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

The artifact I chose is my Warehousing Tracking App, which I created during my CS 360: Mobile Architecture and Programming course. This mobile app helps warehouse staff and managers keep track of inventory. It allows users to adjust quantities, track stock in real time, and receive alerts when items are low. The main part of the app is the DashBoardActivity, which displays inventory and lets users interact with it. In this module, I focused on improving the app’s structure to make it easier to read and work on in the future.

**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 included this artifact in my ePortfolio because it shows my ability to take an existing app and make it better by writing cleaner and more organized code. I created several helper classes—InventoryRowBuilder, FirebaseLogger, SMSHelper, and PermissionHelper, to split up the app’s responsibilities. This shows my skills in organizing code, designing user interfaces, managing permissions, and connecting the app to services like Firebase and SMS.

I didn’t change what the app does, but I made the code easier to read, update, and fix. I also started working on a new feature using Firebase Cloud Functions that will let the app show helpful inventory insights, like which items are restocked most often, what times are busiest, and inventory trends. These changes will give warehouse managers more useful data to make better decisions.

**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?**

Yes, I met most of the course goals I planned. I made the app more modular, improved permission handling, and connected the app to Firebase for logging changes. These improvements match the course goals around app design and adding useful features.

However, I’m still working on finishing some of the analytics features I planned. For example, I haven’t yet finished counting how often items are restocked, figuring out the most restocked item, or finding peak usage times. I did start logging data to Firebase and showing some analytics on the dashboard, but I might choose to finish just one of those remaining features to stay on track.

**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?**

While improving the app, I learned that organizing code into smaller parts (modular design) makes a big difference. It’s easier to update, test, and fix things when each part of the code has a specific job. For example, I moved tasks like building UI rows, sending SMS alerts, checking permissions, and logging to Firebase into their own helper classes.

One of the harder parts was getting Firebase to work correctly. At first, I had trouble setting it up and updating data properly. I got through it by reading Firebase documentation and watching tutorials. I’ve made a lot of progress and I’m close to finishing the rest of the features. This project helped me get better at solving problems and learn best practices for building mobile apps.

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