

Streamlit for web interface:

- 1) Used streamlit for creating a web interface .
- 2) User needs to give the email subject and few lines of content .Then RAG (Retrieval augmentation generation) system will search for the relevant content in vector database and augment retrieved content and give it to LLM (groq) to generate mail.

3) Steps to create a streamlit file:

- a) Import libraries for Streamlit (streamlit), data processing (numpy, pandas), FAISS (faiss), language model (langchain_groq), and text embedding (sentence_transformers)
- b) Load the SentenceTransformer model (all-MiniLM-L6-v2) to generate text embeddings for similarity matching.
- c) Defined a text cleaning function
- d) Initialize the Language Model (LLM)
- e) Create a Prompt Template
- f) Build streamlit user interface to create a form with Streamlit, allowing the user to input the subject and context for the email.
- g) Display the Generated Email in streamlit

4) Sample input :

localhost:8501

Inbox (79) - deshan... Machine Learning -... Online Courses - Le... DSA generative AI Solve Python | Hack... Prime Number Java... MUST-DO Question... MySQL Wildcard Ch...

AI Email Generator

Enter the email subject:

Leave Application

Enter the email context:

I want leave for 4 days as I am not well, I will joining from 4th January. And I have reschedule my few meetings for next week . And remaining meetings will be taken by my colleague Sorry for the inconvenience.

Press Ctrl+Enter to submit form

Generate Email

As you can see, I am running this streamlit python file on my **local host**, and I have given the inputs .

5) Sample Output:

localhost:8501

xx (79) - deshan... Machine Learning -... Online Courses - Le... DSA generative AI Solve Python | Hack... Prime Number Java... MUST-DO Question... MySQL Wildcard Ch...

Generated Email

Subject: Leave Application

Body: Subject: Leave Application

Dear [Recipient],

I hope this email finds you well. I am writing to inform you that I will be taking a leave of absence for 4 days due to health reasons. I will be unavailable until January 4th and have made arrangements to ensure a smooth transition of my tasks during my absence.

In preparation for my leave, I have rescheduled a few meetings for the following week. However, there are some remaining meetings that will need to be adjusted, and I have arranged for my colleague to cover them in my absence. I apologize for any inconvenience this may cause and appreciate your understanding in this matter.

Regarding my upcoming meetings in Florida, scheduled for February 28th, March 1st, and March 2nd, I am currently exploring options to potentially depart on the morning of the 28th. I will provide more details as they become available.

If you would like to reschedule any of the affected meetings, please let me know your preferred dates and times. I am committed to minimizing any disruption and ensuring that my responsibilities are fulfilled.

Please do not hesitate to reach out if you have any questions or require further information. I appreciate your support and look forward to your response.

Best regards, [Your Name]

As you can see , I got the generated output based on input provided in **same localhost**.

