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**A. Project Title**

**Health Buddy: Health Tracking App**

**B. Background**

As people grow older, staying healthy becomes more important but can also feel overwhelming. Many don’t have an easy way to keep track of their daily activities and health. This project aims to provide a simple app to help users monitor their health and improve their habits for better well-being.

**C. Objectives**

To create a basic app for tracking health activities.

To give users helpful tips for improving their health.

To make health tracking easy and accessible for everyone, including seniors.

**D. Key Functional Features**

**Login, Logout, and Registration**:

Users can create an account, log in, and log out securely.

**Health Data Tracking**:

Users can enter their daily steps, weight, and meals.

Simple forms for updating health data.

**Health Tips**:

The app will show tips for healthy eating and simple exercises based on user data.

**Progress Tracker**:

Users can see their progress over time through basic charts or lists.

**Reminder Notification**:

The system will send notification to remind users about logging meals or steps, drinking water and taking medicine.

Will use flutter\_local\_notifications package to schedule notifications.

**E. Data Storage: Firestore**

Firestore will store all user data like their profile and health logs

**F. State Management: Provider**

Provider will help manage the app’s data and update the screens smoothly when changes are made.

**How the Recommendations Are Generated:**

* **Fetching the Latest Record:**  
  The app retrieves the most recent health record from Firestore. (In a more robust application, you might analyze data over a longer period or use averages, but here we use the latest record for simplicity.)
* **Conditional Checks (Simple Rules):**  
  A function (in our example, \_generateTips) applies basic if/else conditions to the retrieved data:
  + **Daily Steps Check:**  
    If the number of daily steps is below a certain threshold (e.g., less than 5000), the app generates a tip encouraging the user to increase their activity (e.g., "Try taking short walks throughout the day to reach at least 5000 steps."). Otherwise, it may give positive reinforcement.
  + **Weight Check:**  
    If the weight is above a predefined threshold (for example, above 80 kilograms), the app suggests that the user consider a balanced diet with more fruits, vegetables, and lean proteins. If the weight is within a healthy range, it may provide a congratulatory message.
  + **Meals Field Check:**  
    Since the meals field is a text description, the app might check its length (or even keywords if you expand the logic) to decide if more variety or detail might be beneficial. For instance, if the string is very short, the tip might be to “include a variety of foods in your meals” or prompt the user to provide more detail.

In the example above, when the **HomePage** initializes, it calls \_scheduleReminders() to set up three daily reminders:

* One to remind the user to log meals and steps at 8:00 AM.
* One to remind the user to drink water at 11:00 AM.
* One to remind the user to take their medicine at 8:00 PM.