

## Group 6:

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# SafeBites

## Mission:

Traditional food delivery apps force users to scroll through hundreds of unsafe options while people with allergies risk their health with unclear ingredient information. **SafeBites** uses AI to automatically analyze menu items and filter restaurant menus based on personal allergen profiles, dramatically reducing unsafe food discovery time while ensuring dietary safety through intelligent ingredient analysis. Users can ask simple questions like "find me dairy-free pasta" instead of navigating complex filter systems.

## Core Implementation:

### 1. User Authentication & Allergen Profiles:

Personalized dietary preference management

### 2. Restaurant & Menu Management:

Database of restaurants with menu metadata

### 3. LLM-Powered Allergen Detection:

AI analyzes dishes to generate allergen tags

### 4. Smart Menu Filtering:

Automatic filtering based on user allergen profiles

### 5. Natural Language Search:

Query restaurant menus conversationally

I found 2 dishes matching your search !!!  
No pizza dishes were provided in the data; unable to determine if any contain nuts.

Pizza Express Margherita \$25.88  
Classic Margherita pizza with a wheat-flour crust, tomato passata, and mozzarella, finished with basil and oregano.  
Serving: single  
Allergens:  
Wheat,gluten | Dairy  
Nutrition: 1030 cal - 42g protein - 135g carbs

Pizza Express Margherita \$15.99  
Classic margherita pizza with tomato passata, mozzarella, and herbs on a wheat-flour crust.  
Serving: single  
Allergens:  
Dairy | Wheat,gluten  
Nutrition: 750 cal - 28g protein - 95g carbs



## Future Enhancement:

### 1. Conversational Chat Assistant:

Full AI chat interface with vector search

### 2. Cross-Restaurant Comparisons:

Query multiple restaurants simultaneously

### 3. User Feedback & Verification System:

Community reporting feature allowing users to flag allergen inaccuracies, with restaurant verification workflow

### 4. Multi-Language Menu Support:

Expand LLM allergen detection to analyze menus in Spanish, Chinese, and other languages, broadening restaurant database accessibility

### 5. Map-Based Personalized Restaurant Recommendation:

Integrate a map feature that recommends nearby restaurants based on the user's specific allergen profile, allowing for further filtering via natural language queries

## Scan Us:



Repo



Demo



Discussion Forum

## Key Stakeholders:

Customers | Restaurants | Developers



## Tech Stack:

