# Smart Food Recommendation System for Health

**Personalized meal suggestions based on your health goals, dietary needs, and locally available ingredients.**

# DEMO LINK

# Inspiration

In today's fast-paced world, maintaining a healthy diet is a major challenge. Many people are confused about what to eat to achieve their health goals, whether it's weight loss, muscle gain, or managing a health condition. We were inspired to create a solution that removes the guesswork from healthy eating, providing a smart, personalized, and accessible tool for everyone. Our system is designed to be particularly useful for users in places like Varanasi, by suggesting meals that use fresh, locally available ingredients.

# What It Does

Our application simplifies healthy eating for individuals managing health conditions. It takes a user's specific disease as input and provides clear recommendations on what foods to eat. The system then offers detailed nutritional information

# How We Built It

* **Frontend:** Replit
* **Backend:** Python (developed in Google Colab)
* **Deployment:** Vercel

### Key Files in this Repo:

* main.py: The main server logic.
* index.html: The main web page.
* model.ipynb: The notebook used to train our recommendation model.

# AI Tools Used

* **Replit AI:** For code generation and debugging.
* **Gemini:** For brainstorming and content generation.
* **Gamma:** For creating the presentation.
* **ChatGPT:** For research and documentation.

# Challenges We Ran Into

* **Chatbot Integration:** We faced difficulties connecting our backend chatbot logic to the frontend website, which prevented a seamless user experience.
* **API Creation:** We were unable to successfully create a stable API to serve the food recommendations from our backend model to the frontend application.

# What's Next for Smart Food Recommender

* **Phase 1: Chatbot Integration & Coverage Expansion:**
  + Integrate the chatbot fully with the website.
  + Expand our database to include 500+ foods and 10+ chronic conditions like heart disease and kidney disorders.
* **Phase 2: Smart Integration:**
  + Connect with wearable devices (e.g., Google Fit, Apple Health).
  + Integrate with grocery apps for a seamless shopping list creation.
  + Link with electronic health records for a holistic health overview.
* **Phase 3: Community Growth:**
  + Build a user community to gather feedback and share experiences.
  + Establish clinical partnerships to validate our recommendations.
  + Aim to achieve 100K+ active users.
* **Phase 4: Enhance AI:**
  + Add image recognition to get nutritional details from user photos.
  + Improve AI explainability with visual biomarker charts.

# Our Team: Mirage

* **Adarsh Singh** (MIN'29)
* **Arvind Sahu** (META’29)
* **Sasi Vardhan Kayala** (CSE’29)
* **Amit Singh** (CHE’29)