This artifact is from IT145 and was created in June 2023. This artifact is a rescue animal training list done with array lists.The purpose of this assignment was to accept user input in the console to input animals that would be put into array lists and printed out based on certain criteria. The initial project accepted monkeys and dogs and worked with those two lists and printed out animals that finished training or the entire list.

I selected this item to be enhanced because it was an early project in my SNHU computer science journey. I wanted to go back to a class very early on and look at what improvements I could make without changing the core of the artifact too much. By going through and adding to the project, I enhanced the number of animals it could be used for and added in a sorting feature to help the user better organize the data. With this project I demonstrated how I could add to projects without adding too many useless add-ons or changing the core aspects of the artifact. I showcased my ability to take what I learned and apply it to older projects such as the selection sort I used to sort the data and allow it to be used for the appropriate type of data.

While going back through the artifact and seeing what I wanted to add, I learned how to manipulate variables via <T> and using that to allow for a single method to sort all my animal array lists. This way I could be more efficient with my coding and this allowed me to only have to write the sort method once. This was also my biggest challenge while working on this enhancement as I originally thought I would just end up writing one sort for every animal object, but by looking into my problem more I was able to find a more efficient solution that makes my code look more pleasing as well. When reviewing feedback for this project I went back and added in some comments for clarity to make the code easier to read for myself and anyone who would need to review this code in the future. The artifact was improved by allowing the user to incorporate more animals into the system and thus make it have broader applications. By including a sort function it allows the user to have easier to read data and allow for quicker, more efficient work. When looking at course outcomes, I achieved a diverse audience by allowing the program to be used for a wider user base, as well as giving an appropriate solution to the problem while managing the trade offs. There is some input checking, but not enough for me to say that it’s the most secure, so for that outcome I would say it’s partially achieved. The other two, I do not feel this project demonstrates but I do feel like they were achieved elsewhere in my portfolio.