**Michael Neff**

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**CS 405**

**Adoption of Secure Coding Standards: Proactive Security Integration**

The Adoption of security in early-stage development specifically during the design and coding phases significantly lowers the likelihood of breaches. Implementing security can also reduce and lower future expenses when QA finds these threats and needs to push back the implementation of the code. This approach aligns with the principle of “Security by Design” and this is why security considerations are to be placed during the build of code and not an afterthought. During our class, we had many assignments that implemented testing to ensure that proper tests are being done and learned how to test all aspects of code to ensure there are no possible injections or data breaches

**Evaluation and Assessment of Risk and Cost-Benefit of Mitigation**:

A balanced understanding of Cost benefits and risk is needed while facing threats. Throughout this course, the concept of risk management was crucial for making a secure program. Importance was noted when analyzing cost benefits while implementing security early and interestingly enough followed parallel with my full-stack 2 class I was taking simultaneously.

**Zero Trust**:

Assuming that threats could be breached from both inside and outside the network perimeter is an important concept to understand. Continuous verification and rigorous access controls regardless of where the user of the program is located are extremely important. The course explained and implemented an interesting topic with Zero Trust, and the risk attackers gain when connecting to a network with no security.

I**mplementation and Recommendations of Security Policies:**

The Implementation of security policies aligns with the organizational goals and ability to adapt to threats. Clear policies should be enforced, and regular policy reviews and updates to newly found vulnerabilities should meet compliance. All security policies must be communicated across all levels of the organization, this ensures that adherence to policies is met and human error remains low.