

SNHU CS-360-R4872

App Development Proposal

3-3 Project One – Weight Tracker App (Option 3)

Jensen, Bryston
3-22-2024

Mobile2App Company has chosen me to select one of three projects that the team has selected for me to choose from. This document outlines my decision and the expected goals, users, screens and features, and how they all relate to the UI of this project.

Goals

I have chosen the Weight Tracker app, the third option of those I was given. The main goal of the app will be to allow a user to log current (and past) weights and view them in a simple table. This will be a relatively simple app, only tracking and displaying the weights the user inputs to the app. Major components include:

- A database with at least three tables:
 - One to store the daily weight.
 - One to store user logins and passwords.
 - One to store the goal weight.
- A screen for logging into the app or create a new login.
- A screen, with a table, that displays all the daily weights and the dates they were entered, sorted by most recent with an indicator that they are moving toward or away from their goal.
 - A graph to better display weight trends over time. (Not in project requirements, only to be added if there is extra time.)
- A way for the user to add daily weight.
- A way for the user to add a goal weight.
- A way for the application to notify the user when they reach their goal weight.
 - Probably a push notification. (Will require permissions.)

Users

Users of the application will include three main types of people; those who have an interest in losing, maintaining, or gaining weight. This means that there must be three different goal types for each of these users: weight loss, maintenance, and weight gain.

Screens and Features

There are several different screens needed for this application. Each screen will have features needed to meet the goals of the project. The app will primarily be used in portrait mode.

Login Screen

The login screen will need to be simple. It will contain a username and password field with a login button underneath that. A “Forgot password” link will need to be included below that. Lastly, a Create Account will also need to be somewhere on the page.

Main Screen – Weight History

Displays the date and weight of the last weigh-in. At the top, a tab system for 1 day (default), 1 week, 4 weeks, and all data. This page will show the average weight and BMI of the time-range tab selected at the top and a table of each of the weigh-ins during that time. Table will look something like this:

Goal: 190				
Date	Weight	Progress		
03-22-24	180 lbs.	0 lbs.	✗	
03-26-24	181.2 lbs.	+1.2 lbs.	✗	
03-28-24	180.8 lbs.	-0.4 lbs.	✗	

An add weight button will be in the bottom right corner of the screen. A simple [+] (plus in a square) icon when clicked will open the add weigh-in screen.

Triple dot menu in top right corner, contains an Edit Goal Weight option. Opens something like the Weigh-In popup but will only be able to change a weight value and a menu with Lose, Maintain, and Gain options.

Weigh-In Screen

Very simple popup with Weight text field, Date field DatePicker (defaults to today), and Submit button (maybe a Floating Action Button).

Create Account Screen

User inputs: email, password, first name, last name, weight goal. Submit button.

Functional App Requirements

Language: Java

Minimum Android SDK: 33 (Will run on 22.4% of devices.)

Target SDK: 34

[ElementName]: [ElementType]: [Other Details]

Login Activity

usernameLogin: editTextText: hint “Email”, input from user

passwordLogin: editTextTextPassword: hint “Password”, input from user

login: button: text “Login”, onClick() checks credentials

newAccount: button: text “Create Account”, onClick() opens Create Account screen.

Weight History Activity

timeRange: tabLayout: Contains four tabItems “1 Day” “1 Week” “4 Weeks” and “All”, changes displayed data time range.

weightTable: TableLayout: Contains data for the timeRange above, each row has delete icon
onClick() deletes weight, each row also contains edit icon opens edit weight popup. Retrieved from Weight database.

addWeight: [FloatingActionButton](#)(FAB): plus (+) icon, onClick() opens Weigh-in popup.

dropdownMenu: [menu](#): three dots, onClick() opens popup with menu items.

Weigh-In Activity

Popup on screen, no need for an entire screen for this.

weightAdd: editTextNumberDecimal: opens numerical keypad, requiring a decimal format.

dateAdd: button: onClick() opens [DatePickerDialog](#) class with current date as default.

submitAdd: FAB: checkmark icon, adds data to database and opens Weight History Activity.

Create Account Activity

emailNew: editTextText: hint “Email”, input from user

passwordNew: editTextTextPassword: hint “Password”, input from user

firstNameNew: hint “First Name”

lastNameNew: EditText: hint “Last Name”

weightGoalNew: editTextNumberDecimal: hint “weight goal”, opens numerical keypad, requiring a decimal format.

submitNewAccount: FAB: checkmark icon, adds data to database and opens Weight History Activity with account credentials as user. (No need to log in after creating a new account.)

References

GeeksforGeeks. (2022, July 17). *DatePicker in Android*. Retrieved from GeeksforGeeks:
<https://www.geeksforgeeks.org/datepicker-in-android/>

Google. (n.d.). *Design & Plan*. Retrieved March 22, 2024, from Android Developers:
<https://developer.android.com/design>

Google. (n.d.). *Menus*. Retrieved March 22, 2024, from Material Design:
<https://m2.material.io/components/menus/android#exposed-dropdown-menus>