Jordan Mitchell

1/20/2025

Professor Chan

Project One: Weight Tracking App

**Goals of the Project**

The weight tracking app is designed to help users monitor their daily weight, set personalized weight goals, and follow their progress visually over time. The app focuses on providing an intuitive and user friendly experience while motivating users to maintain consistency with their weight goals.

To achieve this, the app will include these major components:

* Database: A robust database system to store user login credentials, daily weight entries, and goal weight data. This ensures user progress is kept accurate and secure.
* User Interface:
  + A login screen for account access and registration.
  + A dashboard displaying weight data, visual progress via charts and graphs, and key metrics like progress toward goals.
  + Input options for logging daily weight and setting a target goal.
  + Notifications to remind users to log weight regularly and congratulate them when reaching milestones.
* Notifications: Push notifications will keep users engaged and on track, with daily entry reminders and celebrations when users achieve their weight goals.

By combining these features, the app offers an engaging yet simple and convenient way to support users in meeting their weight objectives.

**Users and Needs/Preferences**

The app is designed to meet the needs of four primary users, each with unique goals and requirements:

* Health-Conscious Individuals
  + Goals: These users are looking to maintain a healthy lifestyle by consistently monitoring their weight and overall health.
  + Needs: The app must provide an intuitive interface for quick weight logging and visual progression tracking to help users stay consistent.
* Individuals on Weight-Loss Journeys
  + Goals: They are focused on reaching specified weight loss goals. These users need motivation and tools to track their progress.
  + Needs: Features like setting goals, progress graphs/charts, and notifications for reminders/milestones will keep them continually engaged and motivated.
* Health/Diet-Restricted Users
  + Goals: These people may have medical or dietary restrictions requiring accurate monitoring, like those managing diabetes, diverticulitis, or preparing for medical procedures.
  + Needs: The app should have precise tracking tools and customizable notifications (timed notifications, etc.) to align with their health plans and medical needs.
* Fitness Enthusiasts
  + Goals: Fitness focused users often track weight trends to align with training or performance goals, such as weightlifting competitions.
  + Needs: Detailed trend analysis and reliable daily tracking will help these people optimize their performance and training routines.

By addressing these diverse user needs, the app becomes a practical, multifaceted tool for both short and long term weight management.

**UI Design**

To create an effective and user centered interface, the app will have several key screens and features that prioritize efficiency, usability, and simplicity:

1. **Login Screen**: This screen allows users to log in or create an account quickly. It will include fields for username/email and password, along with a Register button for new users. There will also be an option if someone forgets their username or password.
2. **Dashboard**: The central hub where you can view recent entries, historical trends displayed with a graph and follow progress toward goals. The dashboard will also feature quick input buttons to log weight or set a goal.
3. **Log Weight Screen**: A simple screen that includes an input field or slider to record daily weight, with a Save button to update progress. This screen will connect to the database, allowing for immediate updates to the dashboard.
4. **Goal Screen**: Where users enter their target weight. A confirmation button will save their goal and provide encouraging feedback as they progress. This screen helps reinforce healthy habits through positive reinforcement.
5. **Notifications/Settings**: A settings screen where users can enable or disable reminders, customize the frequency of notifications, and adjust other preferences for personal convenience.

Users will start at the login screen and then be directed to the Dashboard. The simple design will allow users to jump between actions like logging their new weight or viewing the trend charts with ease.

**Functional Requirements**

The functional requirements are for ensuring that all features work as intended and data flows easily between the user interface and the backend systems.

* Database Integration - The app will rely on the backend database to:
  + Store user credentials securely for login and registration.
  + Save weight entries and retrieve them for chart visualization.
  + Maintain goals for personalized tracking.
* Data Flow:
  + User Input: Users input weight and goal data through dedicated screens, which immediately update the database.
  + Data Retrieval: The dashboard retrieves stored data (recent entries and trends) from the database in to display real time progress.
  + Notifications: The app will use scheduled tasks to trigger notifications based on activity, such as reminding users to log entries.
* Key Components:
  + Login Screen: Username and password fields, Log In, Register, and Forgot Info buttons.
  + Dashboard: Graphs and tables to display historical and current data trends. Buttons for navigating to other screens.
  + Log Weight Screen: Input field or slider for weight, Save button to confirm entry.
  + Set Goal Screen: Input field or slider for goal weight, Set Goal button for confirmation.
  + Notifications: Alerts triggered based on user progress and preferences, configured in the settings.
* Notification System:
  + Reminders will be generated based on user preference.
  + Milestone alerts notify users when they achieve progress to offer encouragement and reinforce consistent use.

These functional requirements ensure that the app is responsive, accurate, and valuable for users across all intended use cases.

My proposed app has been carefully designed to cater to a wide range of users, from health conscious people to those with medical related needs. By combining simple navigation, practical features, and efficient data handling, the app is a valuable tool for those looking to meet and maintain health and wellness objectives. Its design is centered around users and adheres to Android Material Design principles to create a functional, visually appealing, and accessible application. This can be a product that positively impacts people’s daily lives and helps them stay consistent and accountable.