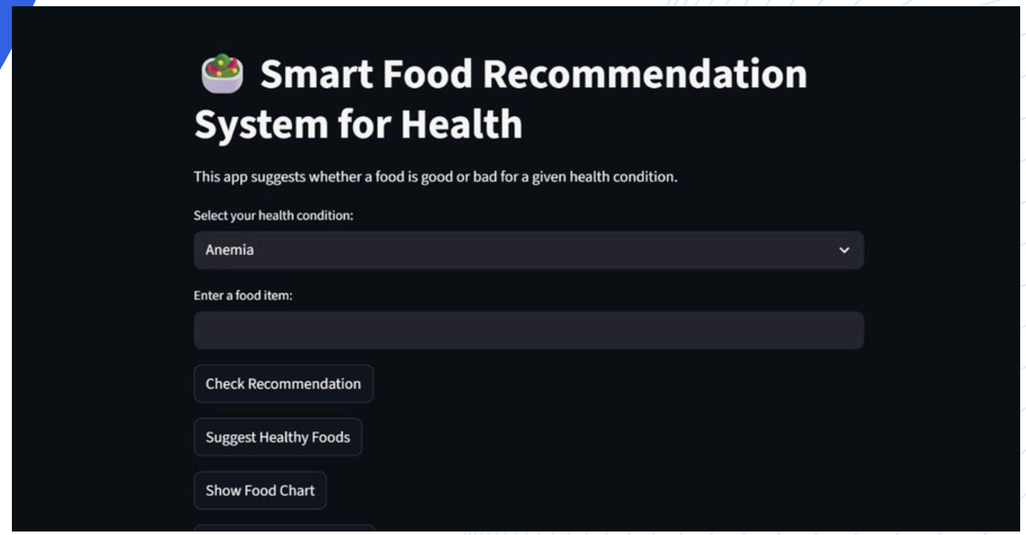
Smart Food Recommendation System for Health



Team Null Pointer Mohit Aggarwal

THE PROBLEM STATEMENT

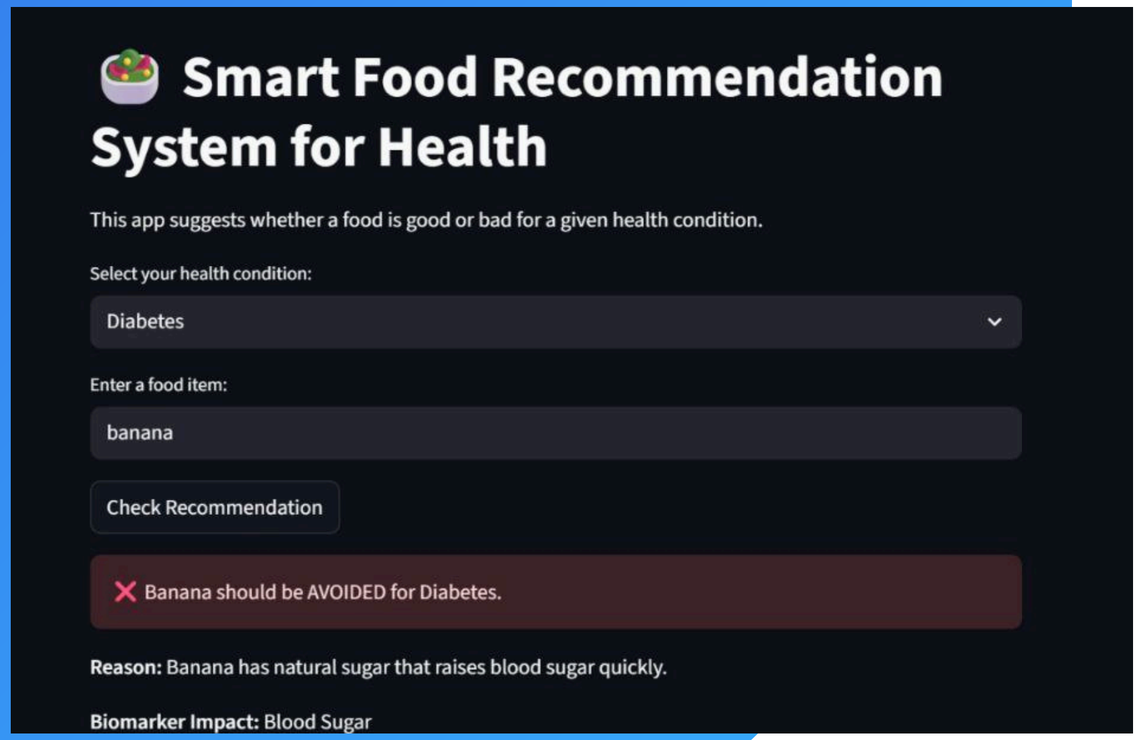
- Build a Smart Language Model (SLM) or rule-based system trained on datasets of good and bad food items for various diseases (e.g., diabetes, hypertension, thyroid disorders, obesity).
- The system allows a user to:

1. Input their health conditions or diseases.
2. Query food items to understand whether they are recommended or should be avoided.
3. Receive explanations on why a particular food is good or bad for their condition and which biomarkers will be improved from that food.

- The goal is to help users easily discover disease-specific dietary guidelines in a conversational, intuitive manner.

CONTEXT & IMPACT

- Chronic diseases like diabetes, hypertension, obesity, and thyroid disorders are heavily influenced by diet.
- People often struggle to identify foods that are healthy or harmful for their specific condition.
- Personalized dietary guidance can improve health outcomes and reduce the risk of complications.
- A data-driven recommendation system empowers users to make smarter, informed food choices.
- Impact: Enables proactive disease management and promotes healthier lifestyles through easy-to-understand, disease-specific dietary advice.



OUR SOLUTION

- Provides personalized food recommendations based on a user's health condition.
- Can be rule-based or powered by a Smart Language Model (AI).
- Supports multiple diseases like diabetes, hypertension, thyroid disorders, obesity.
- Conversational interface makes dietary guidance intuitive and easy to follow.
- Empowers users to make informed, disease-specific dietary choices quickly.

HOW IT WORKS

User Input

User enters health conditions and dietary preferences

Data Lookup

System checks curated datasets of good and bad foods for the condition.

Recommendation Engine

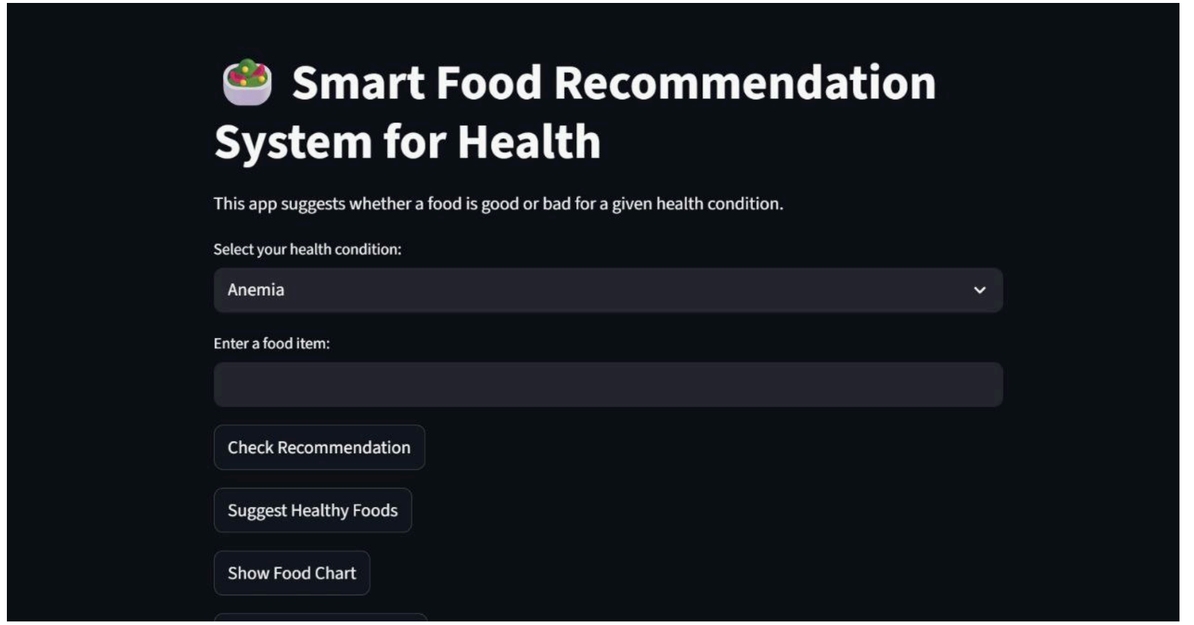
Engine generates personalized food suggestions based on rules or AI analysis

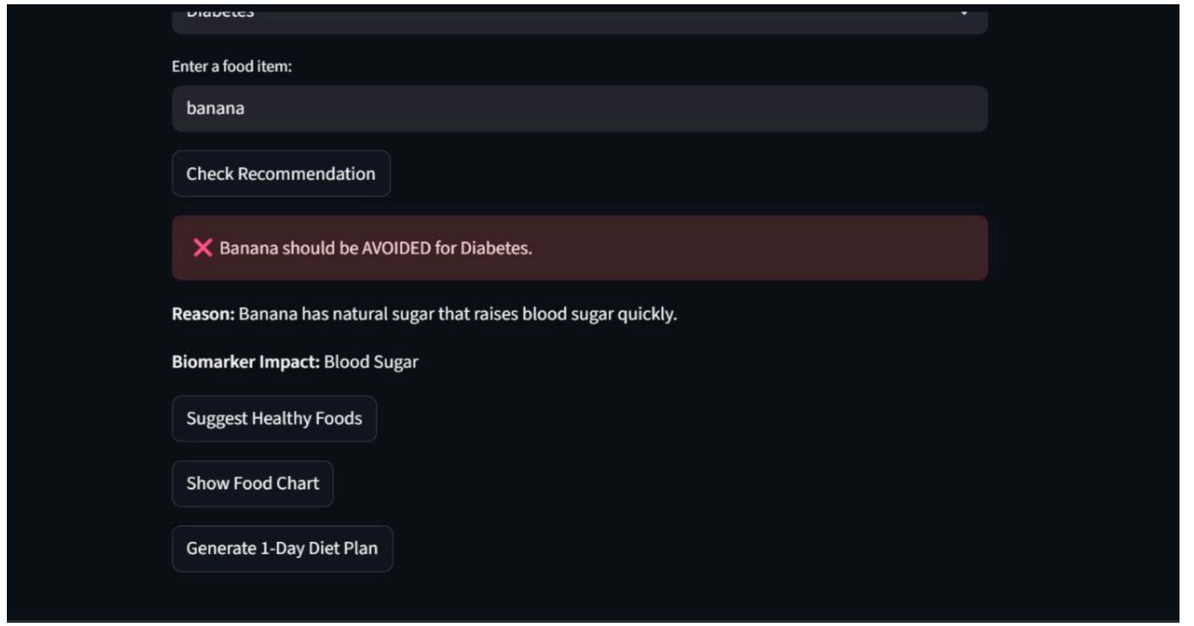
User Output

Provides intuitive, disease-specific dietary guidance in conversational format

LIVE APP DEMO

- **Interactive Interface: Users can input their health conditions easily.**
- **Instant Recommendations: System provides personalized dietary suggestions immediately.**
- **Disease-Specific Guidance: Recommendations are tailored for conditions like diabetes, hypertension, thyroid disorders, and obesity.**
- **User-Friendly: Clean, conversational layout for effortless navigation.**





TECH STACK

- Frontend: Streamlit – for interactive user interface
- Backend: Python – for processing and logic
- Data: Curated food-disease datasets for recommendations
- Model/Engine: Rule-based system or Smart Language Model (AI-driven)
- Version Control / Reference: GitHub – https://github.com/mohitaggarwal10940-ui/SMART-FOOD-RECOMMENDATION

IMPACT & FUTURE WORK

Impact:

- Empowers Users: Helps make informed, disease-specific dietary choices.
- Improves Health Outcomes: Supports proactive management of chronic conditions.
- Promotes Awareness: Educates users about foods that are beneficial or harmful for their health.

Future Work:

- Expand Disease Coverage: Include more conditions and dietary requirements.
- Enhanced Analytics: Add nutritional charts, tracking, and progress reports.
- Gamification: Motivate users with goals and rewards for healthy eating.
- Expert Collaboration: Integrate guidance from dieticians and medical professionals.

THANK YOU

FOR WATCHING