**A. Briefly describe the artifact. What is it? When was it created?**The artifact itself was the final project for IT315, Object Oriented Analysis and Design. I took this course and created the final project when I started my bachelor’s degree at SNHU about two years ago. It was one of the first courses that I took, and I had barely any experience dealing with code or anything that had to do with programming. The project itself was a group of OOAD-UML diagrams that we had to create given various information. We were given information that we used to create Class Responsibility Collaborator cards and then used those cards to create the rest of the diagrams including Class diagrams, Sequence diagrams, and Use Case diagrams. I also included an entire overview diagram for additional coverage when discussing future software programs to create this project.

**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?**

The reason why I decided to include it in my ePortfolio is because I think that it is very important to demonstrate that you know how to prepare for a project before you even begin to create the software, just as much as it is to demonstrate that you know how to code. When I created this project, I was very new to coding and I feel like how it was before I added in the enhancements was not a true show of my abilities and there was a lot of miscommunication going on with the diagrams and what they were supposed to represent. In order to show my abilities, I scrapped all of my prior diagrams that I submitted for this course and looked over my Class Responsibility Collaborator cards and developed new diagrams based off of those. I knew that UML required certain diagrams, so I used the same ones that we were supposed to submit for our final project but made sure that they actually showed the relationships between the actors and the different classes that they would be interacting with. I feel that with the enhancements that I made that it really showcases how much I have grown in the Computer Science industry because I had no clue what I was even doing when I took this course the first time and when I was making these diagrams I was simply scrambling to get it turned in because I was so confused on what I was even trying to make.

**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 that I had planned on meeting with this enhancement during the Module One plan. The course objectives that I had listed on there were: [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, and [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. I was able to complete these by using the techniques and tools that I learned during that course to create a diagram tool using the best practices in UML to accomplish industry goals by creating a reference that can be used when creating the actual software. CS-499-05 was accomplished because by having this reference before creating software you are able to enhance the security needs and visualize everything better in order to see where problems could occur before you begin development.

**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?**

I learned that I’ve really grown throughout my time here at SNHU. Before I began these enhancements I really stopped to take a look at what I had created when I first started my degree and it is very apparent how much I have learned. My main challenge was that I did not actually have any of the rubrics or guidelines for the project saved anywhere so it was frustrating having to rely solely off of my CRC cards that I had created. The main thing that I learned was to actually put in example functions rather than just specifying something. So for example, in my Sequence Diagram, rather than saying “return class start and end dates”, I put “return classBegin() and classEnd(), that way in the future when development does happen and someone is using my diagrams as a reference sheet, they can look back and create a function that will take in all of the classBegin variables and eventually have them connected to a specific course to be printed out when queried. In my mind, the best way to go about this would be to do something similar to how we made the database and PyMongo files in the CS340 course – To create a database that imports data from a JSON file then create a CRUD, RESTful API to sort and query the information.