CS 499 Capstone Module 5 - Milestone Four

Enhancement Three: Databases

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**Briefly describe the artifact. What is it? When was it created?**

The artifact that I chose was the DAT-220 final project which was a Microsoft Word document. The original artifact was completed in April 2021. It was an overall data analysis for the Bubba Gump shrimp company. The company hired a Third-party data analyst to help with research and to strategize ways to increase sales and profits.

**Justify the inclusion of the artifact in your ePortfolio. Why did you select this item?**

I chose this artifact because it deals with data and I wanted to demonstrate my skills and knowledge in developing and implementing security measures for protecting the company’s sensitive information. I am currently working as a Systems Engineer and as an Information Systems Security Officer (ISSO). An ISSO identifies and mitigates security business and system risks. Since I started this Computer Science journey and gained more experience as a Systems Engineer, I realized that I have passion for Cybersecurity and protecting systems. I wanted to include this in my ePortfolio because I added what I call a Data Protection Plan (DPP). A document like this can give a company a baseline or implement changes to harden their systems from security attacks. The DPP can be a valuable addition, especially since I’m pursuing a career in cybersecurity, data management, or related fields. Data protection is a critical concern for organizations across various industries, and it's becoming increasingly important with the growth of data-driven operations. Demonstrating my proficiency in this area can make me an attractive candidate for a potential employer or my current employer.

**What specific components of the artifact showcase your skills and abilities in databases?**

The specific component I would like to showcase my skill aligns with the #1 and #5 Course outcomes:

* To meet the “Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science” outcome. I developed a Data Protection Plan (DPP), this segment of the artifact would give the reader or audience a sense of decision-making when it comes to cybersecurity.
* To meet the “Develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources.” To meet this outcome, I showcased my ability to support the customer on all matters involving the security of their information systems. I developed the DPP, in the DPP I highlighted and articulated Bubba Gump’s critical components and how these are subjected security risks.

**How was the artifact improved?**

The artifact was improved by incorporating the Data Protection Plan (DPP). It was designed to show leadership, key stakeholders, company staff and future employers how critical database components are vulnerable to attacks due to several factors. Below is a Table that I would like to showcase because it lets the leadership and security managers understand the principle of least privilege to database access.

A table of information

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**Did you meet the course objectives you planned to meet with this enhancement in Module One?**

Personally yes, I wanted to use this document to outline a cybersecurity protection plan. A data protection plan can demonstrate my ability to communicate complex technical information clearly and effectively, this not only demonstrates my skills but also helps potential employers or clients understand the real-world value I can bring to their organizations.

**Do you have any updates to your outcome-coverage plans?**

I recently updated the code with the provided feedback from Milestone 3. Depending on the feedback I receive for this milestone, I will move onto the final milestone.

**Reflect on the process of enhancing and/or modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

When enhancing this artifact, I felt a sense of pride because of my personal journey as an ISSO. The program that I work on, recently had a cybersecurity audit. I had to assist with researching and providing the auditors answers about the security of our program. After the audit was completed, I gained insights into the complexities and nuances of crafting a comprehensive cybersecurity strategy. I realized that with a company like Bubba Gump, we would have to effectively communicate complex technical concepts, risks, and mitigation strategies to non-technical stakeholders would be a significant challenge. I learned the value of clear, concise, and persuasive communication in gaining support for security initiatives.