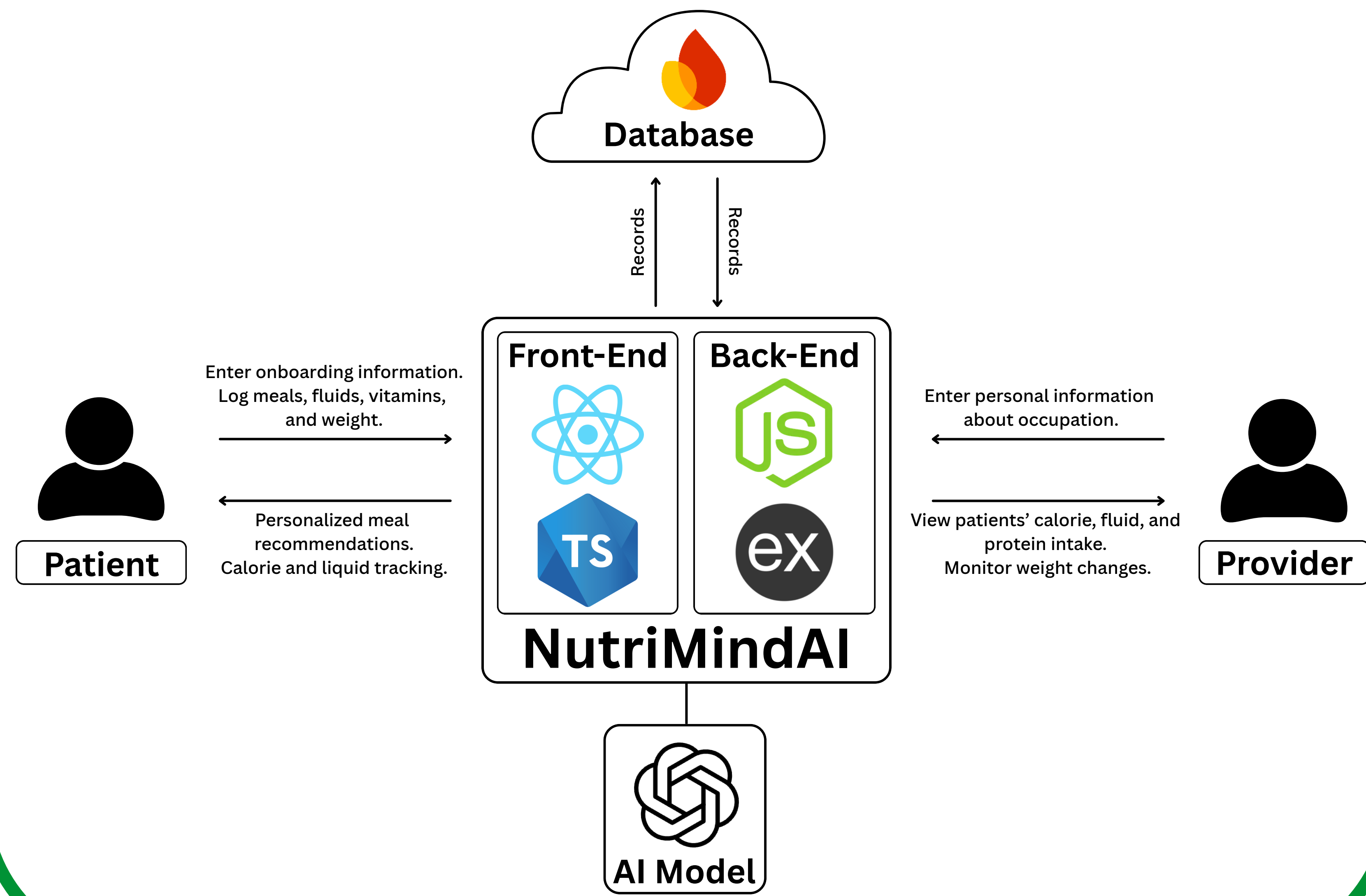


Problem Statement

As obesity continues to rise in the United States, bariatric surgery has become an increasingly common medical intervention to support significant and sustained weight loss. Where bariatric surgery is a weight loss surgery that involves making changes to your digestive system to aid you to lose weight. However, the procedure presents challenges, as patients must adopt strict dietary guidelines, develop consistent meal tracking habits, and maintain long-term lifestyle changes. The solution to better adopt these habits into their lifestyle are tools such as diet tracking applications. However, existing diet tracking applications fail to address the unique nutritional requirements of bariatric patients, which include surgery specific restrictions, medical conditions, personal preference in food, and individualized lifestyle factors. Along with that, they lack integrated long-term monitoring tools that allow healthcare providers to effectively track patient progress and adherence after surgery.

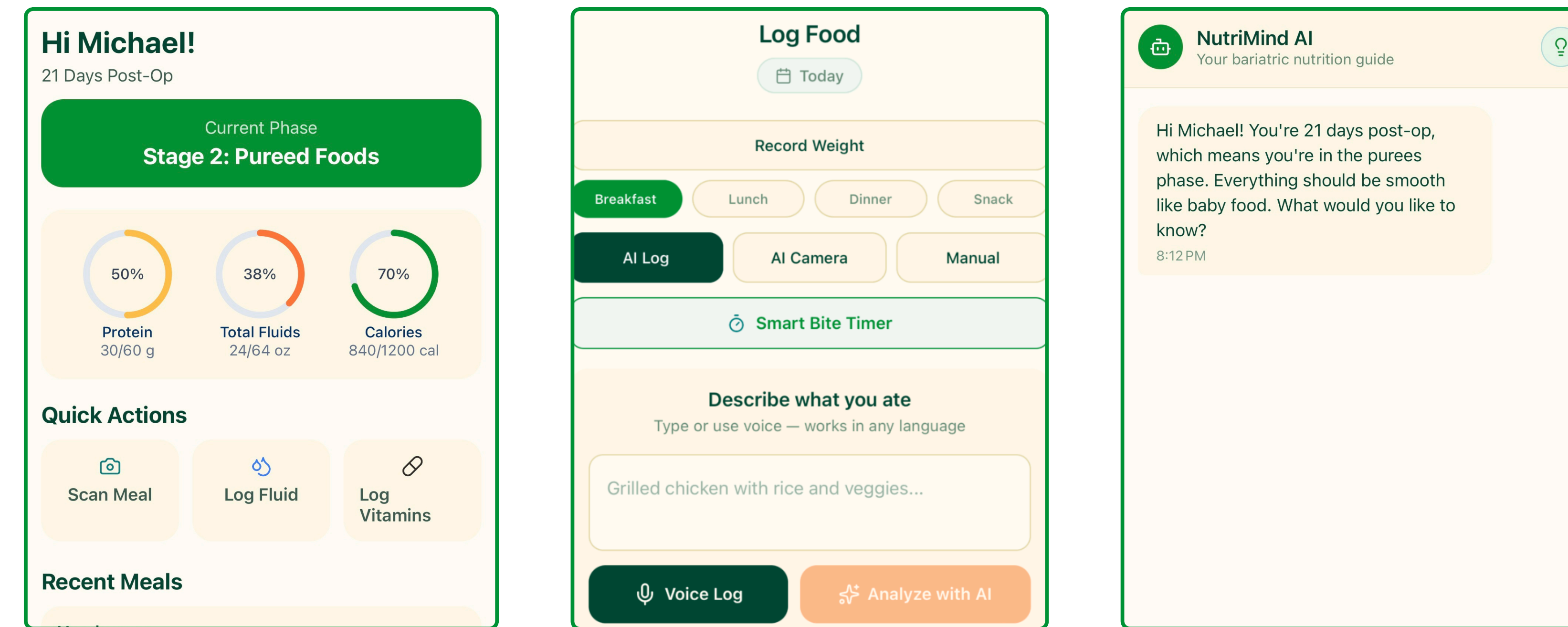
System Architecture



System Functionality

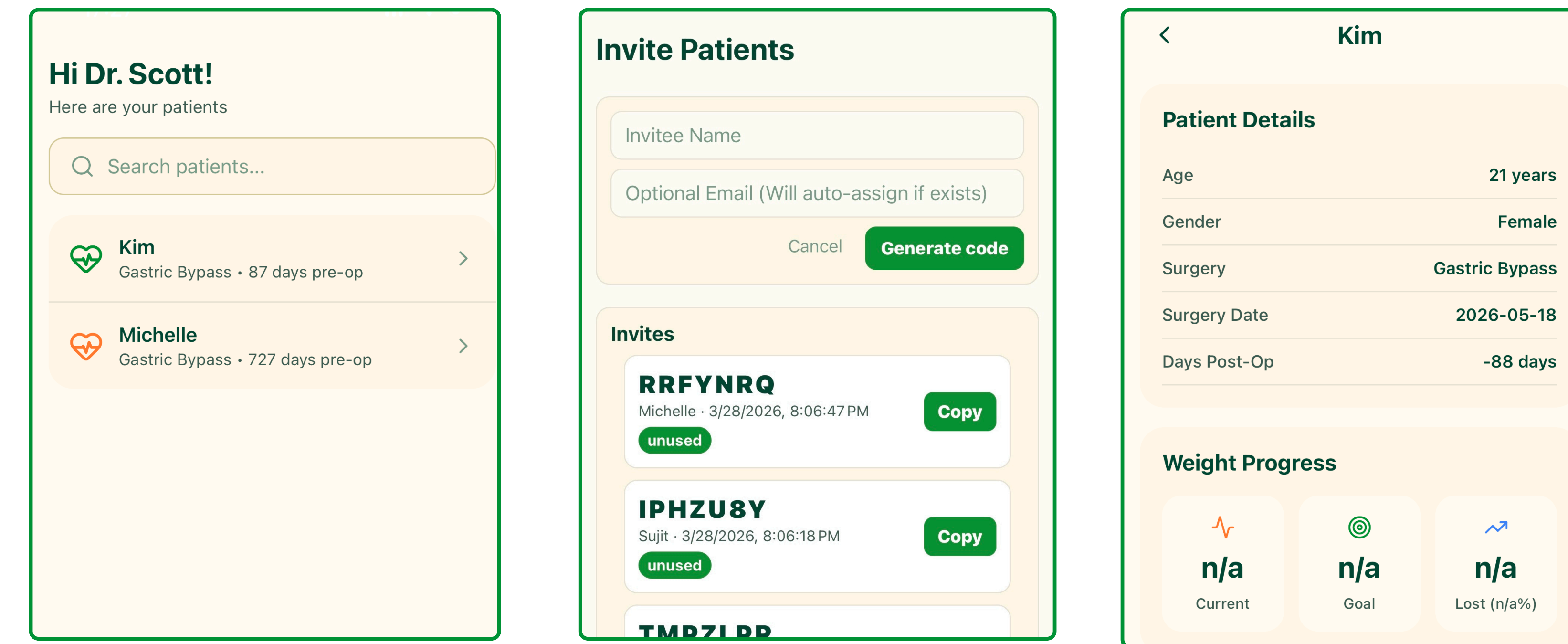
Patient View

Patients sign in to log their daily meals through text, voice, or camera, and track their protein, fluid, and calorie intake against personal goals. They can follow their bariatric recovery phase, get AI-powered nutrition guidance tuned to their profile, and connect with their care provider using an invite code. The app is mobile-first and secure, designed for effortless daily use.

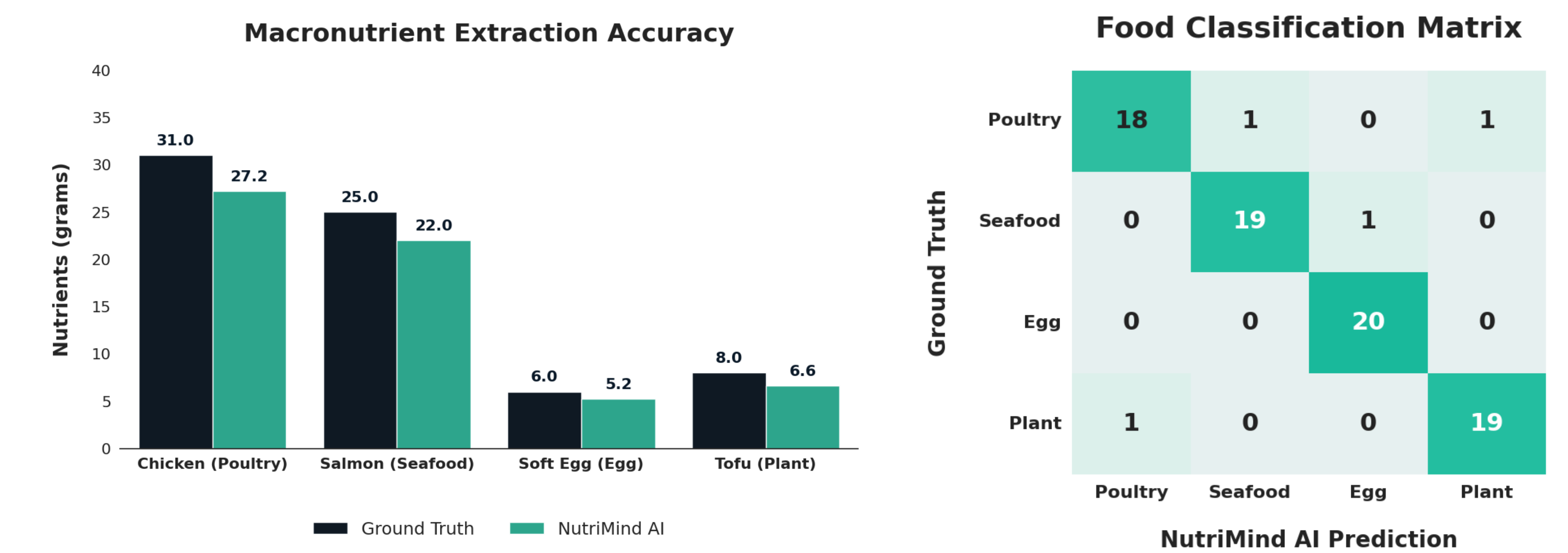
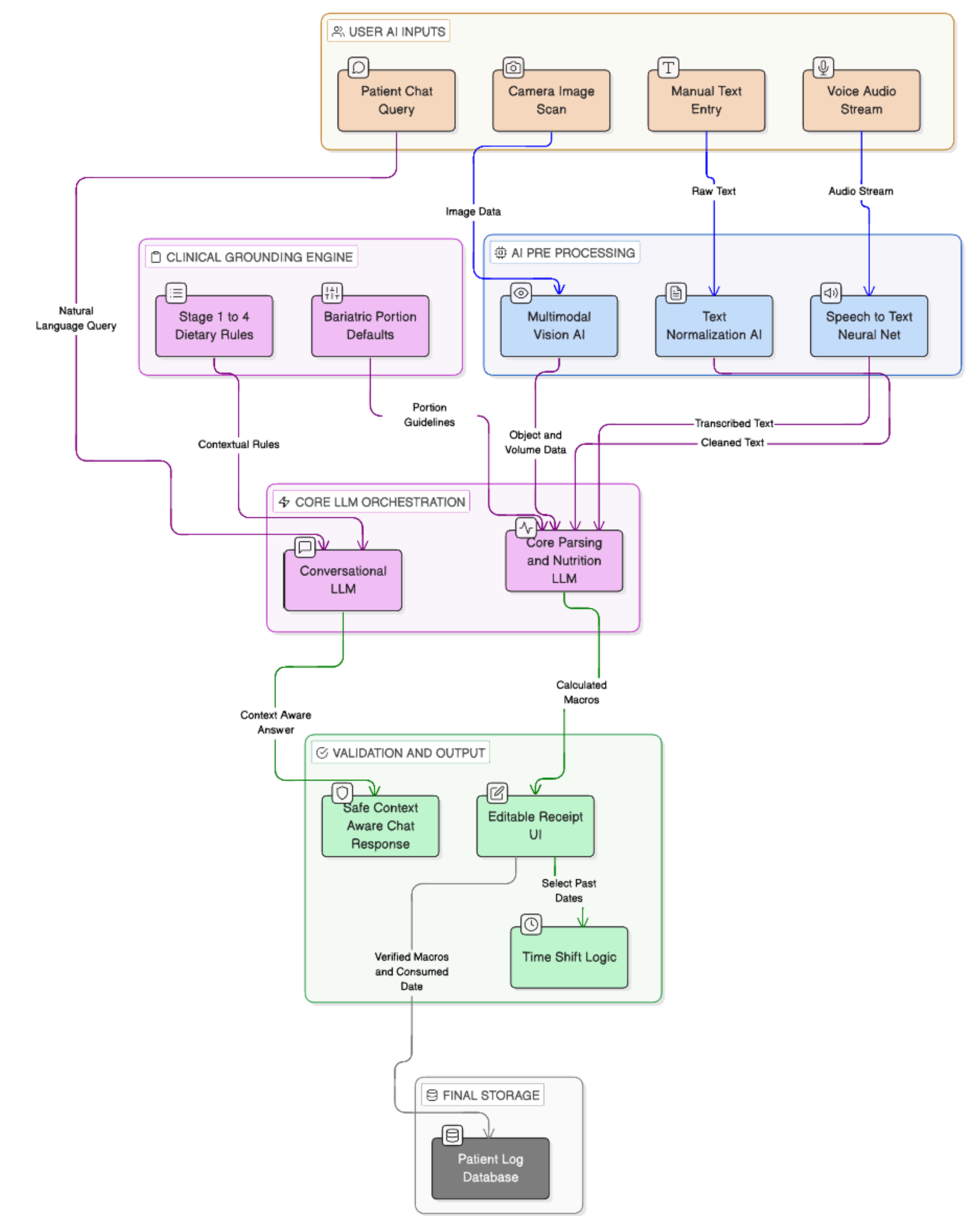


Provider View

Providers sign in to manage their patient list, review nutrition and weight data over time, and add clinical notes to individual patient records. They generate invite codes to bring patients onto their roster and can remove patients when care concludes. The experience is role-based and token-secured, giving clinicians a safe, focused view into each patient's recovery journey.

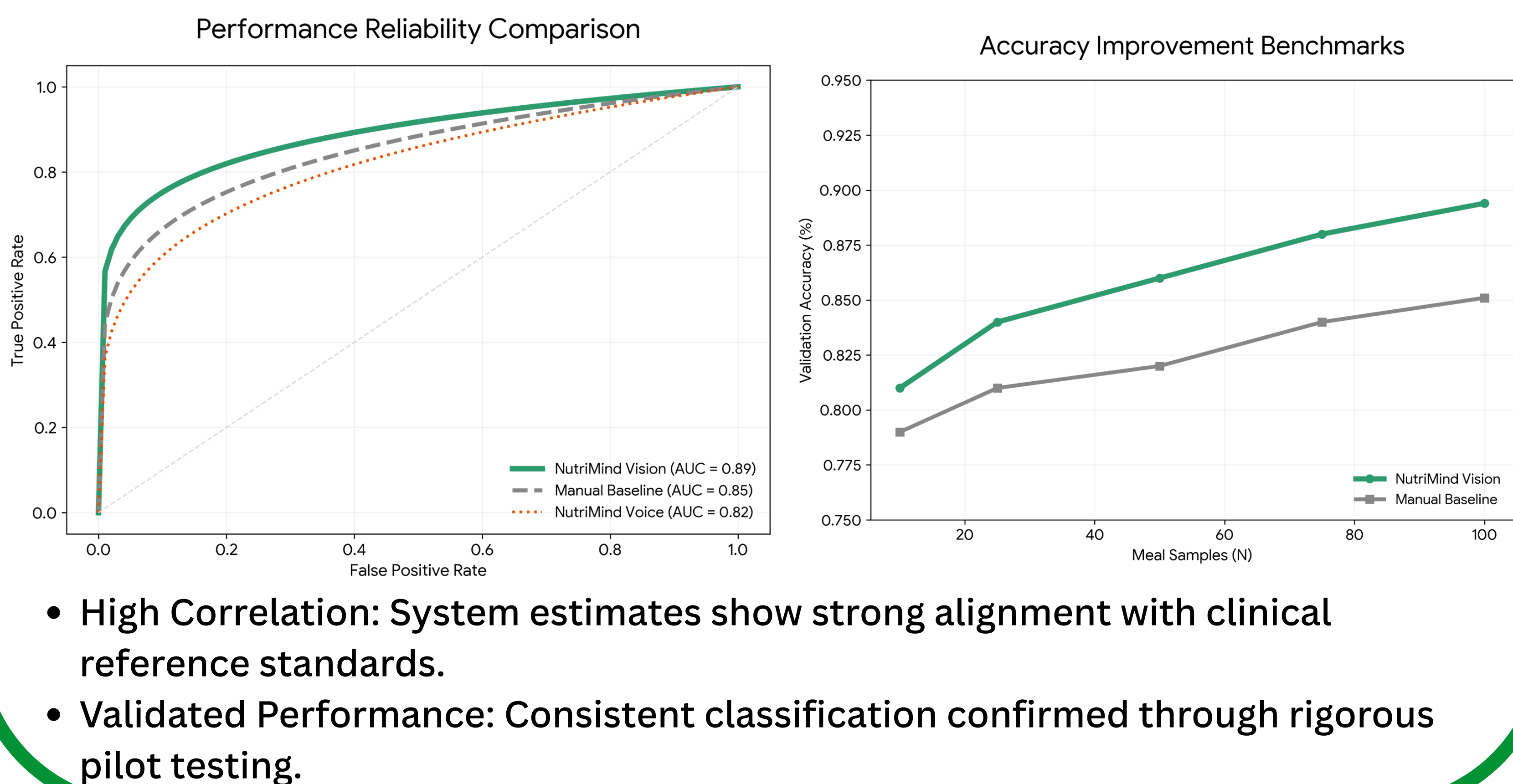


AI Workflow And System Performance

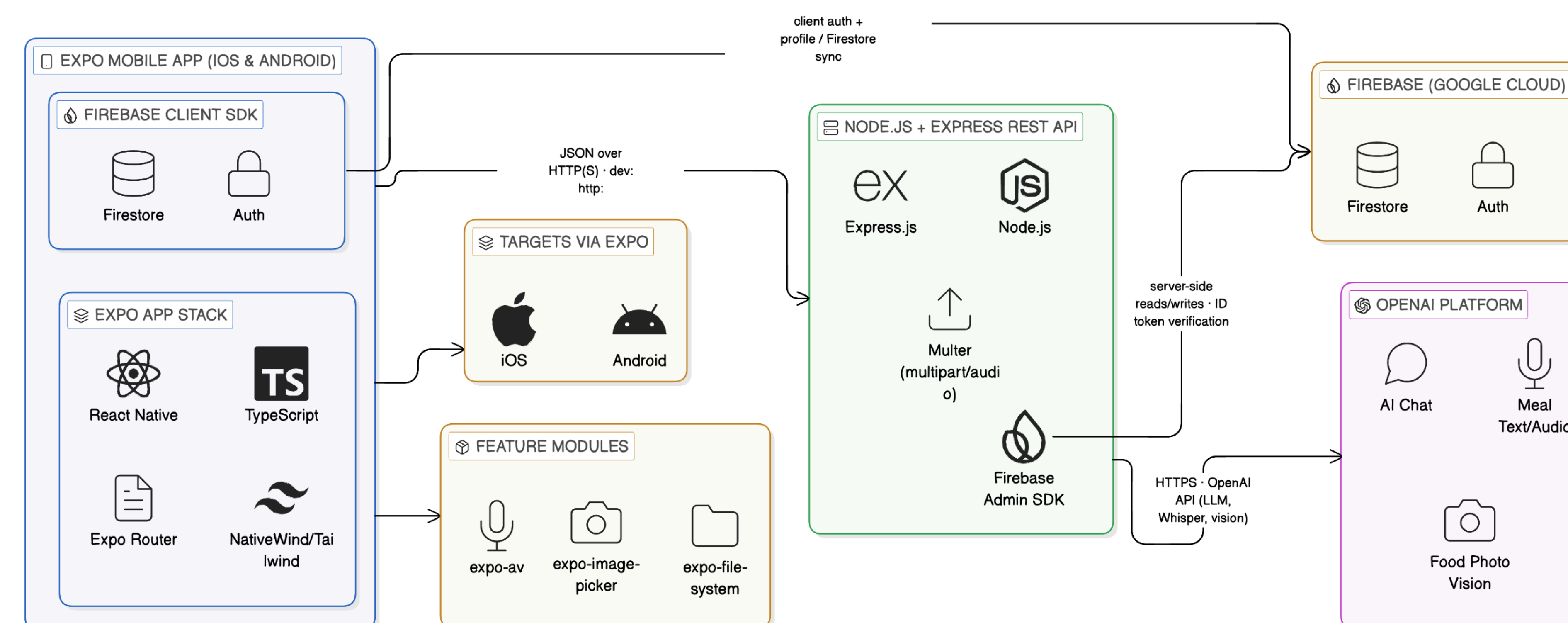


- High Correlation: AI estimation significantly aligns with clinical reference data.
- Baseline Outperformance: System consistently exceeds manual logging accuracy.
- Reliable Classification: High-fidelity identification across core food categories.

Internal Performance Benchmarks



Tech Stack



Future Works And Improvements

Future development focuses on Production Scaling and HIPAA Compliance for secure clinical deployment. Immediate improvements include LLM Latency Optimization and Vision Model Fine-tuning to increase real-time accuracy. We are also conducting Clinical Testing and UX Enhancements to ensure a seamless experience for all post-operative patients.