

Dynamic Catering Website with CMS and AI Chatbot

Overview

Develop a web application for a catering business featuring a dynamic website that can be managed via a CMS. The system should allow the business owner to update menus, prices, and business details in real-time. Additionally, integrate an AI chatbot to assist customers with menu browsing, recommendations, and common inquiries.

Level 1: Basic Functionality (Core Website & CMS)

Focus: Develop the essential website and CMS for managing content.

Frontend (React.js/Next.js/Vue.js)

- Pages:
 - Homepage
 - Menu page (list of food items with descriptions & prices)
 - Product detail page
 - Contact page
- Dynamic menu: Ability to add, edit, and delete items via CMS.
- Responsive and visually appealing UI.

Backend (Node.js + Express / Django / FastAPI)

- CMS functionalities for business owners:
 - Manage menu (CRUD operations).
 - Edit business details (name, contact info, address, operating hours).
 - Secure admin authentication with JWT/OAuth.
 - Well-structured REST/GraphQL API.
- Basic API endpoints:
 - `/menu` (GET, POST, PUT, DELETE)
 - `/business-info` (GET, PUT)

Bonus Features (Optional in Level 1)

- TypeScript implementation for better type safety.
 - Deployment on Vercel, AWS, or Heroku.
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Level 2: Order System & Real-Time Updates

Focus: Introduce ordering functionality and real-time updates.

Frontend Enhancements

- Order page where customers can place orders.
- Interactive UI with animations/transitions.

Backend Enhancements

- Order management endpoints (/orders for CRUD operations).
- Orders stored in a database.
- Real-time updates using WebSockets or polling.

AI Chatbot (Basic Integration)

- Chatbot can:
 - Answer common customer questions.
 - Recommend menu items based on preferences (e.g., vegan, low-calorie, chef's specials).
- Implemented using OpenAI/Gemini API.

Bonus Features (Optional in Level 2)

- Speech-to-text support for chatbot.
 - Admin receives real-time notifications for new orders.
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Level 3 (Bonus Level): Checkout & Advanced AI Chatbot

Focus: Enable AI-powered chatbot with checkout functionality.

Frontend Enhancements

- Advanced checkout page with order confirmation.
- More interactive chatbot UI (e.g., modal pop-up).

Backend Enhancements

- Checkout system with integrated payment (Stripe, Midtrans, etc.).
- Order validation before checkout.
- Integration with email or WhatsApp for order confirmation.

AI Chatbot (Advanced Features)

- Customers can complete orders directly through chatbot.
- Chatbot handles multi-step conversations for checkout.
- Text-to-speech integration for a voice-enabled chatbot.

Bonus Features (Optional in Level 3)

- Chatbot remembers customer order history.
 - Personalized menu recommendations based on past orders.
 - Enhanced security (API key protection, input validation, etc.).
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Evaluation Criteria

The project will be evaluated based on the following factors:

1. Code Quality

- Well-structured, modular, and maintainable code.
- Follows best coding practices and standards.

2. Functionality

- CMS effectively updates menu and business details.
- AI chatbot provides accurate responses.

3. UI/UX Design

- Responsive and visually appealing UI.
- Smooth user experience with interactive elements.

4. AI Integration

- Chatbot provides relevant menu recommendations.
- Advanced functionality (order processing & checkout) is implemented correctly.

5. Testing & Documentation

- Unit and integration tests are included.
 - Proper API documentation and setup instructions.
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Submission Requirements

- Upload the full project to a **GitHub repository**.
- Include documentation with:
 - **Installation and setup instructions.**
 - **Feature list.**
 - **Deployment steps (if applicable).**
- Submit the GitHub repository link to **hrd@cfactory.co**.

Deadline: 3 days from the date of assignment.