NETWORK SECURITY

Individual Reflective Piece

Module-4 Secure Software Development November 2022

Unit-6 End of Module Assignment: e-Portfolio Submission

My E Portfolio Link: https://skudachi87.github.io/ShailenderMSc/Module4.html

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Introduction

We are asked to reflect on the new skills and knowledge we've acquired because of doing this module. The following are the lists of things we have learned and will update in the following document:

a. Develop a critical knowledge of the programming notion of abstraction.
b. Understand the fundamental principles of secure development approaches.
c. Explore how to conduct the necessary software development tasks of analysis, program design, software production, and testing.
d. Demonstrate an understanding of architectural fundamentals and classic and modern Software Development Life Cycle (SDLC) methodologies, such as TOGAF and Agile.
e. The capacity to use the skills learnt in a team context, demonstrating how to manage disagreements and reach compromises, and to evaluate the effectiveness of the approaches.
f. Utilize the opportunity to consider and assess your personal progress.

My Reflection – Module Breakout

I completed Secure Software development module as part of my study in Module 4. One of the module's primary aims was to provide an overview of the principles and best practices of secure software development. This includes subjects including secure coding methodologies, risk assessment and management, develop a critical knowledge of the programming concept of abstraction. and the value of testing and monitoring. I was able to work on UML diagram on Unit 1 and though at start it felt like Visio, Lucid tools but it turned out to be very different. I was able to explore it and create multiple Class, Sequence on activity diagram. In Unit 2, I learned about the terminology used by standards organizations to describe the process of incorporating security into systems. This will assist me in client meetings with Network directors/vendors and my

organization's cyber security team. Since I've been in the networking industry for thirteen years, I've had several customer and vendor meetings. Additionally, participants learnt about the security-related factors that should be considered throughout the SDLC process. When I began my career many years ago, I was curious about how programming works but also scared and felt it was a very complicated domain, so I chose Network as my primary domain. However, in recent years, with programming concepts merging into infrastructure merging with network & security, Module 3 of this course seemed like a good place to begin learning about programming languages. Python is employed in my infrastructure, and I've learned a few things about it and will continue to do so. These topics were very interesting to me because they offered a framework for understanding the various ways in which software might be vulnerable and the procedures that can be taken to avoid these risks. Regarding my own learning method, I discovered that I approached the information in several different ways. I was unable to attend lectures due to time zone and, but I listened to recordings and participated in our group discussions, which assisted me in comprehending the important concepts and engaging with the subject in a more interactive manner. I also utilized web resources, such as articles, leacturecast, videos which provided additional views and illustrations. I felt that taking notes and summarizing the essential points helped me retain the knowledge, and I also found it useful to routinely revisit my notes to reinforce my understanding.

It took me some time to grasp some of the more complex topics because the material was so deep and technical. However, I was able to overcome this obstacle by dividing the content into smaller portions and getting assistance from my mates when I was having difficulty. Working on assignments and projects in small groups allowed me to learn from my peers and explore the subject matter from a variety of angles.

I've been able to use some of the module's strategies and guiding concepts to my own work. I've found that my knowledge of risk assessment and management has been very valuable in my line of work, as it has enabled me to comprehend the potential consequences of various hazards and make informed decisions regarding how to address them. I believe I still have space for improvement in a few areas moving forward. Specifically, I would like to explore deeper into advanced issues in secure software development, such as cryptography and network security. Additionally, I believe that I would benefit from gaining more practical experience in these areas, and I want to seek out opportunities to work on projects that would allow me to develop these talents further.

Conclusion

Overall, I believe that the Secure Software Development module was a worthwhile learning experience, and I am happy for the opportunity to increase my knowledge and skills in this field. Putting together the finest possible version of this module has been a significant task for me. After finishing this unit, I feel a strong sense of pride and satisfaction. The skills I've acquired this course, such as security architecture, planning, and taking a big-picture view of a situation before analysing it in detail and developing conclusions, will serve me well in my future career. I believe that the principles and best practices I have learnt will be valuable to me in my future employment, and I look forward to expanding my knowledge of secure software development.