Southern New Hampshire University

CS 499 – Computer Science Capstone

7-1 Self-Assessment

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The computer science program has not been easy for me. I have had to balance school, family, and projects that did not always go the way I planned. A lot of times I had to stop, reread instructions, and figure things out step by step so I did not get lost. But that is also where I got better. I learned how to slow down and keep refining until I completed the work to the best of my ability. This portfolio shows that process. Not just the finished code, but the debugging, the rewrites, and the step‑by‑step process that taught me how to take something confusing and make it clear and reliable.

Creating this portfolio has helped me see the progress I have made in this program. It shows more than just the projects I finished because it also reflects how I learned to manage my work and keep my process clear. While I did not have many large team projects, I still found ways to collaborate through discussion posts and by giving feedback to peers. That was intimidating at times, but it encouraged me to express my ideas, ask for help, and engage with what others had to say. I also improved my communication through documentation and with the code review screencast I completed, where I showed my process in a straightforward way.

Throughout the program, I can see how each project added something new to my skills and pushed me forward. In CS‑210 Programming Languages, I created the Corner Grocer program, which showed me how to take raw purchase data and turn it into something organized and reliable. I learned fast that the way the data was structured made all the difference. If it were not set up right, I would spend more time fixing problems than actually using it.

In CS‑340 Client‑Server Development, I built a CRUD module and database that could scale as needed, and I kept the design simple so it would be easy to maintain and update. In CS‑305 Software Security, I reviewed code, ran tests, and documented issues like input validation and encryption. That work helped me understand that security has to be part of the process from the start, not something added at the end.

For my final project, I chose to return to the weight‑tracking app I had built earlier in CS-360-Mobile-Architect-Programming and focused on making it stronger. Going back through the project made the weak spots clear. The navigation was too limited, some functions were doing too much at once, and the error handling was not giving users clear feedback.

On the data side, edits and deletes only changed the list in memory, and the database had bigger problems like using dates instead of IDs, raw SQL queries, and storing passwords in plain text. I also started to see the software engineering side in how the design affected the user. Keeping the layout clear, the navigation simple, and providing feedback mattered just as much as the code itself.

I focused on cleaning up the design, so each part had its own responsibility, making sure changes actually saved to the database, and securing the data with validation, safer queries, and hashed passwords. This project showed me how much I have grown, because I was not just building something to make it run, I was reviewing, fixing, and raising the quality of my own work.

This program showed me how to take on work that felt overwhelming and made it clear and manageable. I have learned to stay focused, break things down, and keep working until it makes sense. That is the same approach I want to bring into healthcare technology, where the work has to be reliable and usable. This portfolio is the clearest way to show how I have grown and the direction I am ready to take next.