AI/ML

Conversing with an E-commerce Store Database

Summary

Transform how businesses interact with data by building a system where non-tech savvy users can query an e-commerce database using simple, everyday language. This challenge is all about bridging the gap between complex data management and intuitive user experience.

Requirements

1. Implement an AI agent to convert natural language queries into SQL.

2. Design a user-friendly chat interface.

3. Provide a demo e-commerce database.

4. Include a tutorial or help feature for new users to learn the system.

Access Free OpenAI API Keys!

Limited OpenAI API keys available at no cost for your hackathon project. Reach out [here](#) with your use case, and get keys for Speech-to-Text, Chat Completions, Embeddings, and more. Keys deleted post-hackathon.

Explore Models

You have the freedom to explore a wide range of models for your project. Not limited to the following options:

- [OpenAI API - Introduction](#)
- [Mistral 7B - Introduction](#)
- [SeamlessM4T - Introduction](#)

Additional Resources

Take your project further with these valuable resources:

- [Youtube - Voice Cloning In Multiple Languages - Open Source](#)
- [Youtube - Master Deep Voice Cloning in Minutes](#)
- [GitHub - 🔊 Text-Prompted Generative Audio Model](#)
- [Notion - 🐶 Suno's Speaker Library](#)
- [CoLab - SeamlessM4T Notebook](#)
- [ElevenLabs - Voice Cloning: Clone Your Voice in Minutes](#)
- [GitHub - 🐸 A deep learning toolkit for Text-to-Speech](#)

Suggested Approach

Day 1 - 2: Concept Development & Framework Establishment

Product Management & AI/ ML Specialists:

- Define the project scope and the functionalities of the AI agent.

- Begin exploring AI models for natural language processing (NLP) that can translate user queries into SQL commands.

Backend Development:

- Set up a demo e-commerce database with a range of products and categories.

- Begin integrating the AI model with the database.

Frontend Development & Product Design:

- Design a chat interface that is user-friendly and intuitive.

- Ensure the interface aligns with the non-tech savvy user base.

Day 3 - 4: AI Integration and Interface Development

AI/ ML & Data Science Specialists:

- Integrate and fine-tune the AI model for accurate query interpretation and SQL translation.

- Implement logic for handling a variety of query types.

Frontend Development:

- Develop the chat interface and connect it with the AI backend.

- Implement real-time query responses and feedback loops.

Product Design & Management:

- Conduct user testing with mockups or prototypes.

- Gather feedback for interface and interaction flow improvements.

Day 5: Refinement, User Education, & Presentation

All Team Members:

- Finalize the AI agent and chat interface based on user feedback.

- Create a tutorial or help feature to educate new users about the system.

- Conduct thorough testing to ensure reliability and user-friendliness.

- Prepare a presentation highlighting the system's capabilities, ease of use, and potential impact on e-commerce data management.

Other Problem Statements

AI/ML

Talk to Santa Claus

Bring the magic of Christmas to life by developing an AI where children can converse with Santa Claus. This enchanting project is about creating joyous and safe

Fintech

Simplifying Small Business Payments

Build an application that enables small businesses to manage their payments efficiently. This app should allow

AI/ML

Realtime Translation of Voice Calls

Embark on a journey to break language barriers. Create a real-time voice translation app that connects people across the globe, enabling

interactions and making holiday wishes come true through innovative voice technology.

business owners to create profiles for each of their clients, track payment transactions, and receive real-time alerts for unpaid invoices.

them to converse in their native languages effortlessly and expanding the horizons of communication.

AI/ML

Real-Time Air Quality

Design a real-time air quality dashboard that shows the air quality of any region worldwide, empowering users to take action.

AI/ML

Precision Farming for Best Product Results with Data

Build a solution that predicts the best time to plant and harvest crops, taking into account local weather conditions and soil quality. This solution will help farmers improve their yields.

Health

Medication Adherence Improved with Digital Solutions

Develop a digital solution to improve medication adherence for chronic patients. The solution should empower healthcare professionals and patients to manage medication regimens effectively.

EdTech

Intelligent Learning Connections

Build an AI-powered application that uses a collaborative learning matching system designed to enhance collaborative learning experiences by intelligently pairing learners based on their performance metrics.

AI/ML

Instant Customer Support for Business Websites

Imagine revolutionizing customer service with an AI-powered chat agent that intuitively understands and responds to various customer needs, 24/7. This is your chance to shape the future of customer interaction, enhancing business efficiency and client satisfaction.

AI/ML

Farmer Supporter

Make a significant impact on the agricultural sector by developing a website that assists farmers in making informed decisions. This project focuses on leveraging AI to provide expert advice on crop management, market insights, and real-time problem-solving.

AI/ML

Enabling Conversations

Fintech

Effortless Cross-Border

E-Commerce

with a Persona for Illiterates

Dive into the world of AI to create a voice chatbot that bridges the digital divide for illiterates. Your challenge is to craft an intelligent and empathetic digital companion that can converse naturally, offering a seamless and confidential communication experience.

Financial Transfers

Build an application that enables users to initiate cross-border money transfers with ease. The app should offer real-time exchange rate information, low transaction fees, and quick delivery of funds.

Advance Marketing growth with Business data insights

Create an application that allows e-commerce sellers to analyze customer behaviour, track sales performance, and tailor their marketing efforts based on real-time insights. This application should provide clear, actionable data for marketing optimization.

Health

AI-Powered Symptom and Diagnosis Guidance

Build an application that allows patients to describe their

symptoms and receive preliminary medical advice from an AI-powered chatbot. This app should offer quick responses and help users decide if they need to seek in-person medical care.