

**Robert Robinson**  
**CS499 - Milestone 4**

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

The artifact was originally going to be an addition to a MongoDB project I created in CS340 but the project idea was changed during production. What I'm creating now is a new project that combines MongoDB with an HTML/JavaScript front-end. I created it this week during some extra time off I had during the holiday week.

**B. 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 item to demonstrate my skills by creating a simple database program with both client and server-side elements. Before this project, I had very minimal skills using HTML and JavaScript. The project shows that I can learn a new language and incorporate what I learned into a fully functional program. Since this is an original artifact, there wasn't any original to make improvements on.

**C. Did you meet the course objectives you planned to meet with this enhancement in Module One? Do you have any updates on your outcome-coverage plans?**

When I originally planned what I wanted for this section in Module 1, I had two choices. I could either write a front-end for a Mongo database or do advanced SQL scripting beyond what I learned in the original DAD220 (SQL) class. While both paths would be a challenge, I decided to go with the first choice. The artifact I created demonstrated an ability to use well-founded and

innovative techniques, skills, and tools in computing practices to implement computer solutions that deliver value and accomplish industry-specific goals (database) which a part of the course outcomes. I don't have any updates on my outcome-coverage plans at this time.

**D. Reflect on the process of enhancing and/or modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

Like the last artifact, this one was a challenge. I didn't have any experience in HTML or JavaScript so I was starting from scratch. I found a few tutorials online and learned a little bit about NodeJS and Express. I also watch a few tutorials about Jade and Handlebars within the Express framework. I installed the MongoDB and Node.JS on my home computer and followed along with the tutorials to create a simple database. My previous experience with MongoDB from CS340 assisted me in navigating the database. I created a CRUD application that would take data from an HTML front end and either create, update or delete the documents. It also had an option to list the current documents in the database. Since my original REST API was written in Python, I couldn't reuse a lot of the code. There were some similarities in the fundamentals, such as routing that assisted me in understanding some of the tutorials. I ended up with two prototypes, one using Jade and the other using Handlebars. The user interface for both look different and have a different feel to them.