for IT 145 and was created in December 2018. The purpose of the project was one of two things, create a simple zoo monitoring system or a simple authentication system for the zoo. I originally did my final project on creating the zoo monitoring system which was run from a command line interface. The interface asks the user for what animal or what habitat they would like to monitor and the interface would bring up information about the habitat that the user has chosen. I decided for my enhancement, I would change the basis of the program from the monitoring system to the authentication system and rewrite the program in Visual Basic while adding GUI elements and using arrays to store data.

The reason I chose to use the IT 145 final project as my artifact for enhancement because it allowed me to build on my knowledge from that class and with what I learned in my CS 260, Data Structures and Algorithms class. I went from making a very basic zoo monitoring system to a more robust program that is more than just a command line interface. I wanted to create GUI elements in order to make it a much cleaner user experience. I chose to make a data structure to store the animal data and used arrays and ArrayLists in order to store and manipulate the data and used a bubble sort to manage the data in the arrays.

Visual Basic was one of the first languages I learned when I was in high school, so there was a bit of a learning curve but I just needed to give myself a little refresher. I used Visual Studio Code in order to write the program, and I haven’t really used that IDE as much as I have used others before. In order to implement the bubble sort, I had to create a separate procedure to implement the logic for the bubble sort in order to bypass the built in sort method from the ArrayLists.