

Chatbot Assistant Overview

Problem Statement:

Developing a Promtior-Based Chatbot Assistant.

Problem:

Create a chatbot assistant capable of providing informative and accurate responses to user queries related to the content of the Promtior website. The chatbot should leverage the Retrieval Augmented Generation (RAG) architecture and be built using the LangChain framework.

Functionality:

The chatbot should be able to answer the following questions:

- What services does Promtior offer?
- When was the company founded?

My Experience Building a Chatbot Assistant:

At first, building this chatbot was like trying to solve a puzzle without the pieces. I didn't know much about Python or LangChain, so I had to do a lot of reading and experimenting. I started by messing around with some code in the Jupyter Notebook, just to get a feel for it and to understand how LangChain works.

Then, I switched to Visual Studio Code because I didn't understand how to build the chatbot in Jupyter. I tried to make the chatbot work in the terminal, and it actually worked! I began with the basic concepts: `llm`, `prompt`, `chain`, `embeddings`, `webBaseLoader`, `text_splitter`, `documents`, `vector`, `retriever` and `retrieval_chain`.

But then I felt stuck because I wanted to make the chatbot work in LangServer. So I tried using agents, but it was a total mess. I mean, the chatbot was working but not with the data I was loading. No matter how hard I tried, I couldn't get it to work.

I realized that I had to merge the data with the model to run the app. I initially tried to add the `agentExecutor` directly to the app route, but I later noticed that I could simply pass the chain object instead. I was making things more difficult than they needed to be. Unfortunately, I'm unsure how to properly utilize the `AgentExecutor` with the loaded data.

Finally, I simplified my code and it worked. I learned that sometimes, less is more. It was an interesting experience, even though it was a bit frustrating at times.

Component Diagram:

