Customer Support AI Agent

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Project URL : https://customer-support-ai-agent-beta.vercel.app/

Table of contents

Problem Statement

As e-commerce grows, manual complaint handling leads to delays and inconsistent responses. An AI-driven customer complaint agent is needed to automate resolutions for common issues, ensuring faster, consistent responses, improved customer satisfaction, and allowing human agents to focus on more complex problems

Customer Complaint Resolution AI Agent

This project introduces an AI-driven customer complaint resolution system, leveraging Meta-Llama and a MERN stack to automate complaint handling, providing faster, consistent resolutions and improving customer satisfaction.

Demo simulates an environment from customer and a support executive POV where we can realtime see how a customer will experience the support and how the executive works in the background

Approach

The approach involved creating a dataset of past customer complaints and resolutions, fine-tuning the Meta-Llama-3.1 model on Together.ai, and building a MERN stack platform that simulates complaint submissions, AI-generated responses, and historical case analysis for transparency and learning.

MODEL INFO

FINE-TUNED META LLAMA 3.1 8B 09-15-24

ANIRUDHJ

This is a fine-tuned version of meta-llama/Meta-Llama-3.1-8B-Reference, created on 9/15/2024, 9:09 AM. Job ID: ft-f35e11b3-5efc-4a6b-94ee-3ec6845b7c9c

VIEW FINE-TUNE JOB

anirudhj/Meta-Llama-3.1-8B-Reference-2529357b

Solution

After fine-tuning the model , the to provide an complete experience for the flow, we build a web platform with NextJS and built a server with NodeJS which will interact with out model and manage REST requests.

Frontend : Nextjs, Tailwind

Backend : NodeJS, DynamoDb

Model : Meta-Llama-3.1-8B-Reference-2529357b (Together.ai)
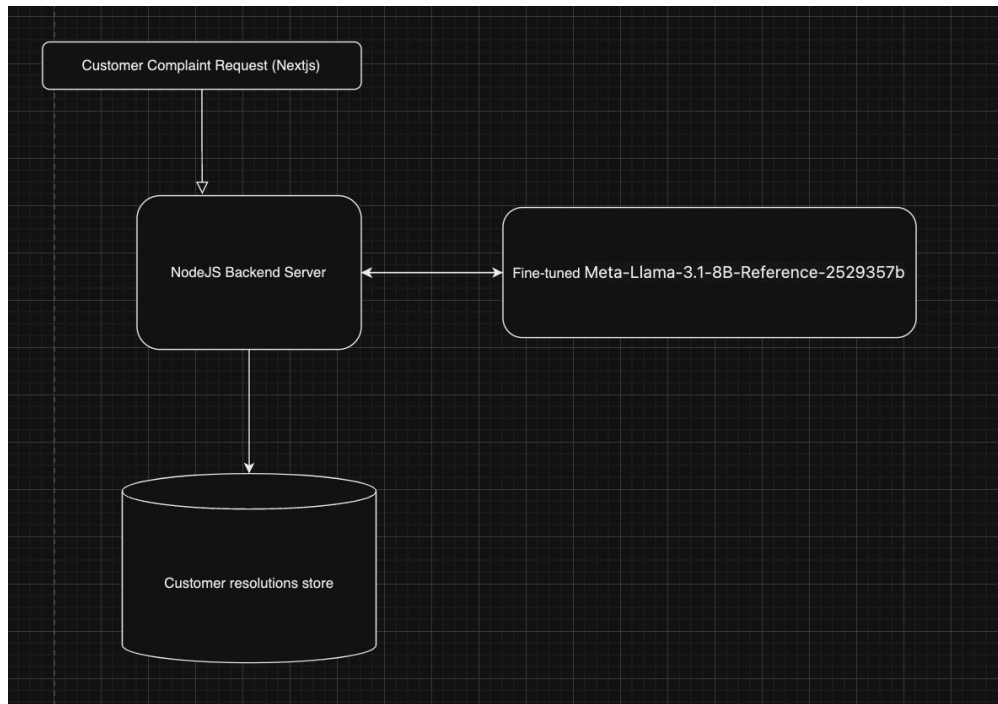
Market

1. The potential market for an AI-driven customer complaint resolution system spans various industries, including e-commerce, retail, telecommunications, and financial services. Any business dealing with high volumes of customer queries can benefit from automated, scalable solutions to improve response times, customer satisfaction, and operational efficiency.

2. With the growing reliance on online shopping and digital services, businesses need smart, AI-based support systems to manage customer complaints swiftly and accurately. This system can also be valuable for SaaS companies, logistics, and travel industries, where timely resolutions and a seamless customer experience are critical to retention and growth.

Next Steps

1. Building further implementations for the agent where , it can make actions such as process refund , send mails , notify etc.
2. Improve the fine-tuning to provide better confidence score which will help manage the human handoff during a complex instance
3. Provide wider topics for support this particular demo includes only for processed order, this can be further expanded to other customer experience lifecycles

Thank You

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