OmniServe AI – A Generative AI-Powered Smart Assistant for Restaurants & Clinics:

Streamlining Restaurant Ordering & Clinic Appointment Booking

Team Hackaholics
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Problem Statement

- Restaurants face inefficiencies in menu-based ordering and customized meal recommendations.
- Clinics struggle with manual appointment scheduling, leading to long wait times.
- Existing systems lack multimodal interaction, limiting accessibility and ease of use.
- There is a need for a scalable, AI-powered solution that enhances efficiency and user experience.

INTRODUCTION

- The food and healthcare industries rely heavily on efficient ordering and scheduling.
- Restaurants face challenges in managing orders, handling dietary preferences, and recommending meals.
- Clinics struggle with manual appointment booking, availability management, and prioritizing urgent cases.
- OmniServe AI is a Generative AI-powered assistant that automates restaurant ordering and clinic scheduling through text, voice, image, and document-based interactions.

Our Solution - OmniServe AI

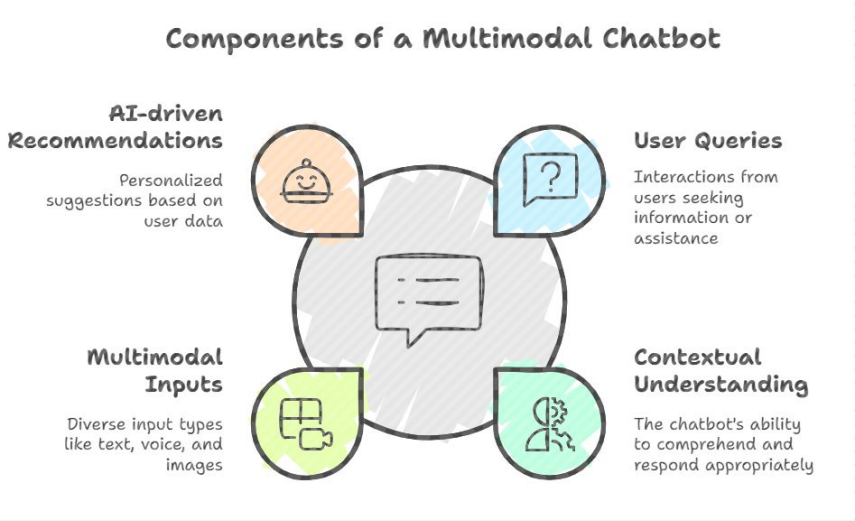
🚀 **A Generative AI-powered multimodal chatbot that seamlessly integrates with restaurant and clinic workflows.**

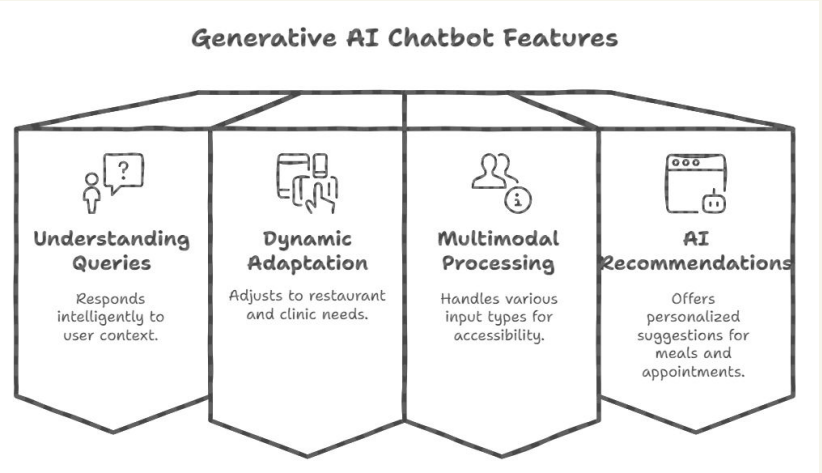
✅ **Understands & responds intelligently** to user queries based on context.

✅ **Adapts dynamically** to both restaurant ordering and clinic appointment booking.

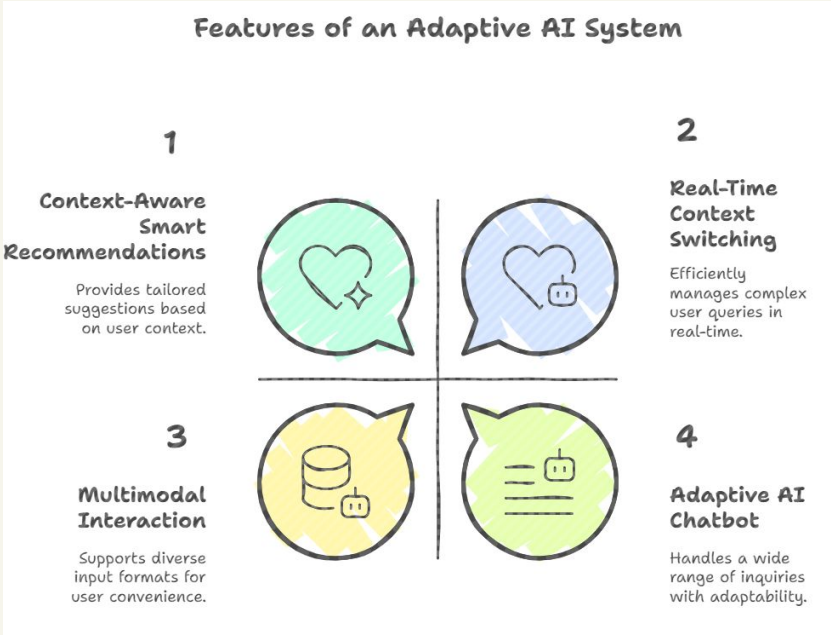
✅ **Utilizes multimodal input processing** (text, voice, image, document uploads) for enhanced accessibility.

✅ **Provides AI-driven recommendations** for personalized meal selection and optimized appointment booking.





Key Features pt.1/2



🌟 **Adaptive AI Chatbot:** Conversational AI capable of handling restaurant and clinic-related inquiries.

🌟 **Context-Aware Smart Recommendations:** Suggests meals based on user preferences and suggests doctors based on symptoms.

🌟 **Multimodal Interaction:** Accepts text, voice, PDFs, images, and structured data (CSV).

🌟 **Real-Time Context Switching:** AI identifies whether the user is asking about food orders or medical appointments and responds accordingly.

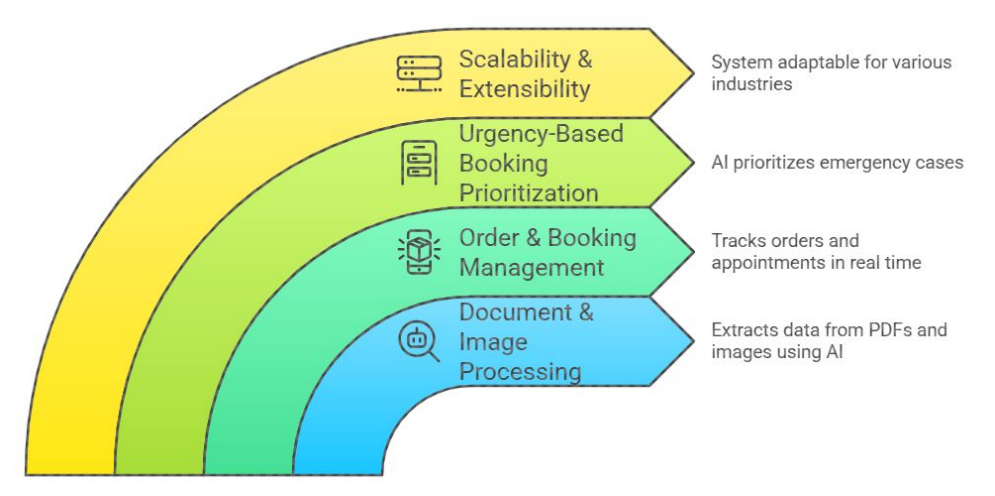
Key Features pt.2/2

🌟 **Document & Image Processing:** Extracts data from menu PDFs, doctor schedules, and prescriptions using AI-based parsing.

🌟 **Order & Booking Management:** Tracks restaurant orders and clinic appointments in real time with notifications.

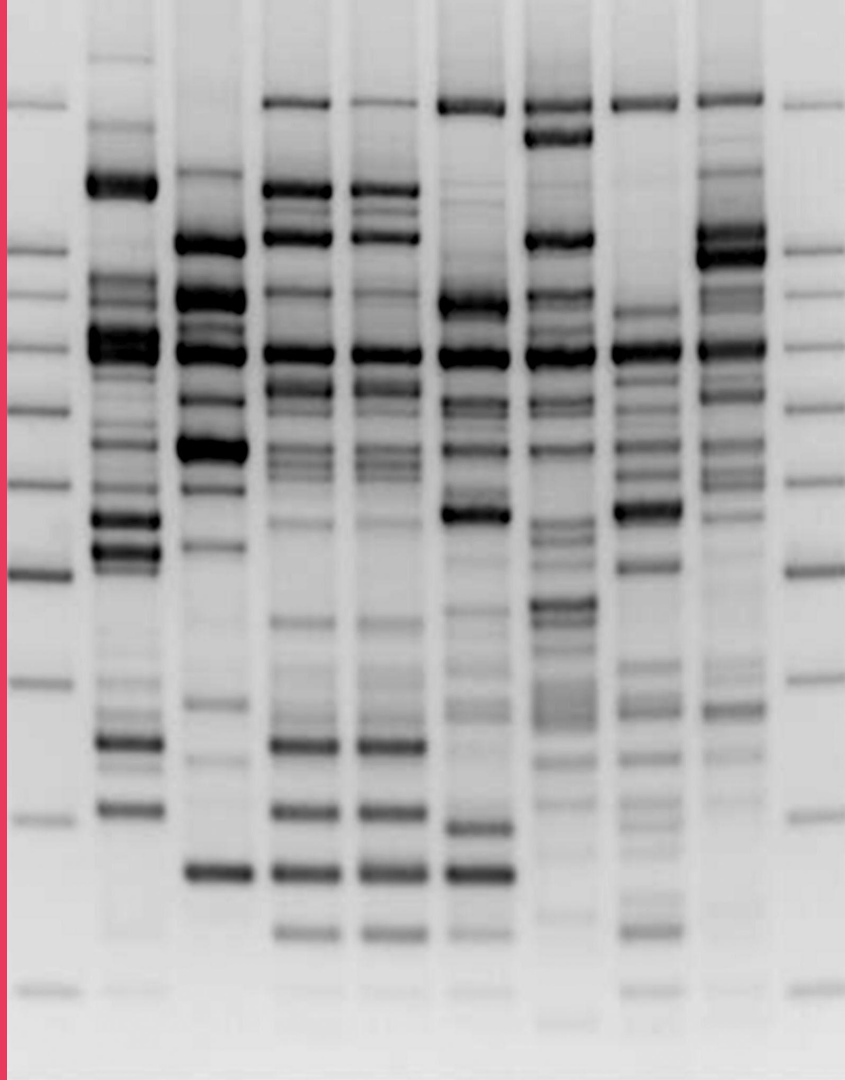
🌟 **Urgency-Based Booking Prioritization:** AI prioritizes emergency cases in clinics based on user inputs.

🌟 **Scalability & Extensibility:** The system can be easily adapted for other industries, such as retail, logistics, and travel.



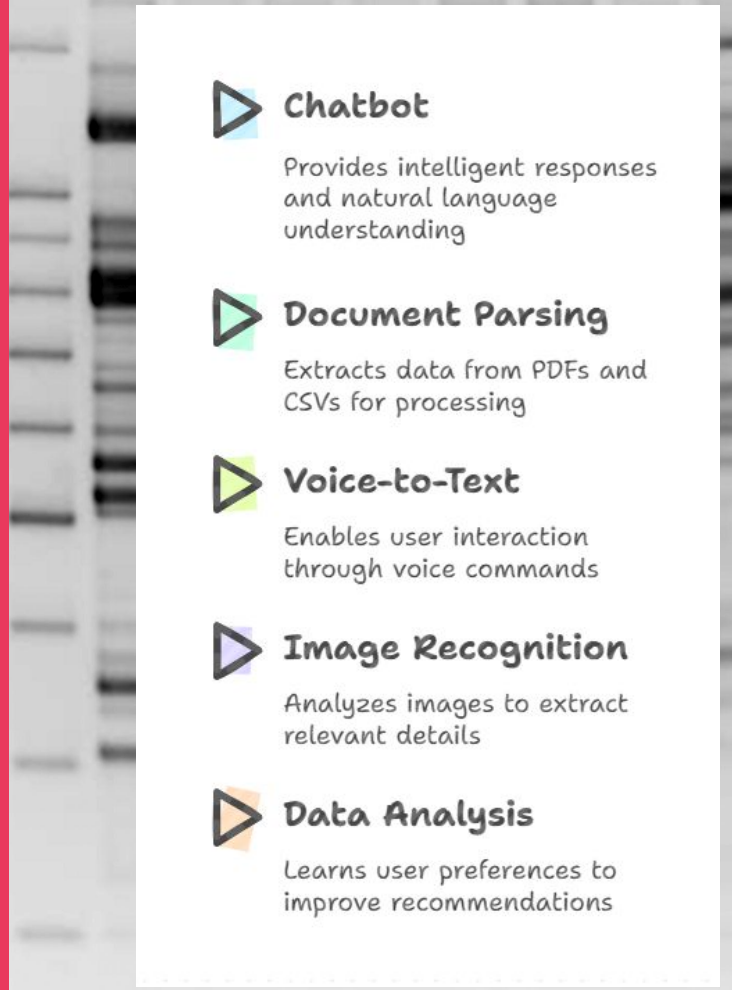
HOW IT WORKS?

1. User Interaction: The user submits queries via text, voice, image, or document upload.
2. AI Processing: Gemini AI interprets input, extracts relevant data, and understands user intent.
3. Database Querying: The system fetches relevant menu/doctor schedule details based on the request.
4. AI-Powered Decision Making: AI provides personalized recommendations for meals or doctors.
5. Action Execution: The system confirms orders/bookings, generates notifications, and tracks progress.



AI CAPABILITIES IN OMNISERVE AI

🧠 Gemini AI-powered chatbot for natural language understanding and intelligent responses.
📄 Document Parsing: Extracts information from PDFs and CSVs (restaurant menus, doctor schedules).
🎤 Voice-to-Text Processing: Allows users to interact via voice commands.
📷 Image Recognition: Reads menu images and prescriptions, extracting relevant details for processing.
📊 Smart Data Analysis: Learns user preferences over time to enhance recommendations.



Restaurant & Clinic Use Case

For Restaurant Online Ordering System:

🍽️ **Users can ask:** "What gluten-free dishes do you offer?" → AI filters and provides menu options.
🍽️ **Users can upload:** A **menu image or PDF**, and AI extracts dish details.
🍽️ **Users can place an order:** AI suggests combos based on past orders and preferences.
🍽️ **Order Tracking:** Users receive updates on estimated preparation & delivery time.

🍽️ **And Much More …**

For Clinic Appointment Booking System

🏥 **Users can ask:** "Which doctors are available on March 25?" → AI fetches doctor schedules.

🏥 **Users can upload:** A **doctor availability CSV**, and AI updates the system accordingly.

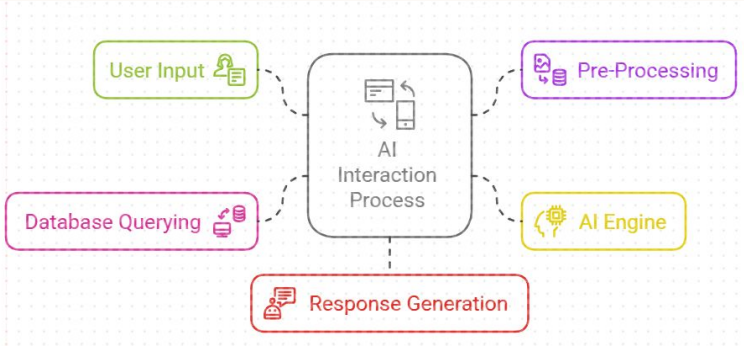
🏥 **Users can provide symptoms:** "I have a fever and body pain" → AI recommends a General Physician.

🏥 **Urgency Detection:** AI prioritizes emergency cases, suggesting immediate consultation or emergency care.

🏥 **And Much More …**

System Architecture

- User Input: (Text, Voice, Image, PDF, CSV)
- Pre-Processing: Speech-to-Text, OCR for image & document parsing
- AI Engine (Gemini AI): NLP processing for understanding queries
- Database Querying: Fetches relevant men items, doctor availability, or order/appointment status
- Response Generation: Personalized recommendations and action execution (order placement, appointment booking)



TECH STACK AND REQUIREMENTS

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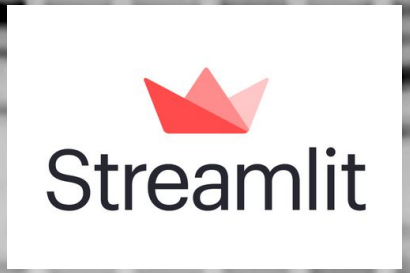
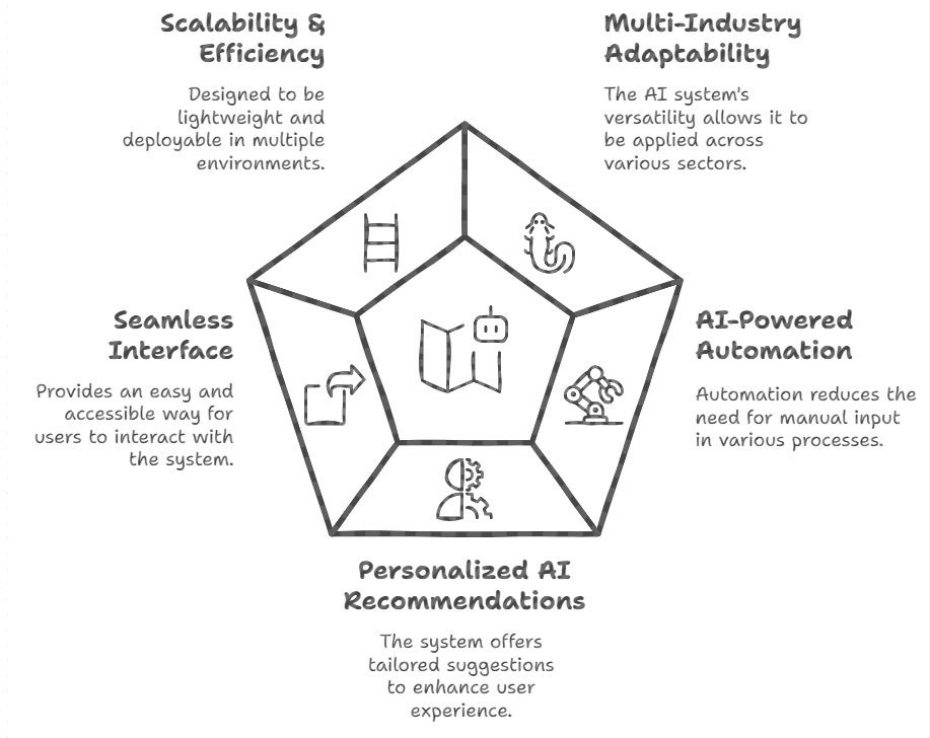


Unique Selling Points

🌟 **Multi-Industry Adaptability:** Can be repurposed for retail, e-commerce, healthcare, and more.
🌟 **AI-Powered Automation:** Minimizes manual intervention in appointment scheduling and food ordering.
🌟 **Personalized AI Recommendations:** Enhances user experience with tailored suggestions.
🌟 **Seamless & Accessible Interface:** Enables easy interaction via text, voice, and document uploads.
🌟 **Scalable & Efficient:** Designed to be lightweight, extensible, and deployable on cloud or local systems.



Societal Impact & Benefits

✔️ **Reduces Manual Effort:** Automates scheduling & order processing for businesses.
✔️ **Improves Accessibility:** Voice-based & image-based interaction benefits elderly and disabled users.
✔️ **Saves Time & Boosts Efficiency:** Faster response times for users, reducing wait times.
✔️ **Minimizes Errors:** AI ensures **accurate order processing & booking**, reducing human mistakes.
✔️ **Supports Business Growth:** AI-powered automation allows restaurants & clinics to scale efficiently.

CONCLUSION

OmniServe AI successfully addresses inefficiencies in restaurant ordering & clinic appointment booking.

1

OmniServe AI Revolutionizes Service Automation

✔️ **Enhances restaurant ordering and clinic appointment booking** through AI
✔️ **Uses multimodal inputs** for a seamless user experience.
✔️ **Gemini AI-driven recommendations** optimize meal selection and doctor appointments.

2

Impact on Businesses & Users

✔️ **Reduces manual workload** for restaurant staff and clinic administrators.
✔️ **Improves accessibility and efficiency**, benefiting customers and patients.
✔️ **Minimizes errors and wait times**, leading to better service quality.

3

Scalability & Future Potential

✔️ **Easily adaptable to other industries**, including retail, travel, and customer support.
✔️ **Cloud-based and scalable**, allowing expansion to multiple locations.
✔️ **Future upgrades may include AI-driven analytics** for demand forecasting and user behavior insights.

THANK YOU!