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CS-499

## Enhancement #2 Narrative

The artifact being enhanced for this module is from IT-145. It was a very simple collection of two files, cat and pet Java files. It created a pet object with various variables, setters, and getters for each variable. It was created in February of 2024. This artifact was included in my ePortfolio for its simplicity. Because the artifact had very little function and design, enhancing the artifact would show clear improvements in technical skill and design. It would showcase skills in the algorithms and data structures category by showing the ability to expand on the pet and cat objects, and making a well-designed data structure of pets that can be interacted with.

The planned course outcomes outlined in Module One for this enhancement have been met. The communication regarding this enhancement has been clear and of professional quality. Computer Science best practices have been used to solve problems while creating a more complex project. Course outcome #1 was also met. This enhancement involved using GitHub, checking out branches, pushing, and making pull requests. Although the pull requests and merges were made with only one developer, it showcases the ability to use collaborative environments to work on code.

While working on this enhancement, I faced a few challenges. In previous courses, I have gained experience in MongoDB as well as NodeJS while creating web applications. The artifact was made in Java, which meant other frameworks would be needed, like the Spring framework. I

made the choice, based on my experience and familiarity with frameworks, to use NodeJS instead of Java to build the backend for this web application for pets. Another challenge I have had is understanding what the intentions were behind some of the design choices with the artifact. Because of the lack of comments as well as any other forms of documentation related to the artifact, some of the variables, like “dogSpaces” and “catSpaces” as well as the function of the cat class object, were unclear to me. Based on this, I had to make a decision on how I should represent the cat class. I decided to have a single database of pets, but pet objects would also have a variable, petType. In the backend, I created a function to filter pets based on pet type. I did have trouble connecting this backend logic to the frontend, however.