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CS-405: Secure Coding

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Over the last several weeks of this course, there has been a heavy focus on the implementation of securing coding policies via the use of coding standards and principles. During portions of my projects I was able to make use of the vast amount of information on these provided by the Carnegie Mellon University Institute of Engineering. Information was provided on coding standards that I could apply to my code across a number of languages. It also provided me with insights on tools that I could use to automate the process of checking for code that violates these standards while also providing information on the likelihood of these standards being violated alongside its severity. These tools are imperative when evaluating the risks of a failure to adhere to standards. But, its insight on severity might give developers insight into the costs and time requirements to solve issues that result from failure to adhere to the standard. The development security operations pipeline also helped to show me how a developers in a working environment might implement security during their software development lifecycle. Knowledge on how to implement these strategies helps to prevent security from becoming an afterthought during the development process.

This course has also given me perspective and insight into the principles of zero trust security. Cloud flare defines Zero Trust security as “Zero Trust security is an IT security model that requires strict identity verification for every person and device trying to access resources on a private network, regardless of whether they are sitting within or outside of the network perimeter.” Or “More simply put: traditional IT network security trusts anyone and anything inside the network. A Zero Trust architecture trusts no one and nothing.”(Cloudflare) This coincides with the use of principles of “Least Privilege” and “Default Deny”. Trust should not be the default state for any permissions granted on the network.

References

Cloudflare. (n.d.). *Zero trust security | what is a zero trust ... - cloudflare*. Retrieved December 1, 2021, from https://www.cloudflare.com/it-it/learning/security/glossary/what-is-zero-trust/.