

## Coursework: MyMedBuddy — Personal Health & Medication Manager

Many individuals struggle to track medications, appointments, personal health logs, and prescriptions. Your task is to design and build a mobile app that allows users to manage their daily health routines with personalized features - offline and online, integrated into Flutter's ecosystem.

This project must be:

- Multi-screen
- Interactive
- Personalized per user
- Persistent across sessions
- Include real API integration
- And demonstrate asynchronous + stateful + reactive programming

### App Requirements and Features

#### 1. User Onboarding (SharedPreferences + Forms)

- Use **Form** to capture user details (name, age, condition, medication reminders)
- Store this data using **SharedPreferences**
- On re-launch, app skips onboarding if data exists

#### 2. Multi-Screen Navigation

- Home Screen → Navigation to:
  - Medication Schedule
  - Health Logs
  - Appointments
  - Profile
- Use both **named routes** and **Navigator.push**

#### 3. UI Design & Layouts

- Use **Column**, **Row**, **Cards**, **ListView**, **ListView.build**, **GridView**, and **Stack** and more appropriate UI widgets
- Include a responsive **Dashboard layout** showing:
  - Next Medication
  - Missed Doses
  - Weekly Appointments

#### 4. State Management

- Use **setState** for temporary form states (e.g., toggles, switches)
- Use **Provider** for shared app-wide state:
  - Logged-in user
  - List of health logs

- Introduce **Riverpod** for advanced features like filtering health history or editing appointments

## 6. Async Programming + API

- Fetch **real-time health tips** or medication data using a public API like:
  - <https://publicapis.dev/category/health>
  - Or mock a Firebase endpoint
- Show a loading spinner while data loads
- Show an error message on failure

## 7. Shared Preferences

- Store user preferences:
  - Dark mode / Light mode
  - Notification toggle
  - Daily log reminder settings

## Bonus Ideas for Ambitious Students

- Add notifications via `flutter_local_notifications`
- Track medication compliance and show streaks
- Export health logs as PDF
- Integrate local SQLite for health history

## Submission Deliverable

Deliverable	Description
<code>main.dart</code>	Entry point
<code>/screens</code>	Organized screens (Home, Log, Schedule, Profile)
<code>/widgets</code>	Custom widgets used
<code>/providers</code>	Riverpod + Provider state management
<code>/services</code>	Async API calls, SharedPreferences helper
README.md	Document describing app features, structure, packages used and how the App can be mounted
	A link to git
Max of 10 Mins Video	App Demonstration with data is required