

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:

- User Authentication & Allergen Profiles:** Personalized dietary preference management
- Restaurant & Menu Management:** Database of restaurants with menu metadata
- LLM-Powered Allergen Detection:** AI analyzes dishes to generate allergen tags
- Smart Menu Filtering:** Automatic filtering based on user allergen profiles
- Natural Language Search:** Query restaurant menus conversationally

Appetizers	
	Bruschetta Safe for your profile
	Caprese Salad Contains: dairy, nuts

Main Courses	
	Spaghetti Aglio e Olio Safe for your profile
	Fettuccine Alfredo Contains: dairy

Desserts	
	Fruit Salad Safe for your profile
	Tiramisu Contains: dairy

Find safe, delicious food options tailored to your dietary needs
Get instant answers about ingredients, allergens, and food alternatives with our AI-powered assistant

Ask me anything... 'find dairy-free pasta'

Personalized for your allergen profile

Try asking:

Is this gluten-free? Find nut-free snacks Vegan pasta recipes Dairy alternatives Low-sodium options

Future Enhancement:

- Conversational Chat Assistant:** Full AI chat interface with vector search
- Cross-Restaurant Comparisons:** Query multiple restaurants simultaneously
- Dynamic Output Modes:** Flexible result displays (lists, comparisons, recommendations)
- Adaptive UI:** Interface adjusts based on query context and results

Key Stakeholders:

- Customers** - personalized filtering for allergies, preferences, health needs
- Restaurants** - attract customers with clear menu information
- Restaurant Staff** - manage menu data and accommodate customer dietary needs
- Healthcare Providers** - support patients with dietary restrictions and medical nutrition needs
- Developers** - flexible platform for advanced feature development

Tech Stack:

Python React Docker Node.js PostgreSQL