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**Critical Reflection on Secure Coding**

The Secure Coding course has been a defining experience in my academic journey, offering practical insights that will shape my approach to software development and system administration. Over the past eight weeks, I’ve gained a deeper understanding of how security must be embedded into every stage of the development process—not as an afterthought, but as a guiding principle.

One of the most impactful lessons was the importance of validating user input. This seemingly simple practice plays a critical role in defending against common vulnerabilities such as SQL injection and cross-site scripting. I’ve learned that overlooking even minor details in input handling can lead to serious breaches, especially in industries like healthcare where data sensitivity is paramount.

The principal of least privilege also stood out. By limiting access to only what is necessary, systems become more resilient to internal and external threats. This approach aligns with broader security models like Zero Trust, which emphasize continuous verification and minimal exposure.

Equally important was the emphasis on secure coding standards and collaborative review processes. Tools such as static analysis and peer code reviews not only improve code quality but foster a culture of accountability. These practices ensure that security is a shared responsibility across development teams.

This course also challenged me to think about leadership in the context of secure development. Promoting security isn’t just about enforcing rules about creating an environment where ethical decision-making, transparency, and continuous learning are encouraged. I now see secure coding as both a technical discipline and a leadership commitment.

Secure Coding course has equipped me with a strong foundation in both the technical and ethical dimensions of software development. The best practices I’ve learned will guide me as I build systems that prioritize safety, reliability, and trust.