**5-2 Milestone Four: Enhancement Three: Databases Narrative**

**CS-499-T1213 Computer Science Capstone 22EW1**

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

The artifact that I have chosen for Category Three, Databases, is my final project: Data Management Report, originating from the class DAD-220-J1267, Intro to Struct Database Environment, from October 2019.

**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 chose this artifact because I was comfortable with the MySQL database and felt I was able to revisit it through what I have saved in my files. Additionally, I enjoyed this class and the assignments because it allowed me to see my work as I progressed through the commands. At one point, I actually misspelled my own last name. I was able to make that correction without much trouble. With this artifact, I enhanced the database by including a prefix column which identifies each, as either Mr., Mrs., or Ms. With this additional data field, I was required to add each prefix individually. I also added an additional image name and location into the image table. Within these enhancements, I have showcased my skills and abilities. Although I was not able to actually run the database, due to the inability to access it, to see if the enhancements were accurate, I could see that my enhancements are included in the command lines. This would improve the artifact because it would provide a more detailed list of the database. Meaning the identifiers for each person would be more specific.

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

I have met the course objectives to include:

CS-499-02 • Design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts

CS-499-03 • Design and evaluate computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution, while managing the trade-offs involved in design choices (data structures and algorithms)

 CS-499-04 • Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals (software engineering/design/database)

 CS-499-05 • Develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources

 The first course outcome CS-499-01 • Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science, will not be met with this artifact due to the non-collaborative nature of the assignment. However, it would provide opportunities for diverse audiences to support organizational decision making if the database were part of any code or database command review.

**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?**

For this artifact, in the beginning, my biggest challenge was not having the ability to test the commands. I couldn’t access the database, not being a student of the class any longer. Modifying it within the limited scope of my current access was not difficult or challenging. It was more an act of being careful to include the correct prefixes to the people within the database. When adding the image, I couldn’t include the message\_id number because I didn’t have access to the code to manage or include that. However, I was able to recreate the database and make the enhancements with no errors. Although a challenge, it eventually was completed. As with most activities for me, the brickwall generally is pretty high and I am challenged with trying to work it out. This requires a fair amount of time and energy, that can sometimes be exhausting. Overall, I am pleased with my efforts. I am proud of my ability to work everything out even in the most difficult circumstances (and with a little coaching as needed).