Foodoscope Fork It Challenge

Team: CodeSpidey

PRESENTS

FlavourFit AI

Problem Statement

Current diet and nutrition systems are fundamentally broken in three ways:

1. Static diet plans
   Most AI and human dietitians use fixed plans that do not adapt fast enough to real-life changes in health, taste, or lifestyle.
2. Undetected mild allergies and sensitivities
   Many food reactions (bloating, fatigue, headaches, low energy) go unnoticed because they are subtle, inconsistent, or poorly reported.
3. Human dietitians don’t scale
   Frequent dietary changes require repeated consultations, which are expensive, slow, and impractical for most people.

As a result, users either abandon diet plans or follow them incorrectly — leading to poor health outcomes and loss of trust.

Idea Explanation

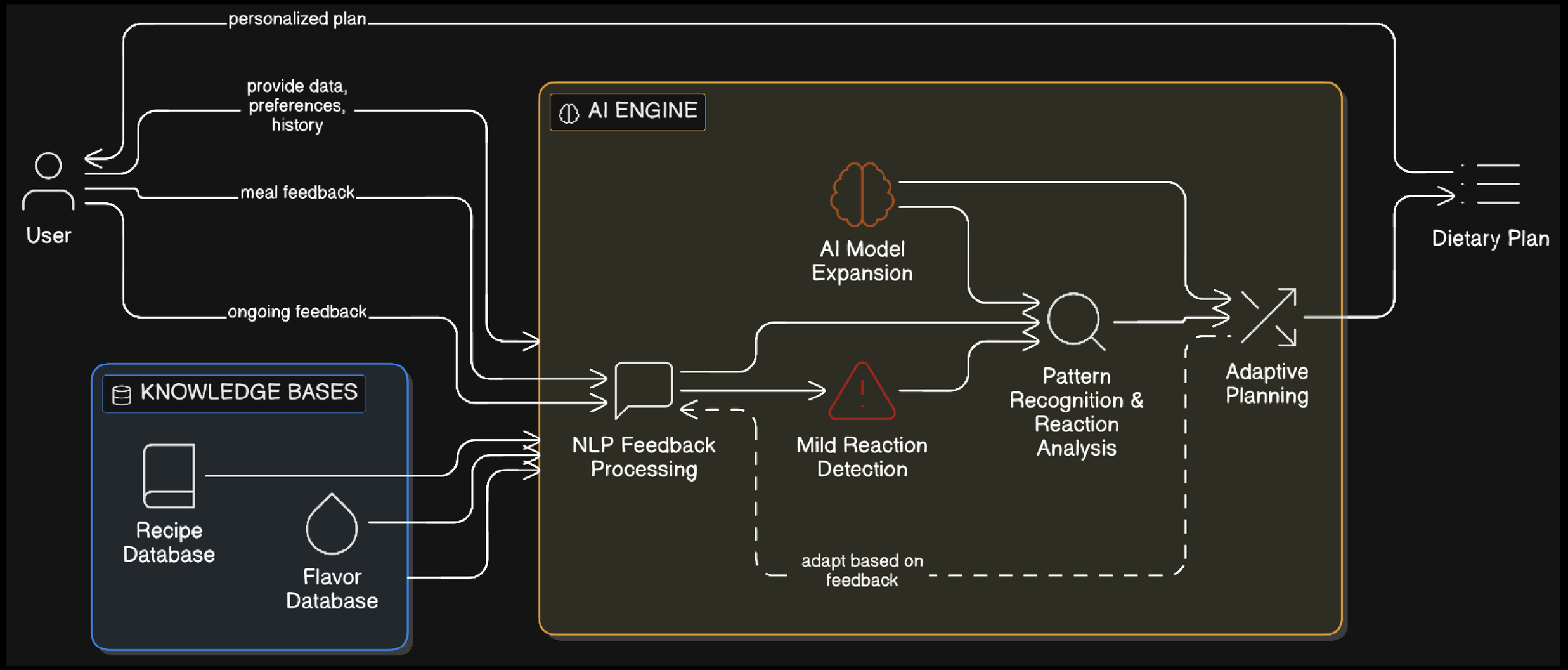
- **FlavorFit AI** is an AI-powered food and nutrition assistant that personalizes dietary plans and meal recommendations using two structured knowledge bases: a Recipe Database and a Flavor Database - based on the users' personal medical history and preferences.

- Unlike traditional diet apps that rely on static diet templates, it learns continuously from user behavior. After every meal, users give free-form, unrestricted feedback in natural language. The system applies NLP-based pattern recognition to detect trends related to food tolerance, preferences, digestion, and energy levels.

- Over time, the AI adapts dietary plans dynamically — adjusting ingredients, flavors, and recipes — without forcing users into rigid categories or predefined medical labels and learning mild medical reactions to certain ingredients, often undetected.

- The long-term goal is to integrate **FlavorFit AI** into medical and wellness systems as a continuously adapting dietary intelligence layer.

Idea Abstract



Similar Products & Key Difference

Existing Solutions

- Diet tracking apps
- AI meal planners
- Human dieticians
- Medical nutrition software

Key Differences

Aspect	Diet Structure	Feedback Type	Allergy Detection	Adaptation	Scalibility
Existing	Static plans	Forms & Rating	User-reported	Slow	Limited
FlavorFit AI	Regularly evolving	Free-text	Pattern-recognized	Near real-time	High

Core Differentiator

FlavorFit AI doesn’t ask “What diet do you want?”
It learns “What food actually works for your body.”

End Users & How It Helps Them

Primary End Users

- Individuals with changing dietary preferences
- People with mild or undiagnosed food sensitivities
- Patients in long-term medical care
- Fitness and wellness-focused users
- Hospitals and medical nutrition departments (B2B)

How **FlavorFit** AI Helps

- Continuously adapts meal plans instead of locking users into rigid diets
- Learns from real feedback, not just form-based inputs
- Identifies hidden patterns related to discomfort or intolerance
- Recommends dishes users are more likely to enjoy and tolerate
- Reduces dependency on frequent dietician consultations

For users, it feels like a personal food intelligence system, not a rulebook.

Practicality & Scalability

Practicality

- Built on existing recipe and flavor databases
- Web and API-based — works across platforms
- No specialized hardware required
- Incremental learning reduces onboarding friction
- Can start as a consumer app and expand into medical systems

Scalability

- New cuisines and recipes can be added easily
- Model improves with more user feedback
- Can support additional medical conditions over time
- Integrates with hospital systems, wellness platforms, and insurance providers
- Scales better than human dieticians at a fraction of the cost

RecipeDB & FlavorDB Endpoints

RecipeDB API Usage

1. api/recipe/recipe-day/with-ingredients-categories
2. api/recipe-nutri/nutritioninfo
3. api/recipe-micronutri/micronutritioninfo
4. api/protein/protein-range

FlavourDB API Usage

1. api/properties/taste-threshold
2. api/properties/synthesis
3. api/properties/by-aromaThresholdValues