Dasha Gore

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CS 499

Milestone Two: Software Design/Engineering Enhancement

The project I’m showing is a weight-tracking mobile app I built in Android Studio. It includes three main parts: a login screen activity\_login.xml, an item class to represent inventory items InventoryItem.java, and an adapter to display those items in a list InventoryAdapter.java. This app was created as part of my mobile app development course and demonstrates some core Android concepts, like user interface design, managing data, and setting up a RecyclerView to show lists of items. I’ve also made improvements to add features and make it more reliable.

I included this app in my portfolio because it shows important skills I’ve developed in Android app creation, from building simple layouts to handling user data securely. I picked this project because it reflects the growth of my skills over time. The login screen, item management, and interactive list all demonstrate my understanding of how to make an app user-friendly and reliable. The enhancements, like better data validation and UI adjustments, show my ability to make apps that are both functional and enjoyable to use. I made sure that each item’s data is accurate by adding checks to catch issues, like preventing negative numbers in the quantity field. I improved the app’s list feature by adding click actions, which allow users to interact with each item directly. This creates a more interactive experience. I improved the login layout to make it both visually appealing and accessible to more users, like adding descriptions that work with screen readers.

I made several changes to improve this app. Originally, it didn’t have checks to catch incorrect data, which could lead to errors. I added validation to ensure that data stays consistent. In `InventoryAdapter.java`, I added click listeners to make each item in the list clickable, creating a smoother user experience. I also adjusted the login layout by switching to a more flexible layout type, which helps the app display properly on different devices and added accessibility features for users with disabilities. These improvements helped me meet my original course goals, like creating interactive and easy-to-use apps that manage data safely. These changes also supported my goal of making the app adaptable for different users and devices. I don’t have any updates to my goals at this time because these changes already aligned well with my course outcomes.

Enhancing this project taught me a lot. I realized that designing for users means thinking ahead about things like data accuracy and accessibility. For example, using ConstraintLayout took some extra time to learn, but it helped the app look consistent across different screen sizes. Making these updates also taught me how even small improvements, like adding click listeners, can make the app feel more responsive and enjoyable to use. This project reinforced the importance of creating apps that are reliable and easy to use from the start.