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Designing for testability and software reuse are two principles that could be leveraged for the cyber community. Often, with products that are acquired by the Air Force, they have been acquired through a lengthy acquisition process and once the product arrives it is separately tested. Leveraging designing for testability would help in that it allows for development of the product to meet the specifications it will be tested on, not developed to a certain set of standards and then tested on a separate set (“Principles of Software Design &amp; Concepts in Software Engineering” n.d.). Doing this will help make the software more secure because the security requirements can be incorporated as test cases and then the final product becomes more secure overall.

Additionally, incorporating software reuse can make things more secure. Often in the Air Force, tools are developed that effectively reinvent the wheel. If we can leverage software reuse, then we can make the software that we develop more secure (“S.O.L.I.D. Software Development, One Step at a Time” n.d.). This would happen because when you have multiple people accomplishing the same task separately, they may each separately accomplish a secure way to develop something or it may not be secure at all. If we have a secure way to do something, then we should reuse that way as much as possible rather than inventing a way to accomplish that task that is potentially less secure than the way we know.

References

“Principles of Software Design &amp; Concepts in Software Engineering.” n.d. Accessed November 20, 2018. http://ecomputernotes.com/software-engineering/principles-of-software-design-and-concepts.

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