

RAG in Depth

Getting Sources

Contents

- Goals.
- Dependencies and necessary modules.
- .env file.
- LangSmith tracking since day 1.
- Initial RAG app without sources.
- Adding sources.
- Additional techniques to extract citations in RAG Apps.

Goals

- Show user the sources that were used to generate the RAG answer returning the Documents that were retrieved in each generation.
- LangSmith tracking to visualize the operations.

Dependencies and necessary modules

- New virtual environment.
- Install Jupyter Labs.
- LLM Model: OpenAI Chat Model.
- Embeddings Model: OpenAI.
- Vector Database: Chroma.
- Necessary modules:
 - Langchain, Langchain-openai, Langchain-community, Langchainhub
 - Chromadb
 - BS4 (Beautiful Soup, for web scraping).

.env file

- OpenAI API Key.
- LangSmith credentials.
- LangSmith project name.

LangSmith tracking

- The LangSmith tracking starts with the first invoke.

Initial RAG app without sources

- Same as in Quickstart.

Adding sources.

- RAG chain with sources.

Additional techniques to extract citations

- [Link to the documentation page.](#)