



Universal Wellness Platform For A Range Of Smart Devices



CASE STUDY

UNIVERSAL WELLNESS PLATFORM FOR A RANGE OF SMART DEVICES

Overview

Our client makes advanced healthcare trackers for breathing assistance, posture coaching and health insights. They are the pioneers in personalized health coaching using wearables to connect patients to certified healthcare providers.

The devices leverage multiple sensors that gather data about the subject including sitting habits, breathing and other vitals like heart rate.



Real Challenges

The strategy of client called for an overhaul of existing infrastructure to capture unstructured data streams from all device sensors and harness it to derive intelligible information, that can be shared in the form of tangible reports with the users and their associated healthcare professionals.

1. Information transfer frequency prioritization was required to ensure bandwidth is not hogged by continuous transfer of data.
2. Streamlined collection of information from multiple accessories and sensors to provide meaningful insights
3. Updation of the app and architecture to support the latest state of the art functionality.
4. Solving data accuracy and consistency issues, prioritizing relevant points of data, that are most valuable for the end users.
5. Dynamic Management of connections over mesh of multiple Wi-Fi devices and handling data during the offline state of the device.
6. Intuitive design of UX for dashboard.

Our Approach

1. Integration with standard IoT framework to provide robust and high performance infrastructure.
2. Integration with third party applications to provide inter-operability of information from third party devices like Fitbit, Weighing scales etc
3. Digital Signal Processing algorithms using data filtering and signal processing to acheive accurate bio metrics and filter out the noise.
4. Developed automation framework to validate data integrity and UI for incremental updates.
5. Custom cross-platform framework for complete customization, configurability and offline caching mechanism.
6. Migration to standard technologies like Java, Appium and Jenkins for long-term support.
7. Implemented a streamlined agile development process.



Results



Low Bandwidth Usage

Broadcasts only the required data. No wastage of precious network bandwidth.



Reporting

Enhanced and accurate reporting of health stats



Improved UX Performance

Intuitive UI for better user interaction and information consumption



CUSTOM SOLUTIONS



WEB SOLUTIONS



MOBILE SOLUTIONS



CLOUD SOLUTIONS



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