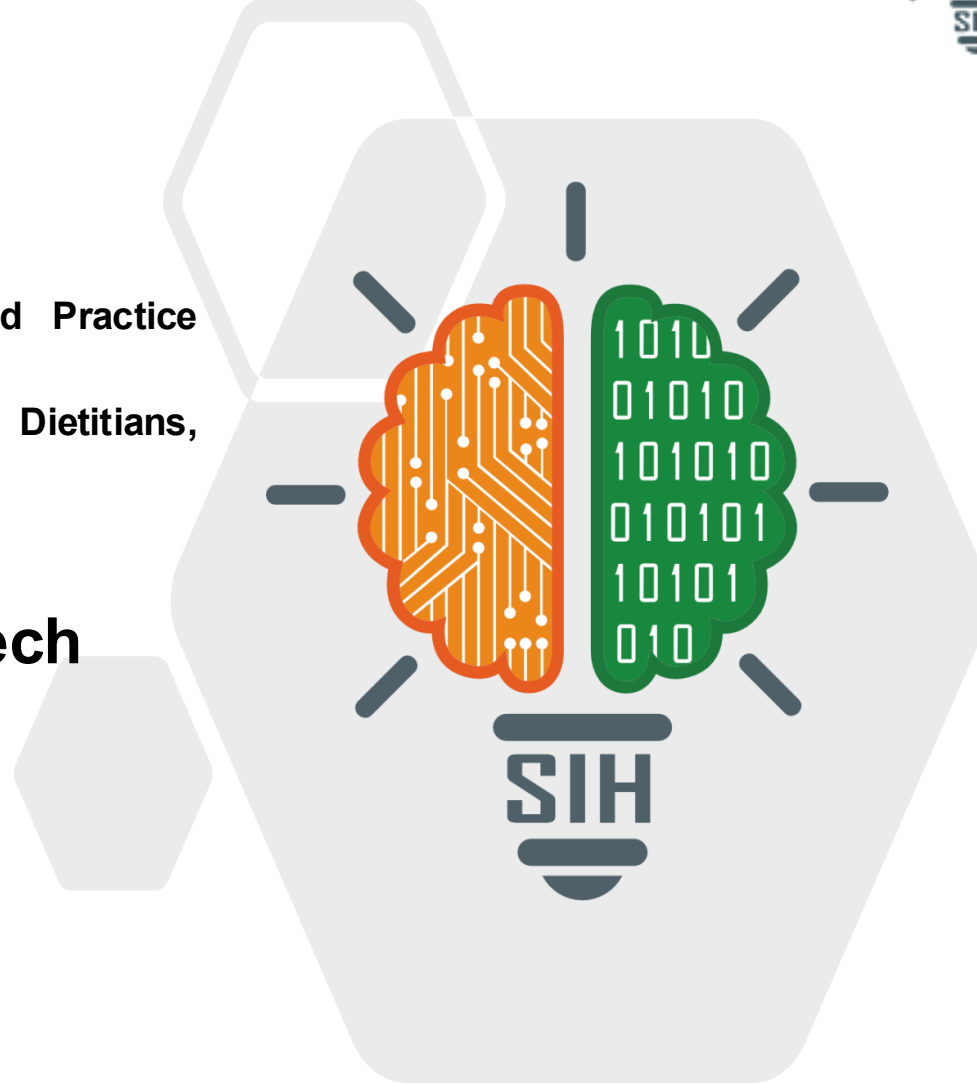


SMART INDIA HACKATHON 2025



- **Problem Statement ID – SIH25024**
- **Problem Statement Title-** Cloud-Based Practice Management & Nutrient Analysis Software for Ayurvedic Dietitians, Tailored for Ayurveda-Focused Diet Plans
- **Theme- MedTech/BioTech/HealthTech**
- **PS Category- Software**
- **Team ID- 24**
- **Team Name- TechVeda**



Proposed Solution:

- ❖ **TechVeda** – a **one-roof cloud platform** uniting **Ayurveda** and **modern technology** for **AI-driven, personalized nutrition**.
- ❖ **Ayurvedic wisdom** digitized into **smart solutions**, enabling **faster care**, **higher compliance**, and **measurable health outcomes**.
- ❖ **Dual-Portal Cloud Ecosystem**: A **cloud-based platform** with **dedicated logins** for **Ayurvedic Practitioners** (practice management) and **Patients** (adherence tracking), digitizing **diet chart management**.
- ❖ **AI-Powered Ayurvedic Analytics**: Automated **nutrient analysis** and **Ayurvedic food classification** (Rasa, Guna, Vipaka) using an **8,000+ item food database**, providing **AI-generated, recipe-based diet recommendations** tailored for **Vata, Pitta, and Kapha**.



How it Addresses the Problem:

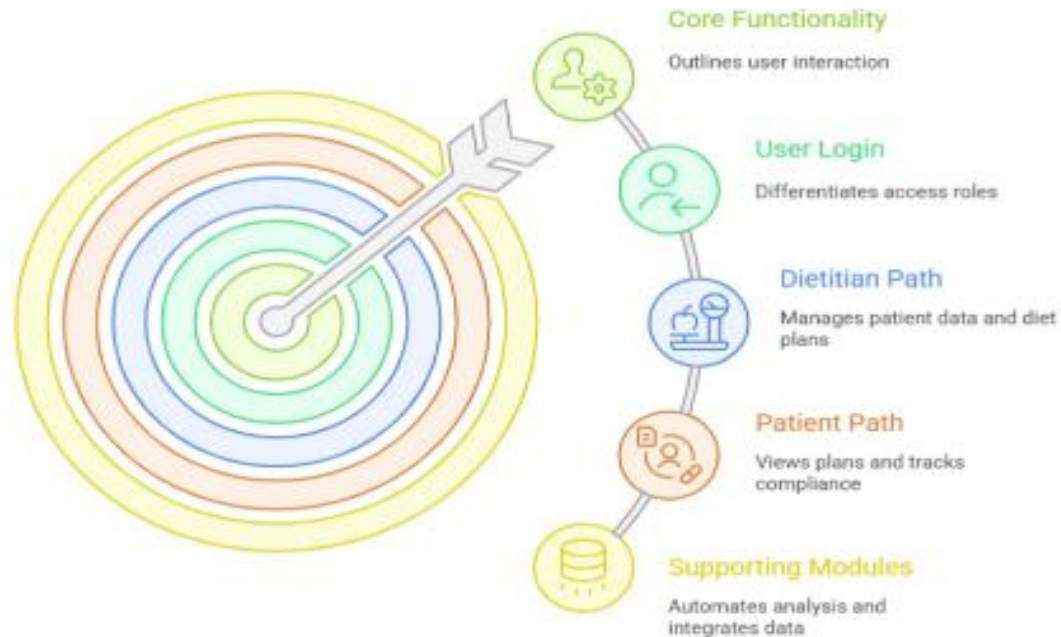
- ❖ **Doctor/Dietitian Portal**: Enables quick input of patient details, semi-automated diet chart generation, and secure record management, reducing manual workload.
- ❖ **Patient Portal**: Provides access to prescribed diet charts, meal reminders, and adherence tracking, improving compliance and engagement.
- ❖ **Practice Management**: Cloud-based storage of patient history, lifestyle data, and previous prescriptions, ensuring accuracy and continuity of care.

Innovation and Uniqueness:

- ❖ **Holistic, Ayurveda-First Design**: First-of-its-kind platform that integrates traditional **Ayurvedic concepts (Doshas/Elements)** with modern nutrition science for unique, personalized diet planning.
- ❖ **Automated, Recipe-Based Prescriptions**: Generates **semi-automated diet charts** with actual **recipes/meals** (not just ingredients) from a Dynamic Database, drastically reducing practitioner time while boosting patient adherence.
- ❖ **Clinical Ready & Secure**: Future-proofed with **HIPAA/local law compliance** and a design ready for seamless **Integration with HIS & EHR**, ensuring widespread clinical adoption and data security.

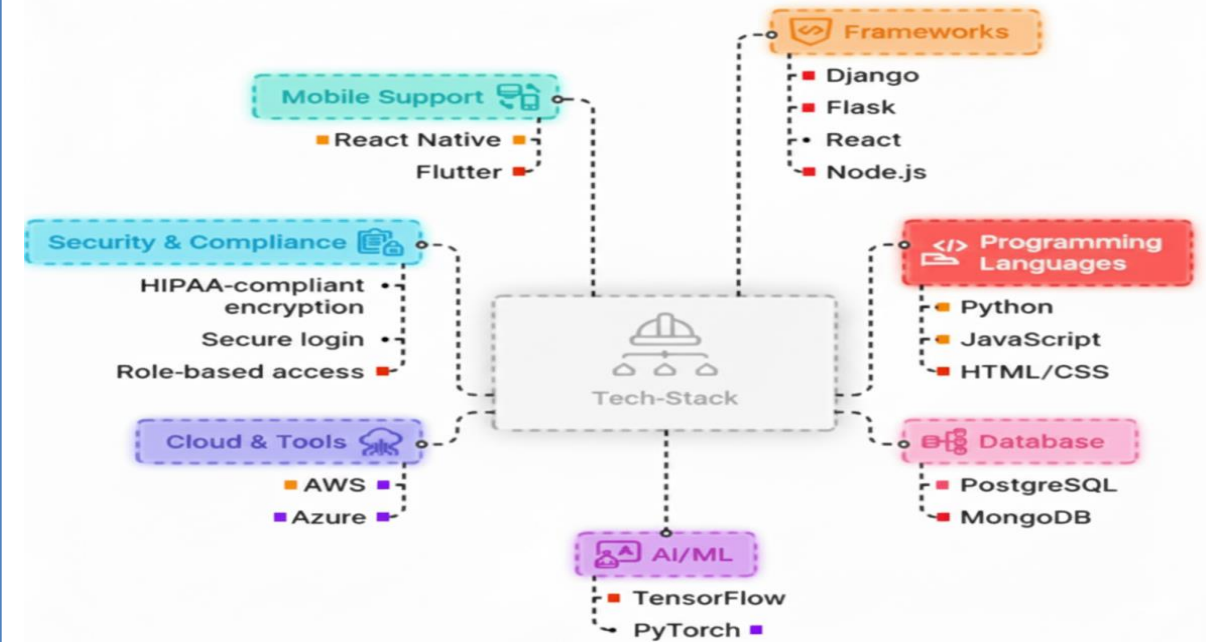
Platform Workflow

- ❖ The platform automates personalized, AI-driven diet plans, eliminating manual errors to boost patient compliance and data-driven results.



Tech-Stack

- ❖ **Cloud-Native & AI-Powered**: Secure, scalable data management via **AWS/Azure/GCP**, fueled by **ML/AI** for automated nutrient analysis and personalized diet recommendations.



Checkout the DEMO: <https://preview--ayur-bloom-flow.lovable.app/>

Financial Feasibility

Cost Savings

Subscription Models

B2B Partnerships

Premium Patient Plans

Market Feasibility

Ayurvedic Wellness Demand

Digital Health Growth

Patient Preferences

Feasibility & Analysis

Feasibility Analysis

Technical Feasibility

AI/ML for Diet Planning

Cloud Hosting

EHR/HIS Integration

Mobile & Web Deployment

Operational Feasibility

Easy Adoption

Automated Charting

AYUSH Alignment

Digital Health Initiatives

Challenges & Risks

Challenges	Risk
Data Integration Issues	Regulatory & Compliance Risks
Adoption Barriers	AI Model Bias/Accuracy
Market Risks	Data Security Vulnerabilities
Technical Debt	Vendor Lock-in

Strategies for Overcoming Challenges

❖ By intertwining robust digital integration and technical reliability with unique Ayurvedic principles, we cultivate seamless adoption, regulatory compliance, and strong market differentiation.

Data Integration

Adoption & Training

Regulatory Compliance

Technical Reliability

Market Differentiation



TechVeda



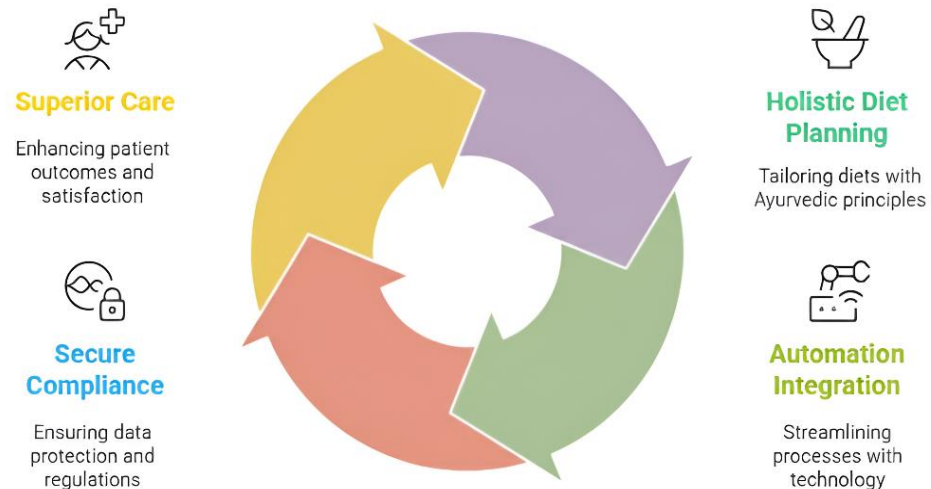
@SIH Idea submission- Template

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Potential Impact on the Target Audience:

- ❖ The solution delivers personalized Ayurvedic diet care through integrated planning, automated workflows, and secure compliance for practitioners and patients.

Personalized Healthcare Cycle



Benefits of the Solution:

- ❖ The platform improves health by creating automatic diet plans, helping patients follow them, and allowing doctors to focus on care.





❖ Integrating Traditional Nutritional Wisdom into Digital Nutrition

This is a perspective/review paper that discusses how to integrate traditional / culturally rooted food knowledge (like Ayurveda, indigenous food systems) into modern digital nutrition platforms. It highlights technical, cultural, and algorithmic challenges (e.g. standardization, loss of context).

<https://www.mdpi.com/2072-6643/17/12/1978/pdf>

❖ NUTRIVISION: A System for Automatic Diet Management in Smart Healthcare

This is a more “modern nutrition-software / AI + vision” example: it does food recognition, portion estimation, nutrient breakdown, and personalized diet recommendation. While it is not Ayurveda-specific, you can adapt the architecture modules and replace or augment its recommendation engine with Ayurvedic rules.

<https://arxiv.org/abs/2409.20508>

❖ An IoT based Ayurvedic approach for real time healthcare monitoring

Combines sensor data (pulse signals / Nadi Pariksha) with cloud upload, classification of Vata/Pitta/Kapha signals, and real-time monitoring. This shows a practical case of integrating Ayurvedic diagnostics into a cloud system.

<https://www.aimspress.com/aimspress-data/electreng/2022/3/PDF/electreng-06-03-020.pdf>

