Dre’ Scheetz

CS 405

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Joe Conlan

8 – 1 Journal: Portfolio Reflection

The course material emphasizes the importance of incorporating secure coding practices from the outset of software development to maintain the security integrity of digital assets. The principle of not leaving security until the end, as highlighted in the 6-1 Journal, stresses the need to embed security measures early on to mitigate risks more effectively and avoid costly retroactive fixes. Adopting a secure coding standard and proactively anticipating vulnerabilities can reduce the potential for late-stage rectifications that can compromise project timelines and design integrity.

The course modules discuss evaluating and assessing risks in the context of zero trust and Defense in Depth (DiD). Continuous analysis of the cost-benefit of potential threats and mitigation strategies is critical. For example, the breach at Infosys McCamish Systems underscores the importance of robust encryption and multi-layered security strategies like Triple A (Authentication, Authorization, and Accounting) in enhancing data protection. Zero trust aligns perfectly with these themes by shifting the security paradigm from perimeter-based defenses to comprehensive, context-aware scrutiny at every network node. This approach tightens access controls and enforces a consistent verification process that strengthens security postures.

The course also emphasizes the significance of implementing and updating security policies, as demonstrated by the Green Pace case study. Timely policy adaptation is critical to maintaining a robust security framework and ensuring policies reflect the current cybersecurity landscape and address emerging threats.

Overall, the course provided a comprehensive understanding of secure coding practices, risk assessments, zero-trust architectures, and policy management. These discussions underscore the importance of a strategic, informed approach to securing digital assets and infrastructures and highlight best practices for cybersecurity.