

AidX - Healthcare App Features Documentation

AidX - Your Complete Healthcare Companion

Core Features Overview

IMPLEMENTED FEATURES (Up to SOS Service)

1. Authentication & User Management

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - User registration and login
 - Firebase Authentication integration
 - Profile management
 - Secure session handling
 - Password reset functionality

2. Dashboard & Navigation

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Main dashboard with health overview
 - Mood tracking and recording
 - Quick access to all features
 - Health metrics display
 - User profile integration

3. SOS Emergency System

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Emergency SOS button
 - 30-second countdown with alarm
 - Automatic emergency calls
 - Location sharing to Telegram
 - Emergency contacts management
 - Auto SOS toggle
 - Background operation

4. Fall Detection & Sleep Tracking

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Real-time fall detection using accelerometer
 - Separate fall detection and sleep tracking

- Instant emergency response on fall detection
- Location sharing to Telegram on fall
- Automatic emergency calls
- Background monitoring
- Persistent state management

5. Medication Reminders

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Medication scheduling
 - Local notifications
 - Firebase integration
 - Reminder management
 - Medication history tracking

6. Hospital & Pharmacy Finder

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Hospital locator with maps
 - Pharmacy finder
 - Professional directory
 - Location-based search
 - Contact information

7. Symptom Checker & AI Diagnosis

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - AI-powered symptom analysis
 - Gemini AI integration
 - Symptom tracking
 - Health recommendations
 - Medical advice

8. Community Support

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Social media-style posts
 - Photo sharing
 - Like and comment system
 - Category-based posts
 - Real-time updates
 - Firebase integration

9. Health ID & QR System

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Digital health ID creation
 - QR code generation
 - QR scanner functionality
 - Health information storage
 - Emergency medical data

10. Blood Donation System

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Blood donation requests
 - Donor matching
 - Location-based search
 - Donation tracking
 - Emergency blood requests

11. Health Habits Tracker

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Daily habit tracking
 - Progress visualization
 - Firebase integration
 - Local notifications
 - Habit completion rewards

12. Vitals Monitoring

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Health vitals tracking
 - Data visualization
 - Trend analysis
 - Health metrics display

13. Wearable Integration

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Bluetooth device connection
 - Health data sync
 - Real-time monitoring
 - Device management

14. Drug Information

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Drug database
 - Side effects information
 - Dosage guidelines
 - Drug interactions

15. Timeline & History

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Health timeline
 - Event tracking
 - History visualization
 - Data persistence

16. Notification System

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Local notifications
 - Scheduled reminders
 - Emergency alerts
 - Custom notification sounds

17. Telegram Integration

- **Status: FULLY IMPLEMENTED**
- **Features:**
 - Emergency message sending
 - Location sharing
 - SOS alerts
 - Real-time communication

TO BE IMPLEMENTED (For Hackathon)

1. Advanced AI Features

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Advanced AI diagnosis
 - Medical image analysis
 - Predictive health analytics
 - Personalized health recommendations

2. Advanced Analytics

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Health trend analysis
 - Predictive modeling
 - Advanced data visualization
 - Health insights dashboard

3. Telemedicine Integration

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Video consultations
 - Doctor appointment booking
 - Virtual health consultations
 - Medical record sharing

4. Genetic Health Analysis

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Genetic risk assessment
 - Family health history
 - Personalized health plans
 - Genetic counseling integration

5. Advanced Fitness Tracking

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Workout tracking
 - Fitness goals
 - Exercise recommendations
 - Performance analytics

6. Nutrition & Diet Planning

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Meal planning
 - Nutrition tracking
 - Dietary recommendations
 - Calorie counting

7. Advanced Sleep Analysis

- **Status: TO BE IMPLEMENTED**

- **Planned Features:**
 - Sleep quality analysis
 - Sleep pattern tracking
 - Sleep recommendations
 - Sleep disorder detection

8. Mental Health Features

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Mood tracking
 - Stress management
 - Meditation guidance
 - Mental health resources

9. Family Health Management

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Family member profiles
 - Shared health data
 - Family health alerts
 - Care coordination

10. Hospital Integration

- **Status: TO BE IMPLEMENTED**
- **Planned Features:**
 - Hospital system integration
 - Medical record sync
 - Appointment scheduling
 - Lab result tracking

Technical Implementation

Backend Services

- Firebase Authentication
- Cloud Firestore Database
- Firebase Storage
- Firebase Cloud Functions
- Local Notifications
- Background Services

Frontend Features

- Flutter UI Framework
- Provider State Management
- Custom Theme System
- Responsive Design
- Offline Capability

Integrations

- Telegram Bot API
 - Google Maps API
 - Gemini AI API
 - Bluetooth Connectivity
 - Geolocation Services
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Feature Status Summary

Category	Implemented	To Implement	Total
Core Features	17	10	27
Authentication		-	1
Emergency Systems		-	2
Health Tracking		5	6
AI & Analytics		2	3
Social Features		-	1
Medical Services		3	4

Implementation Rate: 63% Complete

Hackathon Goals

Primary Objectives:

1. **Complete Advanced AI Features** - Implement advanced diagnosis and analytics
2. **Add Telemedicine Integration** - Enable video consultations
3. **Enhance Mental Health Features** - Add comprehensive mental health tracking
4. **Implement Family Health Management** - Multi-user health coordination
5. **Add Advanced Analytics** - Predictive health modeling

Success Metrics:

- 80% feature completion rate
- All core emergency features working
- Advanced AI integration complete
- User experience optimization
- Performance optimization

This documentation represents the current state of AidX as of the latest implementation, with clear roadmap for hackathon development.