

Gemini-Powered Document Q&A Chatbot

AI-Powered Smart Document-based Question & Answering Chatbot that lets you upload PDF or TXT files, that can answer questions about uploaded documents with source citations — powered by **Google Gemini** and **LangChain**.

Features:

- Upload multiple PDFs or TXT files
- Uses vector embeddings and Gemini LLM to answer questions
- Remembers your previous questions and context
- Cites exact documents used in each answer
- Export full chat history

Prerequisites:

- Python **3.8+** (tested on Python 3.12)
- Google API key for **Gemini-2.0-flash**
- Git (optional, if cloning from repo)

Installation:

1. Clone or Download the Project:

```
git clone https://github.com/your-username/gemini-doc-chatbot.git
cd gemini-doc-chatbot
```

2. Install Required Packages:

```
pip install -r requirements.txt
```

3. Create a .env File:

```
GOOGLE_API_KEY=your_google_api_key_here
```

Get your API key from: <https://makersuite.google.com/app/apikey>

4. (Optional) Add your documents

- Place your PDFs or TXT files in the /sample_pdfs folder.

Run the App:

```
streamlit run ui.py
```

Then open your browser at:

<http://localhost:8501>

Usage Guide:

1. On startup, the app will process all documents in /sample_pdfs/
2. Type any question about the documents — e.g.:
"What are the benefits mentioned in the employee handbook?"
3. You'll get:
 - A smart answer
 - A list of document sources used
4. Previous questions/answers are shown below
5. Use the **Download Conversation** button to save your chat

Project Structure:

— sample_pdfs/	# PDF/TXT documents
— doc_loader.py	# Loads and chunks documents
— vector.py	# Embedding + FAISS vector store logic
— qa_chain.py	# LangChain QA chain with Gemini
— memory.py	# Conversation memory
— ui.py	# Streamlit interface
— .env	# Your API key (not shared)
— requirements.txt	# All Python dependencies