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CS-499

Professional Self-Assessment

10/18/2025

**Collaborating in a Team Environment:**

During my time studying at Southern New Hampshire University collaborating with others in a professional and learning environment were common occurrences. This included constant email chains with professors about coursework and ideas outside of the course but still in the computer science space. Discussion posts were also a great way to receive feedback and collaborate with fellow students. These conversations were kept professional and remained on topic featuring class topics like emerging trends, diagrams and pseudocode presentations that we gave our constructive feedback on to help each other adjust and refine our craft. My capstone course really showed how following best practices and remaining organized and legible with one’s comments can be extremely constructive when it comes time to maintain code with happened during the enhancement section of this course.

**Communicating with Stakeholders:**

CS-499, the computer science capstone course at SNHU enabled me to display my literacy in a multitude of programming syntaxes. Enhancement One specifically had me translate and port an artifact that took user information and generated a contact ID for them over to Python from C++ for the sake of presenting to stakeholders in a manner that was easier to understand. Communication about files is significantly easier when the syntax and other logic is written closer to English, so the shareholders don’t only have comments to go off. There were also courses during my learning journey that were dedicated to functioning in a Scrum team utilizing the Agile methodology and communicating with shareholders was a mainstay that stuck with me as transparency and constant communication are key to a smooth, efficient and successful project.

**Data Structures and Algorithms:**

Enhancement Two featured an artifact that utilized the contact ID from the artifact in Enhancement One and created an array that these new IDs could be stored in. There were also functions that allowed the array to add, update, and delete an ID or correlating information. The only thing missing was a validation function that checked the array for any duplicate contact IDs. The reason behind this enhancement choice was that any duplicate contact ID invalidated the integrity of the array in its entirety. Over the course of my learning career at SNHU I’ve been able to acquire a lot of experience creating, manipulating and doing maintenance on arrays for a variety of different problem statements. Currently I am creating an application that runs a dice game that creates an array for both players and their total scores and have created functions that are used on both.

**Software Engineering and Databases:**

Enhancement Three features a dashboard and database of dogs at an animal shelter. This specific application was created utilizing .ipynb files accessed via Jupyter Notebook and the database was built using MongoDB. The enhancement I performed included optimization of the CRUD construction code and further enhancements when sorting through the database to find the best homes for these dogs based on geographic location. Along with MongoDB experience I also have experience with MySQL databases that include analyzing data, navigating databases and repositories using this language and constructing databases utilizing MySQL also.

**Security:**

Security is something I have delved into recently but have put at the forefront now that I have started learning IT skills such as networking, security, and configuration. These skills are on display specifically in enhancements two and three where I adjust the credentials to sign in with the MongoDB so that they are no longer hard coded. And the validation function in enhancement one further demonstrates my proficiency at enforcing and reinforcing the confidentiality, integrity, and availability triad that individuals specialized within the cybersecurity scene work so hard to maintain.