Module 3 Artifact Narrative Overview

CS499 – Computer Science Capstone

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**Brief Description of the Artifacts:**

The artifacts enhanced in Milestone Two originated from the IT145 Application Development coursework. These artifacts include the Dog.java, Monkey.java, and RescueAnimal.java files, which were developed to manage data related to animals in a rescue organization. The purpose of these artifacts was to implement basic functionality for handling animal information, including attributes such as name, breed, age, and weight. These artifacts served as foundational components within the IT145 coursework, providing hands-on experience in object-oriented programming and data management concepts.

**Justification for Inclusion:**

The selection of these artifacts for inclusion in the ePortfolio was based on their significance in showcasing skills and abilities in software development. The enhancements made to these artifacts aimed to improve their efficiency, functionality, and validity, aligning with the objectives of the Computer Science program. Specific enhancements included the addition of new variables, implementation of optimized algorithms, and integration of error handling mechanisms and logging. These enhancements demonstrate proficiency in software engineering principles and highlight the ability to design and implement effective solutions to complex problems.

**Alignment with Course Objectives:**

The planned enhancements align closely with the course objectives outlined in Module One of this class. The enhancements aimed to demonstrate proficiency in implementing and analyzing algorithms, applying data structures effectively, and improving software design and engineering practices. While the initial outcome-coverage plans remained largely intact, some deviations were made to accommodate unforeseen challenges and opportunities for improvement. Overall, the enhancements effectively addressed the course objectives, providing tangible evidence of skill development and competency in software development.

**Reflection on the Enhancement Process:**

The enhancement process provided valuable insights and learning experiences, allowing for the application of theoretical knowledge to practical software development tasks. Throughout the process, various challenges were encountered, including the need to balance efficiency with readability, and the integration of new features without compromising existing functionality. However, these challenges served as opportunities for growth, fostering a deeper understanding of software design principles and best practices. Overall, the enhancement process was instrumental in enhancing skills and knowledge in software development, contributing to the continuous improvement and refinement of the artifacts.