Bryce Cooperrider

CS-499

2 February 2025

Enhancement Two Writeup

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

The artifact is an Android Inventory App I made during my time taking CS360: Mobile Architecture and Programming. It is a basic inventory app that requires a login and currently has functionality to add and remove items from its internal database.

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 algorithms and data structures? How was the artifact improved?

I selected this artifact due to its potential to be expanded. It is able to showcase all skills required in the course outcomes due to the programing complexity, need for algorithms and design, and use of databases.

The artifact was improved in this milestone by showcasing my ability to add sort and filter functionalities to the user's inventory. These are necessary quality of life additions to help the user visualize and understand the items within their database. At the moment, I have an extra button labeled "search" that I was going to use to let the user look for a specific item, but after testing the app, I think I'm going to label it as redundancy and remove it. Using the filter function to look for a specific string works just as well, and arguably better than searching for an item directly.

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 met the course outcomes I planned to meet with this enhancement. I didn't add the "search" ability due to redundancy and will potentially try to think of a different enhancement to add to showcase more of my skills, but at the moment I am leaving it as is. I do not have any updates to my outcome-coverage plans.

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?

The biggest thing I learned was more on the use of popups within Android Studio. I chose to use them because they give a clean and responsive feel when pulling up a function, without needing to load a whole different page. I also learned much more about the setOnClickListener() function within Android Studio as I make great use of this through all the buttons and functionality I have added.

One challenge I started to face was my emulator not loading while working on these enhancements. I'm unsure why this was the case as no other code I've added caused it to hang and stall out. I fixed this by downloading a different phone to emulate, as well as research common problems that may cause this issue. I'm still not exactly sure what caused it but emulating a fresh device worked well for me.

Another Challenge I'm facing is with the Filter button. Once an item is filtered, it shows the appropriate results as expected. From there, trying to change the quantity of an item in that view will work for one click, but then proceed to go back to the default view of the inventory. I

plan to have a fix before the final submission of this project but am still working on it at the

moment.