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CS-499 Computer Science Capstone

09/18/25

3-2 Milestone Two:

Enhancement One: Software Design and Engineering

1. Briefly describe the artifact. What is it? When was it created?
   * This was originally an inventory application made in January 2025. It started from nothing and built throughout 8 weeks to show mobile development principles and best practices to develop mobile applications. It shows a user forward design, with security, compatibility, and product checks to show assorted possibilities that can be provided to a entity to meet their needs.
2. 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?
   * I think this shows a employer focused application and with the way that technology has moved to our phones, I think application development and developers are a huge community and open many doors to the software career environment. I think having a base knowledge of how mobile applications work and how to debug and work through issues shows the capabilities that I have to solve problems and move towards being someone a company wants. I know that at the convenience store I worked at they had no idea how to build an application due to them being simple mom and pop establishment, but they did struggle competing with the big brands when it came to having a simple way of doing basic tasks that a mobile application would have helped with. They still do not have the most advanced application, but they have a simple one that gets what they need accomplished, and I think having these skills I would have been able to offer something to them at the time.
3. Did you meet the course outcomes you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?
   * I think I have started to meet the course requirements I originally set out but have not completed them, I want to make sure that I use the best standards and have a clear and visually appealing code that meets the principles we have learned through the terms and making sure that security issues are met as well.
4. Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?
   * Making sure to update more often, I have not really touched this application since I finished the class and for a couple days it was a little difficult getting the base program to even run as I had to update many things that gave me errors or parts that just would not function. After multiple attempts and fixes, I have got my original application up to date and functional. I have started working on the visual aspects as well as adding more new functions like adding more security options as well as adding to the different options that are available based on who has the permission to what aspects. This is due to the security class that shoed a best principle of coding that says the path of least privilege that only allows users into areas that are needed thus limiting risks of security breaches. To me this is a huge security factor and is one of the best to use and I wanted to add it and am working towards it. Overall, it seems to be moving in the right direction, and I am excited to see how it changes to something new but recognizable.