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Industries: Healthcare
Region: North America

PROJECT TYPE
Mobile app (IoT solution)

TECHNOLOGIES
React Native, Node.js, MQTT, AWS

DURATION
12 months

TEAM
2 Backend Developers
3 Mobile App Developers
1 UI/UX Designer
1 Project Manager

Mobile application for 24/7 blood glucose monitoring

A HIPAA-compliant iOS and Android app that turns the Client's under-skin glucose sensor into a complete, market-ready product, cutting glucose threshold detection time by up to 60% compared with manual scheduled checks.



Project Special Features

Real-time alerts – instant notifications for high or low blood glucose levels, prompting immediate action for insulin administration.

24/7 monitoring and reporting – the sensor continually tracks blood glucose levels, and the app receives and processes this information in real time, providing a 24/7 monitoring system for the user.

Graphical data visualization – simple graphs representing fluctuations in blood glucose throughout the day, allowing for quick comprehension.

Onboarding tutorial and FAQ – built-in guides and FAQs for a smoother user adoption process, reducing the need for customer service interactions.

Business challenge

Our Client is a North American healthcare technology firm that specializes in manufacturing sensors for blood sugar monitoring targeted at individual consumers. The sensor is an innovative device that is different from the usual glucometers. It is embedded under the skin in the patient's arm and continuously monitors the blood sugar level. Recognizing the necessity of a user-friendly mobile application to make their sensor product truly market-ready, they sought our expertise in IoT to bridge this critical gap.

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The gap was always the interface. We had a sensor that worked, but patients had no way to act on what it was telling them. The app closed that gap, and now the data reaches the person it's meant for.

Drew Langley
CEO

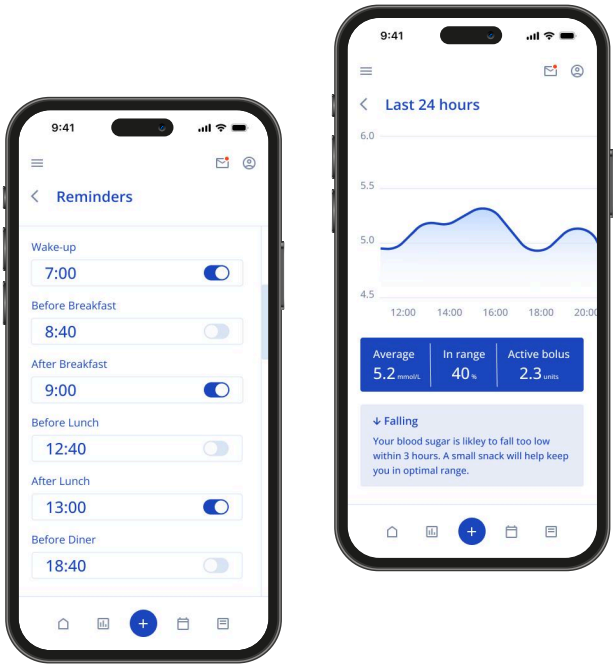
Main challenge

The Client aimed to make their sensors market-ready by pairing them with a user-friendly mobile application for real-time blood glucose monitoring. SumatoSoft faced the challenge of developing an app that could accurately handle real-time data while also complying with healthcare data privacy standards.

Our solution

During the initial stage of the project, we dove deep into a comprehensive requirements analysis, engaging not just with the technical specifications of the Client's existing sensor technology but also with the real-world needs and behaviors of the intended end-users. This dual focus ensured that the eventual application would serve as a bridge between the sophisticated sensor technology and the end consumers, making the technology both accessible and actionable for everyday consumers.

The application connects to the sensor via Bluetooth and gathers data about blood sugar levels in real-time.



✓ User interface and experience

Focused design efforts on creating an intuitive, easy-to-navigate user interface. The user-centric approach aimed to foster consistent usage and easier access to the app's key features.

✓ Real-time Monitoring and Data Visualization

We established a 24/7 real-time monitoring system that continuously receives sensor data and displays it in the app through detailed charts and tables. These visual elements provide a comprehensive view of blood glucose fluctuations over varying time frames – hourly, daily, monthly, and yearly – enabling users to make quick, informed decisions based on clear historical trends.

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- Alert Mechanisms

Automated notifications were set up to activate when blood glucose levels hit predetermined high or low markers. This feature is crucial for timely insulin administration, thus serving as a direct health benefit to users.

- HIPAA Compliance and Data Security

Carried out stringent security and functional testing in compliance with HIPAA guidelines, ensuring that all user data would be encrypted and securely stored.

- Onboarding and Support

Added an introductory onboarding tutorial and an FAQ section. These components serve as immediate resources for new users, helping to answer common questions and resolve typical issues without customer service intervention.

- Cross-Platform Availability

Developed the app to be compatible and fully operational on both Android and iOS, widening its potential user base.

Customer’s benefits

A HIPAA-compliant iOS and Android companion app transformed the Client's wearable sensor into a fully deployable patient product. Automated threshold alerts cut glucose event detection time by up to 60%, and guided in-app onboarding reduced new-patient setup time by ~40%.

What’s happening with the project right now?

The app is successfully operating in the market, receiving positive user feedback and high engagement rates. The Client is extremely satisfied with the results and our ongoing partnership.

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