Health Dashboard - Project Summary

Overview

The Health Dashboard is a comprehensive web application that integrates multiple health data sources into a unified platform, allowing you to:

- 1. Connect and sync data from various health tracking platforms
- 2. Upload and analyze blood reports
- 3. Track medications and adherence
- 4. Chat with your data to get personalized insights
- 5. View trends and correlations across different health metrics

Features

Data Source Integration

The platform supports integration with the following data sources:

- Strava: Activity tracking, running, cycling, and other exercises
- HealthifyMe: Food tracking, nutrition, and diet planning
- Apple Health: Sleep tracking and general health metrics
- Hevy: Workout tracking, strength training, and exercise logs
- Blood Reports: PDF upload and parsing for lab test results
- · Medication Tracking: Custom medication repository and adherence tracking

Additionally, the system is designed to be extensible, with support for other major platforms: - Oura Ring - Fitbit - Fittr Hart Ring - Ultrahuman - And other major health tracking platforms

Chat Interface

The chat functionality allows you to query your health data using natural language. You can ask questions like:

- "How was my sleep last week?"
- "What was my average heart rate during my last run?"
- "Show me my nutrition breakdown for the past month"
- "Compare my workout volume this week vs last week"

"What medications did I take yesterday?"

The system will analyze your data across all connected sources and provide meaningful insights and answers.

Insights Engine

The platform automatically generates insights based on your health data, such as:

- Correlations between activity and sleep quality
- Nutrition trends and macronutrient balance
- · Workout consistency and progress
- Medication adherence patterns
- Anomalies in blood test results

Technical Architecture

The Health Dashboard is built using a modern tech stack:

- · Backend: Flask (Python) with SQLAlchemy ORM
- **Database**: MySQL for structured data storage
- Frontend: HTML/CSS/JavaScript with responsive design
- API Integrations: OAuth 2.0 for secure third-party connections
- Document Processing: PDF parsing for blood reports
- Natural Language Processing: For chat query understanding

Getting Started

1. Setting Up Your Account

- 1. Create a user account on the platform
- 2. Connect your data sources through the "Data Sources" section
- 3. Upload any existing health data exports
- 4. Set up your medication tracking if needed

2. Connecting Data Sources

For each platform, you'll need to:

- Strava: Authorize via OAuth to grant access to your activity data
- HealthifyMe: Connect using your credentials or upload data exports
- Apple Health: Upload Apple Health exports or connect via the Apple Health API

- Hevy: Connect using your credentials or upload workout exports
- Blood Reports: Upload PDF files of your lab reports
- Medications: Add medications from the repository or create custom entries

3. Using the Chat Interface

The chat interface is designed to be intuitive. Simply type your health-related questions, and the system will analyze your data to provide answers. The more data sources you connect, the more comprehensive the insights will be.

4. Regular Data Synchronization

For optimal results, sync your data regularly:

- 1. Visit the "Data Sources" section
- 2. Click "Sync Now" for each connected source
- 3. Review the sync status and any potential issues

Privacy and Security

Your health data is sensitive information. The Health Dashboard is designed with privacy and security in mind:

- · All data is stored securely and encrypted
- Third-party connections use OAuth for secure authentication without storing credentials
- · You maintain full control over which data sources are connected
- Data is processed locally whenever possible

Future Enhancements

The platform is designed to be extensible. Planned future enhancements include:

- 1. Mobile app for on-the-go access
- 2. Advanced data visualization and custom dashboards
- 3. Integration with additional health platforms
- 4. AI-powered health recommendations
- 5. Export functionality for sharing with healthcare providers

Support and Feedback

For any questions, issues, or feedback, please contact support through the platform's help section. Your input is valuable for improving the Health Dashboard experience.

Thank you for using the Health Dashboard! We hope it helps you gain valuable insights into your health and wellness journey.