3-2 Milestone Two: Enhancement One: Software Design and EngineeringCS-499-T1213 Computer Science Capstone 22EW1

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

The artifact for Software Design and Engineering is related to the final project for the class CS-330, I attended in January-February 2022.  It was the final project where I was tasked with creating 3-D objects. The project I submitted previously was more primitive. The objects were a scene, created from things I found in my home. They included a Rubik's Cube, a metal toy mailbox, a book and a rock sitting atop a table. My final rendering of this scene was lit correctly, and the colors were pretty accurate. I want to improve on the textures to enhance, making them more real to life.

**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 because I wanted to improve the 3-D image through enhanced texturing. This artifact will showcase my skills and abilities because the artifact will be truer to life. It will have textures that I hadn’t been able to apply previously. As I have mentioned, I submitted a primitive artifact originally. This artifact will be improved because you will be able to identify the 3-D object as a Rubik’s cube.

**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 did meet the course objectives I had planned for this artifact. Additionally, I have met the objective of making the corrections to the code as I identified in the code review. Currently I have no specific updates to consider until I have received feedback from my instructor.

**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?**

In the process of enhancing the code through the code review, I found it to be an eye-opener. I didn’t look to the future with this project (not having thought it would be a revisit). The improvement of the artifact was an exercise in patience. It was a little challenging because this enhancement involved a fair amount of tedium. Having to identify/name each coordinate to enhance the textures took time and an attention to detail. I am thankful for the comments I included in the original code because it was instrumental in making the enhancements. Otherwise, I would have had to reprogram the entire scene and that would have been time-consuming.

As for other learning, I do think that this enhancement could be beneficial in my professional life if I decide to pursue app design. For example, if I were to design an app for a Rubik’s Cube, or some other 3-D object, this skill would be important to have/know.