해당 코드를 app.py라는 파이썬 파일을 만들어 입력한 뒤 저장해주시면 됩니다

In [ ]:

```python
#!pip install streamlit-chat streamlit langchain faiss-cpu

import os
from dotenv import load_dotenv
load_dotenv()
OPENAI_API_KEY = os.getenv("OPENAI_API_KEY")

import streamlit as st
from streamlit_chat import message
from langchain_classic.embeddings.openai import OpenAIEmbeddings
from langchain_classic.chat_models import ChatOpenAI
from langchain_classic.chains import ConversationalRetrievalChain
from langchain_classic.vectorstores import FAISS
import tempfile
from langchain_classic.document_loaders import PyPDFLoader

uploaded_file = st.sidebar.file_uploader("upload", type="pdf")

if uploaded_file :
    with tempfile.NamedTemporaryFile(delete=False) as tmp_file:
        tmp_file.write(uploaded_file.getvalue())
        tmp_file_path = tmp_file.name

    loader = PyPDFLoader(tmp_file_path)
    data = loader.load()

    embeddings = OpenAIEmbeddings()
    vectors = FAISS.from_documents(data, embeddings)

    chain = ConversationalRetrievalChain.from_llm(
        llm = ChatOpenAI(temperature=0.0,model_name='gpt-4.1-mini'),
        retriever=vectors.as_retriever())

    def conversational_chat(query):  #문맥 유지를 위해 과거 대화 저장 이력에 대한 처리
        result = chain({"question": query, "chat_history": st.session_state['history']})
```

```python
        st.session_state['history'].append((query, result["answer"]))
        return result["answer"]

if 'history' not in st.session_state:
    st.session_state['history'] = []

if 'generated' not in st.session_state:
    st.session_state['generated'] = ["안녕하세요! " + uploaded_file.name + "에 관해 질문주세요."]

if 'past' not in st.session_state:
    st.session_state['past'] = ["안녕하세요!"]

#챗봇 이력에 대한 컨테이너
response_container = st.container()
#사용자가 입력한 문장에 대한 컨테이너
container = st.container()

with container: #대화 내용 저장(기억)
    with st.form(key='Conv_Question', clear_on_submit=True):
        user_input = st.text_input("Query:", placeholder="PDF파일에 대해 얘기해볼까요? (:", key='input')
        submit_button = st.form_submit_button(label='Send')

    if submit_button and user_input:
        output = conversational_chat(user_input)

        st.session_state['past'].append(user_input)
        st.session_state['generated'].append(output)

if st.session_state['generated']:
    with response_container:
        for i in range(len(st.session_state['generated'])):
            message(st.session_state["past"][i],
                    is_user=True,
                    key=str(i) + '_user',
                    avatar_style = "fun-emoji",
                    seed = "Nala")
            message(st.session_state["generated"][i],
                    key=str(i),
                    avatar_style = "botts",
                    seed = "Fluffy")
```

만든 뒤 터미널에서 해당 폴더의 위치까지 이동한 뒤 streamlit run app.py 명령어로 streamlit을 실행합니다.