Milestone Four Enhancement Three Databases

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CS-499

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

The artifact is a mobile app for Android that allows users to track their weight. It was created for my CS-260 class, in July/August of 2022.

1. **Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in software development? How was the artifact improved?**

As I mentioned in my last two enhancement milestones, I chose this artifact because I wanted to demonstrate my ability to take an app that was already created (even though I was the original developer, we won’t split hairs here), plan out thorough enhancements and follow through with them. Currently, as of this milestone enhancement #3, I have demonstrated: course outcome 5, I’ve developed a security mindset that anticipates adversarial exploits. I have added and made enhancements to the database and security of said database. As of enhancement 3, I have now showcased all 5 course outcomes (each enhancement portrayed one or several of the outcomes, so now we have a complete picture of the outcomes.).

My app (artifact) has been improved by finalizing the database schema, the database itself and adding defensive coding to ensure that exploits or vulnerabilities are safeguarded.

1. **Did you meet the course objectives you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

Yes, I have met the course objectives that I had planned to meet with this enhancement plan. As of this last enhancement, I have finalized the database and added proper security measures within my code to guard any exploits or vulnerabilities.

1. **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?**

One thing I learned this week was thinking outside of the box when it comes to developing. Normally, I have the mindset of how are my consumers going to use my app? What are their needs, wants, how are they going to effectively use my app? This week, I had to step out of that mind frame and start thinking about what if someone wanted to retrieve data from my app that isn’t for them? How are they going to break my app to get the information they want? I had to think like someone wanting to gain illegitimate access to my app to defend against those kinds of people. It took me several days of reading through forums, reading up on vulnerabilities and how vulnerabilities have been exploited in the past. Luckily, my CYB-250 class I am taking has really helped me with this line of thinking.