Dakota Wolfe

Professor Kalinowski

CS499

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Milestone Four

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

The original artifact for this milestone was created in the CS250 course, and detailed Chada Tech’s transition into the agile methodology, from the waterfall methodology. The upgrade of this artifact is a Python script which inserts backlog data into an SQL database, and the SQL database which stores backlog data, sprint data, and which backlog item corresponds to which sprint.

**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 artifact because of its relevance and importance in the industry, and the number of ways I could go about upgrading it. I improved this artifact by implementing a tool that can automate the process of storing user stories, and backlog items, connecting the corresponding items, and updating stories as tasks are completed. This artifact showcases my ability to develop code that solves real-world problems, and utilize an SQL database.

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

Yes, I was able to satisfy the course outcomes I sought to accomplish. (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.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.)

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

The process of implementing the Python script for SQL data insertion, and the SQL database was relatively straightforward and did not present any significant errors or bugs. Using the code from a previous project that also inserted data into a SQL database using Python, I was able to create all of the SQL functionality necessary. From there, I created methods that handled the user input, and the menu interface for the user to interact with. I then created an SQL database by running an SQL query with the corresponding tables and columns.