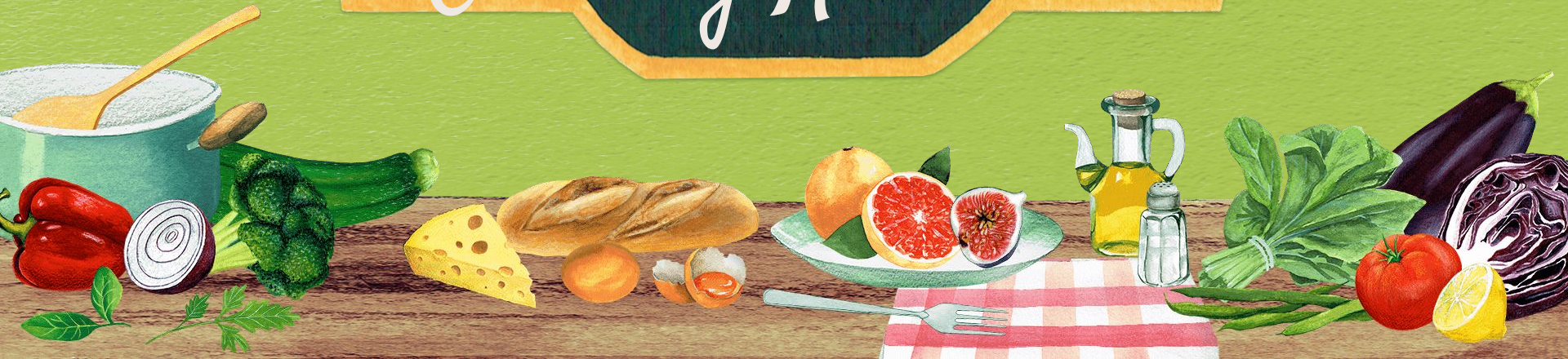
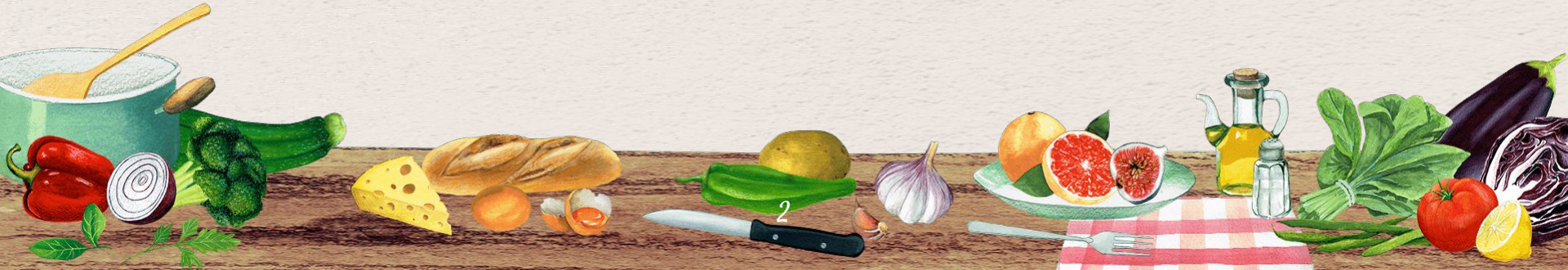
AI-Based Recipe Finder - Smart Cooking Assistant



Introduction

Our project is an AI-powered web application that helps users find recipes based on the ingredients they have, their dietary preferences, and nutritional goals. Unlike traditional recipe apps, our app adapts, learns from users, and provides personalized cooking assistance.



Meet the team!

INVA
LYBESHARI
LEADER

Hedije Jazaj
Front - End
Developer

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UI/UX
Developer

Arlind Alliu
Back- End
Developer

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Business
Analyst

What makes our app unique?

Most recipe apps require users to have exact ingredients or use static filters for diet preferences.

- Our app uses AI-powered flexibility to suggest meals even with missing ingredients.
- Adapts to user preferences over time for smarter recommendations.
- Provides real-time cooking assistance instead of just listing recipes.

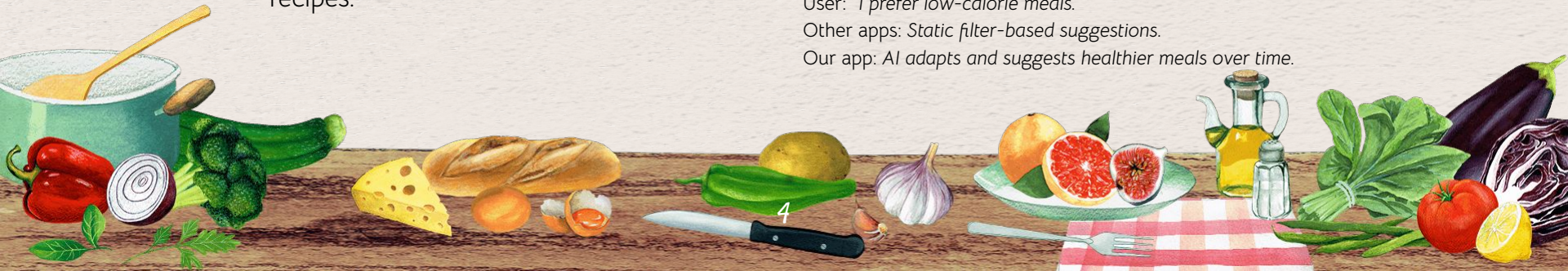
Key features & differentiations

- AI-Powered Ingredient Matching & Substitutions

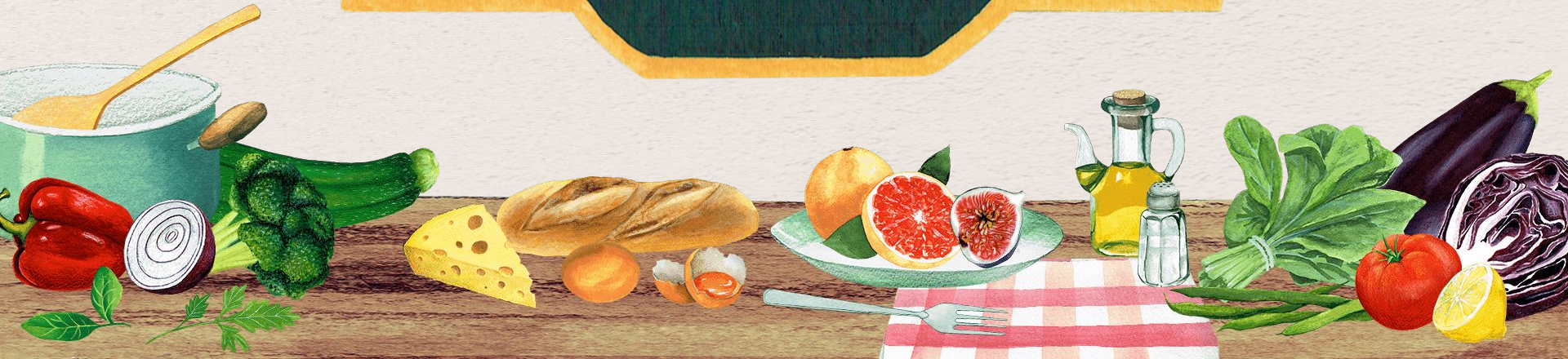
Example:
User: "I have chicken, spinach, and tomatoes."
Other apps: *No exact recipe found.*
Our app: "You can make Garlic Butter Chicken. Missing garlic? Use onion powder instead."

- Personalized Meal Recommendations & Adaptive AI

Example:
User: *"I prefer low-calorie meals."*
Other apps: *Static filter-based suggestions.*
Our app: *AI adapts and suggests healthier meals over time.*



Key Requirements



1. User Authentication & Profiles

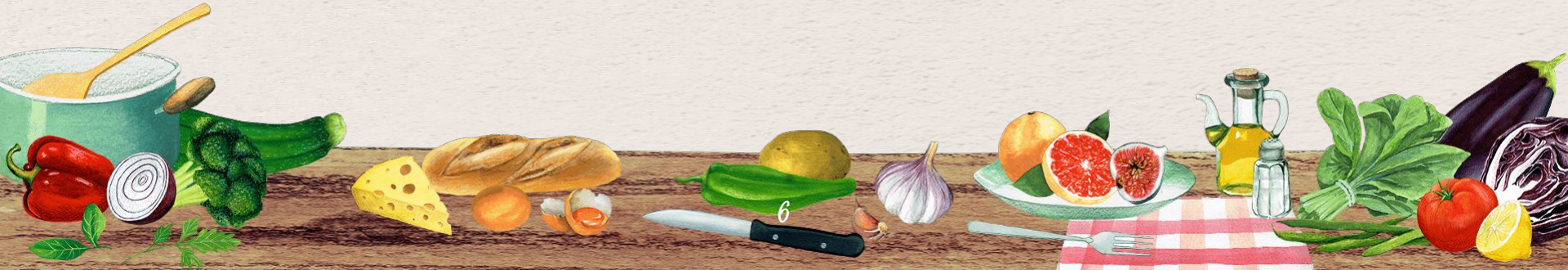
Users should be able to create accounts, log in, and manage their preferences (e.g., dietary restrictions, allergies).

2. Ingredient - Based Recipe Search

Users enter ingredients they have, and the AI suggests recipes that match.

3. AI - Powered Recipe Recommendations

AI should analyze user input and provide relevant recipes based on preferences.



4. Ingredient Substitution Suggestions

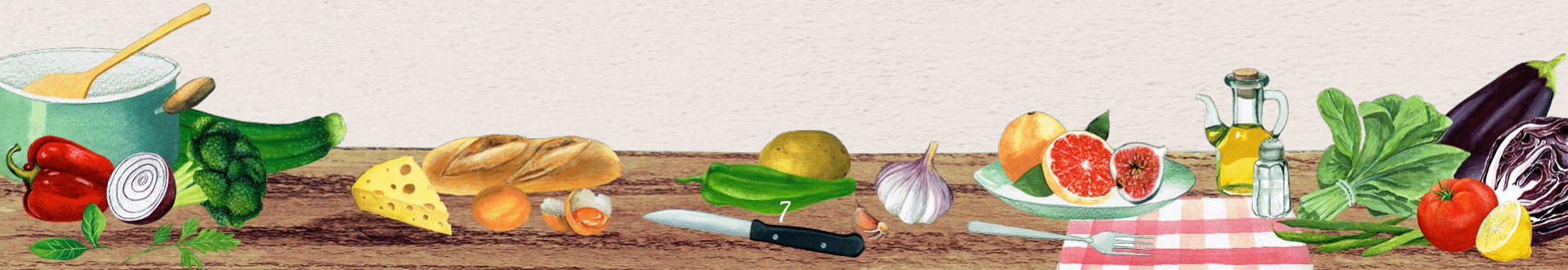
If a user is missing an ingredient, the AI suggests alternatives based on available pantry items.

5. Nutritional Information & Dietary Filters

Users can filter recipes based on diet types (e.g., vegan, keto, gluten-free) and see calorie/nutrient breakdowns.

6. Step-by-Step Cooking Guidance

AI should provide cooking instructions dynamically, allowing users to ask for clarification.



7. Meal Planner & Smart Shopping List

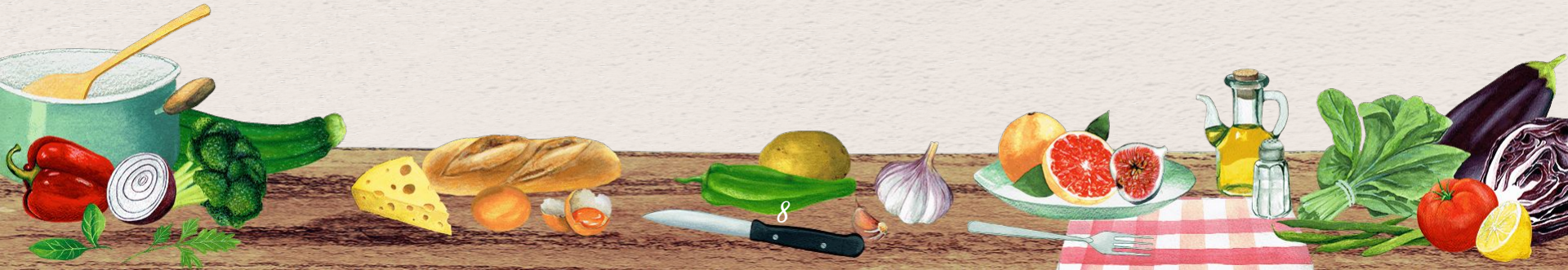
Users can create a meal plan for the week, and the app generates a shopping list with missing ingredients.

8. Fast & Scalable Performance

The system should process user queries quickly and handle multiple API requests efficiently.

9. Secure API & Data Protection

OpenAI API key and user data (like preferences) should be securely stored.



10. Cross-Platform Accessibility

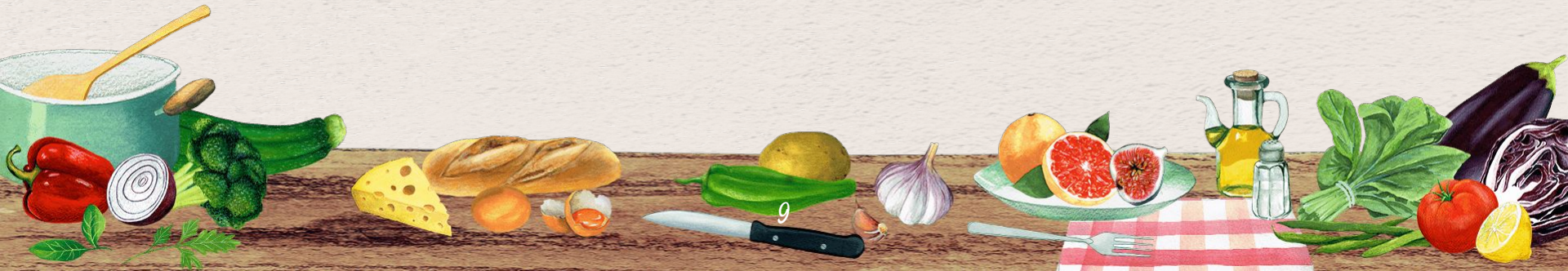
The app should be accessible on desktop, mobile, and tablet (responsive web design).

11. User-Friendly UI/UX

The interface should be intuitive, visually appealing, and easy to navigate.

12. AI Training & Continuous Improvement

The system should learn from user interactions and improve its recommendations over time.

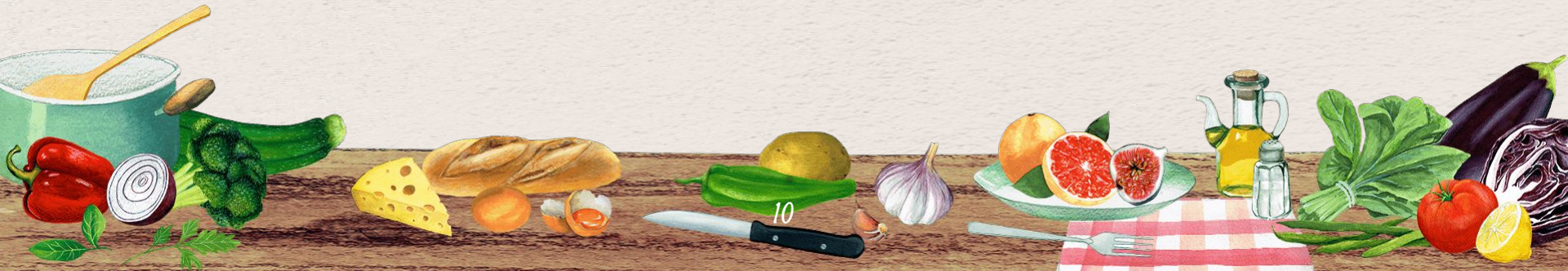


13. Integration with External APIs

The app must connect with external recipe databases and ChatGPT API for AI-generated responses.

14. Error Handling & User Feedback System

- If an API request fails or AI cannot generate a response, the system should provide meaningful error messages.
- Users should be able to report issues or request new features.



THANK YOU!