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CS 405: Secure Coding

8-2 Journal: Portfolio Reflection

Adopting a secure coding standard ensures that security measures are integrated into the software development lifecycle from the beginning. This helps to reduce potential vulnerabilities and remove them before they become a problem. Throughout the course we used SEI CERT coding standards, as we were working in C++.

One of the most common mistakes in software development is treating security as an afterthought and leaving it until the end. Because security wasn't treated as a priority, multiple vulnerabilities will go undetected making the testing phase tedious and long. This will lead to costly errors and lengthy fix times. It's much easier to prevent than it is to remedy when it comes to security.

Companies evaluate the risk associated with vulnerabilities and assess the cost-benefit of mitigation measures using a risk assessment and cost-benefit analysis. We recently used a threats matrix in our Green Pace project that measured the severity and threat levels.

Zero Trust is all about authentication, authorization and auditing. Don't trust anything and verify everything. All users and devices will be validated. This approach of assuming an attack is unavoidable is a preventative approach in minimizing breaches.

A security policy is a set of rules that defines how data, systems, and networks should be protected. It also defines how employees should act to prevent attacks or breaches.

Implementation of security policies is important to ensure that best security practices are always being followed.

References

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