- Problem Statement ID : PS06

- Team Name : CoreDevs

- TEAM ID : HK-037

- TEAM MEMBERS : Harsh Ranjan , Mukul Kumar , Nitin Kumar

Problem & SOLUTION

Problem:

•People struggle to follow a healthy diet because Ayurveda-based planning is complex.

•Most diet apps do not consider **Prakriti and Dosha balance**.

•Users cannot easily track their meals in an Ayurvedic way.

•Lack of personalized guidance for long-term wellness.

Solution:

We propose a mobile app that:

•Takes user health details and Prakriti assessment

•Creates **Dosha-based meal plans**

•Recognizes food through images

•Tracks calories and nutrients

•Provides real-time Ayurvedic dietary suggestions

User Profile Setup
➢ User enters age, weight, lifestyle, health goals

Prakriti Assessment
➢ Rule-based questionnaire identifies Vata, Pitta, Kapha

Dosha-Based Meal Planning
➢ Personalized Ayurvedic diet chart is generated

Food Image Upload & Recognition
➢ User uploads meal photo
➢ App detects food item automatically

Nutrition & Calorie Tracking
➢ Nutrient values calculated using Ayurvedic nutrition database

Real-Time Suggestions
➢ App suggests what to eat/avoid based on Dosha balance

Historical Health Tracking
➢ Progress stored and shown in dashboard

TECH STACK & APPROACH

Technical Approach

➢ **Mobile Application**

Built using **Flutter / React Native**

Simple and intuitive UI

➢ **Backend System**

Node.js / FastAPI backend

Handles meal plan generation and analytics

➢ **Rule-Based Prakriti Engine**

Uses Ayurvedic rules for Dosha classification
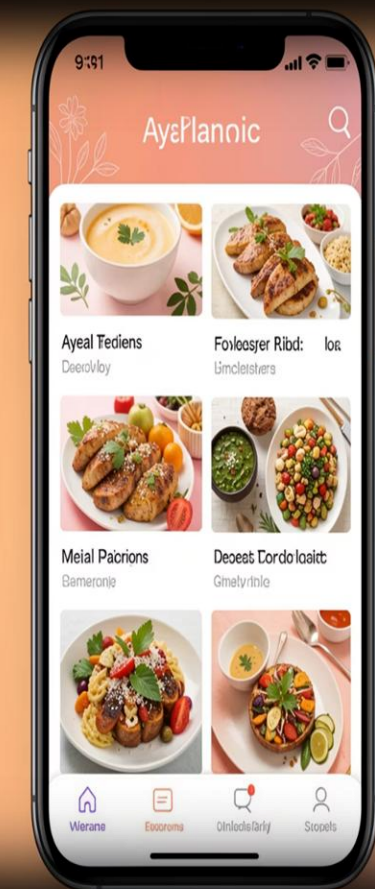
➢ **Computer Vision Model**

CNN-based food recognition model

Identifies food items from uploaded images

➢ **Database Integration**

Ayurvedic nutrition database for ingredients and nutrients

➢ **Security**

Secure login and encrypted health data storage

UNIQUENESS & INNOVATION FACTOR

➢ **What Makes Our App Unique?**

•   Combines **Ayurveda + AI technology**
•   Personalized meal plans based on **Dosha imbalance**
•   Food recognition through images makes tracking effortless
•   Real-time diet corrections improve wellness
•   Supports long-term lifestyle improvement, not just calorie counting

➢ **Innovation**

▪ A modern health app that brings **traditional Ayurveda** into a smart AI-powered platform.

FeASiBility & ChAllenGeS

➢ **Feasibility**

- Ayurveda diet rules are well-defined
- Food recognition models are widely available
- Scalable backend can support many users
- Useful for fitness, wellness, and preventive healthcare

➢ **Challenges**

- Accurate Prakriti assessment needs strong rule engine
- Food recognition must work for Indian meals
- Maintaining privacy of sensitive health data
- Large nutrition database integration required

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ReSeARCh & RefeRenCe

➤ **Research Sources**
• Ayurvedic principles of Dosha and Prakriti
• Classical diet guidelines (Charaka Samhita concepts)

➤ **Datasets & Tools**
• Food-101 dataset for training recognition model
• Nutrition databases for calories and nutrients

➤ **Technology References**
• Computer Vision (CNN models)
• Secure healthcare data storage practices
• Mobile health UI design standards