Milestone Two Narrative

CS 499: Capstone

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The original artifact is an Android mobile app which has features to support a mobile inventory management system. This was the final project for CS 360 - Mobile Architecture and Programming and was written with Java and SQLite. The artifact that I will be submitting for my final ePortfolio is an adapted version of that original app that has been ported over to a completely new tech stack. The new app is built with the MERN stack, which leverages MongoDB, Express, React, and Node to create a full stack web application with dynamic features that expand upon the original functionality required in the mobile app. I chose the inventory management app for my portfolio for several reasons. First, I think that the original mobile app is a good representation of a project that was completely outside of my wheelhouse. That was my first attempt at mobile development, and I wasn’t very confident with Java going into the project. This meant that the development process was frustratingly slow at times, but it was an excellent opportunity to learn about a topic that I’ve been curious about for a long time. I also think that this inventory management app is a good way for me to both show my web development skill set, which is the career I am pursuing, and develop an application that could provide real-world utility. Of all the projects I’ve worked on in this program, this is the most realistic in terms of my development process, the tech stack used, and the functionality created within the app. For that reason, I think it’s a great representation of the transferable skills I’ve gained through the computer science program. Specifically, I think that my work on this web application so far shows my versatility and flexibility as a developer and my ability to research solutions and problem solve on my own. So far I have created a significant portion of the front end, which includes the UI for logging in, signing up, displaying inventory in a table, and editing individual inventory items. Those were the main pages in the original mobile application, and I have more enhancements that I would like to add to the frontend as I continue to work on this project. I have also wired up the backend so that it is able to receive requests from my frontend. As I get into the database enhancement, more will be done with backend and data transfer between the server and client. I think that I have met two of the three outcomes so far that I set out to with this enhancement (outcome #1 and outcome #4). The other outcome (#5) will become increasingly relevant as I move into the stage of transferring data between the front end and back end, but I am not quite there yet.

The biggest thing that I’ve learned going through this enhancement process is that planning and setup take a really long time. This is because it’s really important to think through the future needs of the application architecture starting at the beginning of the project. I had to do a ton of research, for example, on which scaffolding template to use for my front end, because this can have significant implications for performance, compatibility, page rendering options, etc. farther down the line. I was thrown off to discover that ‘create-react-app’, the most popular option previously, was no longer the industry standard for starting up a new React application. I’ve taken for granted a little bit the fact that in my professional life, I get the benefit of inheriting an application from developers who years ago made a lot of hard decisions about how it should work on a fundamental level. It is much easier to add a feature to an existing application than it is to create something from scratch.