

Dual-Mode AI Chatbot for Karji Store

Client Overview

Karji Store is an innovative eCommerce platform offering a wide range of products across multiple categories. To elevate customer experience and streamline operations, the company envisioned an **AI-driven chatbot** capable of both **sales assistance** and **customer support automation**.

The goal was to create a conversational system that not only **recommends the right products** to increase conversions but also **resolves customer queries** quickly and accurately – functioning as an always-available, intelligent digital assistant.

Problem Statement

With increasing **catalog size** and growing customer interactions, **Karji Store** faced two key challenges:

- **Product Discovery & Conversion Gaps**
 - Customers often left without finding the right product due to information overload.
 - The lack of personalized recommendations reduced conversion rates.
- **Customer Support Overload**
 - A large volume of repetitive queries – delivery, returns, policies, warranty – consumed the support team's time.
 - Inconsistent response quality and slow resolution affected customer satisfaction.

Karji Store wanted a **unified AI chatbot** that could act both as a **Sales Advisor** and **Customer Support Executive**, with dynamic context awareness, product intelligence, and policy understanding.



Image
Coming Soon...

Our Approach

Megh Technologies partnered with Karji Store to develop a **Dual-Mode AI Chatbot** – an advanced conversational system powered by **Retrieval-Augmented Generation (RAG)**, **custom embeddings**, and **vector-based search**.

We designed the solution to operate in two intelligent modes:

- **Recommendation Engine (Sales AI)** – Engages users, understands their intent, recommends products, compares items, and assists in purchase flow.
- **Support Engine (Support AI)** – Handles all customer support queries including orders, policies, returns, and troubleshooting.

The chatbot was built as a **fully embeddable widget**, seamlessly integrated into the Karji Store website, ensuring consistency across desktop and mobile experiences.

Solution Highlights

Recommendation Engine (Sales AI)

- Understands customer needs through natural conversation.
- Suggests relevant products based on **category, brand, price, or user intent**.
- Performs product **comparisons**, highlights unique features, and assists with purchase flow.
- Promotes ongoing **offers and discounts** dynamically from the admin dashboard.
- Increases conversion rates through personalized product discovery.

Support Engine (Support AI)

- Answers queries related to **shipping, returns, warranty, policies, and orders**.
- Uses document-based retrieval from **uploaded manuals and policy PDFs**.
- Provides **contextual, accurate answers** using embedded knowledge (RAG).
- Escalates unresolved cases or captures support tickets when human assistance is needed.
- Reduces the workload on customer support by handling repetitive queries 24/7.

Unified Admin Console

- Manage products, FAQs, documents, offers, and chat data.
- Upload and index documents for the Support AI.
- Manage product **catalogs** and offers for the Sales AI.
- Configure Mistral API key and control embedding refreshes or re-indexing.

Smart Context & Memory

- Tracks user sessions, preferences, and conversation flow.
- Delivers follow-up responses based on context continuity.
- Enables hybrid conversation flow between Sales and Support modes dynamically.

Embeddable Chat Widget

- A lightweight JavaScript (IIFE) widget integrated via a single script tag.
- Works as a **floating chat assistant** across all web pages.
- Mobile-friendly, fast, and deployable across multiple storefronts.

Data Security & Resilience

- Embeddings stored securely using **ChromaDB**.
- Fallback to **in-memory or JSON-based storage** if the vector database is unavailable.
- Ensures persistence and continuity even during system downtime.

Technology Stack & Integrations

Layer	Technology / Framework	Purpose
Frontend	React + TypeScript, Vite, React Query, Tailwind CSS, shadcn/ui	Chat UI, admin dashboard, and widget bundling
Backend	Node.js + Express (TypeScript)	Core APIs, AI routing, document and product management
AI & RAG Layer	LangChain + Custom RAG + Mistral Chat API	AI-driven responses, retrieval, and reasoning
Vector Storage	ChromaDB / MemoryVectorStore	Embedding and knowledge retrieval
Data Storage	JSON-based persistence for products, documents, and offers	Lightweight local storage
Build Tools	Vite, Tailwind/PostCSS, npm scripts	Optimized build and deployment pipeline
Deployment	Express Server (static + middleware)	Dev runtime and production hosting
Widget Output	karji-chat-widget.iife.js, style.css	Embeddable floating chat assistant

Conclusion

The **Dual-Mode AI Chatbot** developed for **Karji Store** marks a significant step in the evolution of AI-driven retail automation.

By combining **Sales AI** and **Support AI** into a unified system, **Megh Technologies** enabled **Karji Store** to:

- Engage users intelligently,
- Simplify support operations, and
- Strengthen brand loyalty through conversational experiences.

This project stands as a testament to **Megh Technologies' expertise** in designing smart, scalable, and business-impactful AI solutions for the **eCommerce** industry.