CS-499

Milestone One

Logan Riedell

4/22/2025

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

The artifact I chose is an Appointment Management System that I built during a Client/Server development course. It was a very simple program written in Java and allowed users to manage appointments, contacts, and tasks by adding, viewing, and deleting entries. The artifact was created during my 2024 coursework as part of my degree program.

**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 did the enhancement improve the artifact? What specific skills did you demonstrate in the enhancement?**

I chose this artifact because it demonstrated a fully functional system that required better organization to meet professional standards. The original code merged business logic and data management together which worked, but made it harder to maintain. To improve the project, I changed it by adding service and repository layers, properly separating concerns, and added custom validation handling. This improvement demonstrated some proficiency in modular software design, clean architecture, and consistent error handling.

**Reflect on the process of enhancing the artifact. What did you learn as you were creating it and improving it? What challenges did you face? How did you incorporate feedback as you made changes to the artifact? How was the artifact improved? Which course outcomes did you partially or fully meet with your enhancements? Which do you feel were not met?**

While improving the artifact, I discovered the importance of separating logic into distinct layers in order to make a project easier to maintain and scale. One challenge I faced was keeping the design fairly clean while transitioning from Java to Python. I took feedback from previous courses, which emphasized simplicity and modularity, and kept my service and repository classes focused and small. The artifact was improved by making it more organized, easier to follow, and ready for future features. I believe I fully met the course outcomes for software design and clean architecture. I do not believe any significant outcomes were missed during this enhancement.