CS-499 Captsone Module 3 First Enhancement Software Engineering and Design

Professor Conlan

Nick Burnette

**Briefly describe the artifact:**

--A weight loss app using Android Studio from CS 360.

**Justify the inclusion of the artifact in my ePortfolio, why did I select it, which components showcase my skills, how was it improved?**

--I chose the artifact because of its wide complexity and the fact that Mobile App development appeals to me. The components that showcase my skills are the UI/UX design, I am good at developing functionality. The app was improved in this enhancement with improved UI/UX design.

**Did you meet the course outcomes you planned to meet in Module One?**

--Through this enhancement I was able to touch upon every required course outcome except for Developing with a Security Mindset. The app has a great foundation already in place for this from the work done in CS360, but this particular enhancement did not touch on that part yet. I described the achieved outcomes in more detail in the Journal assignment for this week.

**Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating and improving it? What challenges did you face?**

--Enhancing and modifying the app was daunting in the beginning, the challenge was getting organized and finding a stable path to start on. I learned that keeping my goals organized and almost ‘bite-sized’ helped me to keep from being overwhelmed. Another challenge was simply reminding myself what I’d learned in that course since it was not taken very recently.

(The rest of this document was performed informally during development of the first artifact.)

Objectives:

Visually improve the UI/UX including a personalized message with the user’s name plus a rotational inspirational message. Add a progress tracker. Cleanup imports and follow best practices on items like hard-coded strings, others per code review,

Notes:

I decided the very first thing I should do is make a clean github repository to track my progress and develop these new features safely. To do this, I created a repository on my github account, took the url and attached it to the project in Android Studio IDE which has convenient version control integration:

A screenshot of a computer program

AI-generated content may be incorrect.

First change made in MainActivity.java to cleanup the unwanted import at the beginning. I wasn’t sure about the IDE suggestions beneath ‘inspirationMessage’ buttonAddWeight’ etc so I left those and moved to the hard-coded strings used in displaying goal weight. There were half a dozen fixes made to improve on the hardcoded strings.

Next I opened activity\_main.xml. The first section I addressed was the inspirational message, with a goal of choosing between 3 different messages that included the user’s first name. I made a string-array and deleted the old inspiration\_message. The string array uses the %1$s keyholder to be assigned as the user’s first name. This was implemented in MainActivity.java, and I made a few recommended changes from dp to sp on text sizes.

A screen shot of a computer program

AI-generated content may be incorrect.

I built the array and left placeholders in activity\_main.xml and the variables that were initializing the original inspiration message in order to keep the placeholder. I added Random() to select a random message each time, which required me to import the class functionality first:

A screen shot of a computer

AI-generated content may be incorrect.

I got this to work after several tries, below are a couple examples of the new inspirational message. I’m not yet pulling the user name, but this is a good start. Note: ‘Friend’ is the default user name.

A screenshot of a cell phone

AI-generated content may be incorrect.A screenshot of a cell phone

AI-generated content may be incorrect.A screenshot of a cell phone

AI-generated content may be incorrect.

As a note of interest I thought I had a randomizing error somewhere because the first five refreshes brought up the exact same message, but that was just the random integer being selected coincidentally five times in a row! Glad I checked it a 6th time.

I added a capture in LoginActivity.java to capture user’s first name. For now the login is set up as a username instead of a first and last name. To keep functionality but improve the UI I will add a new EditText for ‘First Name’ after the login succeeds. This required changes to strings.xml to avoid hardcoding, and changes to LoginActivity.java to capture the user’s first name from the button and save it. This didn’t work at first so I removed the fetch from LoginActivity since I only need to save it after login succeeds. I made the firstname read in MainActivity, which I then created an additional call to SharedPreferences, one for WeightPrefs and a new one for UserPrefs, to clarify things for myself I changed all prefs that were calling on the WeightPrefs to ‘weightPrefs’ and all the new userPrefs calls were called accordingly. Now in the code I can see easily which SharedPreference is about weight, or user. After this is all in place I am able to log in, I still use ‘admin’ in username, ‘password’ in password, and now a field to capture first name. I will use NightWing as a firstname because it’s awesome.

A screenshot of a cell phone

AI-generated content may be incorrect.

I now have an enhanced UI with an improved inspirational message.

To complete this artifact I’m going to add the button for ‘My Progress’ which is a part of the next Artifact. So for this module it is in place but won’t be implemented until next module.

A screenshot of a computer screen

AI-generated content may be incorrect.

Everything is working, I am adding a soft gold color to the background. For UI/UX I will decide later if I should make the text boxes a soft gold also. I found a couple of buttons in activity\_main.xml that needed to be called from strings.xml. The old app had a recycler view at the bottom of the screen that would show the entries from the database, we are revamping this and the recycler view is also being crowded with my new additions. I adjusted it to fix the crowding and kept it in place for now. This should complete the enhancement for artifact 1.

A screenshot of a cell phone

AI-generated content may be incorrect.