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CS 405 Secure Coding

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Module 8 Journal: Reflection

Throughout this course, I’ve learned the importance of adopting secure coding standards early in the development process. By embedding security from the start, I can prevent vulnerabilities that may otherwise arise later. This proactive approach ensures that security isn’t an afterthought but a core part of the software design, making applications more resilient to threats.

Evaluating and assessing risks, along with the cost-benefit of mitigation, has also been crucial. I now make decisions based on a balance between the potential impact of a security vulnerability and the resources required to mitigate it. This process helps me prioritize which issues to address first, ensuring that resources are allocated efficiently without compromising the overall functionality of the application. The zero-trust model has had a significant influence on my approach to access control and system design. Treating all requests, even internal ones, as untrusted until verified has helped me build stronger defenses. Implementing least privilege and multi-factor authentication ensures that only authorized users can access sensitive data, creating a more secure environment. Lastly, I’ve learned the value of implementing and continuously improving security policies. Security policies should be integral to every phase of development and updated regularly to address emerging threats. Training teams and using automated tools to monitor systems will help maintain these policies and keep systems secure in the long term.

Overall, this course has shaped how I approach security by embedding it into every part of the development lifecycle. By prioritizing secure coding, risk assessment, zero trust, and security policies, I’m more equipped to create secure, resilient applications.