

AI Customer Support Agent

This AI-powered Customer Support Agent uses ChromaDB for retrieving product information and OpenAI's GPT-4 for generating responses. It is designed to assist customers with inquiries about various products.

Approach

- 1. Knowledge Base (ChromaDB)**
 - The system stores product details in ChromaDB, a vector database optimized for efficient retrieval.
 - When a user asks about a product, ChromaDB retrieves the most relevant information.
- 2. AI-Powered Responses (OpenAI GPT-4)**
 - The retrieved product details are then passed to OpenAI's GPT-4 via an API call.
 - The AI formulates a response in natural language, improving customer interaction.
- 3. Agent with Tools (Phi Agent)**
 - A Phi Agent is created with an OpenAI tool for answering queries.
 - The agent retrieves information from ChromaDB and uses OpenAI to generate a response.

Setup & Instruction

Step 1 : Clone the Repository or download the zip file

Step 2 : Create a Virtual Environment(venv)

Step 3 : Install All Dependencies
(pip install -r requirements.txt)

Step 4 : Setup Open AI API

Step 5 : Run the python Script

Explanation Of My Approach :

1. Initially I have created and added 5 records of different products in chromaDB, whenever I run the script for the first time the data gets added into the chromaDB.
2. Then I have written two functions to access the query of the user and generate the response for that query.
3. To generate the response I am using OpenAI LLM to give a human-like response.
4. I have built an Agent using the open source available phidata platform and used OpenAI LLM as its tool to give the relevant response by extracting data from the database for the query asked by the user.

Output Snapshots :

1.

```
(astudio) C:\Users\NHI643\Desktop\ASTUDIO_ASSESSMENT>python Ecommerce_agent.py
Welcome to the AI Customer Support Agent!
You (type 'exit' to quit): what is the cost of ultraphone x?
AI: The cost of the UltraPhone X is $799.
You (type 'exit' to quit): Tell me your shipping options?
AI: We offer two shipping options for the UltraPhone X. Standard shipping costs $4.99 and takes 3-5 days. Express shipping costs $12.99 and takes 1-2 days. However, shipping is free for orders over $50.
You (type 'exit' to quit):
```

2.

```
Welcome to the AI Customer Support Agent!
You (type 'exit' to quit): what is the cost of smartwatch pro
AI: The cost of the Smartwatch Pro is $299.
You (type 'exit' to quit): Tell me about smartwatch pro features
AI: The Smartwatch Pro comes with several advanced features. It boasts a 1.8" AMOLED display for clear and bright visuals. Equipped with a Heart Rate Monitor, it can constantly track your heart rate and provide accurate health statistics. Additionally, it also includes GPS which can be very useful for mapping and tracking purposes. This watch is available in three colors: Black, White, and Red.
You (type 'exit' to quit):
```

3.

```
You (type 'exit' to quit): what is the cost of 4k smart tv?
AI: The cost of the 4K Smart TV is $999.
You (type 'exit' to quit): what shipping options you have for 4k smart tv
AI: We offer three shipping options for the 4K Smart TV. You can opt for Standard Shipping, which costs $19.99 and takes 5-7 days. Alternatively, you can choose Express Shipping, which costs $39.99 and takes 2-3 days. If your order is over $500, which in this case is as your TV costs $999, shipping is free.
You (type 'exit' to quit):
```