### SNHU

### CS - 499

### Milestone 2 Narrative

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9/21/2025

**Artifact Description**

The artifact I chose to enhance is the Rescue Animal System, a program I first worked on in IT 145. It is a command line application that lets user’s intake animals, reserve them, and view them for service training. The original version worked but was pretty basic. For this enhancement I focused on making it stronger in terms of software design and user experience.

**Justification for Inclusion**

I picked this artifact because it really shows how far I have come as a developer. I reorganized the code, so it is easier to follow and added a Validation class that handles all input checks. This keeps AnimalManager focused on workflow instead of messy error handling. I also changed the way errors are handled. Instead of just sending users back to the menu when they make a mistake, the program now explains what a valid input looks like and asks them to try again. These updates highlight my ability to improve code quality, make it easier to maintain, and design for real users.

**Course Outcomes**

Back in Module One I planned to show my ability to use good software design techniques to improve an existing project. I think I met that goal here. By making validation modular and adding user feedback I used practices that are consistent with professional standards. I am also setting up JUnit testing for the validation rules, which helps prove the program works as intended. So far, my plan for covering the outcomes is still on track and I will keep expanding on it with testing and documentation.

**Reflection on the Process**

Working on this enhancement taught me how useful it is to separate logic into different classes. Having all the rules in one place makes the system easier to manage and change later. I also saw how much better the program feels when you think about the user experience instead of just making it technically work. The hardest part was figuring out how strict to make the validation without making it annoying for the user. I had to balance clear rules with flexibility. Overall, this was a good learning process that made the code cleaner and closer to what I would expect in a real software project.