**Module 7-1: Final Project: Professional Self-Assessment**

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My name is Stephanie McClurkin, and I have spent the last few years studying for my Bachelor of Science in Computer Science at Southern New Hampshire University. Unlike many in the field, I didn’t start with a programming background. My professional experience has been in healthcare, where I’ve worked as a CNA and currently work in dietary services. Despite always having an interest in technology, I was initially discouraged from pursuing it as a career. However, after years of working in retail and healthcare, my employer provided me with the opportunity to earn a degree, and I took the chance to study something I was truly interested in.

I originally enrolled in Information Technology but quickly realized I was drawn to programming. My first coding course, IT-140 Intro to Scripting, was a big turning point. It reminded me of how much I enjoyed building small websites and interactive projects as a kid, and I knew I had found the right path. I switched to Computer Science and embraced the challenge of learning something completely new, in love with the creative potential of programming. During my coursework, I’ve explored software engineering, data structures, databases, and cybersecurity, gaining hands-on experience and discovering my strengths. While I didn’t take a traditional path into this field, I feel confident in my adaptability and problem-solving abilities - and my technical skills continue to grow each day. This capstone project and ePortfolio have helped me reflect on my progress and reinforced my professional goals.

My ePortfolio shows how I’ve developed as a programmer through three major enhancements to my original CS-360 Mobile Architecture & Programming project, which started as a simple weight-tracking app. The first enhancement focused on software design and engineering, where I converted the project from Java to Kotlin to align with modern Android development standards. This improved code efficiency, readability, maintainability, and demonstrated my ability to work with multiple programming languages. The second enhancement focused on algorithms and data structures, where I developed a predictive weight trend algorithm that analyzed user data and estimated future trends. While I originally planned to visually display both recorded and predicted weight trends, technical constraints led me to prioritize refining the algorithm’s accuracy, leaving graph visualization for a future update. The third enhancement centered on databases and security, integrating Firebase authentication and Firestore, allowing users to securely log in and store weight data in the cloud. This improved the app by making it more compatible with multiple devices while strengthening security through authentication safeguards and Firestore security rules.

Each of these enhancements pushed me outside my comfort zone, and I’m proud of how I researched, adapted, and implemented solutions independently. Looking at my work now, I see how much I’ve grown and know I can continue learning and tackling more complex challenges. The transition from Java to Kotlin is likely my strongest enhancement, but I am most excited about the Firebase integration because it was my first experience with cloud computing, and it significantly improved the functionality of the app for the user.

Throughout this course, I’ve demonstrated my knowledge of several important learning outcomes in computer science. Collaboration is important, even when working alone, and it’s necessary to make sure code is well-documented and readable. I reviewed my work frequently, focusing on writing informative but concise comments to help future developers understand my approach. Communication is another key skill, and I worked to ensure my code review video and documentation were clear, professional, and easy to follow. I did my best to break my project down into simple explanations to make my process more accessible. Soft skills like communication are often understated in computer science, but I recognize their importance and will continue to refine them in my career.

The predictive weight trend algorithm in my second enhancement tested my ability to design and evaluate complex computing solutions. This required handling fluctuating weight data, determining the best formula for estimating trends, and troubleshooting inconsistencies. A big challenge was trying to incorporate the predicted weight trend into the graph while maintaining data accuracy; despite my best efforts, the graph would never correctly display the predicted trend. After numerous attempts, I chose to focus on improving the algorithm itself, realizing that effective problem-solving sometimes means reassessing priorities. Security was also a major focus in my database enhancement. Implementing Firebase authentication and Firestore security rules ensured that only authorized users could access their weight history, reinforcing industry best practices for authentication and data protection.

As I move forward, my primary career goal is to secure an entry-level role in software development or database management where I can continue learning and gaining hands-on experience. While I am open to different roles, I am particularly interested in software development, database management, and web or mobile development. I don’t expect to immediately land a high-level job, but I am focused on getting my foot in the door, gaining experience, and continuously improving my skills. My next steps include continued self-study, working on personal projects, and preparing for technical interviews through coding challenges and algorithm practice. This program has taught me that a career in computer science is a continuous learning process, and I look forward to growing in this field.

Completing this capstone and developing my ePortfolio has been one of the most challenging and rewarding experiences of my academic journey. I started with little experience in computer science, but now I have a strong foundation in software development, algorithms, and databases. I’m proud of my growth and confident that the skills I’ve developed will help me succeed in the industry. While I still have much to learn, this project has shown me that I am capable of tackling challenges, problem-solving, and continuously improving as a developer. I am excited to apply everything I’ve learned as I take the next steps in my career.