

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

The artifact is a Rescue Animal System application that was initially developed in a previous course during my Computer Science program at SNHU. The purpose of this application is to manage the intake, reservation, and status of rescue animals such as dogs and monkeys. This application includes functionalities for adding new animals, reserving them, and printing lists of animals based on specific criteria.

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?

I selected this artifact for inclusion in my ePortfolio because it demonstrates several key skills and abilities in software development, including object-oriented programming, data handling, and user interaction through a console-based menu system. The artifact showcases my ability to design and implement classes and methods that work together to solve a real-world problem.

The artifact was improved in the following ways:

1. **Comprehensive Input Validation and Error Handling:** Enhanced the robustness of the application by adding input validation to ensure that user inputs are correct. Implemented error handling to manage exceptions gracefully, preventing the application from crashing due to invalid inputs.
2. **Support for Additional Animal Types:** Extended the application's functionality by adding support for additional animal types such as birds and reptiles. This involved creating new classes for these animal types and updating the Driver class to include menu options and methods for their intake, reservation, and printing.

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?

Yes, I met the course outcomes I planned to meet with this enhancement. Specifically, I demonstrated my ability to use innovative techniques and skills to implement design solutions and accomplish industry-specific goals. The enhancements align with the course outcomes by showcasing my proficiency in software engineering and design, as well as my ability to create professional-quality written and visual communications through the code and accompanying narrative.

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?

Enhancing and modifying this artifact was a valuable learning experience. Throughout the process, I deepened my understanding of input validation and error handling techniques, which are crucial for building reliable software. Additionally, adding new animal types required me to think critically about the application's design and ensure that it remained flexible and maintainable.

One of the main challenges I faced was ensuring that the new classes for birds and reptiles integrated seamlessly with the existing application structure. This required careful planning and testing to ensure that the new functionalities did not introduce any bugs or regressions. Another challenge was implementing comprehensive input validation without making the user experience cumbersome. Balancing robust error handling with usability was a key consideration.

Overall, this enhancement process allowed me to apply theoretical knowledge in a practical context, refine my coding skills, and produce a more robust and feature-rich application.