Mobile App Specification Document

Objective

To develop a cross-platform mobile application (Android and iOS) that collects, integrates, and shares data from health-related data sources including wearable devices and health tracking apps. The app will support natural language voice commands for easy user data input and synchronize all relevant data to backend systems for real-time AI/ML processing and clinical use. The app will later be integrated with the CGM android and iOS apps having other features.

Key Features

- Integration with Apple HealthKit and Google Fit
- Compatibility with smartwatches and fitness bands (e.g., Fitbit, Galaxy Watch, Apple Watch)
- Voice-activated commands using 'Hey IMS'
- Fallback to manual text input for all voice features
- Data export and secure sync with IMS backend systems (cloud based) for analytics

Data Sources

- Wearable Devices (heart rate, activity, sleep)
- Health Apps (nutrition, exercise, insulin dose logs)
- User Input (meals, insulin, symptoms - voice and text)

Voice Input Integration

Users can interact with the app using voice commands activated by the phrase 'Hey IMS'.
For example:
- 'Hey IMS, I am going to eat a 250 calorie meal.'
- 'Hey IMS, I am going to take 3 units of insulin.'

The app transcribes the voice input to text using a built-in speech-to-text engine, parses the command using NLP, and logs the information accordingly. Fallback options for manual text entry will always be available.

Privacy & Security

The app will enforce HIPAA and GDPR compliance. All data transmissions will be encrypted using end-to-end encryption. Voice data will only be processed locally unless explicit consent is given. User authentication and permission control will be implemented for all third-party integrations.