

Document Question Answering with LangChain & Gemini Pro

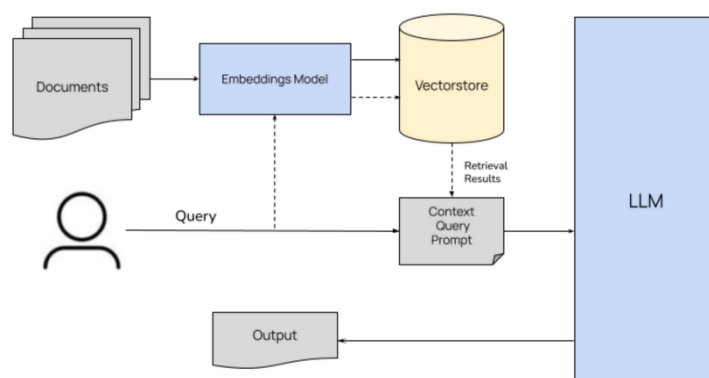
This project helps you **ask questions** about the content inside a **PDF document**, and get **accurate answers**. It uses powerful tools like **LangChain**, **FAISS**, and **Google's Gemini Pro** AI model.

What This Project Does

- ✓ Load PDF files
- ✓ Break the PDF into small, readable parts (called "chunks")
- ✓ Use Google Gemini Pro to understand and convert text into embeddings (smart vectors)
- ✓ Save and search these chunks using FAISS (a fast search tool)
- ✓ Ask questions and get answers based on the PDF content

How It Works (RAG Architecture)

The project uses a method called **RAG (Retrieval-Augmented Generation)**. This means it **retrieves relevant information** from the document and then **uses AI to generate the answer**.



RAG Architecture

Flow:

1. You upload a PDF.
2. It gets split into small parts.
3. Each part is turned into a vector using Gemini embeddings.
4. When you ask a question, the system finds the most related parts.
5. AI reads those parts and gives you an answer.